

REMEDICATION AS PERCEIVED BY COMMUNITY COLLEGE STUDENTS:
A CASE STUDY

by

Amy Katherine Justice Taylor

Liberty University

A Dissertation Presented in Partial Fulfillment

Of the Requirements for the Degree

Doctor of Philosophy

Liberty University

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APPROVED BY:

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ABSTRACT

The purpose of this single instrumental case was to understand how community college students in rural Tennessee perceive the impacts of mandatory remediation with regard to finances, time, and effectiveness. The theory that was used to guide this study was Malcom Knowles' adult learning theory. This case study was conducted with qualitative measures by utilizing a survey, journaling, and interviews with a sample of students from a community college in rural Tennessee who were assigned to remedial placement in the areas of math, reading, and/or writing. This method of data collection provided students with the opportunity to share their individual perspectives, thoughts, and experiences in a setting that is safe and supportive as their participation remained confidential. Data obtained from the participants was transcribed and reviewed by each participant to ensure that their responses were interpreted correctly to avoid any biases. Responses obtained from the survey were also used to guide questions during the interview process and encouraged unscripted questions to further the dialogue and gain a deeper understanding of the participants' perspectives.

Keywords: remediation, developmental, education, intervention, college, placement

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Dedication

This dissertation would not have been possible without the love and support of those who have shaped me into the woman that I am today.

I dedicate this dissertation to God, my heavenly Father, who showed me that I could when I thought that I couldn't and reminded me that even He had to rest.

To my father and mother, Thomas and Judith, who have never stopped encouraging me. You are amazing parents. I mean, *I* think I turned out pretty good.

To my husband, Patrick, who forfeited many date nights so that I could write. Throughout this process, you have tolerated my incessant questions, let me vent, and talked me off the ledge more times than I care to admit. You are an extraordinary, ordinary man and I love you.

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To my nephew, Sam, who must now address me as Dr. Auntie.

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To my parents-by-affection, Buddy and Lora, for whom I am both grateful and blessed. Some people don't even have one parent and I ended up with four wonderful ones.

To my friend, Stetson, for being awesome and always bringing the party.

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To my great aunt, Lula, inspiration and educator extraordinaire.

To my grandmother, Jacqueline. For everything.

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List of Abbreviations

Appalachian Valley Community College (AVCC)

College and Career Readiness (CCR)

Elementary and Secondary Education Act (ESEA)

Every Student Succeeds Act (ESSA)

Learning Support (LS)

National Center for Education Statistics (NCES)

National Commission on Excellence in Education (NCEE)

No Child Left Behind Act (NCLB)

Race to the Top (RTTT)

Seamless Alignment and Integrated Learning Supports (SAILS)

Tennessee Board of Regents (TBR)

United States Department of Education (ED)

CHAPTER ONE: INTRODUCTION

Overview

Millions of Americans decide to begin or continue their college careers each year with the National Center for Education Statistics (NCES) reporting that 19.7 million students were enrolled at colleges across the nation during fall of 2020, a statistic that has remained consistent for over a decade (NCES, n.d.a). The notion of achieving an associate's degree in two years or a bachelor's degree in four years is not often a realistic expectation for traditional students due to the significant numbers of high school graduates that enter college unprepared for the rigors that college-level courses demand (Boatman & Long, 2018). However, this problem is not exclusive to traditional students (Baber, 2019). People that may have attended college several years ago but never finished or those who may have postponed their collegiate studies altogether are considered adult learners or nontraditional students (NCES, n.d.b). For these individuals, the duration of time that has elapsed may be significant and also leave them underprepared for the collegiate environment (Kallison, 2017).

Chapter One provides the historical, social, and theoretical background of remediation in college as well as the purpose and significance of this proposed study. With the number of college students being assigned to remedial courses continuously rising and the cost of related expenses growing exponentially, it is vital to investigate how students who were placed in remediation understand or perceive their academic achievements, how they have been financially affected by their remedial placement(s), and how effective they perceive this intervention process to be. The results of this study can be used to improve the remediation process for students, faculty, and college administrators. As outlined in this chapter, the research for this study will be collected through the use of a case study.

Background

To address the needs of unprepared students, many colleges and universities offer remedial courses in the major disciplines of reading, mathematics, and compositional writing that are intended to provide these students with the basic skills that they need to be successful in college-level courses and catch up to their on-level peers (Boatman & Long, 2018). These courses are also known as developmental courses and are not on college-level (Boatman & Long, 2018). It is estimated that between 40% to 60% of America's incoming college students are assigned to remedial classes, making the demand for colleges to provide these types of courses incredibly great (Boatman & Long, 2018; Lanford, 2020).

If a student is required to complete remedial courses, their trajectory paths are changed as remediation comes with its own costs. There are financial costs, including the added costs of tuition, textbooks, class materials, or associated fees being applied to students' accounts (Barry & Dannenberg, 2016). Other costs are more abstract, as students are also faced with the fact that it will take them longer than anticipated to complete the coursework required for their program of study when remedial requirements must also have to be met (Melguizo et al., 2016). Students with remedial assignments are often required to complete all of their coursework before being able to move onto the college-level courses that they must have for degree completion or before being eligible to apply to competitive admissions programs, further expanding the time that will be required for them to achieve program completion or graduation (Armstrong & Zaback, 2014; Valentine et al., 2017). With such requirements, students that are placed in remedial courses tend to earn fewer college credits than their peers that do not have remediation requirements, leaving them less likely to complete their programs of study than their on-level counterparts (Boatman & Long, 2018; Valentine et al., 2017). Students may find that these costs are unexpected. The

realization of a significantly extended collegiate career or unforeseen monetary constraints causes some students to postpone their academic endeavors or completely abandon the pursuit of a college degree entirely (Scott-Clayton & Rodriguez, 2015).

Currently, remedial placement is a common occurrence in postsecondary institutions across the United States with as many as 60% of college students being affected each year (Jiminez et al., 2016). With so many students being placed into remediation annually, colleges, universities, and K-12 schools have been forced to address calls for educational reform (Barry & Dannenberg, 2016). Students who are required to complete remediation are often forced to spend additional time in college and undertake significant financial fees (Baber et al., 2019; Barry & Dannenberg, 2016; Jiminez et al., 2016; Valentine et al., 2017). The associated costs of remediation can have an impact on the price of college. The additional fees are unaffordable for some students, leaving them with no other choice than to drop out or not attend at all (Melguizo et al., 2016).

Historical

Throughout history, colleges and universities have been known to provide additional academic support to students when it has been necessary. The methods of remediation have evolved over the years and continue to vary among institutions and states today. In its earliest days of implementation, from the mid-1600s to the mid-1940s, tutoring was the method of remediation that was most widely used (Arendale, 2011). Although tutoring is still used by postsecondary institutions, it tends to be a service that students may voluntarily request whereas remedial courses are deemed mandatory (Scott-Clayton & Rodriguez, 2015). According to Arendale (2011), remedial courses provided by colleges debuted during a period covering the

mid-1940s through the early 1970s. Upon conception, remedial courses were integrated within the college, facets of compensatory education, and tutoring (Arendale, 2011).

Modern methods of college remediation were not implemented for another two decades, during a period that covered the early 1970s and mid-1990s (Arendale, 2011). A possible reason for the shift to remediation as it is currently used is a 1983 publication by the United States Department of Education (ED) entitled "A Nation at Risk: The Imperative for Educational Reform" (Bullough, 2020). The publication was produced by the National Commission on Excellence in Education (NCEE) and brought attention to the startling gap of America's educational systems and foundations when compared to Japan, the country's greatest competitor at the time (Bullough, 2020; Todd, 2018). In the article, ED called for school systems and educators to promptly make drastic improvements to the structure and methods of the nation's schools so that the United States would be able to economically compete with their international competitor (Bullough, 2020). In response, education reform has been a highly debated issue among American politicians. Through federal grants and enacted legislation like the Elementary and Secondary Education Act (ESEA), No Child Left Behind Act (NCLB), Race to the Top (RTTT), and Every Student Succeeds Act (ESSA), the United States government has pushed for education reform that would reduce or eliminate the need for college remediation (ED, 2016a; Green et al., 2020). Despite such endeavors, the need for remediation continues to exist and grow exponentially (Malin et al., 2017).

In more recent years, researchers focusing on remediation have detailed how its implementation impacts students financially (Barry & Dannenberg, 2016; Jiminez et al., 2016; Valentine et al., 2017), emotionally (Scott-Clayton & Rodriguez, 2015; Valentine et al., 2017), with regard to academic persistence (Melguizo et al., 2016; Ngo, & Kosiewicz, 2017), and also

within the specific disciplines of language arts (Boatman & Long, 2018; Relles, 2016) and mathematics (Kolesnikov et al., 2019; Logue et al., 2016; Ngo, 2018). Potentially, each of these factors can influence students' personal perceptions of their academic achievements and successes. In considering multiple factors that stem from remediation, researchers are able to identify and explore connections between these policies and student success (Turk, 2019).

Social

The need for college remediation in America is significant (Boatman & Long, 2018). Some choose to place the burden of blame upon secondary schools, but others prefer to support the belief that the issue begins much earlier and turn to K-12 institutions to shoulder the responsibility (Bettinger, Boatman, & Long, 2013; Bettinger, Evans, & Pope, 2013). Across the nation, several secondary institutions have incorporated methods of intervention that are more intensive than traditionally structured classrooms or in-house tutoring services so that students may avoid the need for remediation at the collegiate level (Bouck & Cosby, 2018; Frankel, 2017; Frankel et al., 2018; Relles, 2016).

In secondary schools, more intensive types of intervention focus on employing students with the skills that need to be mastered for success or achievement (Chen & Simone, 2016; Frankel, 2017; Frankel et al., 2018). On the other hand, almost 40% of the nation's public colleges use only one method to measure students' skills in math and language arts, with more than 90% of these institutions favoring standardized tests (Rutschow et al., 2019). According to Ngo (2018), placement test creators assign differing values to the questions contained in each subject's section. These differing values can determine that a student needs remediation even if the student may be capable of passing the college-level class needed simply because of a lack of knowledge or skill related to a heavily weighted test question (Ngo, 2018). The students that fall

into this gap are marginally ready for college-level coursework but are forced into remediation if their test scores are a few points away from reaching the cutoff range that has been set by their college or university, setting up the potential for negative experiences (Boatman & Long, 2018). Due to the marginal need presented by these students, they may require additional time in college, making them more likely to earn fewer college credits or complete their programs of study than their peers who did not have remediation requirements (Boatman & Long, 2018).

The societal background of college remediation is often supported by the college administrators and policymakers that create the guidelines and remedial processes for their respective institutions. Typically, colleges and universities assemble committees and advisory boards that are staffed by faculty members and administrators to determine remediation placement policies (Melguizo et al., 2016). Although President Barack Obama's Every Student Succeeds Act (ESSA) placed great emphasis on students being College and Career Ready (CCR), an official term has never been established and college administrators are able to define readiness by the standards of their choosing (Chen & Simone, 2016). Officials from the companies that create placement tests can offer recommendations for remediation cutoff scores, but the administrators of postsecondary institutions are not required to comply with such proposals (Chen & Simone, 2016). Along with traditional placement test scores, some colleges have created placement policies that take prior work experience, professional accomplishments, cognitive assessments, or high school GPA into consideration when determining a student's need for remediation (Bailey et al., 2016; Schak et al., 2017).

Theoretical

Extremely underprepared students, meaning those with very low placement test scores or mastery of skills across multiple subject areas, may have positive experiences and benefit from

remedial placement; however, the exact opposite occurs for marginally underprepared students or those that were close to meeting their college's cutoff scores (Bettinger et al., 2013; Boatman & Long, 2018; Valentine et al., 2017). Hence, underpinning this present research is the notion that students are not consistently being placed in appropriate college-level coursework that could be of greater value to them.

According to Malcolm Knowles' (1978) Adult Learning Theory, also known as andragogy, the learning process that is experienced by adults is quite different than the processes that are used by children and adolescents. While younger learners may approach learning without question or bias, adults are independent learners and process information best when they understand why a topic is being learned and have an immediate need or use for the content being studied (Knowles, 1978). This theory lends itself greatly to the collegiate environment as the majority of enrolled students are of adult age and choose a major of specific interest to study and not the discipline of remediation that they have been forced into (Ngo & Kosiewicz, 2017). If the remedial subject is not of interest or serve a purpose to the adult learner, Knowles (1978) posited that they are more likely to be unsuccessful. At many colleges, unsuccessful attempts require students to repeat the course until a successful grade is achieved. For some students, additional attempts equate to more time and money, which can lead students to make the decision to drop out of college (Barry & Dannenberg, 2016; Scott-Clayton & Rodriguez, 2015; Valentine et al., 2017). If a student is forced to retake their remedial course, they may experience feelings of poor self-esteem hence becoming socially withdrawn from their classmates or instructors, making the idea of dropping out of college more emotionally attractive (Bailey et al., 2016).

Situation to Self

After graduating high school with honors, I enrolled at a local private college with a

generous scholarship. Although my ACT composite test score was impressive, by the college's standards, my math score required me to complete a remedial mathematics course. The degree that I was pursuing permitted students to choose between either an algebra- or statistics-based math elective. I had never been very adept with algebra, but had done well in statistics in high school, so I intended to choose the statistics-based course. When I brought this to the attention of the advisor that had been assigned to me, I was told that they did not offer remedial statistics and I had no choice but to enroll in the algebra course. I employed the college's available tutoring services, consulted mathematically proficient family members and friends for assistance, and went outside the college environment to engage in additional paid and unpaid tutoring services. After having to retake the remedial algebra course twice without success, I was unable to progress in my studies, lost my scholarship, and had incurred significant student loan debt that had been used to cover the tuition and textbooks for the remedial class. I then enrolled at my local community college where math remediation began again because I was told that remedial coursework does not transfer and is unique among colleges and universities. I was more successful this time and was then able to move onto a statistics course, where I was also successful on my first attempt. Through these experiences, I have both witnessed and experienced good and bad examples of remediation policies and their impact on students.

Several years ago, I began working in higher education. My first placement was within a division dedicated to assisting students who had been placed into remediation. In this role, I was able to see the changes that had occurred within remediation since I had experienced it so many years before. This position was also my first experience working with adult learners, as I had previously taught as a general education teacher within the K-5 grade levels. Currently, I serve as a dedicated academic advisor for a prominent division within the same college. I continue to

work with students who have been placed into remediation regularly. In my experience, students who are severely underprepared embrace the opportunity to engage in non-college level coursework in order to build up the skills that they will need for their required college-level courses. In fact, many of these students will voluntarily identify their area(s) of weakness and plan to get the most out of remediation. Students who may be considered marginally underprepared or merely lacking an understanding of a specific concept, approach remediation with frustration or anxiety because they realize how close they were to being able to avoid the added expense of remediation, prolonged duration of advancement, and extension of time on their academic trajectory paths. I have seen that secondary and postsecondary institutions recognize the seriousness of remediation and are working collaboratively to make changes to their policies and employ strategies to avoid unnecessary remediation in the future.

As a researcher, underlying axiological and rhetorical assumptions will be utilized to drive my study. Axiological assumptions refer to the philosophical values of a researcher and focus on determining whether or not concepts and ideas may be good for people and their societies (Biedenbach & Jacobsson, 2016). My axiological assumptions include my support of remediation for severely underprepared college students, but also the feeling that students who are only marginally underprepared should have the ability to utilize factors aside from placement test scores to illustrate capability (Creswell & Poth, 2018). Rhetorical assumptions are in place to ensure that qualitative researchers do not seek to uncover a comprehensive truth of facts, but rather recording reality as it is viewed through the eyes of the researcher's participants (O'Neill, 1998). My rhetorical assumptions include the practice of conducting research in the form of a case study and the practice of seeking to explore the perceived experiences of remediation through my participants' points of view (Creswell & Poth, 2018).

Social constructivism is a worldview in which individuals that subscribe to the idea strive to gain a comprehensive understanding of the environments in which they work and live (Creswell & Poth, 2018). Researchers obtain knowledge subjectively gained through personal experiences and the intricacies of viewpoints rather than systematically categorizing information into purposes (Creswell & Poth 2018). In this paradigm, the researcher depends upon the participants to provide individual points of view through personal interactions (Woodland, 2016). The social constructivist paradigm is complementary to a case study as participants engage with the researcher through interviews, written communication, and verbal exchanges of open-ended questions (Creswell & Poth, 2018). By using various methods of communication, researchers engage with participants in ways that allow them to gain insight through listening, recording personal experiences, and developing meaning through approaches that correlate with a particular pattern of meaning or approach (Creswell & Poth, 2018; Schunk, 2020).

Problem Statement

Across the nation, colleges and universities employ the use of remedial courses as an appropriate method of intervention for underprepared students. While the number of college students that are categorized as requiring remedial coursework is already drastic, the truly troubling part is that it continues to rise each year (Boatman & Long, 2018; Ganga et al., 2018). Rates of college remediation continue to rise despite the implementation of multiple measures and without regard for the perceptions or attitudes of the students assigned to such interventions (Boatman & Long, 2018; Rutschow et al., 2019; Valentine et al., 2017). Currently, no research or studies have been able to provide a thorough understanding of how the students required to complete developmental courses perceive the impact of their remedial assignments. In 2011, fewer than 25% of postsecondary institutions had begun implementing multiple measures in their

remediation policies (Rutschow et al., 2019). Rutschow et al. (2019) report that this figure raised by 30 percentage points over the past decade, leaving many college administrators and stakeholders to question what may be appropriate for their respective institutions (Kolesnikov et al., 2019; Valentine et al., 2017). Some colleges and universities rely solely on the placement test scores achieved by students when determining the need for remediation (Yu, Li, Fischer, Doroudi, and Xu, 2020) while others have formed partnerships with secondary schools in an effort to avoid the need for remediation once students begin studying at the collegiate level (Bouck & Cosby, 2018; Malin, et al., 2017). Despite all efforts and policies, the need for remediation continues to climb and postsecondary institutions are taking notice (Jiminez et al., 2016). Still, research regarding how students placed into remedial course perceive its impact has not been widely studied. Further research is needed to understand the perceived impact of remediation upon college students. By gaining a deeper understanding of these perceptions, college administrators and policymakers may be able to address the needs and requirements for remediation more effectively.

Purpose Statement

The purpose of this case study was to understand the impact of remediation with regard to finances, time, and effectiveness as they are perceived by students of Appalachian Valley Community College (AVCC), a pseudonym provided to a community college located in rural Tennessee. In this study, remediation was generally defined as courses that are below college-level among the disciplines of mathematics, reading, and writing that students may be required to enroll in due to placement test scores. Perceptions regarding the impact of remediation was defined as being negative, neutral, or positive opinions of the impact of required remedial course assignments. The theory that was used to guide this study was Knowles' Adult Learning Theory

(1978) as it considers the processes of learning that are utilized by adults and plausible reasons as to why adult learners may decide to continue or drop out of their collegiate programs of study.

Significance of the Study

This study provides greatly needed qualitative data to the field of developmental education, specifically with regard to how students that have been required to complete remedial courses perceive its effectiveness and associated impacts. Valentine et al. (2017) estimate that for every five students entering college, at least two will require some form of remedial coursework. With the demand for remediation on the rise, it is imperative to find the most effective methods of addressing underprepared students at the postsecondary level. Understanding how students at a community college in rural Tennessee perceive the impact of mandatory remediation is very important in validating placement policies across the nation. The theoretical, empirical, and practical significance of this study are presented to illustrate its justification.

Theoretical

This study contributes qualitative data to an expanding pool of research understanding the effectiveness of mandatory remediation (Boatman & Long, 2018; Chen & Simone, 2016; Park et al., 2018; Porter et al., 2017; Relles & Duncheon, 2018; Sanabria et al., 2020; Valentine et al., 2017; Wang et al., 2018). Additionally, the study addresses the topic of whether or not underprepared students perceive it as an effective method of intervention (Bettinger & Long, 2009; Boatman & Long, 2018; Chen & Simone, 2016; Jiminez et al., 2016; Melguizo et al., 2016; Scott-Clayton et al., 2014) as well as its associated impacts upon students' finances (Barry & Dannenberg, 2016; Belfield et al., 2016; Jiminez et al., 2016) and time (Fass-Holmes, 2016; Turk, 2019). Qualitative and quantitative research acknowledges that requiring students to complete developmental courses in mathematics and language arts before being permitted to

enroll in the college-level courses of these disciplines, as well as others, remains the most common form of remediation among collegiate institutions (Boatman & Long, 2018; Chen & Simone, 2016; Jiminez et al., 2016; Valentine et al., 2017).

Rather than relying merely on students' grades to determine if remedial courses are efficient, it could be useful to investigate how students understand their own academic achievements and progress and are able to relate the usefulness of remediation to their own knowledge and experiences. A case study is an appropriate research method for this topic as post-secondary remediation policies are of public interest and national interest since the rising numbers of underprepared students is problematic across the country (Yin, 2018). The understanding obtained from this research could enable colleges to better prepare their remediation placement policies and make changes to their remedial courses by incorporating methods of instruction or academic services that students may find more useful. This data could also be theoretically significant with support for Knowles' (1978) Adult Learning Theory as the perspectives of adult learners will be thoroughly examined.

Other research studies have considered the impact that remedial course taking has upon students in the short- and long-terms (Kolesnikov et al., 2019; Melguizo et al., 2016; Ngo, 2018; Ngo & Kosiewicz, 2017; Scott-Clayton & Rodriguez, 2015; Valentine et al., 2017). Nevertheless, a gap in the literature exists because much of the determination of the impact of remediation is based upon measurable data, such as rates of graduation, program completion, the duration of time that students placed in remediation spend in college, and incurred student loan debt or grant expenses (Jiminez et al., 2016; Scott-Clayton & Rodriguez, 2015; Valentine et al., 2017). By considering how students with remediation requirements perceive the impact that remedial courses had on their lives, college administrators and policymakers could better

understand and predict potential short-and long-term impacts of remediation upon their students. This knowledge could greater prepare students for the possibility that such impacts may affect their lives and allow them to plan for the potentiality of such instances accordingly.

Empirical

Some research has focused on how remedial coursework financially impacts colleges, their students, their communities, and the nation (Barry & Dannenberg, 2016; Bettinger et al., 2013; Jiminez et al., 2016; Pretlow & Wathington, 2012; Schak et al., 2017), but such research is more quantitative in nature and no known case study of students' perceptions of remediation exists. There is a gap in the literature regarding the personal experiences of individual students and how they recognize the financial impacts of remedial courses and their associated costs. Therefore, this study would fill the gap of understanding how the students who are assigned to remediation perceive its impact from a qualitative standpoint. Any recurring or emerging themes that may be present in the study can provide higher education policymakers and stakeholders with a more thorough understanding of the impact of developmental education from students' points of view. This study may also provide a contemporary contribution to prior qualitative data related to the study of remediation (Bachman, 2013; Schnee, 2014). The results of this study may also be of use to the administrators and committee members that oversee placement policies at their own colleges and universities as greater concern for students and the notion of more cost-effective teaching strategies for remedial course offerings could be taken into consideration.

Practical

There has been research into the impact of remediation in specific subject areas (Logue et al., 2016; Ngo, 2018; Ngo & Kosiewicz, 2017; Park et al., 2018; Relles, 2016). Remediation is typically offered in the disciplines of mathematics, reading, and writing. Severely underprepared

students may require remediation across all three disciplines, while marginally underprepared students may only need remediation in one subject area (Boatman & Long, 2018). The impacts of remediation have shown to differ among students with variables including their levels of preparedness and the subject area in which remediation was required (Boatman & Long, 2018; Ngo, 2018; Ngo & Kosiewicz, 2017; Park et al., 2018; Relles, 2016). A gap exists in this literature because, similar to the studies related to long- and short-term impacts of remediation, much of the findings are based on measurable data, like the final grades that were achieved, the amount of time it took the student to complete their remediation requirements, the speed at which students were able to progress through their programs of study, and graduate (Ngo & Kosiewicz, 2017; Park et al., 2018). Similarly, a more thorough understanding of how students, themselves, view the impact that specific remedial courses had upon them, college administrators and policymakers could more effectively prepare students for remedial courses. Significant amounts of research have been conducted in efforts to find more effective alternatives to traditional remedial course taking at the college level (Bettinger et al., 2013; Bouck & Cosby, 2018; Carlson, 2013; Frankel, 2016, 2017; Kolesnikov et al., 2019; Logue et al., 2016; Park et al., 2018; Schak et al., 2017; Malin et al., 2017). A prominent notion is that more rigorous instructional methods in high school can avoid remediation at the postsecondary level, but many colleges still rely on placement test scores to determine a student's need for remediation. Alternatives, such as permitting students to prove their capabilities through professional experience, completion of a series of course in secondary education, high school GPA, or proving capabilities through a series of tasks are gaining prominence (Bailey et al., 2016; Schak et al., 2017). While such alternatives are proposed, not many are employed. Through the perceptions of postsecondary students who have completed remediation, secondary and

postsecondary administrators may consider a greater understanding of alternative methods that students perceive to be more or less useful than others. This knowledge could guide these administrators in developing courses and revising remediation policies. Adult learners as well as secondary and postsecondary students could also use this information to be aware of positive practices that they might use in order to avoid the need for remediation at the collegiate level.

Research Questions

The purpose of this case study was to understand the impact of remediation with regard to finances, time, and effectiveness as they are perceived by students of Appalachian Valley Community College (AVCC), a pseudonym provided to a community college located in rural Tennessee. The following central question and three sub-questions were used to guide this study:

CQ: What are the perceptions of community college students regarding remediation?

SQ1. What are the perceptions of community college students regarding the financial impact of remediation?

SQ2. What are the perceptions of community college students regarding the impact of remediation as it relates to degree-seeking students' time to completion?

SQ3. What are the perceptions of community college students regarding the effectiveness of remediation as it relates to their academic achievements?

Each of these questions expand upon prior research of remediation in higher education (Bailey et al., 2016; Barry & Dannenberg, 2016; Bettinger & Long, 2009; Bettinger et al., 2013; Boatman & Long, 2018; Chen & Simone, 2016; Jiminez et al., 2016; Melguizo et al, 2016; Schak et al., 2017; Scott-Clayton et al., 2014; Scott-Clayton & Rodriguez, 2015). The central question serves as a means of understanding students' overall perceptions of remediation. Remediation is intended to provide underprepared students with the skills that they will need to

be successful in the college-level courses that relate to the developmental coursework to which they have been assigned. If students are unsure of why they are taking remedial courses or fail to see the value in the process as it is related to cost, time to program completion, or effectiveness, they may face an increased risk of being unsuccessful and prone to dropping out of college altogether (Bailey et al., 2016; Knowles, 1978). Sub-question one addresses the common concern of financial costs that are incurred through remedial courses as not all scholarships and grants will cover courses that are not collegiate level (Barry & Dannenberg, 2016; Bettinger et al., 2013; Jiminez et al., 2016; Schak et al., 2017). These incurred costs force some students to take out student loans, personal loans, or pay out-of-pocket to remain enrolled at their postsecondary institutions; for others, these costs are too great and leave students with no other choice but to withdraw from their classes and drop out of college entirely (Jiminez et al., 2016; Pretlow & Wathington, 2012; Schak et al., 2017). Sub-question two addresses the amount of time that remedial placement adds to degree-seeking students' time in college. Since remedial courses revolve around the core disciplines of reading, writing, and math, they serve as gatekeepers that determine which courses students may enroll in and must often be completed first, which can easily add at least one extra semester to a student's time in college (Valentine et al., 2017). Sub-question three examines the issue of whether or not traditional college remediation courses are effective, an aspect of remedial education that has been highly researched (Bettinger & Long, 2009; Boatman & Long, 2018; Chen & Simone, 2016; Jiminez et al., 2016; Melguizo et al., 2016; Scott-Clayton et al., 2014). For many, effectiveness is evaluated by standards that can be measured, such as grades, program completion, or graduation; for others, effectiveness may be determined through more abstract means, like understanding or achievement (Boatman & Long, 2018; Scott-Clayton & Rodriguez, 2015). In this study, effectiveness was defined as how useful

a student may have found their remedial course sequence(s) to be. For example, if a student believes that they could not have otherwise passed the remedial course's college-level counterpart or if they feel that they gained any information, skills, or concepts that they were able to apply to other college-level courses.

Definitions

1. *Elementary and Secondary Education Act (ESEA)* – The first act of legislation to provide federal funding to American educational systems to benefit low-income school districts, fund special education centers, and provide scholarships for low-income college students (Casalaspì, 2017).
2. *Every Student Succeeds Act (ESSA)* – A legislative act that reauthorized ESEA and provided additional support and protection to students deemed disadvantaged and high-needs, while also requiring high standards for instruction to encourage college and career readiness (ESSA, 2017)
3. *No Child Left Behind Act (NCLB)* – An act of legislation that amended and reauthorized ESEA to include highly qualified educators and hold schools accountable for student outcomes (Overview of No Child Left Behind, 2008).
4. *Race to the Top (RTTP)* – A federal grant to encourage and compensate American K-12 educational institutions that met performance-based standards for testing and evaluation (United States Department of Education, 2016a).
5. *Remediation* – A process in which students determined as unprepared are enrolled in non-college level courses in an effort to enhance or achieve skills necessary to advance at the collegiate level (Phipps, 1998).

6. *Seamless Alignment and Integrated Learning Supports (SAILS)* – A transitional program for high school students in Tennessee that is used to combat a need for college remediation in mathematics.
7. *Tennessee Board of Regents (TBR)* – A state government agency that governs the College System of Tennessee, which includes 13 community and 27 technical colleges.

Summary

The growing number of students who are assigned to remedial coursework continues to rise. As outlined in Chapter One, an understanding of college remediation's impact upon the students who are tasked to complete it warrants a significant need for study (Boatman & Long, 2018; Chen & Simone, 2016; Jiminez et al., 2016; Melguizo et al., 2016; Valentine et al., 2017). Traditional college remediation, as it is now known and practiced, has neglected to make drastic changes in the numbers of students who continue to be assigned to remedial courses each year. However, most research has focused on measurable forms of data to determine the impact that remediation imposes on college students (Boatman & Long, 2018; Jiminez et al., 2016; Melguizo et al., 2016; Valentine et al., 2017). This case study sought to bridge the existing gaps in literature by considering the perceptions of remediation's academic achievements, financial implications, and levels of effectiveness as they have been experienced by community college students.

CHAPTER TWO: LITERATURE REVIEW

Overview

This literature review begins with a theoretical understanding of the impact that remedial placement has upon students of higher education. Chapter Two also includes an examination of the theoretical framework surrounding the impact of remediation with the inclusion of Knowles' (1978) theory of adult learning, which relies on internal and external forms of student achievement to drive attrition. The chapter concludes with a review of related literature regarding the impact of remediation upon students of higher education. Remediation policies, policy changes, mathematical remediation, remediation in language arts, financial impacts, and strategies for increasing college and career readiness are all examined.

Theoretical Framework

A theoretical framework for qualitative research methods is significant because it guides the research process by providing researchers with leading questions and ensuring that their research has been organized appropriately (Green, 2014). Qualitative research methods require constructs, which can be in the form of conceptual ideas, fundamental themes, or content to be measured (Lavrakas, 2008). The constructs that will be used in this study will refer to attrition as it relates to academic success or achievements among community college students in rural Tennessee who were placed in remedial or developmental courses due to placement test scores. The constructs of academic achievement and attrition may reveal similarities with regard to remedial placement, which can enable researchers to predict and control such indicators in future studies. Knowles' (1978) theory of adult learning was used to guide this study. This theory was used to provide a framework for why this study of community college students' perceptions regarding the impact of remediation is important.

Reviews of literature based on attrition in higher education indicate that previous research studies related to collegiate persistence are prevalent with several contributions from researchers that have utilized theoretical frameworks on postsecondary attrition (Fass-Holmes, 2016). As such, Fass-Holmes (2016) posits that modern researchers may reference those studies to test and extend the depth and quality of yielded data. For example, Knowles' (1978) adult learning theory provided researchers with a framework for studying attrition in postsecondary education by building a foundation based upon the notion that adults have a different learning style and process than those of children and adolescents. Commonly referred to as andragogy, Knowles' theory emphasizes the notion that adults are self-directed learners that are most successful when they have a practical understanding of why they need to learn something and consider that the material that they are learning as a topic that is of immediate value to them in their personal or professional lives (Knowles, 1978). By law, most American children and adolescents are required to attend some form of structured education. Although some provisions are in place, the governments for each state have their own forms of compulsory academic attendance legislation for their residential children and adolescents (NCES, 2018). These laws differ slightly, with the NCES (2018) reporting a majority of states mandating that school begin at age six and end at 18 although other states elect for students to start at five, seven, or eight and end at 16, 17, or 19. However, there are no attendance laws to require individuals to enroll in any of the nation's colleges, universities, technical schools, or other postsecondary institutions. This data is reflective of the notion that the learning styles and processes of children and adolescents are not like those of adults. The educational experiences of most children and adolescents in the typical public sector are thrust upon them from an early age and continually enforced throughout their lives as they approach adulthood (NCES, 2018). During this time, a great deal of cognitive

growth and development occurs and may leave younger learners questioning the importance of the material being presented to them in their classrooms (Schunk, 2020). Higher education enrollment is a choice that adults make independently. Although adults' decision-making processes may vary, they have an understanding of why they have chosen to advance their education, why that choice is important to them in the present, and why those actions will be important to them in the future. Their learning processes have matured and require instructional presentation that will be clearly relevant to them in the future as well as the present (Knowles, 1970, 1978).

Andragogy and similar theories of adult learning (Begotka, 2012; Knowles, 1970, 1973, 1976, 1980; Knowles, Holton, & Swanson, 1998, 2012; Smith, 2010) provide the basic infrastructure for how adult learners perceive academic success and the effectiveness of learning strategies and academic interventions. As a whole, andragogy is responsible for creating meaningful connections between individual experiences and the overall learning process, which can also influence students' perceptions of each factor (Knowles, 1970). A central idea to Knowles' (1970, 1978) theory is that adults learn differently than children or adolescents, therefore their learning experiences should be differentiated in order to provide the most optimal learning experience. Knowles (1970) posits that differentiated experiences are necessary for adult learners because, unlike children and adolescents, adults are independent learners and need to be taught through the use of learning strategies that are complementary to their experiences and readiness to learn.

This theory is relevant to remedial education because not all students that have been assigned to remedial placement intend to pursue postsecondary completion in the area(s) of remediation that they have been placed into (Ngo & Kosiewicz, 2017). For instance, Ngo and

Kosiewicz posit that individuals who may significantly struggle with mathematical content are far less likely to pursue degrees or careers in math-heavy fields like science, technology, engineering, or mathematics (STEM) than their math-savvy peers. If students are placed in remediation for a subject in which they do not find meaningful learning value or a means for immediate application, Knowles' (1978) theory posits that they are more likely to be unsuccessful. Unsuccessful attempts in remedial courses require students to retake the courses again and additional time and costs are forced onto students' college careers, creating the possibility of students dropping out of college altogether. This notion is supported by more recent research by Valentine et al. (2017) in which it was determined that graduation rates at two- and four-year institutions are significantly lower for students that were required to complete at least one developmental education course.

Related Literature

The importance of furthering one's own education is an integral part of American culture. The belief of value in completing some form of college is common and most often associated with being a part of the American dream, despite the fact that only 40% of the nation's citizens have obtained a two- or four-year degree (Lundberg et al., 2018). In more recent years, studies have considered the role of remedial or developmental placement in regard to postsecondary attrition as nearly half of all first-year college students in the United States will be required to enroll in at least one remedial course (Boatman & Long, 2018; Chen & Simone, 2016; ED, 2019). Jiminez et al. (2016) found that national statistics reported 40% to 60% of first-year college students in America are given remedial placement in one or more of the disciplines of math, reading, and writing as a result of scores that were obtained through a standardized placement test. Sanabria et al. (2020) estimate that such a figure can be broken down further,

stating that nearly two-thirds of students entering community colleges and close to two-fifths of those beginning at a four-year institution will be required to complete developmental coursework in some form.

At the two-year level, less than half of students required to take remedial courses will pass them all (Sanabria et al., 2020). The number of successful remediation completers at the four-year level is not tremendously higher, as Sanabria et al. (2020) place that figure at a mere 59%. Fewer than 10% of students who undertake developmental coursework will complete their programs of study on time, as Valentine et al. (2017) estimate that a little more than 33% of students placed into remediation will obtain a degree within six years. College persistence and completion among remedial students is more prevalent among minorities, students of color, and those who have learned English as a second language (Baber, 2018; Barhoum, 2017; Dowd et al., 2020). Valentine et al. (2017) estimate that a little more than 33% of students placed into remediation will obtain a degree within six years. Studies that have sought to close the achievement gap and increase rates of postsecondary attainment have yielded data revealing that, of those American students enrolled in remedial courses, the population is typically comprised of African American and Latinx students (Complete College America, 2016; Vandal, 2016). To more specifically provide identification for this subgroup, the populations are recognized as being 56% for African Americans and 45% for Latinx (Complete College America, 2016; Vandal, 2016). To compare, the same study revealed that nearly 35% of those students identified as being White. Other research has indicated that rates of remediation are also higher among nontraditional students and those who may have delayed the start of college for some reason (Sanabria et al., 2020). These findings support the notion that students of color and those of low-socioeconomic status are less likely to complete remediation because they may be required to

pay more money and undertake more courses to obtain a postsecondary degree (Baber, 2018; Complete College America, 2016; Vandal, 2016).

Another prominent emerging theme is that there is no substantial evidence that remediation is effective for all students (Boatman & Long, 2018; Kolesnikov et al., 2019; Logue et al., 2016; Scott-Clayton & Rodriguez, 2015). While remediation has shown to have positive impacts on students who are severely underprepared and require remediation in two or more subjects, it has been shown to negatively impact students who were close to their institutions' remediation cutoff scores or only required one developmental course (Bettinger et al., 2013; Boatman & Long, 2018; Logue et al., 2016; Ngo & Kosiewicz, 2017; Park et al., 2018). Such results suggest that the impacts of remediation may be more nuanced than previously reported, depending on how colleges and universities address the needs of underprepared students (Boatman & Long, 2018; Hodara & Jaggars, 2014). In the United States, the number of students who are assigned to complete developmental courses continues to remain high and can be used to confirm the need for remediation (Boatman & Long, 2018; Chen & Simone, 2016; Kolesnikov et al., 2019; Sanabria et al., 2020; Valentine et al., 2017). Prior research (Hu et al., 2016) has indicated that completely doing away with remediation itself can further increase the number of underprepared students as well as adding more time and cost since some courses would likely need to be repeated. There is a gap in the literature that presently exists regarding the efficacy of postsecondary remediation.

Remediation Policies in Higher Education

Many students enter college with great optimism, only to find disappointment in the realization that a test score has determined that they are not prepared for the rigorous demands of higher education (Jiminez et al., 2016). Colleges and universities tend to respond to such

situations by assigning these students to remediation, meaning that they are required to complete courses that are not considered to be of college-level in order to progress to the college-level courses needed for their programs of study (Chen & Simone, 2016; Malin et al., 2017; Turk, 2019). Remedial courses are intended to provide underprepared students with the skills needed to be successful in college-level courses with primary focus being placed upon the disciplines of math, reading, and writing (Bettinger & Long, 2009; Kolesnikov et al., 2019).

Since remedial courses are not college-level courses, the students who are required to complete them do not receive any college credit or improvement to their GPA upon completion (Hodara & Jaggars, 2014; Hodara & Xu, 2016). Despite this fact, students are still required to cover the remedial courses' cost of tuition at the same rate as a typical college-level course, which can deplete students' financial assistance programs, scholarships, and grants, leaving them to accumulate debt in the form of personal or student loans (Barry & Dannenberg, 2016; Hodara & Jaggars, 2014; Hodara & Xu, 2016; Jiminez et al., 2016). Given that more than half of America's incoming college freshmen are required to complete developmental courses (Jiminez et al., 2016; Logue et al., 2017), their monetary costs can add up rather quickly.

Remediation can be found among public and private institutions of higher education, but it is most commonly found in community colleges which represent higher populations of students from low-income, Hispanic, or Black families (Logue et al., 2017). At the community college level, Logue et al. (2017) estimate that 30% of the students assigned to remedial courses never register for them. While they may enroll in other courses, the majority of these students fail to successfully complete them and only about 10% will graduate within three years (Logue et al., 2017). Though such data is troubling, it is consistent and is forcing many higher education administrators to reassess their institutions' remediation policies.

Policies for remedial and developmental placement vary among postsecondary institutions and states. Most institutions rely on the scores obtained from placement exams like the Accuplacer, American College Testing (ACT), Computer Adaptive Placement Assessment and Support System (COMPASS), and Scholastic Aptitude Test (SAT) to determine whether or not a student will be required to enroll in any type of remedial coursework (Melguizo et al., 2016; Park et al., 2018). Colleges and universities typically form advisory boards that are comprised of administrators and faculty to create policies that specify score ranges to determine cutoffs for remedial placement (Melguizo et al., 2016). Rates of college remediation are consistently increasing and implementation of the Every Student Succeeds Act (ESSA) has forced many states to review and revise their placement criteria for the purposes of improving their processes of placement and assessment while also avoiding unwarranted remedial placement for entering students (Bahr et al., 2019; Malin et al., 2017). Traditionally, colleges have set cutoff scores that would determine a student's need for remediation in specific subject areas but these cutoff scores can differ from college to college (Boatman & Long, 2018; Chen & Simone, 2016; Melguizo et al., 2016). The companies that are responsible for developing and manufacturing placement tests may offer suggestions for developmental placement based upon their tests' scores, but postsecondary institutions are not obligated to comply with them and a universally accepted definition of college readiness does not exist (Chen & Simone, 2016). The most common remediation policies among colleges and universities require students with remedial placement to successfully complete at least one non-college level developmental course in their remedial subject area before being eligible to enroll in that discipline's college-level course, though some colleges require a sequence of remedial courses before permitting students into the appropriate college-level courses (Scott-Clayton & Rodriguez, 2015; Valentine et al.,

2017). This strategy has been used for decades with no substantial evidence to support the notion that remedial courses have any significant long-term value to students (Boatman & Long, 2018; Valentine et al., 2017). More recently, some colleges have changed their remediation policies and opted to consider multiple measures when determining a student's need for remedial placement. Many colleges take a student's high school GPA into consideration as it is viewed as a stronger indicator of preparedness than placement test scores since that average is accumulated over a longer period of time, typically four years (Bahr et al., 2019; Chambers, 2020). According to Bahr et al. (2019) and Chambers (2020), such supplementary forms of placement determination can more accurately predict students' capabilities in the disciplines of language arts and mathematics at the community college level.

Policy Changes Among Two-Year Postsecondary Institutions

ESSA policies emphasize the importance of educational persistence so that students may leave high school enabled with "college and career readiness (CCR)" (Malin et al., 2017, p. 809). Unfortunately, nearly two-thirds of incoming students are considered to be lacking the language and mathematical skills that are deemed necessary for academic success at the community college level (Jaggars & Bickerstaff, 2018). The delivery of traditional formats of remediation have reflected tendencies to be rooted in practices that are ahistorical and acultural, which drastically limit effectiveness among minorities and students of color (Baber, 2018; Baber et al., 2019; Braithwaite & Edgecombe, 2018). With so many students being assigned to developmental coursework, a number of secondary schools and postsecondary schools have chosen to work together to support ESSA's policies by utilizing curriculum alignment (Kozakowski, 2019; Schak et al., 2017). The goal of these partnerships is to identify students who may be at risk for remediation and provide them with support earlier so that college remediation may not be

necessary (An & Taylor, 2019; Kozakowski, 2019; Schak et al., 2017). One way that this goal is being met is through the implementation of dual enrollment programs, which allow high school students to enroll in college-level courses at community colleges that would satisfy their high school graduation requirements while simultaneously earning credits toward a postsecondary degree (Bouck & Cosby, 2018; Malin et al., 2017). Students who successfully complete dual enrollment courses in English, math, and speech may avoid remediation regardless of what their placement test scores may be since the courses required would already be completed and applied to their college transcripts (Jones, 2017).

Dual enrollment programs can certainly be beneficial to high school students, but they are not accessible to all students. Dual enrollment is not offered in every state and not all participating states provide students with opportunities to obtain financial assistance in the form of grants and/or scholarships to help offset the cost of the program (Education Commission of the States, 2022). Along with tuition, data obtained from the Education Commission of the States (2022) reveals that a number of participating states hold dual enrollment students responsible for associated course costs such as lab fees, textbooks, and commonly needed class supplies like scientific calculators, tablets, or laptops. Dual enrollment students are also typically held responsible for arranging their own means of transportation to go from their high school to the campus of the partnering college and back again, which makes dual enrollment programs are out of reach for students that may come from low-income families.

Some community colleges have expanded their partnerships with secondary schools to go beyond dual enrollment and develop programs that may better prepare students for common placement tests, like the ACT (Bailey et al., 2016; Schak et al., 2017). A number of researchers have found that ACT scores can be indicative of academic success at the post-secondary level

when also compared to a student's GPA during their first and second year of college (Townsend & Varga, 2018). Such programs would allow high school teachers to instruct their students on how to utilize skills like time management, locate common errors found in written essays, prepare for specific content that is likely to be included in each section, and provide tips for reducing test anxiety (Bettinger, Evans, & Pope, 2013; Schak et al., 2017). When high school students are provided access to self-paced electronic test preparation programs to use independently and without structure, levels of participation are lower than those in similar programs that are teacher-driven and regularly scheduled (Sanchez & Cruce, 2019). Many schools that implement similar programs encourage student participation by offering academic or monetary incentives to increase enrollment and reduce the number of students with remedial placements in college (Bailey et al., 2016). Other partnerships have allowed students to utilize electronic review courses in which they can complete subject-specific content reviews, access online ACT practice materials, pre- and post-diagnostic tests, view instructional videos, or engage in self-paced practice materials in order to be better prepared for their placement tests (Jaggars & Bickerstaff, 2018). College transition programs at the secondary level can be well utilized to promote engagement and academic success for all participating students, meaning that the needs of students of color or underrepresented groups are being addressed (Baber, 2018; Braithwaite & Edgecombe, 2018).

Analyses of students who were placed in remedial courses revealed a high percentage of attrition as significantly underprepared students exhibited lower rates of remedial completion, fewer college credits earned, and lower GPAs than students without remedial requirements (Bailey et al., 2016). To combat such statistics, many two-year postsecondary institutions are changing their placement policies by using multiple systems of measurement to determine

remedial placement (Bailey et al., 2016; Hodara & Jaggars, 2014; Hodara & Xu, 2016; Schak et al., 2017; Shields & O'Dwyer, 2016). Policy updates may incorporate the use of traditional placement tests, high school GPA, prior professional experience, non-cognitive assessments, internal motivation, or completion of a sequence of courses in a secondary school to determine a need for remediation (Bailey et al., 2016; Schak et al., 2017; Uretsky, Shipe, & Henneberger, 2019). The incorporation of a student's high school GPA is normally limited to incoming traditional students and its effectiveness in predicting course outcomes has not been extensively studied (Bahr et al., 2019). It is also worth noting that high school achievements can differ between English and math because the skills required for success at the secondary level may not be the same as those needed for completion at the collegiate level (Bahr et al., 2019).

Other changes in developmental education policies has focused on the effectiveness of placement based on high-stakes testing. In an earlier study in which the accuracy of some high-stakes placement tests was examined, Scott-Clayton (2012) found that some tests were inaccurate and caused students to be assigned to developmental courses as a result of misdiagnoses. Scott-Clayton's (2012) findings were upheld and even led to the prominent testing manufacturer, ACT, Inc., to stop production of its COMPASS test in 2015 (Scott-Clayton, 2018). In questioning the accuracy of traditional placement tests, many community colleges chose to implement co-requisite models for remedial education so that students could enroll in college-level courses straight away with required learning supports alongside them (Rutschow & Mayer, 2018). In Tennessee and Virginia, the use of co-requisite remediation models has been expanded in an effort to reduce remedial course sequences (Edgecombe, 2016; Rutschow & Mayer, 2018).

A similar option for reform that is gaining ground in community colleges is the use of multiple measures (Bahr et al., 2019; Barnett et al., 2018; Barnett et al., 2020; Schak et al., 2017;

Yu et al., 2020). Colleges that use multiple measures to determine placement still take students' placement test scores into consideration but also compare that score to at least one other indicator of college readiness, such as a student's high school GPA, prior completed collegiate coursework, or professional experience (Bahr et al., 2019; Barnett et al., 2018; Barnett et al., 2020; Rutschow & Mayer, 2018; Schak et al., 2017; Yu et al., 2020). As of 2016, over half of the nation's community colleges utilized some form of multiple measures when determining placement for their students (Rutschow & Mayer, 2018).

Remedial policies in other states have been revised to merely encourage students to enroll in remedial courses rather than enforcing registration as a requirement. In 2013, Florida changed their postsecondary remediation policies to only recommend that at-risk students enroll in developmental education courses in math, reading, and English rather than requiring them to do so, a decision that yielded mixed results (Logue et al., 2016; Park et al., 2018; Sanabria et al., 2016). Enrollment numbers for remedial courses were down but their passing rates increased and enrollment numbers for the college-level gateway courses was up although the pass rates fluctuated between the three disciplines (Hu et al., 2016). The researchers concluded that many students who would have been placed in remedial courses before the placement change were successful with college-level coursework without remediation after the state's college system changed its policy and made remediation optional (Logue et al., 2016; Park et al., 2018). California State University has found success with a policy that requires all remedial coursework to be completed within one academic year and colleges in Utah and Texas have adopted similar regulations (Bettinger & Long, 2009). Public postsecondary institutions in Colorado, Georgia, Indiana, Tennessee, and West Virginia have made changes to their policies to allow some students to complete their remedial requirements co-requisitely, meaning that their

developmental course may be taken alongside the corresponding college-level course needed for program completion (Bio & Korey-Smith, 2018; Complete College America, 2016).

Remedial placement can impact the lives of students in many different ways and policies regarding remedial placement vary greatly among postsecondary institutions. Some colleges require students to complete a single remedial course before being eligible to enroll in the college-level course that they must complete in order to graduate while others may require their students to complete a series of remedial courses before being permitted to progress into their college-level requirement (Boatman & Long, 2018; Chen & Simone, 2016). Postsecondary institutions that enforce such policies add extensive time to a student's collegiate career (Ngo & Kosiewicz, 2017). Students with remedial placement also tend to earn fewer college credits than their non-remedial peers, making them less likely to complete their programs of study or graduate on time (Boatman & Long, 2018; Valentine et al., 2017). Boatman and Long (2018) conclude that the long-term value of remediation is highly questionable. Logue et al. (2016) and Scott-Clayton and Rodriguez (2015) found evidence to support the notion that many students who received remedial course assignments based on a single placement test score could have likely passed the college-level course without remediation.

Remediation in Mathematics

The most common remediation subject area is mathematics (Boatman & Long, 2018; Logue et al., 2017; Vandal, 2016) and it tends to be viewed as the most difficult discipline for students in developmental courses to master (Zientek et al., 2013). For many degrees and certifications, math courses can serve as gatekeepers and be significant barriers to academic persistence, program completion, and graduation (Bickerstaff et al., 2018). As many as 60% of incoming community college freshmen and 40% of entering four-year college freshmen are

required to complete at least one remedial mathematics course, but nearly half of these students are unsuccessful and fail to complete the courses that have to be passed before they can move on to enroll in their required course(s) (Chen & Simone, 2016; Ngo, 2018). As a result, a vast majority of students enter the collegiate environment automatically falling at least one semester behind their non-remedial peers; having to repeat a developmental course can set a student back even further (Kurlaender et al., 2020). Without completing their sequence of assigned remedial courses, these students fail to progress through the degree paths of their chosen majors, move onto college-level courses, or complete their programs of study at all (Sanabria et al., 2020).

The decision to require students to complete developmental education courses is typically made by referencing students' placement test scores in mathematics (Boatman & Long, 2018; Ngo, 2018). However, testing manufacturers assign a variety of weighted point differentials to questions that assess specific mathematical skills (Ngo, 2018). Since the questions in the math section of these tests cover an assortment of mathematical concepts, students are likely to encounter topics that are not related to the specific needs of their collegiate programs of study (Ngo, 2018). Ngo (2018) found that, for many students, a lack of understanding in the specific skill area of fractions was to blame for their remedial placement. Students who are assigned to remedial courses as a result of their lack of skills in specific mathematical concepts could successfully complete a college-level math course if given the opportunity since fractions are not required in the curricula of every college-level mathematics course (Ngo, 2018). Since remedial placement is often reliant upon placement test scores, students that are weak in a particular skillset may be inappropriately placed in remedial courses because their test scores do not comprehensively represent all of their mathematical potential (Kolesnikov et al., 2019; Logue et al., 2016; Mills & Mills, 2018; Ngo, 2018). Ngo (2018) states that students who are close to

reaching the cutoff score required for college-level math are ultimately assigned to remedial math courses regardless of their ability to show a greater understanding of their respective math skills. Further, Bahr et al. (2019) reference differences in mathematical skills and concepts by mentioning the varying curricula of algebra, precalculus, and statistics with regard to what may be necessary for success at the high school and college levels, which may also differ among the courses required for specific collegiate majors. With regard to the research of Hu et al. (2016) in Florida, the numbers for successful attempts in college-level courses without any pre- or co-requisite developmental courses was notably low in math.

Not every program of study requires a college-level math course and Boatman and Long (2018) hypothesize that students of those programs will incur a negative impact from math remediation. This conclusion is reflective of Knowles' (1978) adult learning theory in that adults are more receptive to learning specific skills when they fail to understand why the concepts are of value and why that value is or would be of immediate use to them. Ngo (2018) further supports this notion by positing that students who struggle with mathematical concepts and do not see the usefulness of such material are not likely to pursue a career within fields in which advanced or abstract math skills are critical. A common hurdle that higher education's instructors and administrators face is the task of helping students realize that math should matter to them. Since mathematical concepts can be more abstract than the straightforward skills of reading and writing, it can be easy for students to feel as though the types of math that they are learning are not of value to them and will never be used (Lundberg et al., 2018; Mills & Mills, 2018; Wang et al., 2018). The challenge that falls most often to instructors is the actual act of conveying to students why math is necessary for themselves, their family, their peers, their communities, and nations to thrive (Lundberg et al., 2018). The remedial math curricula from some colleges have

been reviewed and revised in order to allow instructors to specifically tailor their instructional content to show students the real-world connections that may exist between the classroom's content and students' everyday lives or prospective careers as determined by their programs of study (Wang et al., 2018). However, the costs of time and money on behalf of the institutions has resulted in very few colleges and universities implementing such strategies (Wang et al., 2018). For some, a more affordable method of rationalizing the importance of math in a psychological light has been the concept of introducing growth mindsets versus fixed mindsets among students in developmental math classrooms (Mills & Mills, 2018). The intent of the growth mindset strategy is for individuals to believe that skills and intelligence are factors that can be sharpened or enhanced as long as a person has the right attitude and commitment to practice as follow-through to obtain a particular goal or overcome a specific challenge (Mills & Mills, 2018). In their study, Mills and Mills (2018) observed the persistence and final grades of two groups of remedial math students with one group having received supplemental intervention presentations regarding growth mindset and the other receiving no additional interventions. Although the students who had received the growth mindset interventions tended to achieve a higher final grade than those that did not, Mills and Mills (2018) concluded that the intervention had no significant impact upon retention.

In recent years, some colleges have revised their mathematical placement policies to include statistics over traditional college algebra since mastery of content that is algebraic in nature may not be necessary for a majority of programs of study (Rutschow et al., 2017; Ngo, 2018). Returning to the research completed by Hu et al. (2016) in Florida, the researchers noted that the most common mathematical gateway course in the state was intermediate algebra which was the section in which the lowest pass rates of the college-level gateway courses were

discussed. Regardless, remedial math courses continue to place significant amounts of emphasis on algebraic components since the curricula for these courses must be applicable to a variety of mathematical skill sets and degree pathways (Ngo & Kosiewicz, 2017). In an effort to circumvent the issue of unnecessary math concepts in a remedial math curriculum, some institutions are implementing an instructional method referred to as contextualization (Wang et al., 2018). In developmental math, the process of contextualization requires instructors to focus their teaching and learning methods on specific concepts that are situated in the real world and pertain directly to a student's program of study (Wang et al., 2018). As a result, students are likely to find the material of interest as it can be directly applied to situations that they may encounter in their post-collegiate occupations (Wang et al., 2018), drawing directly from Knowles' adult learning theory (1978).

Remediation in Language Arts

A mere 38% of American high school graduates are deemed proficient readers and just 25% are considered to be proficient writers; 28% of these students exhibit low reading skills (Perin & Holschuh, 2019). When these students enter postsecondary education, their placement test scores are reviewed and they are often assigned to remediation with the goal of providing supplemental reading and writing instruction through non-college level courses. These non-credit course requirements and the factors of more time in college and higher tuition prices can force those who struggle with reading and writing to forego a college education altogether, a situation most commonly faced by students of color and those of low socioeconomic status (Barhoum, 2017; Jiminez et al., 2016; Perin & Holschuh, 2019; Relles, 2016). Barhoum (2017) posits that those proportions reflect obstacles that these students experienced during their elementary, middle, and secondary schools. Once students have been assigned developmental coursework in

writing and reading, their completion rates drop to 15% and 23%, respectively (Morris Barr, 2019). Students with placement test scores that are close to the remediation cutoff score in the disciplines of reading or writing, developmental course requirements are shown to have negative impacts on student achievement (Boatman & Long, 2018). Boatman and Long (2018) conclude that, over time, students with marginal remedial needs within the area of language arts tend to earn fewer college credits and are less likely to graduate or complete a college program than their peers without remedial placement.

Students placed in developmental education for reading tend to spend more time in college when compared to those with remedial needs in math or writing because reading placement usually serves as a gatekeeper course to other major disciplines like compositional writing, psychology, history, or the sciences (Boatman & Long, 2018; Jiminez et al., 2016). Proficient reading skills include comprehension, decoding, fluency, word recognition, and prediction—all of which are vital for success in academia as well as in everyday life (Akyol & Boyaci-Altinay, 2019; Perin & Holschuh, 2019). Typically, reading skills are developed and honed over an extended period of time (Akyol & Boyaci-Altinay, 2019), which provides support to the notion that the individuals assigned to remedial reading likely struggled with the same concepts during their time in K-12 (Barhoum, 2017). Another factor to consider with regard to developmental reading placement are students with learning disabilities. Academic support services are typically made available to eligible K-12 students without cost and may automatically be applied to their needs as they progress through school, depending on their ability to comprehend foundational literacy (Graham et al., 2017). In the K-12 settings, such services may include an assigned aide or interpreter, being provided extra time to complete assignments, receiving linguistic therapy sessions, or the implementation of individualized

education plan (IEP) (ED, 2017). Although similar support services are available at the collegiate level for students who choose to self-disclose their disability, they are not offered immediately and eligibility is not guaranteed even if a student previously received such accommodations (Ambati, 2017). Reading is necessary for all topics and has many dimensions. Therefore, student success in reading ability and comprehension are taken very seriously at the postsecondary level (Flink, 2018). Unprepared readers tend to struggle with basic reading skills, making the utilization of developmental courses and their associated support services even more challenging since these students experience difficulties in the comprehension of textual materials (Akyol & Boyaci-Altinay, 2019). Students with significant reading difficulties require even more substantial methods of instruction, greatly increasing the need for tutors, learning labs, and other supplemental academic services (Barhoum, 2017; Akyol & Boyaci-Altinay, 2019).

Over 70% of high school seniors fail to receive a minimum score of proficient on writing assessments, resulting in more than a third of incoming college freshmen being required to complete remediation for English (Relles & Duncheon, 2018). Remedial writing courses often come with extended pathways to completion in which students are being taught from curricula that Chambers (2020) identifies as including irrelevant assignments and very little support. As a result, curricula for developmental writing courses commonly emphasize low-order sentence structure and grammar instead of the more aggressive reading and writing skills that are demanded of students at the postsecondary level (Chambers, 2020). Barhoum (2017) acknowledges that the importance of writing is so significant that it is usually the longest developmental course sequence that underprepared students must complete, often adding a year or longer to their time in college. When incoming college students are faced with the unexpected notion of having to spend so much additional time in college, an immediate reaction is

disheartenment and may cause students to feel as though they have no choice but to drop out (Barhoum, 2017; Bailey et al., 2016; Valentine et al., 2017).

Considering the populations of remedial students with regard to the low numbers of successful students, blame for remediation tends to be placed upon factors like students' test scores and the quality of instruction received during K-12 (Boatman & Long, 2018; Chen & Simone, 2016; Jiminez et al., 2016; Valentine et al., 2017) instead of considering factors such as instructional methods or how remediation policies and learning environments could be improved (Relles & Duncheon, 2018; Theriault, 2019). Instructors of remedial writing courses have expressed concern with such statistics and stated that the large number of students placed in their classrooms is a hinderance to individual progress because large classroom numbers create difficulties in the provision of quality instruction to meet individual needs (Chambers, 2020). Other instructors have recognized that their classroom spaces are small and when so many students of adult size are placed into the room together, seating becomes an issue and can affect students' progress by impeding participation and generating discomfort (Relles & Duncheon, 2018). Teacher training may also be a factor in helping students succeed in developmental writing courses. Barhoum (2017) acknowledges that although most college professors are considered to be experts in their respective content areas, very few have ever received instruction on how to teach. Teaching styles vary and most often are developed through experience, but postsecondary instructors may find the process of having to adapt their instructional methods to a classroom of students with low literacy skills to be challenging (Barhoum, 2017). Adjunct faculty are often hired to teach developmental courses and may have no educational training at all (Barhoum, 2017). Relles and Duncheon (2016) suggest that technology could also be a

contributing factor, particularly for adjunct faculty who may not have been trained on how to use the equipment that may be at their disposal.

The process of writing is, itself, particularly demanding. Students with underdeveloped literacy skills and those with learning disabilities are at a significantly higher risk of not completing college than their non-remedial peers (Graham et al., 2017; Relles & Duncheon, 2018). Regardless of the discipline, college-level coursework requires students to possess an efficient understanding of the written language (Barhoum, 2017; Hassel et al., 2019; Perin & Holschuh, 2019; Relles, 2016). Perin & Holschuh (2019) identify concepts like syntax, spelling, conventions, vocabulary knowledge, phonemic awareness, vernacular, and basic grammar skills, such as punctuation and capitalization as being vital to success at the postsecondary level. Without placing greater emphasis on the skills that have been identified as being necessary in order to succeed in college, underprepared students can easily fall even further behind their non-remedial peers. Relles and Duncheon (2018) found that, over a period of six years, fewer than 20% of the students that were assigned to developmental courses in English or compositional writing had earned a degree.

The ability to be a proficient writer is necessary for academic success at most levels, including higher education, and writing is referred to as a central point with regard to academic success at the postsecondary level (Hassel, Reynolds, Sommors, & Tinberg, 2019). When comparing reading skills to writing skills, the number of students who are severely lacking in the aspect of written literacy have been shown to benefit greatly from remediation and are more likely to remain enrolled and complete their programs of study (Boatman & Long, 2018; Valentine et al., 2017). Boatman and Long (2018) hypothesize that remediation is of greater benefit to students with who have been assigned remedial requirements in reading and writing

because those skills are essential for all postsecondary disciplines and work. This factor significantly affects students who are English language learners (ELLs) and those with either identified or unidentified learning disabilities because proficient reading and writing skills are necessary for progression and success in postsecondary institutions (Ambati, 2017; Jiminez et al., 2016; Relles, 2016).

The writing process can be complicated and individuals who struggle with this process find themselves at a severe disadvantage due to the amount of compositional writing, prefaced by proficient reading comprehension, that is demanded of them as students of higher education (Barhoum, 2017; Hassel et al., 2019). Low literacy skills are not reserved for traditional students or non-traditional students; instead, the lapse is shared by both demographics (Hassel et al., 2019; Theriault, 2019; To et al., 2016). Regardless of major or program of study, mastery of written communication skills is necessary for academic and occupational workplaces (Graham et al., 2017). Similar to the discipline of reading, a great deal of emphasis is often placed upon English compositional classes as individuals must not only be able to read, but also to convey their thoughts, ideas, processes, and understanding through the written word (Graham et al., 2017; Relles, 2016; Theriault, 2019; To et al., 2016).

The Financial Impacts of Remediation in Higher Education

Approximately 60% of all incoming college freshmen are required to complete some form of remedial or developmental coursework (Valentine et al., 2017). Along with additional time being tacked onto their college careers, students with these remediation requirements may also find themselves faced with significant financial costs (Barry & Dannenberg, 2016).

Remedial classes are not college-level courses and not all financial assistance providers will cover these costs, which often forces students to take out personal or student loans (Barry &

Dannenberg, 2016; Jiminez et al., 2016). In 2018, it was estimated that nearly 65% of America's graduating college students reported having some amount of student loan debt (Dowd, 2020; Gonzalez et al., 2019; Jiminez et al., 2016). Although the student loan debt totals varied from state to state, the national average was \$29,200 which Gonzalz et. al (2019) also noted as a 2% increase from the previous year. Jiminez et al. (2016) have estimated that college students in America pay nearly \$1.3 billion dollars for remediation each year. A single developmental course can cost around \$3,000 and add another \$1,000 onto student loan debt, meaning that remediation significantly contributes to student loan debt (Valentine et al., 2017). Barry and Dannenberg (2016) found that first-year remediation fees tied to student loans account for more than \$380 million and can easily double for students who are not successful with their first attempt in a remediation course and must repeat it. These additional costs heavily influence the price of college and make it unaffordable for some students, leaving them with no other choice than to drop out or decide not to pursue a college education altogether (Melguizo et al., 2016). Not all postsecondary institutions participate in federal student loan programs and others do not certify student loans of any type. This leaves students who need to borrow money to pay for their education with very limited options. Students that can afford to pay their tuition upfront or through a structured payment plan set up by their college may do so, but this is generally not an option for individuals who needed to borrow the funds from the start. For that reason, students and their families commonly turn to credit cards and personal loans to cover these costs although both methods can be more expensive than student loans due to interest rates and repayment options (Cochrane & Szabo-Kubitz, 2016). If a student or their family does not have the credit or appropriate means of securing a private loan or credit card, other decisions must be made. Obtaining employment or taking on an additional job may be necessary for some, but Cochrane

and Szabo-Kubitz (2016) mention acquiring more employment hours and reducing the number of classes to take each semester is a common choice for others. Reducing course loads can lower tuition and fees to amounts that are more manageable for students who may be forced to pay out-of-pocket, but doing so also adds extensive time to students' college careers and decreases the likelihood of program completion (Barhoum, 2017; Boatman & Long, 2018; Cochrane & Szabo-Kubitz; Jiminez et al., 2016; Valentine et al., 2017).

In 1998, Breneman and Haarlow revealed that the facilitation of remedial and developmental courses among public colleges and universities came at a cost of around \$1 billion each year, approximately 1% of the institutions' budgets, illustrating that remediation also applies costs directly to the colleges and universities that provide them. More recently, these figures were updated with data obtained from the 2004-2005 academic year and Pretlow and Wathington (2012) noted a 13% increase, meaning that public colleges and universities absorb \$1.13 billion annually to fund remedial and development courses and no evidence of remediation's long-term value has been supplied. With the costs of remediation rising along with the number of students dropping out of community colleges across the country, there exists a great need for a more cost-effective form of developmental education. Belfield, Jenkins, and Lahr (2016) identify three main costs that colleges incur as a result of remedial education: high numbers of students needing remediation requires the need for additional courses and faculty to teach them; corequisite models require students to take more classes and may include counseling support, which would require additional faculty and staff; and the costs associate with course development and faculty training. Over the past several years, many college administrators and stakeholders have searched for a more affordable way to address the financial strain caused by developmental programs (Dowd et al., 2020). Dowd et al. (2020) cite interventions such as co-

requisite instruction with specific courses, supplemental instruction and testing, and guided pathways as the most frequently used strategies among community colleges at this time. In 2015, the 13 community colleges that are part of the Tennessee Board of Regents (TBR) implemented corequisite remediation in the areas of math, reading, and writing in an effort to make developmental education more cost-effective for their respective institutions and students (Belfield et al., 2016). By adopting a co-requisite design for remediation, colleges are providing students with opportunities to complete their programs in a timelier manner as well as saving money. In a pre-requisite remediation model, students must successfully complete their developmental courses before enrolling in the college-level counterparts is an option (Belfield et al., 2016; Ran & Lin, 2019). Therefore, students would be required to repeat their remedial course(s) until a passing grade is obtained. Co-requisite models allow students to take both the remedial and college-level courses simultaneously (Belfield et al., 2016; Ran & Lin, 2019). If a student were to pass the college-level course but not the remedial course, as Ngo (2018) states is common in developmental math courses, the student would have no need to pay to retake the remedial course. Belfield et al. (2016) posit that the corequisite model used by TBR proved to be more cost-efficient than traditional prerequisite models, citing transcript data and information received from TBR regarding cost as evidence.

However, students and colleges are not the only groups burdened with increased financial costs due to remediation. The most widely used financial aid programs are funded by state and federal governments (Barry & Dannenberg, 2016; Jiminez et al., 2016). Loans, grants, scholarships, and work study programs are all examples of higher education financial assistance plans that are bankrolled by state and federal funds (ED, n.d.a). Government funded programs rely primarily depend on the funds that are provided by taxpaying citizens. It is estimated that the

federally funded loans and grants used to cover college remediation courses for eligible students cost American taxpayers over \$7 billion each year (Scott-Clayton, Crosta, & Belfield, 2014). Within the nation's community colleges alone, remedial and developmental programs are estimated to cost around \$6.7 billion annually (Jaggars & Bickerstaff, 2018). The most popular federally-funded program is the Pell Grant, which uses a student's income to determine eligibility (Edwards, 2016). Since the program is a grant, students are not obligated to repay any funds that are awarded to them regardless of whether or not they are successful with their coursework or complete their programs of study (Dowd et al., 2020; Edwards, 2016). Colleges typically apply Pell Grant funds to a student's accounts to cover tuition, associated fees, and room and board for those with on-campus housing (Edwards, 2016). Once those expenses have been paid, the college awards any remaining funds directly to the students as an overpayment refund without verifying how students spend the money or checking the students' accounts to see if the refund is even necessary (Edwards, 2016). Edwards (2016) proceeds to state that the nation's taxpayers have contributed more than \$300 billion in Pell Grant funding over the past two decades without ever knowing how much of their money was spent on recipients who actually used the funding to earn a college degree. In 2015, the Pell Grant cost American taxpayers \$31.4 billion—nearly twice the amount that was spent eight years before (ED, 2016b). A recent analysis of students who received federal loans at four-year colleges revealed an average debt of around \$30,000 each (Gonzalez et al., 2019). The federal government offers some borrowers the opportunity to have a portion of their student loans forgiven if they are employed as teachers or work in the public service sector and meet other specific criteria (ED, n.d.b). These programs are of great benefit to approved borrowers and were expanded by President Barack Obama in 2014 to also include postsecondary schools that had closed or had

been proved to have engaged in unethical business practices (Edwards, 2016). The intended use of the expansion was to help more borrowers, but taxpayers were left with an outstanding bill of nearly \$22 million as a result (Edwards, 2016). Increased demand for loan funding and the fluctuation of tuition rates have prompted actions such as budget cuts and federal-state partnerships to more equitably share the costs (Dowd, 2020; Gonzalez et al., 2019).

Strategies for Increasing College and Career Readiness in Secondary Schools

Although an official definition of CCR has never been adopted social engagement, motivation, and academic-related skills have recently been identified as reliable indicators for assessing CCR (Brower et al., 2021). With so many incoming college freshmen being unprepared for the rigors of higher education, secondary schools are stepping in to offer more proactive measures to help their students enhance these skills (DePaoli et al., 2018; Uretsky et al., 2019). To promote the notion of CCR, ESSA includes provisions to allow secondary schools to form partnerships with community colleges (ESSA, 2017; Green et al., 2020; Malin et al., 2017). Some high schools are advancing these partnerships by working alongside their associated colleges to revise their academic standards so that they may be more closely aligned with the expectations that students will face at the collegiate level (Jiminez et al., 2016). Teachers in secondary schools are being encouraged to utilize more intensive instructional methods with high regard being placed upon reading and writing skills while other districts have opted to employ more literacy coaches within their schools to direct developmental writing skills (Carlson, 2013; Frankel, 2016).

Another strategy employed by secondary schools is early academic interventions that can identify and target specific skills that students need to refine in order to avoid remediation in college (Bouck & Cosby, 2018; DePaoli et al., 2018; Frankel, 2016, 2017; Frankel et al., 2016).

This type of intervention can be highly beneficial for students who may be lacking a specific set of subskills in a high placement discipline, like math (Bouck & Cosby, 2018; Ngo, 2018; Uretsky et al., 2019). One type of transitional program that is made available to high school seniors in Tennessee is Seamless Alignment and Integrated Learning Support (SAILS). Students who choose to participate in the SAILS program receive instruction from high school teachers using a curriculum that is based on that of the remedial math courses among TBR's community colleges (Kane et al., 2021). Eligibility for the program is based on the score that a student received in the math portion of the ACT exam during their junior year (Kane et al., 2021). In SAILS, students are taught mathematical concepts in modules and will be exempt from remedial math at the community college level if the tests for all five modules have been successfully completed and the student reached the required cutoff score (Kane et al., 2021). Kane et al. (2021) acknowledge that the cost of SAILS is lower than that of the tuition price for a developmental math course at the collegiate level and may also reduce academic delays that are often a side effect of remedial placement. As is the case with traditional college placement exams, students are judged primarily on a test score rather than an assessment of their abilities (Kolesnikov, 2019). In their study, Kane et al. (2021) state that participation in the SAILS program did not have a significant impact upon students' postsecondary plans but did show an increase in participants' feelings toward college readiness and attitudes regarding the usefulness of a mathematics course. However, the researchers also found that just 30 percentage points of those who completed the SAILS program and enrolled in college-level math were able to pass the course. Further, Kane et al. (2016) assert that SAILS completers were considerably less likely to pass a college-level math course once co-requisite remediation policies were put into place. One disadvantage to the SAILS program and other transitional programs like it is that, in

order to determine whether or not the intervention is successful, students are routinely assessed using a standardized test (Frankel, 2017).

One strategy that has gained traction in recent years is dual enrollment. Dual enrollment is a voluntary program in which eligible high school students can complete college-level courses through their regional community colleges while simultaneously using the same course to meet their high school graduation requirements (Bouck & Cosby, 2018; Frankel et al., 2016). Eligibility is typically determined by a student's high school GPA and grade level as such programs are likened to advanced placement, oftentimes making them available to juniors and seniors only although sophomores may be deemed eligible in some situations (Duncheon & Relles, 2020). If a student participates in dual enrollment and successfully completes their college-level course(s) in math, reading, and/or writing prior to enrolling in a college as an incoming freshman, remediation will not be required regardless of their placement test score for the specified discipline(s) because a passing grade will have already been applied to their college transcripts (Frankel et al., 2016). Dual enrollment programs can help high school students reduce the amount of time needed in college, eliminate the need for remediation, and avoid the additional expenses of tuition and fees that may have been incurred if remediation were required (Frankel, 2016; Malin et al., 2017). However, dual enrollment programs are not an option for everyone. First, the programs are only available to high school students. Nontraditional learners cannot participate and the high school students that do must also meet certain criteria to be eligible, meaning that dual enrollment is not an option for lower performing students whose GPAs do not reach the cutoff (Duncheon & Relles, 2020). Another factor to consider is cost. Although the cost for a dual enrollment course tends to be less expensive than the price of college tuition for the same course, they are not free (Pierce, 2017). The cost for dual enrollment

courses may eliminate participation of a large population of students identified at notably higher risks for remediation: minorities and those of low-income families (Baber, 2018; Barhoum, 2017; Dowd, et al., 2020). Dual enrollment students are generally required to provide their own transportation between their high school and community college campuses as well as the cost of textbooks, further alienating the most at-risk populations from participating (Pompelia, 2020). Pierce (2017) acknowledges that some states provide grants to eligible students that can cover the cost for some or all dual enrollment courses but these are not available nationwide and may not include coverage for textbooks or associated fees.

Summary

Each year, millions of people decide to enter postsecondary institutions and many find that they are not prepared for the rigors of college with nearly 60% of incoming college freshmen being assigned to remedial courses (Barhoum, 2017; Valentine et al., 2017). This realization is often disappointing for students that may not have understood how their standardized test scores would impact their college experience or that they would be subject to policies that require them to complete remedial coursework before being eligible to enroll in the college-level courses that they will need to obtain their degrees (Boatman & Long, 2018; Kolesnikov, 2019; Sanabria et al., 2020; Valentine et al., 2017). Remediation is intended to support underprepared students by providing them with the skills that are necessary for academic success (Boatman & Long, 2018; Brower et al., 2021). Focus is placed primarily on reading, math, and writing, but such requirements come with other obstacles like increased financial costs and additional time in college, both of which can affect a student's persistence and academic achievements (Barry & Dannenberg, 2016; Jiminez et al., 2016; Melguizo et al., 2016).

Despite the overwhelming number of students assigned to remedial placement each year, there is no significant evidence to support the notion that college remediation is effective (Boatman & Long, 2018; Brower et al., 2021; Chen & Simone, 2016; Edwards, 2016; Valentine et al., 2017). A gap exists in the literature pertaining to the impacts that remediation has on students in the short- and long-terms. This gap needs to be addressed so that researchers, educators, and administrators may be able to adjust their placement policies after being more informed about how remediation can affect the lives of college students and influence perceptions of academic success.

Recent literature supports the need for policy change to avoid or eliminate the need for remediation at the postsecondary level by addressing the existence of gaps regarding differing remediation policies among institutions and states (DePaoli et al., 2018). By considering a student's remedial placement and comparing that to their academic achievements, higher education administrators can more fully understand how to accurately identify students who are at-risk for remediation and provide academic supports more effectively (Uretsky et al., 2019). This understanding can further develop programs and policies to address such needs at the secondary school level so that many traditional college students may complete their collegiate careers more quickly and with less financial obligation. For adult learners, these policies could examine a true need for remediation by considering the amount of remediation deemed necessary for them to complete their program of choice. The goal of this study is to address this gap in research while also providing researchers, educators, and administrators of remediation an understanding of these impacts so that policy reform can be made and the remediation gap may be closed.

CHAPTER THREE: METHODS

Overview

The purpose of this case study was to understand the impacts of remediation with regard to finances, time, and effectiveness as perceived by students of Appalachian Valley Community College (AVCC), a pseudonym provided to a community college located in rural Tennessee. Chapter Three presents the overall design of the case study as well as the methods that were used to collect data from the participants. Further, the contents of Chapter Three will examine the central question, hypothesis, research design, instrumentation, procedures, participants, setting, and data analysis to ensure trustworthiness and acknowledge ethical concerns pertaining to the study. Finally, Chapter Three concludes with a concise summary.

Design

In this qualitative study, I utilized a single instrumental case study as the research design. This design was chosen because it is designed to expose different perceptions or perspectives regarding a particular issue within a bounded setting (Yin, 2018). This qualitative approach allowed me to examine how community college students in rural Tennessee perceive the effectiveness of mandatory remedial courses. Further, I was able to consider the perspectives of the participants with regard to the region and the existing gap in qualitative literature as it pertains to the impact of college remediation as much of the prior research regarding college remediation has been quantitative in nature. The present study involves a contemporary issue that is rooted in the real world and in which detailed, in-depth data is collected from multiple sources of information over an extended period of time (Creswell, 2013; Creswell & Poth, 2018; Mills et al., 2010), which appropriates the use of a qualitative approach. Case studies are used to provide extensive understanding of the case being studied by considering the perceptions and viewpoints

of the participants involved in the study through close observation (Creswell, 2013; Creswell & Poth, 2018). Case studies focus on a specific phenomenon within its natural setting to ensure that the study is held within proper context (Mills et al., 2010; Yin, 2018). Yin (2018) posited that case studies are the best approach for studies in which the researcher seeks to find the answers to questions that ask “how” and “why” participants think, feel, or act regarding the topic of the study instead of focusing on questions that could be simply answered with a “yes” or a “no” response. Yin (2018) additionally suggests that case studies are useful for research in which the topic is one of public interest that also reflects issues that are of national significance. The researcher employed in depth, open-ended questions to ensure that multiple perspectives were obtained.

Additionally, the efficacy of case studies is supported by analyzing evidentiary data obtained from multiple sources (Creswell, 2013; Yin, 2018). According to Yin (2018), a single case study is the best option for researchers who want to study one thing, such as a particular person or specific group of people. This study was focused on a single group of individuals: community college students in rural Tennessee who were required to complete at least one remedial course at the college level. As such, a single instrumental case study approach was explicitly chosen. The perceived impacts of remediation by community college students were explored at a particular institution, AVCC, which also supports the limited real-life situation (Mills et al., 2010; Yin, 2018). In following the format for case studies, pseudonyms have been provided for the research site and all participants (Yin, 2018). The research questions for this study led the research design into the process of identifying the data that must be collected (Yin, 2018). Case study research supports the need for vital cohesion among obtained information and the suggested hypotheses as data analyses require that data be compiled in a way that provides a

concise and straightforward reflection of the study propositions (Yin, 2018).

Additionally, Yin (2018) emphasizes that the conditions needed to rationalize the choice of case study design over other research design methods are focusing on the “how” and the “why,” having no control over events that are behavioral in nature, and addressing contemporary situations. A case study design was suitable for the current research project due to the encompassing questions being aligned as well as the facts that emphasis is placed upon a contemporary event and the observed phenomena occurs within the participants (Yin, 2018). The participants in this study have completed or are currently enrolled in at least one remedial course during their time at AVCC, illustrating the concept that the phenomenon is social in nature and relates to specific events that a person may have experienced or is presently experiencing (Yin, 2018). Further, instrumental case studies permit researchers to look beyond the case itself in order to understand a specific instance that is bounded by the researcher per design (Mills et al., 2010; Stake, 2006). A single instrumental case study is appropriate for the current study because the qualitative approach allowed me to serve as the instrument needed to explore the attitudes and perceptions of individuals with regard to remedial education by gathering data that is in depth, detailed, and from multiple sources (Creswell, 2013). This exploration occurred through speaking with students and recognizing how they personally perceive(d) the impacts of their remedial courses, considering the context of the site, and addressing the gap that exists due to a lack of qualitative data (Mills et al., 2010). My purpose for the current case study was to provide a greater understanding of the impacts of mandatory remedial placement as they are perceived by community college students in rural Tennessee. A single instrumental case study was developed to support the understanding of specific issues. This paper is an example of a single instrumental case study because it connected students’ perceptions of remediation to the remediation policies

that colleges enforce that this researcher sought to understand.

Research Questions

The central and sub-questions that will be used to guide this study are:

CQ: What are the perceptions of community college students regarding remediation?

SQ1. What are the perceptions of community college students regarding the financial impact of remediation?

SQ2. What are the perceptions of community college students regarding the impact of remediation as it relates to degree-seeking students' time to completion?

SQ3. What are the perceptions of community college students regarding the effectiveness of remediation?

Setting

According to Yin (2018), all qualitative case studies must have at least one case to have a bounded system. The bounded system for this study is Appalachian Valley Community College (AVCC), which is a pseudonym assigned to a community college in rural Tennessee. AVCC is comprised of multiple campuses and averages a total enrollment of over 6,000 students across the institution's ten-county service area and distance learning programs ("College Profile," 2020). In 2018, AVCC's student-to-faculty ratio was reported as 17-to-1 "(College Overview," n.d.). AVCC is governed by the state's Board of Regents and its administration is comprised of a president, several vice presidents and assistant vice presidents, deans and assistant deans for each division, and numerous heads of departments and program directors ("Employee Database," 2020). AVCC employs many full-time faculty members and also hires adjunct instructors in all subject areas as needed.

AVCC offers over 100 different associate degrees and more than a dozen professional

certifications across various disciplines (“AVCC,” 2020a). All degree-seeking students at AVCC are subject to placement testing via scores earned on entrance exams. Per institutional policy, any student who refuses to complete an entrance exam or any student with placement test scores that do not meet or exceed specified cutoff ranges are required to complete remedial education courses within the areas of reading, writing, and mathematics (“AVCC,” 2020b). This fact provided the boundaries for the case as it is constrained by the institution and the number of students that are required to complete mandatory remedial coursework (Creswell & Poth, 2018; Yin, 2018).

Participants

The first step in obtaining participants for this qualitative research study included the use of an electronic participant selection tool (see Appendix A). This tool was created using Qualtrics. When it was finalized, a link to the tool was generated within Qualtrics so that potential participants could gain access to the tool. That link was sent to the designated coordinator of AVCC’s IRB via email along with a document that provided more detailed information about the study so that potential participants could make an informed decision with regard to taking part in the study. The coordinator sent an email containing the link to the participant selection tool and informational document to the student email addresses of all active students. This email is found in Appendix B. The participant selection tool utilized criterion sampling as the students must be no less than 18 years old, have completed at least one remedial course at AVCC, or are currently enrolled in at least one remedial course at AVCC.

Participants may be enrolled full- or part-time. The decision to include full- and part-time students is due to the fact that AVCC’s student population is split nearly evenly, with 49% being enrolled full-time and 51% being enrolled part time as of 2020 (“Community College Profile,”

2021). Further, this expansion allowed a greater opportunity to include minorities, students of color, and adult learners which can also allow the researcher to include aspects of diversity while exploring participants' attitudes and perceptions.

All community colleges governed by TBR must offer remedial support in mathematics, reading, and writing and develop a placement system that adheres to the board's remediation placement policy (TBR, 2019). AVCC's placement chart is found in Appendix C and the TBR placement policy is found in Appendix D. According to TBR Policy 2.03.00.02 Learning Support (TBR, 2019), community colleges can rely on scores from the ACT, SAT, Accuplacer, and/or SAILS completion to determine placement. Students with remediation requirements in reading and writing must satisfy these requirements co-requisitely by pairing a remedial reading course with an entry-level public speaking course and pairing a remedial writing course with an entry-level English composition course, respectively (TBR, 2019). Students with remedial math placement may be enrolled in a pre- or co-requisite remedial math course depending upon their placement test scores (TBR, 2019).

The participant selection tool begins with a question asking the individual if they have already completed a remedial course or are currently enrolled in a remedial course. The participant selection tool will halt and direct individuals that respond "no" to the question to close their browsers as they are not eligible to participate in the study. Individuals who respond "yes" to the question may proceed to a series of basic demographic questions to ensure a diverse group of participants for the study. Demographic questions serve to provide the researcher with additional background information on the participants and allow the researcher to better describe the study's participants and analyze data obtained from them (Allen, 2017). Demographic information will also allow the researcher to ensure that the sample is representative of a diverse

population. If the student elects to participate, they will be directed to a statement of informed consent which contains additional information about the study and the responsibilities of those who may be selected as participants. After reading and agreeing to the statement of informed consent (see Appendix E), students will be asked to provide a digital signature as well as their contact information to coordinate further data collection should they be selected as participants for the study. All responses garnered from the participant selection tool will remain confidential with the exception of those individuals who express an interest in completing an electronic survey, participating in an interview, and maintaining a personal journal. Participants will need to provide their names and contact information in order to complete the electronic survey, schedule their interviews, and discuss documentational activity for the study's methods of data collection. This personal information will be obtained through the participation selection tool which will be stored within a secured location that only the researcher will be able to access. The participation selection tool will include a section in which potential participants may indicate whether or not they would be interested in being interviewed as well as documenting their remedial progress and experiences in a journal. If the potential participant indicates that they are interested in being further involved with the study, their name and preferred method of contact will be needed in order to schedule the interview and discuss the parameters of documentational activity. The following questions will be included in the participation selection tool:

1. Have you ever completed, or are you currently enrolled in, a Learning Support course?
2. In which discipline(s) was/were/are your Learning Support courses? Select all that apply.

3. In which instructional format were/are your Learning Support courses delivered? If you have completed multiple Learning Support courses in more than one method, select all that apply.
4. In which division is your intended major housed?
5. What is your enrollment status?
6. Please select your gender.
7. What is your age?
8. Please select your ethnicity.
9. Which one of AVCC's campuses do you consider to be your home campus?
10. Would you be willing to participate in a confidential interview to further discuss college remediation?
11. Would you be willing to maintain a journal in which you would confidentially record your experiences with Learning Support courses to further discuss college remediation?
12. Thank you for your willingness to participate in this study. Please provide your first and last name (your identity will remain confidential).
13. Please enter the e-mail address that can be used to reach you.
14. Please enter the phone number that can be used to reach you.
15. Please select your preferred method of contact.

After answering each of the questions in the participation selection tool, students will be presented with the informed statement of consent. This consent form provides additional information about the study and all tasks that selected participants will be asked to complete. Individuals will then be asked to agree to participate in an audio-recorded interview that and

provide a digital signature to document their agreement to participate in the study.

Once all responses from the participation selection tool have been received, criterion sampling will be employed to select participants that are currently enrolled at AVCC either full- or part-time, are at least 18 years of age, have completed or are currently enrolled in at least one remedial course and its college-level counterpart, and indicated that they would be willing to answer a survey, participate in an interview, and further document their experiences through journaling. Maximum variation was used to support participant selection in order to ensure that the sample chosen is as diverse as possible, including factors such as enrollment status, age, gender, campus location, major, race, and ethnicity. The individuals selected received an email containing a link to the survey as well as a Microsoft Bookings link to be used to schedule the day and time of their interview. The email will also inform these individuals that the survey should be completed and the interview scheduled within 72 hours. A copy of this email is located in Appendix F. If a response was not received within 72 hours, I contacted the participant directly by phone and/or email to verify participation and schedule the interview. The number of participants needed will depend upon the point to which saturation occurs (Yin, 2018) although the number of participants will be no fewer than 10 and no more than 25 per the recommendation set forth by Creswell (2018) regarding qualitative research. Selected participants will be informed that their participation will remain confidential for the research and pseudonyms will be provided for them.

All of the specified procedures will be followed for the act of participant selection. Since criterion sampling is utilized, participants for this qualitative case study will be AVCC students that were required to complete or are currently enrolled in at least one remedial education course as a result of their placement test score(s) or refusal to complete a placement test. Convenience

sampling will be conducted through the use of retrieving lists of students who have met the criteria of being a currently enrolled student, having completed or currently attempting at least one developmental education course, at least 18 years of age, and who have signed a form indicating that they have been informed of the nature of the study and consent to participate. Participants will also be informed that they may withdraw their participation at any time.

Procedures

Before any data for this research study was collected, permission from the site and Liberty University's Institutional Review Board (IRB) was obtained (see Appendix G). Site permission was also received from AVCC's Vice President of Academic Affairs (see Appendix H). The Vice President of Academic Affairs of AVCC was the appropriate authority for the study to ensure that the college and participants were protected. IRB approval was needed to confirm that all necessary institutional, legal, and regulatory protocols were followed.

After receiving IRB approval from both institutions, a participant recruitment email was sent to AVCC's coordinator for Planning, Research, and Assessment. The body of the email included a brief description of the study, participant responsibility, and a link to access the electronic participant selection tool. On my behalf, AVCC's Planning, Research, and Assessment coordinator then sent the email to the student body's AVCC email accounts. Criterion sampling was used to ensure that all potential participants were actively enrolled at AVCC, of at least 18 years of age, had already completed or are currently enrolled in at least one remedial course. All responses received remained confidential except for those completed by individuals that agreed to move forward with the study by completing a survey, being interviewed, and maintaining a journal. Those individuals were asked to provide their names, phone numbers, and preferred method of contact in order to complete further acts of data collection. Each individual was

notified that pseudonyms would be assigned to them and to the college to protect their privacy and maintain confidentiality. A statement of informed consent was included at the end of the participant selection tool. Each consenting individual was required to digitally sign the statement of informed consent.

I created a list of each person who agreed to complete a survey, participate in an interview, and journal to document their experiences with college remediation. This list also included factors such as age, major, ethnicity, full-time vs. part-time, discipline in which remediation was completed, home campus, and mode of remediation delivery (online, hybrid, desktop video course, or conventional) to allow for the most diverse sample. This list is located in Appendix I. Participants were selected based on the responses provided within the participant selection tool regarding their attitudes and perceptions of remediation's impact as well as their willingness to complete a survey, participate in an interview, and maintain a journal to fully express their attitudes and perceptions toward their college remediation in a more in depth and detailed fashion.

Students who agreed to participate in the research study were notified that they had been selected as a participant (see Appendix F) via email. I sent the email to the address that each participant provided as a preferred method of contact in the participant selection tool. The email contained a link for each participant to use to move forward with data collection by completing the electronic survey. Participants were advised of the deadline for survey responses, reminded that their identities would remain confidential, and encouraged to be as honest and open as they felt comfortable in providing their responses. The survey (Appendix J) included questions that expanded upon the demographic responses that participants provided in the selection tool, such as how long they had attended AVCC, which discipline(s) their remediation was for, and how

many remedial courses were required of them. Other questions were open-ended to allow each participant the opportunity to respond in a more personal manner with regard to their own perceptions and experiences.

The participant selection email also included a Microsoft Bookings link that each participant was instructed to use to schedule their interview after completing the electronic survey. Due to safety concerns related to the COVID-19 pandemic, participants were afforded the option of attending their interview in person or via Zoom video conferencing software. If a participant was unable to use the Microsoft Bookings link or could not find an available day and/or time that would be convenient for their interview, I asked them to let me know via email so that an alternative appointment could be made.

Before beginning the interview, each participant was reminded that their interview would be audio recorded as stated in the consent form that was signed upon completion of the participant selection tool. I also informed the participants that their interviews would be transcribed and that a copy of the transcription would be sent to the email address they provided in the participant selection tool within two weeks. I explained that the interviews would be recorded and transcribed for the sole purpose of ensuring accuracy in data collection and that their responses to the email were required in order to confirm the accuracy of their responses as presented in the transcription. Participants were advised that they would have the opportunity to provide any clarifications and/or adjustments that they felt may be needed. The participants were once again reminded that all data obtained from them would remain confidential. When the participants acknowledged that they understood and were ready, the recording was started and the interview began.

Immediately following their interview, each participant engaged in a brief meeting

during which the requirements for their journal entries were discussed. Participants were given the opportunity to ask questions or share any concerns that they may have had regarding their participation in the study. Participant were asked to choose between maintaining a digital journal or a traditional handwritten one. I told each participant that I would provide them with a journal if they preferred to document their experiences by hand. The body of an email, Google Docs, and Microsoft Word were discussed as options for digital journaling. I told the participants that they could request to keep their journals or request copies of their entries at the study's conclusion.

The Researcher's Role

The present qualitative case study consists of personal interviews with community college students who have already completed or are currently enrolled in at least one remedial course due to scores from placement tests such as the ACT, SAT, or Accuplacer. The study will also consist of personal journal entries made by community college students who have already completed or are currently enrolled in at least one remedial course due to placement policies. Students may also be assigned to remedial courses for other reasons. For instance, if a student has no test scores on file or if their test scores are more than five years old and they refuse to take another placement test, they are automatically assigned to remediation at the lowest tier as if each discipline were required due to the lowest achieving test scores. In the present study, the researcher will serve as the instrument that will be utilized to gather and interpret data in this qualitative research study (Creswell, 2013). In the role of the researcher, I understand that I hold certain biases and assumptions that may influence the way in which I will approach the current study. So that the validity of the findings yielded in the current study can be ensured, I have acknowledged these assumptions and biases and present them here. The first assumption is that, for personal reasons, community college students with remedial placement in a single discipline

will not view the intervention as being effective. The second assumption is that substantial time and financial cost is inflicted upon community college students that have been assigned remedial coursework in more than one subject area.

I currently serve as the academic advisor for one of the divisions at AVCC. I routinely correspond with incoming and continuing students within my division, potential students, transfer students, and students who are interested in changing their majors to one of those found in my division. These interactions occur in person, over the phone, via email, video conferencing software, or through the use of a texting software platform. Further, I frequently meet with students who have been assigned to remedial courses and often have to explain why they must take these courses or what may be done to attempt to be exempt from having to complete the process. Students are typically dismayed with the remediation policy and share their frustrations with me. This is a position that I have held for several years and, as such, am quite close to AVCC and the needs of its students which creates the potential for bias. As an academic researcher, it is essential that no such biases influence my study. To reduce bias, Yin (2018) suggests member checking and triangulation of data, both of which were implemented in the study. Interviews were transcribed and participants engaged in member checking by reviewing the transcriptions and clarifying responses, providing additional details, or confirming responses as they had been transcribed. Data triangulation will also ensure that the data yielded is cohesive and supportive across more than two sources. Yin (2018) also recognizes that, once removed, biases similar to my own have the potential to yield more thorough data as a result of the researcher's familiarity with the case. I did not hold any type of authority over the participants of the study. The personal experiences that I had as a college student with remedial placement also influence my attitudes. Regardless, as a researcher, all biases and assumptions are presented in

order to conduct the current study honestly and professionally. I will try to overcome these biases by using multiple sources of evidence, maintaining very detailed data, and through testing and anticipation of rival explanations (Baškarada, 2014). Further, presentation of the data is as such so that the reader will be able to employ their own personal judgment with regard to interpretation and make their own independent conclusions (Yin, 2018).

Data Collection

The data collection methods employed for the study include the participants' survey responses (see Appendix K), audio recordings of independent interviews between the researcher and the participants, and journal entries compiled by the participants. Responses received from a survey with open-ended questions allowed me to gain a base understanding of participants' general attitudes, opinions, and experiences about the topic of college remediation (Creswell & Poth, 2018). Individual interviews enabled participants to provide their own opinions and points of view regarding my questions and also assisted me in managing lines of questioning (Creswell & Creswell, 2018; Creswell & Poth, 2018). Journal entries gave participants the opportunity to reflect upon their perceptions and attitudes in a more personal manner (Yin, 2018). Each form of data collection that was utilized in this study served as a valuable resource to researchers as each method may align with the others, support participants' responses or call certain responses into question, and prompt more significant lines of questioning (Creswell & Creswell, 2018; Creswell & Poth, 2018). Data was methodically obtained. Once the participants had been chosen, the first step in data collection was to send an electronic survey to each student. Following completion of the survey, participants' interviews were scheduled. After the interview, participants began journaling. An audit trail (see Appendix L) was created and maintained throughout the study's period of data collection.

Surveys

The first step in the data collection process was to gather responses received to an online survey prepared by the researcher. All students identified as potential participants received an email that contained a brief overview of the study, a hyperlink to the survey, and a Microsoft Bookings link for the participants to use to schedule their upcoming interview. The survey (see Appendix J) was developed using Qualtrics. The email also disclosed the expectations set forth for each participant and a deadline for receipt of their responses. This step allowed me to gain an understanding of participants' basic opinions and viewpoints before progressing to the recorded interview in the next step of data collection. Since the survey was web-based, participants were permitted to access and submit their responses at the time and in the setting of their choice. This also provided encouragement for participants to disclose more personal information in an environment that may be less formal or structured than that of an individual interview (Patton, 2015). As the research study was completed at AVCC and with current AVCC students, questions five, six, nine, and 10-14 were focused exclusively on the institution's policies for remedial placement, progression, and completion. This was done so that participants could provide their unique perceptions and understanding of such factors. Open-ended questions were formulated to ensure that participants could fully describe their perceptions, attitudes, and experiences. The use of open-ended questions also gave me a more thorough understanding of why such attitudes may exist. In the email, participants were advised that completion of the survey would take approximately 10 to 15 minutes of their time. After using the link provided in the email, participants were directed to the survey and asked to provide responses to the following questions:

1. How long have you been a student at AVCC?

2. How many Learning Support courses have you been or are you required to complete?
3. How many Learning Support courses have you already completed?
4. Explain why you were/are required to complete Learning Support.
5. Identify any AVCC individuals that you have worked with regarding your Learning Support Courses.
6. Explain why you worked with that/those individual(s) for your Learning Support course(s) and how you felt about the interaction.
7. Identify the individual that first informed you that you would have to take Learning Support Courses.
8. Please explain how you felt when you learned that you would need Learning Support.
9. According to the Tennessee Board of Regents, the purpose of Learning Support placement is to: “[reflect] the commitment of The College System of Tennessee and its institutions to enhance access to and success in post-secondary education for all students. The policy presents the parameters for the delivery of academic support made available for students who may require additional assistance for developing competency in reading, writing, and/or math needed for success in college level courses.” Do you believe that this policy provides the support that students need to be successful in college?
10. Please explain why you believe that TBR’s remediation policy provides the support that students need to be successful in college.
11. Please explain why you believe that TBR’s remediation policy does not provide the support that students need to be successful in college.
12. Please explain why you are unsure whether or not TBR’s remediation policy provides

- the support that students need to be successful in college.
13. Explain how you feel about the financial cost(s) of your Learning Support course(s).
These costs may include tuition, textbooks, classroom materials, lab/access fees, or other factors.
14. What changes would you make to TBR's current remediation policy and why?

Interviews

Individual interviews are a beneficial source for researchers because they provide in-depth information related to the perspectives of the participants in a conversational format (Patton, 2015; Yin, 2018). After completing the electronic survey, participants were asked to schedule their interviews by using the Microsoft Bookings link provided in their email. Participants were advised to email me to schedule their interview if they were unable to use the Microsoft Bookings link or if none of the available scheduling options were convenient for them. Participants agreed to have their interview recorded in the consent form provided at the end of the participant selection tool. Participants for in-person interviews were given the choice of having their interview conducted in my on-campus office or in a reserved conference room on one of AVCC's other campuses. In the participant selection tool, participants were asked demographic questions regarding age, gender, ethnicity, home campus, major, enrollment status, and which discipline(s) their remedial placements were in. Participants were selected to be representative of a variety of these factors in order to present a diverse sample. Due to precautions regarding the COVID-19 pandemic, participants were also given the option of attending their interview virtually through the use of Zoom video conferencing software. In-person and virtual formats were selected to ensure that the participants and I could communicate face-to-face as much as possible while also supporting the level of comfort for each participant.

Recorded interviews ensure accuracy and validity with regard to the study and participants' responses in a way that is superior to traditional notetaking (Yin, 2018) and this was discussed with each participant prior to the start of their interview. Participants were advised that their interviews would take about one hour of their time and that their interview will be transcribed and later presented to them to ensure accuracy and provide them with the opportunity to make clarifications, corrections, and acknowledge validity (Creswell, 2013). In-person interviews would be recorded with an audio recording device whereas virtual interviews were recorded through features within Zoom.

Participants were also informed that they could decline to answer any questions that they were not comfortable with. Similarly, I explained that they could remove themselves from the study at any time. I asked open-ended questions in order to allow the participants to fully disclose their individual points of view and personal experiences (Patton, 2015). The following open-ended questions were asked during the interview:

Standardized Open-Ended Interview Questions

1. Please introduce yourself and tell me a little more about yourself, as if we've never corresponded with one another before.
2. How long have you been a student at AVCC?
3. In your survey, you stated that you have completed or are currently enrolled in Learning Support for (disclosed subject area(s)). How did you feel when you found out that you would have to complete the additional coursework?
4. How would you describe your ability to face challenges and overcome them?
5. How do you see your remedial placement(s) being related to your major or career goal?

6. What kind of impact do you think that requirement has had upon you with regard to your career goal?
7. How has your remedial placement influenced your attitude toward higher education?
 - a. If needed, clarify that this could be specific to the institution, a person's ability to obtain an associate's degree, progress to a four-year institution, enter the workforce, etc.
8. How much time do you think was added onto your college career because of your Learning Support class(es)?
9. How much money do you think that your Learning Support class(es) cost you?
10. How challenging do you believe that your Learning Support course(s) was/were?
11. What do you think about the level of support that you received in your Learning Support class/classes?
12. How challenging would you say that the related college-level course(s) was/were in comparison to the Learning Support counterpart(s)?
13. Without having completed the Learning Support coursework that was assigned to you, what do you think the likelihood of completing its related college-level course(s) would have been?
14. What kind of interactions have you had with college faculty and staff regarding your Learning Support requirement(s)?
15. How would you describe your overall experience with Learning Support coursework?
16. How would you define "academic achievement"?
17. At this point in your college career, what would you say has been your greatest academic achievement?
18. Presently, how do you think your academic achievements compare to those of your peers?

19. How do you feel about the remedial coursework that you've done as far as effectiveness is concerned?
20. How do you think that AVCC should approach students who may need remediation in the future?
21. We've covered a lot of ground here and I certainly appreciate your time and commitment to this study. To conclude, what else do you think would be important for me to know about how you feel about remediation or how it has affected you?

The first three questions were considered knowledge questions and were designed to function as follow-up questions to the provided responses that were previously created and submitted by the participants through the online survey (Patton, 2015). These questions were straightforward, casual, and intended to assist in the creation of a safe environment in which I could build and establish a rapport with the participants (Patton, 2015). These questions were adjusted as necessary for some participants, depending upon the data that was disclosed in each individual's survey.

Similar to question three, the fourth question required the participants to reflect upon their individual attitudes and perceptions. Question four is more intimate in nature as the participant was asked to recall previous experiences in their lives and describe how they viewed themselves and their own abilities when it came to facing challenges. Questions five, six, and seven considered how the student perceived the impact of remedial placement on themselves initially as well as its impact upon the professional goals that they may have set for themselves. These questions required the student to reflect upon the moment that they became aware of AVCC's remedial placement policy and how they felt about its direct application to themselves. These questions also correlate with Knowles' (1978) adult learning theory in that adult learners

need to understand how certain content is of immediate use or relevance to them. Understanding the student's attitude toward the college's placement policy as it specifically pertains to them also goes along with Boatman and Long's (2018) research which suggests that students at the lowest level of academic preparation will find remedial courses to be useful and associate their experiences with positivity. These four questions also address the second research question.

Questions eight and nine continued to address the second research question by exploring students' attitudes and how they had perceived the impacts of remedial placement as it pertained to the college's implementation of the policy. These questions particularly align with research by Thomas (2017) which argues that students in remedial courses can be more successful and report more positive outcomes when they actively engage with support services provided by the college outside of the classroom, such as regular meetings with advisors, counselors, or tutors. These three questions explored the participants' understanding of the college's remediation policy as well as their knowledge of support services that may have been available to them. These questions also coincide with research by Relles and Duncheon (2018) who reported that students' personal feelings about the culture of their college and its staff can influence their attitudes toward their coursework and higher education as a whole.

Still delving into the second research question, questions eight and nine were focused on the participants' perceptions of how their remedial placement impacted the amount of time that they intended to be in college as well as the amount of money that they expected to spend on their college educations. Question eight aligns with research by Fass-Holmes (2016) and Turk (2019), who posit that students who are required to complete developmental coursework spend significantly more time in college than their non-remedial peers because they must complete additional courses or series of courses before being permitted to enroll in their college-level

requirements. Students' perceptions of any extensions of time can reflect on their understanding of the college's placement policy and attitudes toward the college in general. Question eight provided a natural parallel to question nine considering that taking more courses in college requires more money. Question nine also correlated with findings from Gonzalez et al., (2019), Barry and Dannenberg (2016), and Dowd (2020) who have all suggested that remedial courses place significant financial burdens on students, their colleges, and taxpayers. The participants' perceptions of any additional costs incurred by their remedial placement could also influence their attitudes toward the policy, college climate, or effectiveness.

Questions 10, 11, 12, 13, 14, and 15 focused on the participants' personal experiences in their remedial courses. Question 13 began by gauging each student's notion of how difficult they perceived their remedial course(s) to be. This question is specifically tied to research by Boatman and Long (2018) who argue that remedial coursework is of great benefit to students at the lowest levels of academic preparation. Participants who feel that their remedial courses were quite challenging may also have a more favorable attitude toward the effectiveness of the intervention. Likewise, those who felt that the remedial course was incredibly easy may have also believed that it was a waste of their money and time. Question 14 was built upon the previous question and asked participants to reflect upon the level of difficulty in which they found the college-level counterpart course in comparison to their remedial course. This question was asked so that participants could recall the progress they made by examining and evaluating their own experiences (Rossman & Rallis, 2017). Question 15 provided participants with the opportunity to expand upon their previous responses. The question required the participants to make a direct comparison between a remedial course and a college-level course in terms of content and demand, which may also have influenced their attitudes toward and perceptions of

their need for remediation. This question aligned with research by Ngo (2018) who found that a majority of students assigned to remediation, particularly in math, could have passed a college-level math course without having first completed a remedial course. Question 16 required participants to reflect upon their overall experiences with college remediation and share their perspectives on the process as a whole. This question permitted a deeper understanding of what the participants learned through their experiences (Rossman & Rallis, 2017). These four questions addressed the first research question.

Questions 17 and 18 focused on the concept of academic achievement and addressed the third research question. Question 17 expanded upon question 16 by taking the participant's personal definition for the term "academic achievement" and directly asking the participant to reveal their greatest academic achievement to date. These questions illustrated a participant's sense of self-awareness and may have also reflected their feelings toward the climate and culture of the college (Relles & Duncheon, 2018; Thomas, 2017). Question 18 encouraged the participant to consider the perspective of others, which is often considered to be beneficial in the act of obtaining other forms of awareness (Patton, 2015).

Question 19 provided participants with the opportunity to give their thorough opinion on how effective they found college remediation to be. This question allowed participants to recall all prior questions and responses with regard to their individual experiences in order to summarize their judgment. Question 20 expanded upon the previous question by having participants consider how remediation may affect future students as well as how they feel the college should go about developing and implementing remedial placement policies. These questions provided insight to the short- and long-term impacts that remedial placement had upon the participants. Both of these questions also supported research from Kolesnikov et al., (2019)

who have researched outcomes at colleges in which remediation is optional. These questions addressed the third research question.

Question 21 succinctly concluded the interview in two parts. First, the question verbally acknowledged my appreciation of the participants' time and continued the positive rapport between each party (Patton, 2015). Secondly, the question allowed each participant the opportunity to reflect upon all of the previous questions, the responses that they provided, and their overall experiences in order to provide any additional information that they felt may have been beneficial to the study (Rossman & Rallis, 2017).

Journal Entries

Participants were also asked to complete a series of journal entries in which they would respond to prompts to actively describe their attitudes toward, and perceptions of, college remediation. Journal entries are useful in qualitative research and allow participants to share their detailed thoughts through writing or drawing in a comfortable setting of their choice (Clayton & Thorne, 2000; Yin, 2018). Participants had the choice of maintaining a physical journal to return to the researcher when completed or responding electronically by typing their journal entries and emailing them to me. If a participant elected to use a physical journal, I provided it. If a participant elected to journal electronically, they were asked to send their responses to me by email.

Each participant maintained a journal in which they described their perceptions and attitudes toward their experiences with remedial courses in a total of eight prompts. Participants who were currently enrolled in a remedial course reflected upon their experiences after each meeting of their remedial and/or related college-level class for four weeks. Participants who had already completed their remedial course assignments were asked to reflect upon their

experiences to the best of their recollection. All participants were informed that their entries were expected to be no less than one paragraph comprised of at least three sentences but could surpass that requirement if they wanted to expand their responses. Participants were also permitted to support their written responses with illustrations and/or emoticons if they felt like a drawn or digital image could provide clarity or better articulation of their words. These prompts focused on the participants' attitudes toward having been placed in a remedial course and later elaborated on how they perceived the value of the remedial course as it may have related to financial costs, time to completion, and general effectiveness. I understood that the participants' perceptions of value could have evolved as they were exposed to more content over the course of four weeks. Participants who already completed their remedial course and were currently enrolled in its college-level counterpart or a related course may have perceived the value of remediation as it is directly applied to the content that they were undertaking at the time. Participants who were in the process of completing remediation co-requisitely may have perceived the value of remediation with an immediate comparison to its college-level counterpart. Participants who had not completed a remedial course but were enrolled in one pre-requisitely may not have had a present perception of the value of remediation but may have had ideas of how it could be valuable to them in future courses or within the career path they are pursuing.

I reminded all participants that they could opt out of the study at any time and any data obtained from them would be destroyed and excluded from the study. Participants were notified that they could request physical and/or digital copies of their journal entries for their personal records. Participants were also invited to discuss the journal prompts with me at any time if clarification or further direction was needed.

Yin (2018) states that one of the most vital uses of documents in qualitative research is to corroborate and amplify evidence obtained from other sources. As such, the data obtained from document analysis was used to either contradict or corroborate the data obtained from survey responses and interviews to achieve triangulation. In the event that contradictions were present, I would be able to investigate the problem more thoroughly. Participants completed two journal prompts each week for four weeks. The journal prompts were as follows:

Week One

1. If you are currently enrolled in Learning Support course(s), describe how you felt about the course(s) after your first week of enrollment. If you are not currently enrolled in a Learning Support course but have already completed at least one, recount how you felt about the course after your first week to the best of your memory.
2. Explain the concerns that you feel/felt about having to complete Learning Support. Concerns may be academic, personal, financial, professionally, emotional, etc. If your concerns are/were related to multiple aspects, please explain how your feelings are/were related to each one.

Week Two

3. After reviewing the list of courses required for your major, explain the significance of completing your Learning Support course(s). If you do not believe that Learning Support is important for your major, explain why.
4. Describe how you feel/felt about your Learning Support course when compared to a college-level course. The college-level course may be one that was paired with Learning Support or one that is outside of your Learning Support's subject area. Feelings may include but are not limited to time, content, skills, learning strategies, finances, or significance. If your feelings affected more than one factor, please address each one.

Week Three

5. Recall the financial costs that you have faced as a result of being enrolled in college thus far as well as those you expect to face in the future. Explain how your experiences with Learning Support are related to these costs.
6. Students typically expect to spend between 2-3 years to earn their associate's degree. Compare the academic plan for your major with the progress that you have already and/or are currently making toward earning your degree and describe how your Learning Support course(s) relate to your academic plan. Detail how/if Learning Support added, reduced, or made no difference in your expected time to completion and how you feel about the impact.

Week Four

7. If you have already completed a Learning Support course, identify any specific materials, activities, content, assignments, lessons, etc. that you found to be particularly beneficial to you and why. Benefits may be directly applied to other courses, personal situations, professional experiences, your status as a college student, or any other part of your life. If you have not completed a Learning Support course but are currently enrolled in one, identify how you feel that your Learning Support could or will influence any of the specifics previously listed and why.
8. Reflect upon your experience(s) with Learning Support and describe how effective you perceive it to be. Effectiveness may include whether or not you believe you could have passed its college-level counterpart without it (math < statistics, college algebra or higher; reading < public speaking; writing < English I), learning new material, concepts, or skills that you found to be useful for other courses, in the personal/professional aspects of your life, as a college student, etc. If your experiences make you feel like Learning Support was ineffective, address the previously listed factors or include any others.

Although each journal prompt addressed the central question of the study, others specifically targeted the three sub-questions. Prompt one focused on the central question as it may have been experienced from the angle of an individual at the beginning of their college career. Built upon the previous prompt, prompt two had the potential to address all questions as it was very open-ended and allowed participants to consider their initial perceptions of remediation on personal, academic, and/or financial levels. The third prompt related to sub-questions two and three. This prompt encouraged participants to contemplate how their time in remediation had affected, or could have affected, their collegiate experiences with consideration given to any changes that may have happened in time to completion and/or their own ideas of academic achievement. This question also required participants to recall or utilize information published by AVCC which could have also revealed participants' underlying impressions of their programs of study. Similar to prompt two, the fourth prompt asked participants to explain how their experiences with remedial courses may have influenced factors within their lives that they may or may not have anticipated. Such factors included finances, time to completion, college GPA, or the degree to which knowledge presented in a remedial course could have benefited other areas of their lives. The fifth journal prompt directly addressed the first sub-question as it served to explore participants' perceptions and levels of understanding with regard to any financial costs that may have been incurred due to their remedial course assignments. Prompt six concentrated on the second sub-question and asked participants to consider how, or if, remediation impacted the amount of time that they expected to be in college and/or complete an associate's degree. The sixth prompt also directed participants to review their individual academic plans and analyzed their feeling about remediation when compared to the degree or career they were ultimately pursuing. Prompts seven and eight required participants to thoroughly reflect upon their past

and/or present experiences with college remediation and apply those experiences to other areas of their lives. Participants were asked to recall their experiences and apply them to their own personal, academic, or financial situations. The final week's prompts required participants to describe the degrees to which they found remediation effective from their individual points of view.

Data Analysis

Data analysis is necessary to identify patterns, themes, insights, and assure that all obtained data is promising (Yin, 2018). Data analysis for this study began with data collection and was maintained for the duration of the study. The responses to the electronic survey, interviews, and journal entries were analyzed, coded, and synthesized (Creswell & Creswell, 2018). These findings were used to gain a greater understanding of how community college students perceived the impact of their required remediation.

Data analysis began with the responses obtained from the electronic survey. These responses (Appendix K) provided me with a greater understanding of the population of AVCC students with remedial placement and was necessary to ensure the most diverse sample. This information was also used to drive the interviews as well as the journal prompts.

I recorded and transcribed all interviews. Transcribing interview data is vital for qualitative data analysis because it allows the researcher to be able to analyze and code the information obtained from each participant. When I finished the transcriptions, I reviewed each one and made corrections as needed. After that, I contacted each participant by email and included a copy of their interview transcript as an attachment. An example of a transcribed interview is found in Appendix M. In the body of the email, I requested that each participant

review their transcript for accuracy and to notify me if they wanted to clarify, adjust, or elaborate on their responses.

Data analysis also utilized coding. During this process, data was organized into general themes that were obtained from the participants' surveys, interviews, and journal prompt responses (Saldaña, 2015). This process was utilized in order to identify and generalize any themes that may have been presented by closely examining the data and making comparisons for differences and similarities (Saldaña, 2015; Strauss & Corbin, 1998). I began this process by considering the use of unique methods to sort the data and provide the potential of establishing new perspectives. Yin (2018) suggests classifying event frequencies, creating flowcharts, sorting information chronologically, and other ways of displaying data for such needs.

I was the primary instrument for data collection in this study. As such, I reviewed data multiple times while also utilizing coding and taking notes throughout the data collection process to categorize any emerging themes and patterns (Creswell, 2018). Data from each of the three sources was transcribed and entered into Nvivo, a qualitative analysis program. Nvivo was used to analyze, code, and categorize the collected data. Data may be categorized by interpretation, raw data, and personal reflections (Creswell, 2018). Nvivo was useful in categorizing the data, but I reviewed the program's analyses to identify any emerging themes or patterns. The enumeration table used is included in Appendix N. Yin (2018) identifies pattern matching as an exemplary method of qualitative data analysis.

This study focused on participants of a single institution, AVCC. Although the participants' attitudes toward remediation varied, it should be noted that the feelings they expressed were reflective of their experiences at AVCC. The students' perceptions were the primary focus but, being the greater case, AVCC is also included. It is important to outline each

method of data collection so that any future studies may be aware of each source used. All documents collected for data analysis were labeled with identifying data including the source and the date it was received in order to accurately track the data and set up an audit trail (Appendix L). Grouping data also helped me to identify any emerging themes or patterns and achieve triangulation (Yin, 2018). A visual depiction of the relationships between the case, participants, and methods of data collection is presented in Figure 1.

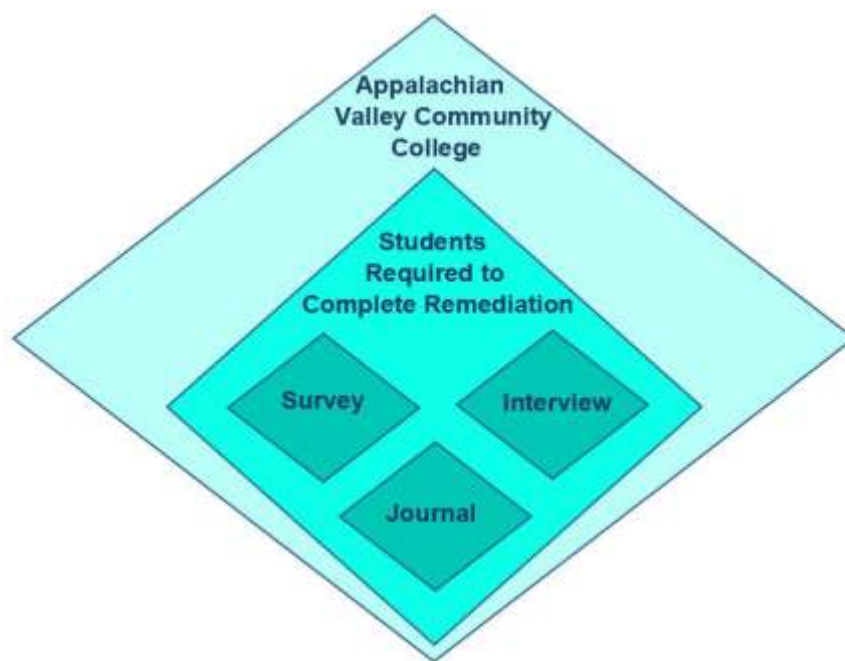


Figure 1. Data obtained from participants' survey, interview, and journal responses was triangulated, analyzed, and reflected to the greater case of AVCC.

Trustworthiness

Trustworthiness is a comprehensive term that is issued to describe credibility, confirmability, dependability, reliability, and validity (Frederick, 2008). Patton (2015) posited that the establishment of trustworthiness is vital to a researcher's efforts to instill credibility to findings. Further, the aspects of confirmability, dependability, and transferability are clearly tied

to the validity of the research. Since the purpose of qualitative research is rooted within the specific description and themes developed in the context of a specific site and phenomenon the value of trustworthiness regarding the researcher as is related to the identified themes provided is imperative (Creswell & Creswell, 2018). A benefit of case study research is that it provides the opportunity to use multiple data resources (Yin, 2018). Multiple data sources assist the researcher in the act of building sophisticated descriptions of the feelings and perceptions of all participants, which further supports the value of trustworthiness within the current study (Carnine, 1985).

The establishment of trustworthiness is imperative in all efforts to promote credibility to findings within research (Patton, 2015). Further, such actions possess specific impacts upon the validity of the research. It is because the value of qualitative research is found within specific themes and descriptions of a particular context that the trustworthiness of the researcher is vital (Creswell & Creswell, 2018). Case study research provides the opportunity for researchers to utilize a multitude of data resources (Yin, 2018). Dependability and confirmability are similar to reliability in quantitative studies and deal with consistency, which is addressed through the provision of rich detail regarding the context and setting of the study.

Credibility

Credibility refers to the certainty of assurance that can be placed in the validity of the findings yielded from the research (Lincoln & Guba, 1985). Credibility of this study was established through several different techniques. Multiple methods for data collection and analysis was utilized. Participants were selected to represent all of AVCC's campuses and a variety of majors. Each participant was required to have completed at least one remedial course at AVCC or be presently enrolled in a remedial course per the college's placement policy. This

provided each participant with the experience needed for me to explore the perceived impact of remediation.

Survey responses were collected electronically so that I could maintain accuracy through participants' written responses. With participant approval, interviews were recorded with an audio device so that I could revisit each participant's interview session and ensure validity of given responses to support the results of the study. Further, each participant was subject to member checks so that I could ensure that the provided responses were valid and accurate. These member checks also prevented me from making unintended interpretations and provided additional support to the validity of participants' responses to the survey and interview questions.

I utilized the process of memoing during the analyses of the participants' survey and interview responses. These memos permitted me to reflect upon personal observations made during each participant's interview. Each memo was kept in the file folder of the respective participant. I also notated if the memo was made as a result of my personal perspectives or in reference to participants' responses in order to gather additional information or obtain clarity for data analyzation. All file folders were maintained in a locked filing cabinet that only I had access to.

Dependability and Confirmability

Dependability refers to the condition of consistency throughout the research study (Korstjens & Moser, 2017). Dependability was addressed in this study as all processes were thoroughly described so that future researchers could accurately replicate it in further studies. This also permits future research to verify the consistency of this study and ensure that researchers do not misinterpret data or make misguided interpretations.

Confirmability relates to the facet of neutrality (Korstjens & Moser, 2017).

Confirmability was addressed in this study through the use of audit trails and reflexivity. Audit trails allow the researcher to make clear connections between trends, patterns, and emerging themes to the participants' perceptions and academic achievements as they relate to remediation. I also used emerging themes and responses from the participants to identify trends and patterns that existed between remediation and the participants' perceptions. Reflexivity was addressed through my personal experiences as they related to remediation and could potentially have caused biases or influenced the research process.

Transferability

Transferability involves the element of relevance and is often achieved through the use of rich descriptions of the research process, the study's participants, and the participants' experiences (Korstjens & Moser, 2017). Transferability was presented in this study as I provided thick, rich textual descriptions of the yielded findings in addition to the experiences of the participants and the context of the study.

Most colleges and universities implement some sort of placement policy for incoming students. The findings of this study could produce data that may aid college administrators and policymakers in the process of revising their current policies to better suit the needs of their students. While these needs may vary among institutions, detailed connections to any social or cultural contexts that may arise during the data collection process were included.

Ethical Considerations

The purpose of this study was not to divide AVCC students, faculty, or staff. Instead, the purpose was to understand the perspectives of students who had been tasked with remedial requirements and provide institutions of higher education with the information needed to develop

and execute plans for remedial education requirements. The participants of this study were not placed in any type of harm, retribution, or risk as it may have pertained to their student status at AVCC.

Ethical issues may arise in various stages of the current study, including data analysis, data collection, data reporting, foundation, preparation, preparation, foundation, sharing, and storing of data (Creswell & Creswell, 2018). In all efforts to limit and avoid ethical issues, approval from the Liberty University IRB (Appendix G) and AVCC IRB (Appendix H) was obtained. In addition, since the participants of the study were identified as adults, informed consent was acquired (Appendix E). In order to maintain the security and privacy of all participants, pseudonyms were assigned to each student. Any and all electronic files were password protected. Any necessary paper files or documents were kept in an existing locked cabinet. Such data will be destroyed after a minimum of three years. Considering all of the information obtained was of a sensitive nature, potential Title IX violations would have been reported to the proper authorities in the event of such an occasion.

Summary

The purpose of qualitative research is to investigate and comprehend the ways in which individuals perceive the rationale of specified situations or circumstances (Creswell & Creswell, 2018). Through the collection of data obtained through survey responses, a series of individual interviews, and academic records, this study intended to improve comprehension of the impacts of remediation as perceived by community college students in rural Tennessee. The data analysis method sought to acknowledge the perceptions of all sources, further examining any legitimate explanations, engaging with the most important features of the study, and also displaying an acknowledgement of contemporary knowledge regarding the subject (Yin, 2018). I have

provided detailed descriptions of this study's design, associated research questions, setting, participants, procedures, role of the researcher, data collection methods and analysis, trustworthiness and ethical considerations in the context of this study. Chapter Three offers a thorough examination of the stated research project.

CHAPTER FOUR: FINDINGS

Overview

The purpose of this single instrument case study was to understand mandatory remediation as perceived by community college students in rural Tennessee. The study involved students from one community college of varied ages, enrollment status, programs of study, campuses, and number of years enrolled. Chapter Four includes the study's results after completion of data analysis as described in Chapter Three. A short description of each participant is included so as to provide additional context and obtain a clearer understanding of each participant's attitude and mindset. Chapter Four also contains themes derived from the study and responses to each research question. The data yielded from this study will first be presented as themes and finally as answers to the research questions.

Participants

A total of 10 participants agreed to participate in this qualitative case study (see Table 1). All participants were students of Appalachian Valley Community College (AVCC) and presently enrolled either full- or part-time. Each participant was required to complete at least one remedial course as determined by AVCC's remediation placement policy chart (see Appendix C). Some participants had already completed the remediation requirements assigned to them whereas others were currently enrolled in at least one remedial course. Participants were required to complete a survey, an interview, and a series of eight journal prompts. A pseudonym was assigned to the study site and to each participant as a measure of confidentiality.

Table 1*Participants*

Participant	Gender	Age Range	Program of Study	Enrollment Status	Years Enrolled	Home Campus
Elizabeth	Female	18-20	Pre-Nursing	Full-Time	2	Central
Katie	Female	18-20	Business Administration	Full-Time	1	West
Dora	Female	21-25	Surgical Technology	Part-Time	3	West
Helena	Female	21-25	Nursing	Part-Time	3	Central
Brian	Male	26-30	Accounting	Full-Time	4	Central
Poppy	Female	26-30	Nursing	Full-Time	3	West
Jane	Female	31-35	LPN-RN Nursing Bridge	Full-Time	2	Central
Molly	Female	31-35	Surgical Technology	Part-Time	5	West
Lily	Female	41-45	Nursing	Full-Time	2	Central
Sybill	Female	46-50	Pre-Occupational Therapy Assistant	Part-Time	4	Central

Elizabeth

Elizabeth is a white female in her first year at AVCC. A traditional college student, Elizabeth is a Pre-Nursing major, attends AVCC's Central campus as a full-time student, and has a part-time job in retail as a customer service associate. She is interested in pharmaceutical advancements and intends to pursue a career in nursing. Her career goal is to become a pediatric nurse practitioner.

Elizabeth was required to complete remediation for reading at AVCC due to the ACT score she earned in that discipline. She said that an AVCC academic advisor was the first person to inform her that she would be required to complete remediation, which she said initially made

her feel “like a failure” because she was being told that her test scores “weren’t as great as [I] thought they were.” She participated in the State’s Seamless Alignment and Integrated Learning Support (SAILS) program while she was in high school but did not complete it. SAILS is a program that targets high school students with low and/or underperforming placement test scores in math and allows them to progress through a developmental math curriculum in their senior year. If successful, students may be exempt from having to complete remedial math in college. Since Elizabeth did not complete the SAILS program, her ACT scores placed her in developmental math along with reading and writing. In an attempt to challenge those placements, she decided to take the Accuplacer and was able to exempt herself from remediation in math and writing. Elizabeth successfully completed a conventional reading remediation course in her first semester.

Katie

Katie is a white female in her first semester of college at AVCC and attends the college’s West campus. She is a traditional college student majoring in Business Administration and is enrolled full-time. Her primary interest is creating digital art and she hopes to someday work for one of the nation’s largest technology development corporations.

Katie took the ACT twice while in high school, but neither set of scores met the college’s cutoff to be exempt her from having to complete remediation. Based on those scores, she was assigned to remediation in math, reading, and writing. Before the start of the Fall 2022 semester, she decided to take the Accuplacer at an AVCC testing center in an effort to challenge the placement determined by her ACT scores but did not earn scores high enough to exempt her from remediation in any discipline. Katie is currently enrolled in conventionally delivered

developmental courses in math and reading. If she is successful in reading class, she will complete remediation for writing co-requisitely with English Composition I.

Dora

Dora is a white female and has attended AVCC's West campus for three years as a traditional college student. She is in the college's surgical technology program, enrolled part-time, and recently began her clinical practicum. She enjoys spending time with her dog, fishing, hunting, and looks forward to graduating in Spring 2023 to begin her career as a certified surgical technologist.

Dora attempted the ACT twice and successfully completed Tennessee's SAILS program while she was in high school. Dora's test scores in English were high enough that she was exempt from having to complete the co-requisite remedial writing course with English Composition I. However, she was required to complete remediation for reading because her ACT missed the placement cutoff by one point. Her math score would have required her to complete developmental math, but she was exempt due to her participation in the SAILS program. Dora completed reading remediation in a conventional class in her first semester at AVCC.

Helena

Helena is a white female in her third year at AVCC and is a part-time, traditional student. She has taken courses on AVCC's East and Online campuses in the past but presently attends the Central campus where she has been admitted to the college's nursing program. She takes pride in her resilience and says that she has never given up on herself or her dream of becoming a nurse despite the challenges she has encountered along her academic journey.

Helena was home-schooled and never took the ACT or SAT. Instead, she completed the Accuplacer as part of AVCC's admissions process. Although she did well in the reading and

writing sections, Helena was disappointed in her math score. That disappointment led to frustration when an AVCC advisor informed her that the low score meant she would have to complete a developmental math class, stating “[It] made me feel like I was going to be behind” and “wasn’t smart enough for college.” Her feelings of frustration and disappointment eventually faded and she completed the hybrid course successfully in her first semester. Upon reflection, she acknowledged that the course was helpful and doesn’t regret the time she spent in it.

Brian

Brian is a white male presently enrolled in his fourth year as a full-time student at AVCC’s Central campus. He is majoring in Accounting and is set to graduate at the end of the year. He admits that he would have completed his program of study sooner had it not been for a change of major earlier in his academic career. In addition to being a full-time college student, he has two part-time jobs as a bookkeeper.

Brian made an appointment to take the Accuplacer shortly after applying for admission to AVCC and wasn’t surprised when the testing proctor informed him that his scores would necessitate developmental math. Brian said that his math score was very close to the cutoff for exemption and that the testing proctor advised him to take the test a second time to challenge that placement and test out of remediation. Brian said that he had been homeschooled and many years had passed since he was last in an academic environment. As a nontraditional college student, he declined to take the test again because he felt that the developmental math course could be useful in helping him progress through college. He successfully completed the remedial math course conventionally during his first semester.

Poppy

Poppy is a white female enrolled part-time on AVCC's West campus. She will be halfway through the college's nursing program by the end of the year. She graduated from high school more than a decade ago and immediately began post-secondary studies. Her high school guidance counselor explained that her ACT scores were low and would require her to complete remediation in math, reading, and writing. Poppy recalled feeling confused, inferior, frustrated, and insecure to the point that she questioned whether she was "smart enough to be in college."

Despite her feelings of doubt, Poppy stayed the course and successfully completed all of her developmental courses within her first two semesters at AVCC. Each of her remedial courses were completed in a conventional format. She continued full-time enrollment for a couple of years but eventually paused her academic career. Around seven years later, she returned to AVCC as a nontraditional student to pursue a career in nursing.

Jane

Jane is a white female enrolled full-time on AVCC's Central campus and is currently employed full-time as an LPN. She is in the college's LPN to RN bridge program and said that she is on track to graduate in a few months. Her academic career began more than 10 years ago when she completed a General Education Development (GED) program in her native state, Illinois. During that time, she has attended a few different institutions and experienced remediation in different states. Early on, Jane was required to complete a developmental writing class in Illinois due to her COMPASS score. Years later, she moved to Tennessee with her three children.

About two years ago, Jane decided that she wanted to advance her education by completing an LPN to an RN bridge program. She was told that she would need to complete the

Accuplacer as part of AVCC's admission process as she had been informed that her COMPASS scores had expired. Some of Jane's previously earned credits exempted her from having to complete remedial reading and writing at AVCC, but not math. She made an appointment to take the Accuplacer at AVCC. Her Accuplacer score was not high enough to exempt her from developmental math. She recalled feeling depressed about having to complete remediation because she is a nontraditional student and felt like the developmental courses were adding such a significant amount of time to her academic career that it would take her "five or six years to get a two-year degree." As a full-time LPN and mother of three, Jane was concerned about taking courses conventionally and enrolled in a web-based section of remedial math to provide more flexibility in her personal and professional schedules. She successfully completed the course in her first semester at AVCC.

Molly

Molly is a white female and attends AVCC's West campus as a part-time student. She initially enrolled at AVCC when she was 20 years old with the hope of becoming a teacher. She completed a couple of semesters but eventually had to pause her academic career. After about seven years, she decided to return to AVCC to pursue a career in healthcare. Last year, Molly was admitted to the college's surgical technology program and is said that she is set to graduate in a few months.

Like most students, Molly was required to complete a placement test upon admission to AVCC. Her scores required that she be placed in remediation for math. Although she had taken an Honors English course in high school, her scores placed her in remediation for reading and writing as well. She completed the courses conventionally during her first year but failed to see the value of the remedial reading and writing courses with regard to collegiate-level writing,

comparing the course content to that which would be expected of a “sixth-grader.” While she didn’t feel like the class was beneficial in terms of honing her writing skills, she said that it’s low-level of difficulty helped her ease into college life with less stress and develop a routine for studying and homework.

Lily

Lily is a white female in her third year at AVCC. She is a nontraditional student and stated that she is currently enrolled full-time. She attends the Central campus and is in AVCC’s nursing program.

Lily completed placement testing and met with a faculty advisor who informed her that she would have to complete remediation for math, reading, and writing. She also mentioned that she may have also taken a developmental writing course but couldn’t recall as it had been some time ago. She opted to enroll in conventional sections of remedial courses. She said that she wasn’t particularly surprised by having to complete remediation because she knew that she had been out of high school for a significant amount of time and felt that the developmental courses would be beneficial for her. Her feelings toward remediation changed once the courses began. Lily recalled feeling frustrated with the courses because she wasn’t learning anything new and thought the content was geared more toward what would be expected of a student in middle school, not college.

Sybill

Sybill is a white female and has attended AVCC for about four years. She is currently enrolled part-time on the Central campus, though she has taken classes in the East and Online campuses in previous semesters. She intends to pursue a career as an occupational therapy

assistant. Sybill is also the eldest participant in the study, having opted to postpone her college education until her sons were grown.

Sybill attended a private high school and had never taken a placement test until she enrolled at AVCC and completed the Accuplacer. Her scores placed her in remediation for math, reading, and writing, but she felt the courses would be helpful since she had been out of school for so long. She successfully completed the developmental reading and writing courses conventionally within her first year but has struggled with remedial math. Sybill stated that she has had to repeat the course so many times that she is no longer eligible to receive financial assistance awards to pay for the course. Throughout her attempts, she has enrolled in conventional and web-based formats of remedial math.

Results

All data obtained from the participants was analyzed and coded to establish answers to each of the study's research questions. Each participant's interview was transcribed and member checked to ensure accuracy before being coded. The words used by the participants were used as codes in the beginning of the coding process. These codes were then organized into themes which were characterized by the number of times that each code appeared. Appendix N includes an enumeration table that lists these codes, themes, and number of times that each code appeared.

Data obtained from participants' survey responses, interview transcriptions, and journal entries were analyzed and examined to develop themes. These recognized themes were then used to answer each of the study's research questions. Although they did not conform to any of the study's research questions, it is worth noting that additional themes emerged and warrant further consideration. The themes that emerged from the study are discussed below and include experiences in secondary education and value. Sub-themes were also included within each of the

primary themes. These themes developed as a result of participants' descriptions and words but gained traction with the number of times each word or description was repeated. With regard to their experiences in secondary education, participants specifically noted the occurrence of misinformation and consequences. The theme of value was more nuanced and extended to include participants' views of monetary value, the time spent in remediation, and whether the information presented in developmental courses was personally or professionally relevant.

Remediation is a Result of Subpar Secondary Education

The first theme began to materialize in participants' responses to the survey's open-ended questions. In the survey, seven participants associated their remedial assignments as having been a result of their experiences in secondary education and the quality of education that they perceived having received during that time. Throughout the data collection process, each participant linked their remedial course assignments to their experiences with secondary education in some capacity. All participants emphasized this theme when considering their own attitudes and perceptions toward mandatory remediation at the collegiate level during their interviews. The theme was emphasized further in participants' journal entries.

Participants who graduated from traditional high schools suggested that secondary educators should carry some of the blame for the number of incoming college students who are required to complete remediation. The participants recalled having classes in which they were not required to complete a great deal of work or had a teacher that was not actively engaged in the course or curriculum. Such a lack of engagement could mean that high school students are not being appropriately challenged in the classroom and thus, find themselves underprepared for college-level entrance exams and classes.

Brian and Sybill, two of the study's nontraditional students, felt that the quality of the education they had received at the secondary level had been insufficient. As a result, both were required to complete remediation but neither was surprised. Brian shared that he had been homeschooled but added, "I was homeschooled kind of poorly and I ended up getting a GED, so I didn't have a lot of the traditional education you'd expect to have before going into college" (Interview). Sybill attended a small, private, faith-based school and recalled that much of her high school curriculum had been centered around theology rather than the typical subjects one would expect to find in a public school.

Beyond the quality of teaching staff and curricula, secondary education also provides students with social experiences. Community college campuses tend to be smaller than traditional colleges or universities, but students who haven't experienced an academic environment to that degree may find themselves struggling. "I only graduated with like four people," Sybill said. "So I think I kind of got babied a little bit and that was tough for me coming into AVCC" (Interview). Like Brian, Helena shared that she had been homeschooled. Since she had never been in a traditional classroom setting, she did not know what placement tests were or the role that they would play with regard to her pursuing a college degree until she was required to have scores as part of AVCC's admissions process. To meet that requirement, she underwent Accuplacer testing but stated that no one from AVCC discussed her scores with her until she met with the academic advisor that she had been assigned to and registered for her first semester's courses. Helena said that she was didn't know what her advisor had been talking about at the time she was informed that she would be required to complete remediation in math, but she recalled feeling "inadequate" (Interview) and "not smart enough for college" (Survey) once she understood.

Misinformation

In discussing their secondary education experiences, participants also expressed the idea that they had been deceived by personnel from their schools. None of the participants said that they thought their school's personnel had ill intent when providing them with information about college, but they were still frustrated because they felt that their schools' faculty and staff should have known the correct information and intervened before they had graduated. Katie, Dora, Elizabeth, Molly, and Poppy recalled being surprised by their remedial placements because the information that their high school counselors had provided to them was quite the opposite of what they were being told by college personnel. Katie said that her guidance counselor had explicitly said that her ACT scores would exempt her from being required to complete remediation in college (Interview). Dora said that she didn't know why she had been placed in developmental math and reading and sought the answer from an advisor, who informed her that her ACT test scores did not meet the college's standards for college-level placement. Dora was "frustrated" by her placement because she had intended to earn her associate's degree in two years and felt that remediation had compromised that plan (Interview).

Elizabeth, Poppy, and Molly echoed Dora's feelings as each said that they had also believed that their test scores were acceptable because they had attended several meetings with their high school counselors and were never told that the scores weren't up to par. Elizabeth said that she was initially confused about her remediation placement because personnel from her high school had led her to believe that her ACT scores were good (Interview). Confusion turned to embarrassment as she began to consider the potential social implications of her placement, wondering what her family and friends might think of her if they knew that she had to complete remediation (Journal). In their interviews, Poppy and Molly said their placements had

contradicted their high school experiences. “I thought I did pretty well in high school. I was in the Beta Club,” Poppy said. Molly shared the sentiment, “I took Honors English, so I was kind of confused [about having remedial placement].” Adding to their displeasure, each felt that it was too late to retake the test because the registration window for college would close before they would receive their scores.

Katie, and Helena expressed more varied feelings about their educational experiences. Katie was the only traditional student to report that her placement had been expected as a result of her previous “experience with high school classes” (Survey) but also expressed that the news was a bit upsetting because she had been told by personnel from her high school that her ACT scores would exempt her from having to complete remediation (Interview). Like Brian, Helena was homeschooled and had not taken a placement test before she completed the Accuplacer as part of AVCC’s admissions process (Survey). AVCC’s remedial courses are referred to as Learning Support and Helena said that she was puzzled when she was informed that she needed Learning Support math since she didn’t know what a Learning Support course was (Survey). To a degree, that sense of confusion was shared by Brian, Sybill, and Jane. It is also worth noting that those four participants had not experienced a typical secondary education experience.

Consequences

Another viewpoint that was considered was the idea that students are placed in remedial classes as the result of certain actions or inactions. Participants mentioned that most high school students do not take their educations as seriously as they should. Their lack of maturity may be evidenced in the level of effort they put into their classes and preparing for high-stakes tests. Participants posited that many high school students who are required to complete remediation in college do not need the intervention and are assigned to those classes because they did not care

about their test scores or give a genuine effort to do well on the exam, which resulted in a low test score.

The notion that teachers in secondary education do not express the importance of standardized testing was also explored. Dora, Molly, and Poppy said that they were unaware of the consequences that they would face in college as the result of a low test score in high school and admitted that they did not take their time in secondary education as seriously as they should have, which each said they regretted. Dora believed that most high school students know the material on high-stakes tests, “but it’s just one of those things some people just don’t want to do so they just go in and, you know, kind of flunk it.” Poppy added that she believed high school students’ attitudes toward testing are generally flippant but would dramatically change if they realized how low placement test scores could affect their time in college. She also suggested that teachers should begin addressing test scores as early as a student’s freshman year rather than waiting until they are seniors. Molly supported Poppy’s view and admitted that she had rushed through the ACT because she was bored and wanted to leave. She said that she didn’t know the scores would follow her after high school graduation until she went to register for her first semester’s college courses and was informed that she had been placed in remedial courses as a result of her ACT scores. She believed that she wouldn’t have been placed in any developmental courses had she genuinely tried to do well on the test, but Molly took responsibility for her actions and said her only option was “to just roll with it.”

Value

The second theme to emerge from the data was value and was deeply rooted within all participants’ attitudes and perceptions toward college remediation. Throughout the data collection process, the participants considered the concept of value to be multifaceted. While the

monetary value of remediation was discussed, students' notions of value greatly extended to include constructs that were more professional and personal in nature, such as the time they spent in developmental classes, and if they deemed the instructional content to be personally or professionally relevant.

Monetary

With the exception of Helena, all of the participants reported that they had received some form of financial assistance that had been applied to their remediation expenses. The most commonly received forms of assistance that participants said they received were grants. The federal Pell Grant was often mentioned, though many participants referred to it by the acronym used for its application, FAFSA (Free Application for Federal Student Aid). Two state grants, Tennessee Promise and Tennessee Reconnect, were also mentioned. Tennessee Promise is a state-funded grant that covers the costs of tuition, books, and associated fees for eligible traditional students that have graduated from one of the state's public high schools and enroll full-time at one of the state's community colleges (Tennessee Promise, 2022). Tennessee Reconnect is a state grant that pays the cost of tuition for qualifying nontraditional students enrolled in at least six credit hours per semester at one of the state's community colleges (Tennessee Reconnect, 2022).

Elizabeth said that all of her college expenses had been covered by the Pell and Tennessee Promise grants. Dora received the same grants but mentioned that she had encountered some out-of-pocket costs for her textbooks. Katie acknowledged that she may have received similar awards but seemed uncertain about the actual source(s) of her funding in her survey as she wrote, "I got free money from the scholarships that paid for this year's tuition." When discussing finances in her journal, she said that she "had been paid by the school a couple

thousands” and utilized AVCC’s library and computer labs to curb costs for printing and internet access.

Brian, Poppy, Molly, and Sybill stated that they were recipients of Tennessee Reconnect. Brian stated that he had been responsible for some direct costs but expressed his appreciation for the monetary aid that he received and said that he would not have been able to attend AVCC without it. As an adult learner, he said that he had faced a drop in income because his work hours had been reduced to accommodate his school schedule but did not feel that remediation was solely to blame. Poppy, Molly, and Sybill had slightly difference perceptions of financial value due to having additional funding providers and incurred expenses. Poppy explained that she had been awarded a few scholarships when she initially entered AVCC as a traditional student but still incurred out-of-pocket expenses due to the stipulations of those awards. She wrote,

My parents still had to pay for some of it and it definitely wasn’t because our income level was too high. It was actually because the scholarships I got only covered classes listed on my degree plan’s audit, so the Learning Supports weren’t included. I don’t remember how much it was but I know my mom and dad had to set up a payment plan with the school. I don’t know if students now get those covered or not. I had to have an extra semester of classes on top of that before I could graduate because of the Learning Support classes. I did dual enrollment and everything so I could reach my original goal of graduating in May of 2014. With this said, it added an extra semester of expenses and time to my college financial plan. I get Reconnect now and that’s great. I had a little bit left on my Pell when I came back a couple of years ago. I can’t help but wonder if I might have had enough of it to cover the rest of my time in the nursing program if I hadn’t had to stay that extra semester (Journal).

Molly shared a similar experience as she had also entered AVCC as a traditional student but ultimately paused her education and later returned as an adult learner because she was eligible to receive the Tennessee Reconnect grant. She wrote about the financial impacts that she had incurred with remediation,

I started getting messages from the school saying I owed money for my classes. I thought I had scholarships and then I met with a financial aid lady who said my scholarships only covered college classes and Learning Strategies didn't count. I was young and a newlywed and just found out I was pregnant with my first child, so I was already kind of an emotional wreck. I didn't have the money and I didn't want to be a dropout. She told me I could get a loan and that felt like a quick fix to me, so I signed the paper so I could stay in school. The whole thing made me feel like college wasn't going to happen for me and I finally gave up. I don't think they [AVCC] do loans anymore so kids now have it better than I did. I understood why I had to take the classes. However, it was a burden because of that loan. I'd rather have spent that on classes that went towards my degree (Journal).

Despite being eligible to receive funding through the Tennessee Reconnect grant, Sybill shared that she has had to pay for her Learning Support math class out-of-pocket twice because she exhausted the grant's number of repeats for a single course. She acknowledged that AVCC's tuition rates were not as expensive as they may be at other colleges in her journal: "The financial burden has not been bad. I believe it could be worse if I was to take it [a course] at UT [University of Tennessee] or somewhere like that."

Lily did not mention financial assistance in the form of state or federal grants. In one of her journal entries, she disclosed that her funding had come from an employment placement service. Reflecting on the financial concerns she had with remediation, Lily's experiences were akin to Poppy's. Lily wrote: "I had to fight tooth and nail to get my job placement services people to pay for these [remedial] courses too because they didn't feel like they should have to since they don't show up in the list of courses you have to have for nursing."

Another adult learner, Jane, shared similar frustrations. She shared that her first college experience had been with an institution in another state and she was required to complete several remedial courses there. When she transferred to AVCC, she was informed that the developmental courses she had previously taken would not be accepted and others would be needed. She shared that she had been placed on academic probation and believed that her remedial courses were to blame. She wrote:

I am now on academic probation for being at maximum hours this semester. It is because of all the Learning Supports I've done. Financial aid counts the hours but they don't actually go toward a degree or your GPA or anything because they're not considered college courses. I've got all these hours and no degree. Now I'm having to appeal my financial aid just to finish my program and graduate next semester which will be my last semester (Journal).

Helena is a traditional student but was homeschooled and said that, as a result, she had not been eligible to receive any of the state or federal aid that most college students have. Instead, she said that her family had paid for her college expenses. When asked about her perceptions of remediation's monetary costs, she said that she did not recall the courses causing

“a financial strain” and went on to say that she believed her developmental classes were less expensive than her college-level classes.

Time

Aside from monetary value, another prominent notion of value among the participants was time. Participants tended to measure remediation’s cost of time by the number of semesters that they felt may have been added to their degree plans as a result of their remedial assignments. Students that are required to complete remediation in college are aware that it will take some time to satisfy those requirements, just as it takes time to progress through the college-level courses needed for their programs of study. However, a student’s major, enrollment status, and number of remedial courses needed can greatly affect how much additional time a student may need in order to complete their program of study. For example, a student who is enrolled full-time and requires remediation in one subject may see little to no additional time added whereas a part-time student with multiple remedial requirements could incur a significant number of extra semesters in order to complete them all and move into college-level coursework.

As they shared their perceptions of the length of time they had spent to resolve their remedial requirements, a concept that resonated strongly among the participants was whether they believed that the time they spent completing remedial courses held any value in the academic, professional, and/or personal aspects of their lives. Students spoke of their time as if it were currency used to purchase the service of remediation and they were left to decide if they got their money’s worth. Elizabeth said that the time she spent on remediation “wasn’t a waste of time” and “helped me a lot in my other classes” (Interview).

Neither Katie nor Brian felt as though their remedial course assignments made a difference in the amount of time they had anticipated spending to earn their associate’s degrees.

Katie acknowledged that she had been worried that her remedial requirements would increase her time in college and voiced those concerns with her academic advisor. “I had talked to my advisor about that as well because I wasn’t sure about it, either, but she said if I had a full schedule with six classes each semester, as well as summer classes, then I would be able to pass [graduate] in the spring of 2024” (Katie, Interview). Brian recognized that he had already been in college longer than he initially thought he would be but attributed the additional time to a change of major, not his remedial math course. “My academic plan went through hell and I ended up staying at [AVCC] an extra two years because I changed my major from history to accounting...I don’t believe my learning support class made any difference in that” (Brian, Journal).

Others believed that their developmental courses added some time to their college careers but didn’t feel as though their academic plans were altered significantly. “I mean, I still kind of feel like it did put me behind a little bit, but...I wouldn’t say more than a semester” Helena said of her remedial math course (Interview). Elizabeth agreed, writing “I think it did put me behind by a semester” (Journal).

Molly and Poppy also estimated that their remediation assignments may have extended their degree plans by a semester, but it is interesting to note that they share a slightly uncommon perspective with regard to their experiences in college remediation as both were initially enrolled at AVCC as traditional students with about eight years between enrollment periods for Molly (Interview) and around seven for Poppy (Interview). Poppy is also the only participant to complete dual enrollment courses and used that experience to estimate how remediation had impacted her time to program completion:

Academically, I was disappointed by the whole remediation process because I took a few college classes my senior year of high school so that I would get my associate's degree early. I was supposed to get it in three semesters instead of four. I tried so hard to get ahead of myself and then find out that I must take these learning support courses, which added a full semester onto my time and plan. It basically undid all the progress I thought I made by doing those dual enrollment classes in the first place (Journal).

Dora, Jane, and Sybill believed that their remedial assignments took longer than a semester to resolve. Dora estimated that her degree path was extended by two semesters. Excluding the developmental courses she had taken with the college she had transferred from, Jane believed that the Learning Support courses she took at AVCC added on another year and a half. Sybill felt that remediation extended her academic plan significantly due to the number of times she had been required to repeat remedial math. "If I had to be honest, I would probably say two years [were added], but I didn't really do good in one of them [remedial class] and I really feel like if I had, that amount, that number might have been chopped in half by a year" (Sybill, Interview).

Relevance

Some participants felt that remediation's value was best determined by the content of the course and its effect on their academic performance in the associated college-level courses. Brian noted that he believed the skills he learned in remedial math helped him succeed in the college-level algebra and calculus courses he completed later (Survey, Interview). Katie mentioned that she had been able to directly apply what she had learned in her developmental reading class about nonverbal communication to the other courses she was enrolled in (Interview).

Participants' perceptions of the effectiveness of remediation were also explored. To summarize their overall perceptions of its value, each participant was asked if they believed that remediation was effective as an intervention to support at-risk students in postsecondary education. The question was directly posed during their interviews, but participants were provided additional opportunities to share their feelings about this notion in the survey and journal prompts.

Brian, Jane, and Helena felt that the content presented in their Learning Support math class was helpful, but in a rather limited scope. As a nontraditional student, Brian explained that developmental math helped fill in the gap between his secondary and post-secondary math experiences, sharpening the skills he felt were necessary for success in math at the college level (Survey). He provided a bit of an explanation in his interview and journal, adding that although he completed remedial math co-requisitely with college-level statistics, he felt that it was only helpful with a course he took in calculus and another that he referred to as "finite," which he described as "slightly more advanced algebra." Brian felt that his college-level statistics class was "pretty easy" and added that he thought he would've passed it without Learning Support math (Interview). Jane frequently emphasized her belief that college remediation was unnecessary throughout the study but conceded that math could possibly be an exception. She estimated "20 or 25 percent" of the material covered in developmental math to be relevant to nursing but, like Brian, she found AVCC's curriculum to be aligned with finite mathematics significantly more so than statistics despite the fact that statistics is the college-level math course that AVCC uses for co-requisite remediation. Jane found statistics to be a challenging course but believed that she would have been successful in it without remediation and said that it was never covered in the curriculum for her developmental math class. She wrote:

If anything, math learning support was helpful due to the fact that taking it was the only way for me to sign up for the math I needed for nursing. It was time consuming for the most part, so that part sucked. The other thing is it doesn't help. Statistics was hard but I passed it and it wasn't even in the other [remedial] class [remedial math curriculum], so the learning support was pointless for me. It could be good if your major does a lot of algebra, but it just wasted my time and financial aid (Journal).

Helena said that the only college-level math course she had taken since completing remedial math was statistics. She felt that she could have been successful in statistics class without remediation because, like Jane, she stated that statistics was never covered in her developmental math class and her first exposure to that type of math was in the college-level statistics course that was required for her program of study. Helena often mentioned that she had never been confident in her mathematical skills and thought that the remedial math class she was in may have made her feel better about the subject overall, "but it didn't teach me the first thing about statistics" (Journal).

After a brief self-assessment of her academic records and skills in math, reading, and writing from periods before and after she had completed remediation at AVCC, Poppy concluded that remediation had failed to support any aspect of her academic career. She explained that the grades she had earned in math remained unchanged. Her reading and writing grades were good, but she believed that was because she was already comfortable with those types of content. Although she felt like developmental classes had been ineffective for her, she conceded that the intervention could be helpful for others.

Dora was required to complete Learning Support for reading and math but believed that her remedial experiences were ineffective. She failed to find any new material in either course

and did not see how they were supposed to benefit her as a student or to her future career as a surgical technologist. She explained that the type of math taught in remediation was not used in her field nor did she find it related to statistics. She admitted to experiencing a bit of difficulty in the speech class that was paired with developmental reading but clarified that it had nothing to do with the course curriculum and everything to do with the nature of it being a public speaking course. “Just because someone doesn’t enjoy getting up and giving speeches in front of a roomful of people doesn’t mean that they don’t know how to talk to people” (Journal).

Lily also completed developmental reading and writing courses and her perceptions were very similar to those expressed by Dora. She didn’t think that the material covered in her remedial math and reading courses were relevant to the skills required of a registered nurse and felt confident that she could have passed her college-level math and public speaking courses without the intervention. In her journal, Lily said that she could not think of any aspect of remediation that had been relevant to her academic career. During her interview, she summarized her perceptions toward developmental classes:

I mean, they [developmental courses] don’t amount to anything. They don’t help you get to your career. I mean, I was taking all those classes [completing remediation co-requisitely] at the same time, so I figured if it’s supposed to be helping you with the [college-level] class, wouldn’t you take one [developmental course] one semester and then the next one [associated college-level course] the next semester instead of taking them both together? They said they were supposed to feed off each other. I didn’t think they fed off each other. I don’t think that it’s effective, I don’t. Like I said, I’d got [sic] to be where I was at without those classes. I probably might be a semester or two shorter, but really, I don’t think that they helped get me where I’m at.

Sybill and Molly were required to complete developmental coursework for math, reading, and writing. Both participants believed that remediation could be effective for underprepared students but noted that there are other factors in play that can influence how well the intervention works. Understanding why remediation is necessary (Molly, Interview; Sybill, Interview), having a balanced schedule (Sybill, Interview), a willingness to utilize the college's support services (Sybill, Interview), and ensuring that instructors are presenting appropriate content in a meaningful way (Molly, Interview; Molly, Survey; Sybill, Interview) were all mentioned as variables that could shape students' perceptions of college remediation. During her interview, Molly shared a couple of examples of the content in her developmental courses to support her position on remedial course content being useful for students.

I remember we—I had to put together a scrapbook and it was supposed to be a resume, but it was a huge binder and I had to—it was like a high school project. I had to write about myself, my hobbies, this and that, any achievements I had, any kind of community service I did—and it was a huge binder. I still have it. Then I remember one assignment was just another thing like that, writing about ourselves and this and that, but I—and our greatest achievements and I took in my wedding video. I think it was just about the student, me, being able to meet deadlines of where that resume/scrapbook was supposed to be. So it's just that I don't think that the material that was being taught really helped me much. I don't think that it [remediation] is as effective as the college would like, but I'm going to say that it could have to do with the professor because on [the day of] my final exam, we got snowed out and my final exam was to name off all of Santa's reindeer (Molly, Interview).

Elizabeth and Katie approached their developmental courses with positive attitudes and believed that AVCC's remediation policy was effective (Elizabeth, Survey; Katie, Interview). Elizabeth completed remediation for reading and frequently discussed how she found the course to be useful in her life, both personal and academic. Throughout the data collection process, she cited improvements in her sentence structure, research, rhetoric, note-taking, and time management skills. Katie is presently completing developmental courses for reading and math. Although her courses are ongoing, she said that she has already been able to see that the classes are important and have allowed her to sharpen her reading comprehension skills. While she was initially disappointed by her remedial placement, she admitted that the time she had already spent in those classes had proved to her that she may have struggled if she had enrolled in college-level classes without that support.

Outlier Data and Findings

This section contains particular outliers that were identified during the period of data collection. While all of the study's participants shared a number of similar experiences and emotions, there were a couple of outliers that participants recognized which were not strongly aligned to the study's research questions or themes. These outliers serve to provide awareness to secondary and post-secondary stakeholders that work with college students who may be required to complete remediation due to being identified as at-risk based on placement tests scores.

Outlier Finding #1

One participant shared that, while they do believe remedial courses can be helpful to underprepared students, they do not believe that the courses can provide the support that is intended if students refuse to engage with the content. When presenting instructional content to students, instructors should make every effort to create an inclusive classroom environment in

which students feel safe enough to become active participants. Engagement could also be addressed through the incorporation of in-class activities and assignments.

Outlier Finding #2

All of the participants in this study indicated that their placement had been as a result of their test scores, prior academic performance, or the amount of time that had elapsed since they had been in an educational environment last. While exploring participants' notions of how effective they found their developmental course(s) to be, one participant stated that they believed the remediation process could be effective but suggested that students who do not have a thorough understanding of why they were placed in remediation or the purpose that the developmental courses are intended to serve may be less likely to find value in the intervention. When servicing at-risk students, secondary and post-secondary personnel should recognize the potential to provide clarity in all collegiate aspects to students so that they may make informed decisions and be a driving force in their own academic endeavors.

Research Question Responses

The research questions were connected to certain questions that were asked during each participant's interview and presented as journal prompts. A list of the research questions and linked interview questions may be viewed in Appendix O and a list of the linked journal prompts is in Appendix P. A standard list of the interview questions and journal prompts can be found in Appendix Q and Appendix R, respectively. The themes that emerged from participants' answers to those questions were collected and organized based on based on the aspect of participants' attitudes toward college remediation to form answers to each of the study's research questions. The following account presents the research questions and the themes that emerged from the answers provided by the study's participants.

Central Research Question

What are the perceptions of community college students regarding remediation?

AVCC has a placement policy that is used to identify incoming students that may be underprepared for college-level content in the disciplines of math, reading, and writing. Scores earned on the ACT, SAT, and/or Accuplacer are used to determine which students may need additional support in those fundamental subjects before being eligible to enroll in certain college-level courses. In accordance with the placement policy, students whose scores fall beneath the college's established cutoff are required to complete a sequence of remediation in order to enroll in many of the college-level courses that are necessary for their programs of study. These sequences vary among the three disciplines as some mandate that the remedial sequence be completed co-requisitely and others allow students the option of completing their developmental courses in stages.

A cornerstone of andragogy is the notion of purpose. Although colleges may explain the intent of remediation with a standard definition, participants found its purpose and utilization to be a bit more complex. From a collegiate institution's perspective, the purpose of remediation is to provide additional support in reading, writing, and mathematics to students that may not be prepared for the rigors of college-level coursework. The supplemental instruction is intended to enhance at-risk students' skills in those fundamental academic disciplines so that they may be better prepared for the college-level courses needed for them to be successful in their programs of study. However, purpose is subjective and can be influenced by the degree to which adult learners find that purpose relevant to their personal or professional lives. This thought process was heavily evidenced by the participants throughout the data collection process.

Participants who expressed positive feelings about remediation also spoke about how they had applied skills that they learned from the course to other areas in their lives. Elizabeth feels that the course helped her succeed in her other classes and improved her ability to communicate more effectively, which she anticipates will be vital for the nursing career she is pursuing. Katie agreed that the material she was learning in remedial reading would be helpful in a future career but also found use in its immediate application to other courses she was enrolled in and said, “It’s affected me in a positive way to the smaller details in a paragraph or the bigger details in different quizzes or tests I have to take and trick questions that I need to prepare for and watch out for.”

On the other hand, negative experiences in remediation were reported by participants who failed to find connections between the content in their developmental classes and their program of study. Dora, Poppy, and Lily likened the remedial curriculum to curricula that had been used in their high schools. Dora described the remedial math and reading courses she was required to take as “unnecessary” and found them to be completely unrelated to the college-level courses needed for her degree in surgical technology or to fulfill the job duties of a surgical technologist. Poppy and Lily, both nursing students, agreed with Dora’s assessment. “To me, they’re just extra classes,” Poppy said of her remedial math, reading, and writing courses. “They’re just like busy classes that basically just did the trick of moving me onto my college-level courses, but they didn’t make me feel any more comfortable with those certain topics of classes.”

Sybill and Jane had mixed feelings about remediation. As nontraditional students, both suspected that they may need a bit of extra help with certain courses due to the amount of time that had passed since they had been in an academic environment. Sybill is pursuing a career as an

occupational therapy assistant (OTA) and had remedial assignments in all areas. She spoke favorably of her developmental reading and writing courses, saying that the skills she had learned would be necessary for notating patient charts and reviewing medical records. She tried to maintain a positive outlook on remediation in math but struggled to find a relationship between the subject and her future career. “For the love of Jesus, I cannot see where the math is in that [OTA],” she said. “I mean, that part, I’m not going to understand why we have to take it.” Jane’s feelings toward remediation were completely opposite of Sybill’s. Jane is a nursing student and believes that math is the only subject in which remediation should be made mandatory. She conceded that some of the content in remedial math wouldn’t be used outside that classroom but described the intervention as “helpful” overall. She didn’t believe that writing or reading skills were necessary to the field of nursing and considered remediation in those disciplines “pointless.”

Brian, Helena, and Molly believed that remediation’s purpose is multifaceted and discussed emotional effects that they had experienced. Brian and Helena were required to complete remediation in math and both said that they had known their math skills would need some work. As an accounting major, Brian has had many math classes and he credits his developmental class for increasing his level of comfort in the subject. Helena said that her remedial math class made her feel confident about enrolling in a higher, college-level math course. Molly believes that her remedial courses had served an entirely different purpose. Rather than addressing any academic shortcomings, she shared that her courses helped her become acclimated to life as a college student and gave her the encouragement she needed to persist as a nontraditional student.

Sub-Question One

What are the perceptions of community college students regarding the financial impact of remediation?

AVCC's placement policy may require a student to enroll in remedial courses, but the institution does not provide the courses for free. If a student is required to complete remediation, they are responsible for making payment arrangements for those courses in the same way that they are held accountable for the costs of college-level classes. Many students rely on forms of financial assistance to fund their college education. AVCC does not participate in federal or private student loan programs, so most students' awards come from state- and federally-funded grants and scholarships. Variables like household income, grades, enrollment status, and residency are often used to determine if a student may be eligible to receive financial assistance in college. Students who are approved for monetary rewards must also comply with providers' terms of agreement to maintain their eligibility. Of the ten participants in this study, Helena was the only one to share that she had not been able to secure any sort of financial aid due to her status as a homeschooled student and household income. Although she had not qualified for tuition assistance, Helena said that she did not recall her tuition costs as being a burden on her family and believes that her remedial math class was not as expensive as other college-level courses that she has taken.

Elizabeth, Katie, and Dora shared that they had received financial assistance from the federal Pell Grant and the state-sponsored Tennessee Promise scholarship, which provides funds to cover tuition and costs to eligible students enrolled in one of the state's community or technical colleges. The funding received from both programs allowed each participant to complete their developmental classes with little-to-no additional costs. Katie stated that her out-

of-pocket costs had been minimal and didn't extend beyond basic supplies like pens and notebooks. She also said that she was able to save money by taking advantage of AVCC's on-campus resources for technology equipment rentals, printing services, computer labs, and high-speed internet access. Dora admitted that she didn't have to pay for anything related to her remedial courses and was unsure about how much of her monetary awards were spent on them, but felt that the amount was "definitely too much for 'remedial' courses."

Brian and Sybill said that they had been fortunate enough to have their remedial expenses covered by the state-sponsored Tennessee Reconnect grant, which covers the cost of tuition for eligible nontraditional students enrolled in one of the state's community or technical colleges. Although he did not incur any costs directly related to his remedial math class, Brian said that he experienced a brief decrease in his personal income because he had to reduce his employment hours to accommodate his college schedule after enrollment. Sybill's awards covered her developmental reading and writing classes, but she began having to pay for the math section later. She explained that her awards only paid for her first two tries in the course and, because she still had to satisfy her remedial math assignment, she became the guarantor for any subsequent attempts. Her attempt during the Fall 2022 semester is her fourth, meaning that she has personally had to pay for the course in full twice.

Poppy and Molly shared slightly similar experiences with the financial impacts of remediation. Both participants began their studies at AVCC as traditional students but returned to pursue careers in healthcare as adult learners. Poppy said that she had been awarded a scholarship upon graduating from high school, but she didn't know that the terms of the award only applied to college-level courses until she tried using it as a method of payment in her first semester. Ultimately, Poppy said that her parents paid for her textbooks and all associate fees for

her developmental courses. Molly also recalled being awarded a scholarship that couldn't be used for courses that were not college-level. She said that she was a newlywed at the time and knew that she didn't have funds available to cover the necessary costs, so Molly ultimately opted to take out a student loan after a representative from AVCC's Bursar's Office had made the suggestion. She described the loan as a quick fix but admitted that it ended up resulting in a financial hardship at the time.

Jane said that she had been required to complete several developmental courses when she began her college career in another state several years earlier. After relocating to Tennessee, she learned that her previous remedial credits would not be accepted by AVCC because their curricula wasn't properly aligned for AVCC. Jane's initial developmental courses were covered by the Pell Grant and she said that she has had to file financial aid appeals each semester to continue using any remaining funds toward the classes she has taken with AVCC.

Sub-Question Two

What are the perceptions of community college students regarding the impact of remediation as it relates to degree-seeking students' time to completion?

It is commonly thought that an associate's degree program can be completed in two years. While this may be true for certain degree paths, others may be paced out a bit longer. Brian and Katie were the only participants in the study that were not pursuing a career in one of the college's competitive-admission healthcare cohorts. Nearly all of AVCC's health-related programs require at least three years to complete. Course progression, enrollment status, and changes of major can each play a role in the amount of time that a student needs to complete their program of study, but the same could be said for remediation as students who have been assigned to developmental classes may need more time to resolve those requirements.

When asked about needing additional time as a result of their remedial placements, Katie and Brian were the only participants who did not feel like their paths to program completion had been extended to accommodate those requirements. Brian admitted that his path ended up being longer than he'd originally anticipated but attributed the added time to a change of major instead of remediation. Katie acknowledged that she had been worried that her remedial requirements would prevent her from being able to finish her degree within two years, but she had shared her concerns with her academic advisor and a two-year plan was developed for her. Katie said that she can still complete her program within two years, providing that she registers for at least 15 credit hours per semester and attends during summer.

Elizabeth, Poppy, Molly, and Helena felt like their remedial requirements had added an extra semester onto the time they had expected to spend at AVCC. Elizabeth and Helena recalled feelings of disappointment at the idea of having to attend college longer than students that did not need developmental classes, but both agreed that their time spent in those classes was worth it. Poppy said that she had finished her associate's degree in two years but still needed an extra semester because of remediation. She went on to explain that she had completed several dual enrollment courses in high school and was on track to earn her degree in three semesters instead of four. When she enrolled in classes at AVCC and found out that she would need developmental courses, the fourth semester was back in place.

Lily, Jane, Dora, and Sybill believe that remediation added two semesters or more to their academic plans. Lily thinks that her remedial classes delayed her estimated completion date by one or two semesters. Jane estimated that she would need another three semesters because her previously earned developmental education credits had not transferred. Dora felt that remediation cost her at least two more semesters. Sybill's estimate of time was the largest and had been

calculated based on the number of attempts she has made with regard to completing her outstanding math remediation. Sybill is currently in her fourth attempt, but often said that she didn't find its content to be necessary for an OTA.

Sub-Question Three

What are the perceptions of community college students regarding the effectiveness of remediation as it relates to their academic achievements?

AVCC's remediation policy utilizes scores earned from college placement exams to identify students who may be underprepared and intervene by assigning those students to developmental courses in reading, writing, and/or math. The intent of college remediation is to provide targeted instruction to at-risk learners and develop their skills in reading comprehension, written communication, and/or mathematical computation so that they may be successful in the courses needed for their programs of study. Participants had either already completed remediation or were currently in the process of doing so.

When asked about how effective they thought their remedial courses were to that end, most participants believed that the intervention fell short. Poppy, Jane, Dora, and Lily said that they didn't learn anything in their developmental courses because the content being presented only consisted of information that they already felt comfortable with. These participants were asked if they believed that they would have passed their college-level reading, writing, or math courses had it not been for remediation and they all felt as though they could have because none of them felt like they had learned anything new from their developmental classes.

Katie and Elizabeth said that they thought remediation had been effective for them. Both referenced college-level classes that they had enrolled in since their developmental classes and noticed connections between the two. Katie believes that the work she did in remediation is

easily relatable to other courses, specifically noting content for reading comprehension and communication. Elizabeth also noticed improvements in her own abilities to communicate verbally and nonverbally. Sybill believes that her developmental courses had been effective “for the most part,” but noted that she had not encountered material from her remedial classes in any of her college-level courses yet.

Brian, Helena, and Molly took a slightly more nuanced approach to the notion of effectiveness. Brian said that he found the content in his developmental math class to be effective, but he also believes that he could have passed his college-level math classes without it. As a nontraditional student, Brian knew that his math skills needed to be improved and he credits his remedial math class for providing him with the quick refresher he needed to be more successful in subsequent semesters. Helena expressed similar feelings. She acknowledged that she had always struggled with math and her developmental math class gave her a bit of a confidence boost, which she said made her feel better about approaching mathematical content at the collegiate level. Although she said that her developmental math class did not cover statistics, the college-level math class required for her major, Helena described her time in developmental math as having been “well needed.” Molly completed several remedial classes, but she does not think that they were effective from an academic standpoint. She likened the content to middle-school curricula but also said that the simple curriculum and structure allowed her to ease into college and gain the assurance that she could be successful in college. Molly summarized her experience by saying, “As far as what they were teaching me in the Learning Strategies class, I don’t think it helped me to excel in my English courses, but it did help me excel in just being a college student, if that makes sense.”

Summary

This chapter presented descriptive summaries of the study's participants and further insight into AVCC's placement policy, its underlying intent, and how it is perceived by students. This study sought to gain a deeper understanding of how community college students who have been required to complete college remediation felt about the intervention and perceive effects that may come along with it. A brief description of each participant was written once individuals had been selected. Two themes emerged throughout the data collection process: the notion that (a) remediation is a result of subpar secondary education and (b) the determination of value. Lastly, the central research question and sub-questions were analyzed to gain a better understanding of the study's findings, which included how community college students perceive remediation as a whole in addition to its associated impacts regarding monetary cost, time to program completion, and effectiveness.

CHAPTER FIVE: CONCLUSION

Overview

The purpose of this single instrument case study was to understand the impact of remediation with regard to finances, time, and effectiveness as they are perceived by students of Appalachian Valley Community College (AVCC), one of the community colleges that comprise the Tennessee Board of Regents (TBR). The findings yielded from this study are included and will further be used to foster support for the discussion of how such information may be subsequently applied to a discussion of the literature. Details regarding students' attitudes and perceptions toward college remediation will also be provided. Before sharing any recommendations for further research in this area, the study's limitations and delimitations are addressed. This chapter ends with a summarization of the study.

Discussion

The purpose of this qualitative, single instrumental case study was to understand the impact of remediation with regard to finances, time to completion, and effectiveness as they are perceived by community college students. Research in which the effects of college remediation as perceived by students is lacking and very few studies about college remediation have approached the topic from a qualitative standpoint. AVCC's remediation policy considers a student to be underprepared if their placement test scores do not reach an established cutoff score to permit registration into standalone sections of college-level English, speech, and math. Previous studies suggest that college remediation generally yields positive effects for severely underprepared students who may need to complete remediation in two or more disciplines whereas negative effects tend to be reported among students who are marginally underprepared or only require remediation in one subject. The findings of this case study add to the existing

research presented in Chapter Two regarding the efficacy of college remediation as it is perceived by community college students who have been required to adhere to their school's policy. The students who participated in this study were comprised of traditional and nontraditional students who had already completed at least one remedial class or were in the process of completing at least one remedial class. The participants represented full- and part-time students of varying age ranges and majors.

Interpretation of Findings

This section provides a summary of the emerging themes and sub-themes that were presented in Chapter Four. The two themes that emerged included the notion that remediation is a result of subpar secondary education and value. The interpretation of the findings support and align with the central research question and sub-questions.

Summary of Thematic Findings

Ten AVCC students shared their perceptions of college remediation and its associated impacts throughout the data collection process. Data was obtained from the participants through an electronic survey, interviews, and journal entries. These methods of data collection tools were chosen for the purpose of data triangulation. When data analysis was complete, two themes emerged. The themes included the notion that remediation is a result of subpar secondary education and value.

Responsibility in Secondary Education. The 10 students that participated in this study came from various secondary school backgrounds and each participant referred to their experiences in secondary education at some point during the data collection period. Elizabeth, Lily, Katie, Molly, Dora, and Poppy graduated from public high schools; Brian and Helena were homeschooled; Sybill graduated from a private high school; and Jane attended a public high

school but did not graduate. Brian and Jane completed GED programs while the remaining participants earned high school diplomas. Theories on college remediation support the premise that students in secondary education may not realize that their performance in the classroom and the scores they earn on standardized placement tests will follow them to college and may require that they complete remediation before being permitted to enroll in the college-level courses needed for their majors (Boatman & Long, 2018; Kolesnikov, 2019; Sanabria et al., 2020; Valentine et al., 2017). With the exception of Helena, each participant felt that the secondary education they received was responsible for their remedial placements to some degree. Participants mentioned a lack of in-class engagement, failure to be exposed to academically rigorous curricula, not fully applying themselves in class, being misled by high school personnel, and not taking their placement tests seriously as factors that contributed to their remedial placement. The participants thought that they would have been motivated to put forth greater efforts to be successful in high school had they known how remediation would affect their college experiences.

Participants also discussed how they believed college remediation policies should be communicated to high school students. In addition to knowing about the implications of remediation sooner, participants thought that high schools should develop partnerships with area colleges in which college personnel are appointed to act as liaisons between the student's secondary and post-secondary institutions. They suggested that these liaisons would conduct routine check-ins with students to assess their progress and provide guidance regarding steps that the students may need to take to avoid remediation. Participants reasoned that high school students would be more likely to respond positively to a college representative than to a teacher or guidance counselor that they are already familiar with. Further, participants felt that a college

representative would be a definitive authority on their institution's remediation policy rather than high school personnel who may be unfamiliar with the policy or misinterpret its guidelines (Uretsky et al., 2019).

Most college remediation policies rely on placement test scores to determine if a student will need to take any developmental courses (Chen & Simone, 2016; Jiminez et al., 2016; Malin et al., 2017; Turk, 2019). At AVCC, scores from the ACT, SAT, and Accuplacer are used to gauge students' levels of readiness for college-level courses. Half of the participants took the ACT and the other half opted for the Accuplacer, but none believe that a student's ability to take college-level courses can be accurately predicted by a test score because there are a number of variables that could affect an individual's performance. Participants felt that some test-takers do not take the appropriate time to prepare for the test or even put forth a genuine effort to do well. Stressors like test anxiety, distractions, difficulty concentrating, and instances of running out of time were mentioned as well, but participants also noted the possibility of encountering unfamiliar content. Such instances could penalize students for lacking experience rather than measuring their actual abilities, which is supported by research on the weighted points systems of standardized placement tests (Kolesnikov et al., 2019; Logue et al., 2016; Mills & Mills, 2018; Ngo, 2018).

Appraising Developmental Courses. Each participant was asked to share their perception of remediation in general as well as how they believe it has affected their finances, time to program completion, and its overall effectiveness as an educational intervention. Theories on adult learning support the notion that, in order to provide students with the greatest chance for success, course content and instructional methods should be differentiated to accommodate the independent learning styles of adults (Knowles, 1970, 1978). The participants

felt that remedial course content should be directly connected to the content and skills that they need to brush up on for the college-level courses required for their majors. With regard to the curricula used for developmental courses, participants voiced concerns about accountability. They thought that college administrators should be responsible for ensuring that remedial course instructors are teaching material that is appropriate for the discipline and utilizing methods of instruction that emphasize classroom engagement. Further, participants suggested that a great number of AVCC students who are placed in remedial courses do not truly know why or what it is that they are supposed to get out of the class. To that end, participants reasoned that administrators should also confirm that remedial instructors are making every effort to promote understanding among students with regard to why they have been placed in remediation and the purpose it is intended to serve to get the most out of the class (Knowles, 1970; Schunk, 2020).

Previous research has shown that math is the most common subject for remedial placement (Boatman & Long, 2018; Logue et al., 2017; Vandal, 2016) and is evidenced in this study because eight participants were required to complete a developmental math class. Participants compared the content from the college-level math class(es) needed for their major with the instruction they received in remedial math. Those who had taken college-level statistics agreed that developmental math was not helpful with regard to learning statistical math because the topic was never covered, yet they were able to be successful in statistics. Those experiences support research that at-risk students could likely pass a college-level statistics course without remedial math if given the opportunity to try (Ngo, 2018). The participants who had completed an algebra-based college-level math course found remedial math to be somewhat helpful but ultimately felt that they would have been successful without the intervention.

The second largest discipline for remediation was reading. Seven participants had been required to complete developmental reading and only two found their experiences to be positive. It is worth noting that those two participants were also the only ones to say that they saw direct connections from the content in remedial reading to their other courses and career goals. The ability for a student to recognize that certain information meets a need and serves a purpose for them is the foundation of Knowles' (1978) adult learning theory and emphasizes the importance of its theoretical framework for this study.

Five participants had been required to complete remediation in writing, but one had not yet enrolled in the developmental sequence and was unable to provide data regarding the course. Three of the remaining four participants strongly believed that the material that was presented in their remedial writing classes did not enhance their skills or abilities in compositional writing in any way and found the sequence to be unnecessary. Much like the two participants who felt positively about their developmental reading experience, one student also found the remedial writing to be helpful and explained the relationship that they saw between the skills learned in that class and those that would be needed for the career that they are pursuing.

With regard to their remedial assignments, each participant had been involved in a transactional process. AVCC does not offer remediation for free and students who are required to complete the intervention are faced with monetary costs, whether it be payments made out-of-pocket or funds deducted from financial assistance awards. Four participants shared that they had incurred expenses related to their remedial requirements that were not covered by grants or scholarships. Two had scholarships but non-college level courses were not eligible for coverage, so one participant's family took on the cost and the other participant had to take out a student loan. One participant's family paid for all of their tuition expenses because the student was

ineligible for awards and another has had to pay the costs of their remedial class twice because they have exhausted the number of attempts permitted by their financial assistance provider.

Participants also recognized the implications of remediation as they saw it with regard to the amount of time that they had expected to spend in college. Four participants recognized that more time was added but agreed that the additional time had been well spent. These participants drew parallels from their remediation courses to other aspects of their lives and were able to recognize the purpose in the content on both ends. The other six participants estimated that they had incurred anywhere from one to four additional semesters as a result of their remediation requirements and did not find the time to be beneficial. It is important to note that the four students who felt that the time they had spent in remediation had been beneficial had previously disclosed positive experiences from their time in developmental education, which further strengthens the application of adult learning theory to this study.

The final aspect that participants had been asked to discuss was their perceptions of how effective they found the intervention to be. The study's participants had varied backgrounds in terms of completing various remedial courses pre-requisitely, co-requisitely, and at the present time. Rather than merely agreeing or disagreeing with the college's remediation policy, the participants provided information that was far more nuanced. In summary, the purpose of college remediation is to identify students who may not be prepared for college-level courses and have them complete a sequence of courses with the goal of enhancing their skills in needed areas to increase the likelihood of their success at the collegiate level. Three participants found their developmental courses to be helpful, but they were not willing to say that remediation would be beneficial to every student in every subject. These participants felt as though a student's major and the discipline in which they were required to complete remediation were variable factors that

could change from person to person. Participants also acknowledged that developmental courses can sometimes be effective in a more abstract way. The participants recognized that first-time college students and nontraditional students could receive a bit of a confidence boost from their remedial assignments. The participants were also quick to note that such feelings can be misleading because remediation classes are not college-level classes. Participants posited that students who feel confident about their performance in remediation and think that all of the other courses they will need for their majors will be on the same level may be setting themselves up for failure. The participants also suggested that remediation's level of effectiveness could depend on the subject or the amount of work that a student was putting forth in the class. Methods of instruction and course content were discussed, as well. Some participants said that they found remediation to be effective in the sense that completing it allowed them to progress to other courses needed for their programs of study.

Implications for Policy or Practice

This section presents potential suggestions for policy and practice. The implications for policy specifically pertain to administrators, policymakers, and other personnel that are responsible for the creation and enforcement of remedial placement policies in post-secondary educational institutions. The implications for practice are recommendations for AVCC administrators, instructors, advisors, and other personnel who work directly with students that have been placed in remediation. These implications are connected to the overarching themes of remediation being linked to experiences in secondary education and value as presented in Chapter Four. In addition to those themes, the associated sub-themes of misinformation, consequences, monetary value, time, and relevance are also included.

Implications for Policy

Prior research has indicated that more than half of the population of incoming college freshmen are deemed unprepared for college-level coursework and must complete a sequence of remedial classes before they can enroll in the college-level courses that are necessary for their major (Barhoum, 2017; Valentine et al., 2017). Much of these determinations are based upon scores from high-stakes placement tests. This research study described the attitudes and perceptions of college students as they pertain to the impacts of a remedial placement policy implemented by a community college in rural Tennessee. The findings of this study address aspects of AVCC's current policy that students have deemed conducive as well as those that they believed to be unfavorable. This insight may have substantial effects with regard to remediation policies at AVCC and other institutions of higher education as it considers the impacts of the college's current policy from the viewpoints of students who have been required to comply with its framework.

Most standardized placement tests are administered to high school students during their junior or senior year and many may not understand how their performance on those tests can affect them at the post-secondary level (An & Taylor, 2019; Kozakowski, 2019). This study's participants shared that their test scores had stemmed from inadequate high school experiences. Misinformation from school personnel, a lack of challenging curricula, and careless behaviors were cited as factors that contributed to participants' low test scores. While partnerships between secondary and post-secondary institutions are not uncommon, greater effort should be taken to ensure that any information shared among students, faculty, and staff is accurate. Similarly, participants expressed a need to understand the importance of testing and collegiate expectations

sooner than their junior or senior year so that they may have more time to address any academic deficiencies that they may have.

Remedial classes are intended to provide students with additional support to enhance their reading, math, and/or writing skills and be successful in more advanced courses, but there is no significant evidence to support the notion that the intervention is effective or how it may affect students in the short- and long-terms (Boatman & Long, 2018; Brower et al., 2021; Chen & Simone, 2016). The AVCC students who participated in this study recognized that remediation could be beneficial for some students but did not think that placement test scores could accurately determine how an individual will perform in college-level classes. Participants mentioned test anxiety, an inability to concentrate, distractions, exhausted time limits, and fatigue as factors that could place a student in remediation when they do not actually need it. A common idea among participants was that college remediation should be optional. They felt that placement tests could continue to be used to identify at-risk students, but colleges should provide these students with the option of participating in remediation rather than enforcing mandatory assignments upon them. Participants supported the notion that most college students are mature enough to acknowledge their own limitations and would take advantage of the help that the college offers if they thought that they needed it. They also suggested that students may be more receptive to the additional support remediation offers if they opt to enroll in developmental courses of their own free will instead of being required to enroll in accordance with the college's placement policy.

Remedial courses require time and money just as any other college-level class and the instructional content presented in developmental courses should be aligned to the academic standards of the college-level classes that they are intended to support. The findings of this study

revealed that administrators should regularly assess remedial content to ensure that appropriate educational criteria is met. Math is the most common subject for remediation (Boatman & Long, 2018) and statistics has gradually become favored over algebra (Ngo, 2018), yet participants largely agreed that AVCC's developmental math curriculum contained no statistical concepts whatsoever. This oversight indicates a gross disservice to students in remedial math whose majors require a college-level statistics course because their mathematical needs are not supported. If AVCC chose to continue offering developmental math, the present curriculum should be reviewed and revised to accommodate the needs of all students. This implication should also be extended to remedial reading and writing curricula.

The findings of this study also drew attention to students' understanding of financial responsibility. While it is not exclusively reserved for remediation, it is important for college students to be aware of the monetary processes associated with their education. Not all of the participants in this study knew where the funding for their classes came from and most of the tuition estimates that were provided were severely inaccurate. A number of participants admitted that they had not bothered to find out how much their remedial classes had cost because they were not directly responsible for the fees. Should AVCC develop a means of promoting greater financial transparency, all students could be made aware of how their awards and payments were handled by the college.

There are implications for policy at other post-secondary institutions across the nation as well. Colleges and universities that have remedial placement policies may use the findings of this study to consider revising their current policies in an effort to increase the level of support that is available to their students. Such changes would likely include adjustments in other areas, such as budgets, funding, increasing or establishing partnerships with area high schools, and the

onboarding of any additional faculty or staff that may be needed in order to facilitate the needs of the new policy.

Implications for Practice

Although students know that they must adhere to their school's placement policy, few have a thorough understanding of why they have been placed in remediation and what they are supposed to get out of the class. Post-secondary institutions could consider reaching out to area high schools to provide counselors or teachers with information about their placement policy so that students who may be required to complete remediation aren't taken by surprise when they get to college. Placement information could also be incorporated within college admissions processes, which would make the information available to incoming freshmen as part of the application process or be included with new student orientation sessions. Getting placement information to incoming students sooner can create more opportunities for college personnel to convey the purpose of developmental courses with students and promote a more comprehensive explanation of the intervention and its purpose. It is not uncommon for high school students to take the ACT or SAT more than once and prior knowledge could also allow students enough time for additional attempts. Earlier awareness may also give students enough time to challenge their remedial placement if the college's policy includes conditions for exemption.

Participants in this study voiced concern regarding a lack of engagement that they felt existed between remedial course instructors, students, and curricula. They also emphasized the emotional toll that remediation can have on students and recalled instances in which they experienced feelings of embarrassment, frustration, shame, confusion, insecurity, and feeble-mindedness as a result of their placement. Participants also noted that some remedial course instructors failed to engage with their students, which they felt projected the idea that the

material wasn't important because their instructor wasn't even interested in it enough to teach it. Developmental courses are meant to help students that may not be prepared for college-level numeracy or literacy classes by providing targeted supplemental instruction and opportunities for skill building. If remedial course instructors are not promoting engagement in the classroom or stressing the importance of the course content, students may easily adopt a similar attitude toward the material and lose their motivation.

Theoretical Implications

This study utilized Knowles' (1978) adult learning theory as a framework to explore community college students' attitudes toward remediation. Knowles' (1978) adult learning theory contends that adults comprehend information best when they recognize the purpose of learning new content and have an immediate use or need for the information. A notable finding that emerged in this study was the theme of value, which is directly linked to Knowles' theory. Participants had strong feelings about their experiences with college remediation and those who expressed negative attitudes mostly felt that the developmental courses they had taken were unrelated to their major. Since they did not believe that the remedial courses were of value to their education or career goals, participants admitted that they didn't approach them with the same level of enthusiasm as those that they considered to be more meaningful to their programs of study. This notion was fully expressed by Helena when she stated,

The amount of time I spent on this [remedial] class such as studying and doing homework was very little. They did give plenty of classwork but because it wasn't college-level, I guess I didn't care as much.

Similarly, participants who felt that the material they learned in remediation was beneficial also discussed how the developmental curricula related to other courses needed for their major and how they intended to apply their newly developed skills to their chosen profession.

Another principle of Knowles' theory includes the notion that adults have a need to feel responsible for their education. AVCC's remedial placement policy is mandatory. As students have no say in the matter, they are no longer in charge of their education. Having lost that sense of control, adults may also lose the motivation to learn the information presented in the remedial courses. Poppy attested to this principle when she said, "I mean, I really didn't have a choice. It was take the classes or, you know, don't go to college" (Interview). By not being able to direct their own education, adult learners may feel resentful toward their developmental course(s). Their resentment may manifest in nonattendance, ignoring assignments, or adopting a fixed mindset. Jane exhibited such behavior during her interview while discussing her experiences in developmental writing. Not only did she vehemently deny that writing skills were related to her program of study, which is clinical nursing, she went on to assert that there was nothing in remedial reading that a registered nurse would need to know despite never having taken the course. Jane said, "The reading and writing—which I didn't take reading, but if I would have, it would have been pointless because you don't need that for *my* particular program." It is important that instructors promote the benefits of college remediation by developing purposeful connections between course content and real-world applications. By presenting these correlations, remedial course instructors have the opportunity to show students how their chosen career fields utilize the information in the course and why enhancing particular skills is necessary. Underprepared college students are more likely to benefit from remedial courses if they understand the objective of the course and are able to relate the content to their personal or

professional lives. This study affirms that the adult learning theory can be applied to college students with regard to their attitudes toward remediation and supports findings from previous research (Bachman, 2013; Schnee, 2014).

Empirical Implications

As colleges across the country assess their remediation policies, it is important for administrators to consider the attitudes and perceptions of students who have experienced remediation firsthand. Although this study was bound to a single community college in Tennessee, it still contains implications that could be reviewed and applied to remedial placement policies at other post-secondary institutions. From an empirical stance, this study contributes to the expanding amount of research on college remediation as it allows policymakers to consider effects of developmental education from the perspective of at-risk students.

An implication revealed in this study is that college administrators should consider using multiple means of measurement beyond high-stakes test scores to identify potentially underprepared students. Participants generally agreed that placement tests should still be used as a benchmark, but they largely expressed a desire for remediation to become an optional service offered by colleges to students with low scores on their entrance exam. Participants' suggestions for alternative means of measurement included using multiple tests from different manufacturers, reviewing a student's secondary education records, and allowing students to show their knowledge through skills-based activities. This research helps to show college remediation policies may be adjusted to more accurately identify students who may require additional support in reading, writing, and/or math. More precise targeting can also help enrich the curricula used for developmental courses (DePaoli et al., 2018; Uretsky et al., 2019).

The study's traditional students largely felt that they are not informed of any remedial requirements that they may have in a timely manner. A number of the study's traditional students recalled their high school guidance counselors telling them that their test scores were acceptable or were high enough to exempt them from having to complete remediation. When they met with their college advisor to register for classes, they found out that they had been misinformed. For some students, this does not allow them enough time to retake the test and receive the scores before the semester's registration window closes. AVCC's placement policy is published on their website and can be accessed by any member of the general public at any time, so the reason for such instances of misinformation at the secondary level is unclear. It may also be worth noting that secondary schools and colleges could form stronger partnerships to address questions that students may have before entering college (ESSA, 2017; Green et al., 2020; Malin et al., 2017). These routine check-ins would ensure that high school students are on the right track and are provided with enough time to resolve any outstanding tasks that may be necessary for their post-secondary plans. Participants also believed that being notified of potential remediation requirements earlier in the secondary education sector would motivate students to put forth a greater effort in their academic endeavors. High school students typically participate in ACT and/or SAT testing in their sophomore or junior year, but Poppy thought that college outreach should begin as early as a student's freshman year of high school. She explained,

I think it would have been fantastic to know in my freshman year of high school that it was a possibility that a student would have to take these Learning Support courses if they did not live up to the standards of the school they were going to be attending. This would help students be more aware and work harder because no one wants to retake classes (Journal).

Nontraditional students are at a slight disadvantage when it comes to ways of addressing remediation. They have already completed a secondary education and do not have access to counseling resources or programs like dual enrollment and SAILS. Depending on how long they have been out of school, they may also struggle to utilize technological learning management systems or recall basic educational curricula that traditional students access on regular bases. Nontraditional students make up a significant part of post-secondary student populations, particularly in community colleges. Most of the nontraditional participants in this study were placed in developmental courses as a result of scores earned on the Accuplacer and recalled encountering unfamiliar content. It could be beneficial for colleges to offer something akin to a test preparation program to nontraditional students so that they could be refreshed on the skills they may have forgotten and gain a better understanding of material that may be new to them (Baber, 2018; Braithwaite & Edgecombe, 2018; Jaggars & Bickerstaff, 2018).

Limitations and Delimitations

One limitation of this study included the diversity among the participants. The research recruitment email was sent to the AVCC student body, but only 10 of the students who responded were qualified to participate in the study. The 10 participants were comprised of nine females and one male, all of which were white; eight Health Programs majors and two Business majors; six from AVCC's Central campus and four from AVCC's West campus. In addition to the gender imbalance, six academic divisions, four campuses, and several races were not represented. Between those factors and the limited sample size, there is a possibility that the results of this study may not necessarily be an accurate representation of the current AVCC student population with remediation requirements. Participants were consistently reminded that their responses would remain confidential and that pseudonyms would be assigned to them and

to the study site in an effort to encourage them to be as open and honest as possible. Still, it's possible that some of the participants may not have felt comfortable enough to fully disclose their attitudes toward and perceptions of college remediation.

The study was open to current AVCC students enrolled either full- or part-time at any of the institution's campuses. AVCC is comprised of multiple physical campuses as well as a virtual campus but the college does not differentiate between them, therefore they were all included. Since the study's theoretical framework relies on adult learning theory, participants could be no less than 18 years of age. AVCC confers associate's degrees and technical certificates, but technical certificate programs do not employ remediation because they do not require completion of any general education courses. For that reason, only degree-seeking students were eligible to participate. The final delimitation was that each participant must have either completed a remedial course sequence at AVCC or were in presently enrolled in a remedial course sequence at AVCC.

Recommendations for Future Research

College remediation is a process that warrants more research, particularly when it comes to qualitative research. Colleges and universities throughout the nation have to address the issue every year because the demand for remediation is significant and has shown no signs of slowing down. Although there has been research regarding college remediation and placement policies over the past few years, it has primarily been quantitative.

Quantitative data on college remediation is quite useful for illustrating how many students are affected by it each year, how much money developmental programs are costing American taxpayers, how much student loan debt is allocated to it, rates for test scores,

graduation, and retention, but those statistics have yet to explain why so many college students are having to complete remediation at all.

While the quantitative research studies have produced significant numerical data, there have not been qualitative research studies to gain a deeper understanding of the attitudes and perceptions that college students have toward remediation. Further research on college remedial placement policies is needed. In addition to delving deeper into students' attitudes and perceptions, it may also be useful to consider those of college administrators, professors, or other stakeholders to find a way to improve the remediation experience and begin to neutralize the demand.

The results of this study suggest that students who are required to complete remediation in college approach it apprehensively if they do not know why they are being required to do so or find no relevant purpose to the course as it pertains to their program of study. These students also tend to put forth less effort in the course. Inversely, students who understand why they are required to complete remediation and find a correlation between the developmental content and their own major are more likely to be successful and feel positively about their experience. One thing that remained true regardless of how a student felt about remediation was the expression of great concern for the content that is presented in remedial courses. In future research, it may be beneficial to thoroughly review developmental curricula to verify that the course material is providing the support as intended.

Conclusion

Throughout this research study, I was able to gain a deeper understanding of community college students' attitudes toward college remediation. Participants' perceptions of remedial courses were fairly mixed, with slightly more negative connotations toward the intervention as a

whole. Some participants exhibited a shift in their feelings toward remediation from the time that they completed the initial participant selection tool to their final journal entry. At the beginning, six indicated that they agreed with TBR's current remediation policy and believed it to be effective, three disagreed, and one was unsure. When data collection was complete, those responses had changed to four who agreed with the policy and six who disagreed with the policy. These students acknowledged that everyone learns a bit differently and remediation cannot be effective for everyone but concluded that colleges should continue to make that support available to those who want it without forcing it upon those who do not.

Although this research study was not able to explain or solve the demand for college remediation, perhaps the insight it provided into students' perceptions and attitudes may assist college administrators, policymakers, and other stakeholders in reviewing their own placement policies and assessing the need for changes. Students learn in their own ways but, as educators, it is up to us to make sure that they have support and access to every tool they may need to be successful in their academic endeavors. It is my hope that this study may be used to promote additional research of college remediation as further qualitative research is essential to reversing remediation's hold on our nation's postsecondary institutions.

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APPENDIX A: Participant Selection Tool

Statement of Consent: I have fully read and understood all information provided above. I have been given the opportunity to ask questions and have received answers. I consent to participate in the study.

- I agree to participate in the study
- I do not agree to participate in the study

Skip To: End of Survey if response is = I do not agree to participate in the study

Skip To: Question 2 if response is = I agree to participate in the study

2. Have you ever taken a Learning Support course?

- Yes
- No

Skip To: End of Survey if response is = No

Skip To: Question 3 if response is = Yes

h3. Have you already completed a Learning Support course?

- Yes
- No

4. Are you currently taking a Learning Support course?

- Yes
- No

5. In which discipline(s) was/were/are your Learning Support courses? Select all that apply.

- English/writing
- Math
- Reading

6. In which instructional format were/are your Learning Support courses delivered? If you have completed multiple Learning Support courses in more than one method, select all that apply.

- Conventional (meets on campus regularly on the days/times the course is scheduled)

- Hybrid (meets on campus irregularly while also utilizing online features such as Teams/Zoom or eLearn)
- Desktop Video Course (does not meet on campus but does meet regularly on the days/times the course is scheduled using Teams or Zoom)
- Web Course (does not meet on campus or utilize Teams/Zoom; course is in eLearn only)

7. In which division is your intended major housed?

- Behavioral and Social Sciences (ex: Education, General Studies, History, Kinesiology, Psychology, Social Work, etc.)
- Business (ex: Accounting, Agriculture, Business Administration, Culinary, Hospitality, Marketing, Paralegal, etc.)
- Health Programs (Health Information Management, Health Sciences, Nursing, OTA, PTA, Respiratory Care, Surgical Technology, etc.)
- Humanities (Art, Communication, Dance, Music, Spanish, Theatre, etc.)
- Mathematics (Math, Math Education, Pre-Engineering, etc.)
- Natural Science (Biology, Chemistry, Geology, Physics, Pre-Health Professions, etc.)
- Public Safety (Criminal Justice, EMT, Fire Science, Law Enforcement, Paramedic, etc.)
- Technical Education (Computer Science, Electrical Engineering, Engineering Technology, etc.)

8. What is your enrollment status?

- Full-time (Enrolled in at least 12 credit hours per semester)
- Part-time (Enrolled in less than 12 credit hours per semester)

9. Please select your gender.

- Male
- Female

10. What is your age?

- 18-20
- 21-25
- 26-30
- 30-35
- 36-40
- 41-45
- 46-50
- 51+

11. Please select your ethnicity.

- American Indian or Alaskan Native
- Asian
- Black or African American
- Hispanic or Latinx
- Hawaiian or Pacific Islander
- White
- Other

12. Which one of AVCC's campuses do you consider to be your home campus?

- North
- East
- West
- South
- Central

Online

13. Would you be willing to participate in a confidential interview to further discuss college remediation?

Yes

No

Skip To: Question 14 if response is = Yes

Skip To: End of Survey if response is = No

14. Would you be willing to maintain a journal in which you would confidentially record your experiences with Learning Support courses to further discuss college remediation?

Yes

No

Skip To: Question 15 if response is = Yes

Skip To: End of Survey if response is = No

15. Thank you for your willingness to participate in this study. Please provide your first and last name (your identity will remain confidential).

16. Please enter the e-mail address that can be used to reach you.

17. Please enter the phone number that can be used to reach you.

18. Please select your preferred method of contact.

E-mail

Phone

APPENDIX B: Participant Recruitment Email

Dear Student:

As a doctoral student in the School of Education at Liberty University, I am conducting research as part of the requirements for a doctoral degree. The purpose of my research is to gain a deeper understanding of how community college students perceive remediation and its associated impacts regarding finances, time to completion, and academic achievements. I am writing to invite eligible participants to join my study.

Participants must be current [REDACTED] students enrolled either full- or part-time, 18 years of age or older, and have either already completed or are currently enrolled in at least one Learning Support course. Participants, if willing, will be asked to complete an electronic survey (10-15 minutes), participate in an audio recorded interview (up to an hour), and maintain a journal (submit eight journal prompts over the course of four weeks). Names and other identifying information will be requested as part of this study, but the information will remain confidential.

To participate, please click or copy and paste the following link into your browser's address bar to complete the participant selection tool:

[REDACTED]

A consent document is included at the end of the participant selection tool. This document contains additional information about my research. You will need to provide your digital signature and the date that it was signed to indicate that you have read the consent information and would like to take part in the study.

Sincerely,

Amy Taylor
Liberty University Doctoral Student

[REDACTED]

APPENDIX C: Appalachian Valley Community College Remediation Placement Chart

<u>Discipline</u>	<u>ACT</u>	<u>SAT</u>	<u>Accuplacer</u>	<u>SAILS Math</u>	<u>Placement</u>
English	1 – 17	Critical Reading 200 – 489	200 – 249		LS Writing and English Composition I and stand-alone The College Experience
English	18 – 36	Critical Reading 490 – 800	250 – 300		Enroll in non-co-requisite English Composition I
Reading	1 – 18	Critical Reading 200 – 499	200 – 249		LS Reading and Public Speaking and The College Experience
Reading	19 – 36	Critical Reading 500 – 800	250 – 300		Enroll in non-co-requisite Public Speaking
Math	1 – 15 and Reading score of 1 – 18	1 – 300 and Reading score of 200 – 499	200 – 226 and Reading score of 200 – 249		Learning Support Math and The College Experience
Math	16 – 18	Mathematics 200 – 499	227 – 249	0 – 6 on any SAILS Math test	Learning Support Math and Introductory Statistics and The College Experience
Math	19 – 36	Mathematics 500 – 800	250 – 300	7 or higher on all SAILS Math tests	Enroll in non-co-requisite college-level math course as required for major

APPENDIX D: Tennessee Board of Regents Remediation Placement Policy

Section 1. DEFINITION OF TERMS

- A. “Learning Support” is defined as the academic support needed by a student to be successful in college level general education courses and/or to meet minimum reading, writing, and mathematics competencies as required by faculty in programs that do not require general education courses in reading, writing, and/or mathematics. The purpose of learning support is to enhance academic success in college level courses and increase the likelihood of program completion that will prepare students for career success in their chosen field of study.
- B. “Co-requisite Learning Support” is defined as the linking of Learning Support courses or experiences, with an appropriate college level course that is required in the student’s chosen field of study, so that the student is enrolled concurrently in both Learning Support and appropriate college level courses that are applicable to the student’s academic pathway.
- C. “Valid Assessment Scores” is defined as those recognized from sources approved by the Vice Chancellor that are no more than five years old prior to the first day of class for the student’s entering term.

Section 2. POLICIES AND GUIDELINES.

- A. Each community college in the College System of Tennessee must provide academic support, known as Learning Support, using the framework provided in the “Fundamental Features of Co-Requisite Remediation.”
- B. The delivery of Learning Support must be in accordance with the procedures specified below.

- C. Exceptions to this policy or procedure must be approved in writing by the Vice Chancellor of Academic Affairs.

Section 3. PROCEDURES.

I. Assessment and Placement.

- A. Students who do not present valid ACT, SAT, or other approved valid assessment scores, that demonstrate college readiness based upon established cut scores, or other documentation to the contrary (exhibit 2), will be placed into the appropriate co-requisite learning support course(s) or interventions for reading, writing, and/or mathematics as defined by the academic program requirements.
- B. Students with transferable college-level courses may be exempt from the corresponding co-requisite learning support course(s) or completing assessments.
- C. Academic programs that do not require specific college level courses, i.e., in math, English, or reading intensive courses used for placement, may have faculty-prescribed learning support courses established as prerequisites/co-requisites specific to the degree program or certificate if deemed necessary for workforce readiness in the field of study.
- D. Institutions will provide, or may require, assessment(s) to allow students to challenge placement into co-requisite learning support if they have not met established criteria.
1. The challenge assessment will be a TBR approved nationally normed, standardized assessment that will be identified in the institution's Catalog and/or Student Handbook and listed as one of the approved options in (exhibit 2).
 2. In addition to this assessment, the institution may choose to require a writing sample for placement in ENGL 1010.
- E. Degree Seeking Students: Degree seeking students, either first-time or transfer, entering without valid assessment scores, or transferable college level credit, will be enrolled into

the appropriate subject area co-requisite learning support course along with the paired college level course or may be given the option of challenge testing to place into college level courses without learning support.

F. Special Students: Non-Degree Seeking/Certificate Programs

- a. Non-degree seeking students entering without transferable college- level courses will be subject to the same placement standards and procedure prior to enrollment in college level general education courses that are subject to learning support criteria. The designation of the reading-intensive course to be accepted as transferable will be made by the receiving institution.
- b. Students who change to degree-seeking status will be assessed under guidelines for degree seeking students.
- c. For students desiring to take one or more courses for personal or professional development, the institution will establish a policy to address the need for assessment.

II. Parameters.

A. Organizational Structure

1. The president of each institution will determine the organizational structure and coordination of learning support services for the institution.
2. Each institution will establish criteria for the selection of learning support faculty consistent with professional standards within the discipline and SACSCOC accreditation standards.
3. Institutional policies will apply to faculty and staff whose primary role is learning support.

B. Learning Support Framework

1. Institutions will develop a co-requisite plan for reading, writing, and math as referenced by the *Fundamentals of Co-Requisites Remediation* document.
2. Learning Support plans and delivery must not delay enrollment of students into appropriate college level courses applicable to the chosen program of

study. Learning Support must be provided concurrently with required college level courses, rather than prior to enrolling in required college level courses.

- a. Learning support competencies should be addressed as quickly as possible, beginning with the student's first semester. Students requiring learning support in multiple areas must address at least one subject area per term until all learning support requirements are completed or satisfied.
 - b. When placement requires remediation in more than one subject area, learning support competencies may require more than one semester of work, but should be completed within the first 30 semester credit hours. In this case, it may be appropriate to address literacy requirements prior to math.
3. Only learning support at the high school level as defined by Tennessee Department of Education qualified for federal financial aid.
4. Unless noted as an exception (see next item), learning support will be provided through co-requisite delivery with college level courses that have been approved by the Vice Chancellor of Academic Affairs.
5. As an exception, stand-alone learning support may be provided only on a limited basis to support students whose program does not require college level math, and/or English 1010, and/or reading intensive courses, but the program requirements established by the faculty do include successful demonstration of learning support competencies.
6. Full-time faculty who teach college-level courses must be involved in the development of appropriate co-requisite curricula and delivery plans that support the linked college-level courses. It is recommended that either the same faculty member teach the support and linked college level course, or that the individuals who teach these paired courses have routine communication to identify ways to improve student success.

7. The learning support course or experience must address the competencies determined to be appropriate for college readiness (exhibits 3, 4, and 5), and must be aligned with the competencies required in the linked college-level course to facilitate successful completion of the college-level course.
8. Community colleges may provide learning support through credit-bearing courses or non-credit interventions.
9. With Board approval, learning support lab fees may be established in lieu of tuition.
10. Credit hours assigned to pre-college level learning support should be kept to a minimum, and must allow students to satisfy the learning support requirements for any given academic program with at most 3 semester credit hours defined in any subject area and a total of no more than 9 semester credit hours to define all three subject areas combined. If a student changes to a program that requires an algebra-based math, additional learning support may be applicable.
11. “Learning Strategies” will not be offered as a required learning support course. While these skills should be incorporated across the curriculum, learning strategies should be addressed in the first-year experience college success course.
12. Regarding the students receiving VA benefits, each institution will ensure that learning support is provided in compliance with the eligibility provisions of the rules and regulations of the U.S. Department of Veterans Affairs, including requirements for class attendance.

C. Student Records

1. Students will demonstrate mastery of the defined Learning support competencies at a level comparable to a passing grade.

2. Successful completion of a student's learning support requirements will be recorded on the student's academic record with or without the assignment of standard grades. Pass/Fail may be used in lieu of assigned grades.
3. Institutions are encouraged to provide academic support in a variety of ways other than learning support courses. This is especially true for efforts to close achievement gaps or otherwise serve the needs of target populations.
4. Student progress and completion of learning support requirements will be recorded in Banner and posted to the academic record.

D. Student Transfers Among TBR Community Colleges

1. Student learning support information will be provided upon request. When a transcript is requested, the institution must send placement and enrollment status reports for transferring students that includes student record of progress and completion of learning support competencies or courses.
2. Institutions must honor approved standardized assessment scores (exhibit 2) sent as official documents from another community college in the College System of Tennessee.
3. Regardless of the strategies and activities used to provide learning support, once mastery learning has been documented by the institution, all TBR institutions must accept that documentation.
4. If mastery learning for required competencies has not been documented as satisfied, the receiving institution will default to co- requisite learning support. The institution may provide the opportunity for challenge testing.

III. Accountability – Evaluation of the learning support services is a continuous improvement process. The institution will monitor TBR established benchmarks and annual performance indicators to demonstrate progress of students who are placed in learning support.

A. Measure of Success

1. Success will be measured by: (1) student completion of learning support, (2) enrollment and success in college entry-level courses for which students have received learning support, (3) fall-to-fall retention, (4) graduation rates, and (5) time to graduation.
2. Additional data measures may be established and reported by the institution to document and evaluate efforts to increase student access and success.

Section 4. AUTHORITY.

T.C.A. § 49-8-203, T.C.A. § 49-7-147 Complete College Tennessee Act of 2010.

Section 5. HISTORY.

Approved at Presidents Meeting August 17, 2010 (Revised former guideline A-100, Basic/Developmental Studies Program (DSP) Operational Guidelines); Presidents meeting February 14, 2012. Revisions approved at Presidents Meeting November 8, 2016. Revised and changed to policy, Board Meeting March 21, 2019.

APPENDIX E: Consent Form

CONSENT FORM

REMEDICATION AS PERCEIVED BY COMMUNITY COLLEGE STUDENTS:

A CASE STUDY

by Amy Taylor

Liberty University School of Education

You are invited to participate in a research study regarding attitudes and perceptions towards college remediation. You have been selected as a potential participant because you are a student currently enrolled full- or part-time, over the age of 18, and have completed at least one Learning Support (LS) course or are currently completing a LS course. Before agreeing to participate in this study, please take the time to read this form and ask any questions you may have. This study will be conducted by Amy Taylor, a doctoral student in School of Education at Liberty University.

Background Information: The purpose of this study is to understand students' attitudes and perceptions regarding college remediation. The research questions that will be guiding this study are: (1) What are the perceptions of community college students regarding remediation? (2) What are the perceptions of community college students regarding the financial impact of remediation? (3) What are the perceptions of community college students regarding the impact of remediation as it relates to degree-seeking students' time to completion? (4) What are the perceptions of community college students regarding the effectiveness of remediation as it relates to their academic achievements?

Procedures: By agreeing to participate in this study, you will be asked to complete the following items as assigned: (1) Participate in an online survey. The survey should take approximately 5-10 minutes to complete and responses will remain confidential. As part of the survey, participants will be given the opportunity to volunteer to participate in a confidential one-on-one interview and maintain a journal documenting personal experiences with remediation. (2) Participate in an interview that will be recorded but remain confidential, lasting approximately one hour. Interviews may be held in-person or virtually using Zoom video conferencing software. (3) Keep a journal in which personal experiences regarding remediation will be documented. All journal entries will remain confidential and may be submitted electronically or in handwritten form. (4) Interviews will be transcribed. If interviewed, you will need to read and approve the transcription of your interview to ensure accuracy. This process should take approximately 20 minutes.

Risks: The risks associated with participation in this study are minimal, meaning that they are equal to risks that you would encounter in your everyday life.

Benefits: Participants will not receive any direct benefits from taking part in this study. However, benefits to society may include awareness of students' attitudes toward college remediation so that administrators may address particular issues that may have been otherwise unknown and verify that enforced policies are beneficial to students.

Compensation: Participants will not receive any form of compensation for participating in this study.

Confidentiality: All records from this study will be kept strictly confidential. If published in any type of report, any information that could make it possible to identify a participant will be withheld. All records will be stored securely and only be able to be accessed by the researcher. All participants will be assigned pseudonyms to protect their identity. All interviews will take place in a private setting that would prevent individuals not associated with the study from hearing any parts of the conversation. All interviews will be recorded and transcribed to ensure accuracy. All obtained data will be stored on a password locked computer and may be used in future presentations. All electronic records obtained from this study will be destroyed after three years. Interviews will be recorded and transcribed.

Voluntary Nature of the Study: Participation in this study is strictly voluntary. Your choice of whether or not to participate will not affect your current or future status regarding any courses that you are currently enrolled in, financial assistance eligibility, transcript requests, graduation eligibility, or other factors as they relate to AVCC. If you choose to participate in the study, you will maintain the right to decline to answer any questions and may withdraw from the study at any time.

How to Withdraw from the Study: If you choose to withdraw from the survey portion of the study, kindly exit the survey and close your internet browser. Doing so will ensure that your responses will not be recorded or included in the study. If you choose to participate in an interview and later decide to withdraw from the study, contact the researcher at the email address/phone number included below. If you choose to withdraw, any data collected from you will not be included in the study and will be immediately destroyed.

Contacts and Questions: Amy Taylor is the researcher that will be conducting this study. You may ask any questions that you have about the study now. If you have questions that arise later, **you are encouraged** to contact her at [REDACTED]. You may also contact the researcher's dissertation chair, Dr. Jeremiah Koester, at [REDACTED]. If you have questions or concerns regarding this study and would like to talk to someone other than the researcher, **you are encouraged** to contact the Institutional Review Board, 1971 University Blvd., Green Hall Ste. 2845, Lynchburg, VA 24515 or email at irb@liberty.edu. *Please notify the researcher if you would like a copy of this information for your records.*

Statement of Consent: I have fully read and understood all information provided above. I have been given the opportunity to ask questions and have received answers. I consent to participate in the study.

- I agree to participate in the study
- I do not agree to participate in the study

APPENDIX F: Participant Selection Notification Email

Dear Student:

My name is Amy Taylor and I am conducting research about community college students' perceptions of remediation. A couple of weeks ago, you completed a questionnaire in which you stated that you meet the criteria needed and would be willing to take part in my study. I am writing to let you know that you have been selected as a participant. Your next steps will be to complete a survey and schedule your interview.

The survey should only take around 10-15 minutes to complete. You are encouraged to be as honest and forthcoming as you are comfortable in your responses. As a reminder, your identity will remain confidential and a pseudonym will be provided for you. Participating in my study cannot affect your standing with Walters State Community College in any way. Please complete the survey by no later than October 6, 2022:

[REDACTED]

After completing the survey, use the following link to schedule our one-on-one interview:

[REDACTED]
[REDACTED]

To participate, please click or copy and paste the following link into your browser's address bar to complete the participant selection tool:

[REDACTED]. The interview should take around an hour and can be conducted in person or virtually via Zoom. If none of the days/times shown are convenient for you, let me know by replying to this email and I'll work with you to find a better time for us to talk.

Thank you for the time and effort you have given in helping me with this research. I look forward to meeting you soon!

Amy Taylor
Liberty University Doctoral Student

APPENDIX G: Liberty University IRB Approval Notification

Date: 9-22-2022

IRB #: IRB-FY21-22-951

Title: Remediation as Perceived by Community College Students; A Case Study

Creation Date: 4-10-2022

End Date:

Status: **Approved**

Principal Investigator: Amy Taylor

Review Board: Research Ethics Office

Sponsor:

Study History

Submission Type	Initial	Review Type	Exempt	Decision
				Exempt - Limited IRB

Key Study Contacts

Member	Jeremiah Koester	Role	Co-Principal Investigator	Contact	[REDACTED]
Member	Amy Taylor	Role	Principal Investigator	Contact	[REDACTED]
Member	Amy Taylor	Role	Primary Contact	Contact	[REDACTED]

APPENDIX H: Appalachian Valley Community College IRB Approval Letter

Request ID: Approval #: 22-24

**Research Project Information Form
Walters State Community College
Institutional Review Board**

Application Date:

Project Title: Remediation as Perceived by Community College Students: A Case Study

Study Director

Name:	Amy Taylor
Division:	Liberty University School of Education
Program:	PhD in Education; Emphasis in Curriculum and Instruction
Office:	N/A
Phone Number:	[REDACTED]
Email Address:	[REDACTED]

Funding Source

<input type="checkbox"/> Grant: <input type="checkbox"/> Federal <input type="checkbox"/> State <input type="checkbox"/> Intramural <input type="checkbox"/> Non-Profit <input checked="" type="checkbox"/> None	<input type="checkbox"/> Corporate: Company Contact Name Address City State ZIP		Title Email Phone	
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Project Period

From: 04/20/2022
To: 04/19/2023

Other Participating Institutions/Organizations:

Institution	Liberty University
Contact Name	Dr. Jeremiah Koester
Role on Project	Dissertation committee chair
Email	[REDACTED]
Phone	[REDACTED]
Institution	N/A
Contact Name	N/A
Role on Project	N/A
Email	N/A
Phone	N/A

Signatures:

The principal academic review of the proposal is the responsibility of the office of Academic Affairs. Signatures certify that all information on this form is accurate. No project involving humans may be undertaken until a protocol has been approved by the Institutional Review Board. The office of Institutional Effectiveness and Compliance (IEC) is authorized to release the protocol and supporting information to cooperating institutions and/or sponsors listed in the application. All work will be performed in accordance with Tennessee Board of Regents and sponsor policies and follow commonly accepted scientific practices in conducting, recording, and interpreting research. Any changes in the status of conflict of interest (financial benefit) during the grant/contract (if applicable) period will be reported to the Institutional Review Board.

Study Director:

Signature: Amy Taylor Date: Jun 16, 2022

Division Dean or Administrative Supervisor (if applicable)

Signature: [REDACTED] Date: Jun 22, 2022

Assistant Vice President for Institutional Effectiveness: [REDACTED]

Signature: [REDACTED] Date: Jun 22, 2022

Vice President for Academic Affairs: [REDACTED]

Signature: [REDACTED] Date: Jun 23, 2022

Vice President for Student Affairs: [REDACTED]

Signature: [REDACTED] Date: Jun 23, 2022

President: [REDACTED]

Signature: [REDACTED] Date: Jun 23, 2022

APPENDIX I: List of Participant Selection Tool Demographic Information

<u>Name</u>	<u>Age</u>	<u>Campus</u>	<u>Gender</u>	<u>Major</u>	<u>Enrolled</u>	<u>Race</u>	<u>Current LS</u>	<u>Prior LS</u>	<u>Math</u>	<u>Writing</u>	<u>Reading</u>	<u>Format</u>
Dora	21-25	West	F	Surgical Technology	PT	White		x			x	CON
Sybill	46-50	Central	F	Pre-OTA	PT	White	x	x	x	x	x	CON & WEB
Helena	21-25	Central	F	Nursing	PT	White		x	x			HYB
Elizabeth	18-20	Central	F	Pre-Nursing	FT	White		x			x	CON
Brian	26-30	Central	M	Accounting	FT	White		x	x			CON
Katie	18-20	West	F	Business Administration	FT	White	x		x	x	x	CON
Molly	30-35	West	F	Surgical Technology	PT	White		x	x	x	x	CON
Jane	30-35	Central	F	LPN to RN Nursing	FT	White		x	x	x		WEB
Lily	41-45	Central	F	Nursing	FT	White		x	x	x	x	CON
Poppy	26-30	West	F	Nursing	FT	White		x	x	x	x	CON

APPENDIX J: Survey Questions

1. How long have you been a student at AVCC?

- Less than 1 year
- 1 year
- 2 years
- 3 years
- 4 years or longer

2. How many Learning Support courses have you been or are you required to complete?

- 1
- 2
- 3

3. How many Learning Support courses have you already completed?

- None yet, but I'm currently enrolled in at least one.
- 1
- 2
- 3

4. Explain why you were/are required to complete Learning Support.

5. Identify any AVCC individuals that you have worked with regarding your Learning Support Courses.

- Instructor of the Learning Support course you completed/are enrolled in
- Academic advisor

- Tutor
- Division dean or campus dean
- Instructor of a different course you completed/are enrolled in
- Librarian or library assistant
- Classmates
- Sports coach or assistant
- Guidance counselor
- Admissions or retention services personnel
- Financial Aid personnel
- Vice president
- President
- Other (please explain)_____

6. Explain why you worked with that/those individual(s) for your Learning Support course(s) and how you felt about the interaction.

7. Identify the individual that first informed you that you would have to take Learning Support Courses.

- High school personnel (guidance counselor, teacher, principal, etc.)
- Testing center proctor
- Faculty advisor (an individual who is primarily a college instructor but advised you for registration)
- Academic advisor (an individual who does not instruct a course and advises for a particular division)
- Family member

- Friend
- College counselor
- Sports coach or assistant
- Admissions or retention services personnel
- Financial Aid personnel
- Other (please explain)_____

8. Please explain how you felt when you learned that you would need Learning Support.

9. According to the Tennessee Board of Regents, the purpose of Learning Support placement is to: [reflect] the commitment of The College System of Tennessee and its institutions to enhance access to and success in post-secondary education for all students. The policy presents the parameters for the delivery of academic support made available for students who may require additional assistance for developing competency in reading, writing, and/or math needed for success in college level courses

Do you believe that this policy provides the support that students need to be successful in college?

- Yes
- No
- I'm not sure

Skip To: Question 10 if response is = Yes

Skip To: Question 11 if response is = No

Skip To: Question 12 if response is = I'm not sure

10. Please explain why you believe that TBR's remediation policy provides the support that students need to be successful in college.

11. Please explain why you believe that TBR's remediation policy does not provide the support that students need to be successful in college.

12. Please explain why you are unsure whether or not TBR's remediation policy provides the support that students need to be successful in college.

13. Explain how you feel about the financial cost(s) of your Learning Support course(s). These costs may include tuition, textbooks, classroom materials, lab/access fees, or other factors.

14. What changes would you make to TBR's current remediation policy and why?

15. Please provide your digital signature by entering your first name, last name, and date below.

APPENDIX K: Survey Responses

How long have you been a student at [REDACTED]? 10 ①



How many Learning Support courses have you been or are you required to complete? 10 ①



How many Learning Support courses have you already completed? 10 ①



Explain why you were/are required to complete Learning Support. ⓘ

It's been awhile since high school

For completion of a degree:

I was homeschooled and didn't take the ACT. I went to WSCC to take the Accu-placer but did poorly on it, therefore putting me in learning support classes

My grades were not the best certain subjects

Needed refresher on basic math skills

Low scores on my ACT

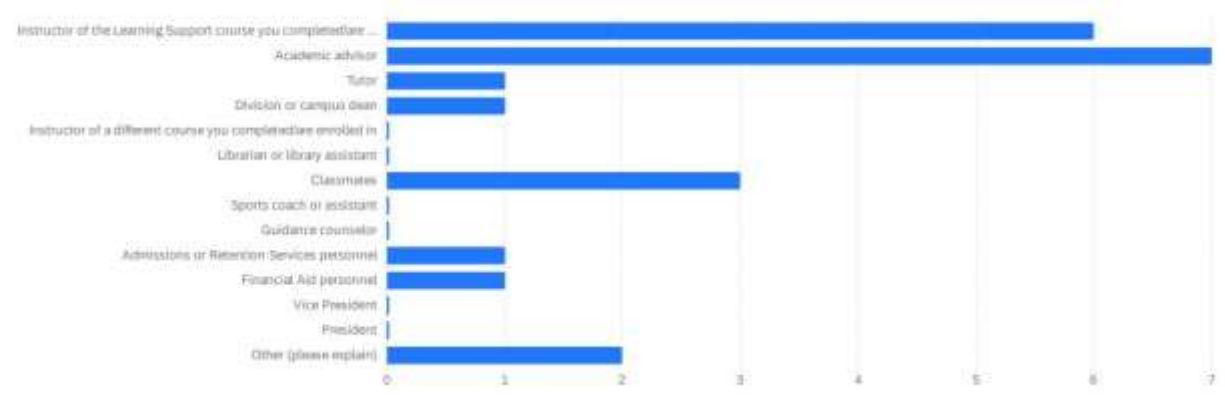
I didn't Pass my ACT.

Low ACT score

The only Learning Support course I had was Reading. I was in it because I made a low score on my ACT from high school in the subject.

Math was not sufficient

Identify any individuals that you have worked with regarding your Learning Support courses. ⓘ ⓘ



Identify any individuals that you have worked with regarding your Learning Support courses.: Other (please explain) ⓘ

Math lab assistance

none

Explain why you worked with that/those individual(s) for your Learning Support course(s) and how you felt about the interaction. ①

They all were amazing and ver helpful.

It was extremely helpful.

I felt good about the interaction. My academic advisor had my best interest and felt that I could benefit from learning support classes

I worked with these certain people on my learning support classes so that I could do my very best in those certain classes. I wanted to make sure I was setting myself up for success by getting any extra help that I may have needed

My professor did a decent job explaining and the person that runs the math lab was very friendly. It was a positive experience for me.

I felt it was all unnecessary as we just did silly things on the computers and really didn't learn anything.

none

I did not feel like the learning support courses were helping me at all. It was stuff I already knew and learned in highschool and it wasted my time doing them over again.

I worked with these people to get into that class and asked them questions if I was having trouble.

The teacher that ran the course was very helpful.

Identify the individual that first informed you that you would have to take Learning Support courses. 10 ①



Please explain how you felt when you learned you would need Learning Support. ⓘ

Well not bad I needed to be a refresher.

Apprehensive, but Mrs. Amy explained to me why the courses were needed.

At first, I honestly didn't know what a learning support class was but when I found out, it made me feel like I wasn't smart enough for college. But looking back, I feel like it better prepared me for my college level classes.

It made me feel like I was not as smart as some of my other friends that did not need these classes.

Made sense to me. They said I was close enough to potentially not need the learning support if I tried again, but I didn't bother trying as I felt I needed it.

I really didn't feel any type of way, because I knew I had been out of school for a while. I really thought I could use a refresher course.

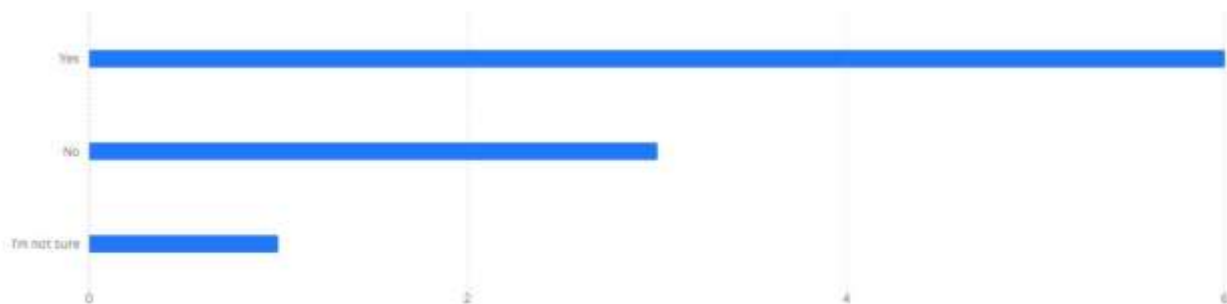
I was not surprised due to my experience with highschool classes.

Frustrated, aggravated.

I actually was glad I got the Learning Support Reading course so I can refresh my mind from high school to help with future classes.

I was sad because that means it would have taken me longer to graduate.

According to the Tennessee Board of Regents (TBR), the purpose of Learning Support placement is to: [reflect] the commitment of The College System of Tennessee and its institutions to enhance access to and success in post-secondary education for all students. The policy presents the parameters for the delivery of academic support made available for students who may require additional assistance for developing competency in reading, writing, and/or math needed for success in college level courses. Do you believe that this policy provides the support that students need to be successful in college? ⓘ ⓘ



Please explain why you believe that TBR's remediation policy provides the support that students need to be successful in college. ①

All the teachers are knowledgeable

These courses get students ready to excel in their courses of study

I believe it does support students because it is made accessible to all student no matter their background. I know learning support classes helped me for my future college level classes and showed me that I wasn't the only student to need extra help in a particular subject

I believe that this support helps students work on subjects they are struggling with before they get deep into college. This prepares students like myself for what we are getting into with certain classes.

I learned skills in the class that helped me later in other classes and it made math fun and interesting for me

I agree with the policy because when taking those learning support courses, you have the opportunity to have a second chance at the information you were struggling in the past. The refresher will help regain the knowledge you missed or didn't understand to help in the future.

Please explain why you believe that TBR's remediation policy does not provide the support that students need to be successful in college. ①

It is pointless and a waste of financial aid for the reading and writing only the math should be mandatory

These learning support classes are wasting valuable time in a course that we can do for our particular career/course of study. Instead of taking remedial classes, we could move up to a class of our course.

I think in the remediation courses they just give you a good grade to get you out of that class. That it is basically reviewing and it doesn't matter whether you learn anything or not.

Please explain why you are unsure of whether or not TBR's remediation policy provides the support that students need to be successful in college. ①

I just don't really have an opinion about it. I mean, it's not the best to be put into support classes but if it means that I can move forward from all of needing help all the time then that's just something I have to do.

Explain how you feel about the financial cost(s) of your Learning Support course(s). These costs may include tuition, textbooks, classroom materials, lab/access fees, or other factors. ①

I think if you need it it will be OK

I have had to purchase books and transportation but I have had scholarships that have assisted me so it's been fine.

I feel like the costs of my learning support classes were more on the cheaper end. Tuition and fees included, it was less expensive than college level classes. All that was required of me to purchase was a textbook and a TI-83 calculator

Thankfully I had scholarships from high school that helped me with these courses, but if I did not have those, I would not have been happy about taking classes that I have basically already taken in high school.

I was lucky to have reconnect cover my tuition. I would not have been able to go to college without it

I don't think they should cost as much as regular classes because after all they don't count towards your overall degree.

I got free money from the scholarships that paid for this year's tuition, I have nothing to feel or say about it besides thank you.

The costs were not horrible, but definitely too much for "remedial" courses.

With the Reading Learning Support course: the only requirement was an online source. I was really relieved we didn't have to spend money on a book. But I feel non-stressful that financial aid give us access to the help for our textbooks, tuition, materials, lab fees, etc because it gives us help so we don't have to struggle coming up with the money to afford to have the education and requirements we need.

These classes if mandatory should be free to the student

What changes would you make to TBR's current remediation policy and why? ⓘ

None

Make it optional or if there was assistance specifically for these courses. People like options.

I wouldn't change anything because I agree with it completely.

I would have the school help pay or pay fully for the extra classes that they have students take, or I would have the students high school pay for these classes since they were not fully prepared by their school for college level classes.

Counseling prior to the class to clarify goals and purpose of the class(es)

I really think they shouldn't have the classes because it is a waste of money.

Nothing, because I'm sure there are plenty of students that do need these types of classes.

I would not make students take learning support unless they have been out of school or graduated 5+ years.

I wouldn't make any changes to the TBR's remediation policy.

I would again make only math mandatory and the others optional. also ALL of the learning support should be free classes books and all

Please provide your digital signature by entering your first name, last name, and date below. ⓘ

APPENDIX L: Audit Trail

Date	Action
October - November 2020	In process of securing a dissertation chair and a methodologist
December 16, 2020	Dissertation chair and methodologist secured
January 25, 2022	Proposal submitted to dissertation chair
February 1, 2022	Dissertation chair submitted proposal to methodologist
March 23, 2022	Proposal defense
June 23, 2022	Received approval from AVCC IRB
August 5, 2022	Received approval from LU IRB
September 15, 2022	Participant recruitment email sent to AVCC IRB coordinator with request that it be sent to AVCC student body on 09/19/2022
September 19, 2022	Participant selection tool sent to AVCC student body
October 3, 2022	Participants selected for study notified via email and asked to schedule interviews
October 8, 2022	Conducted first interview
October 8, 2022	Began sending weekly journal prompts to participants as their interviews concluded
October 10, 2022	Began transcribing interviews
October 10, 2022	Began sending transcribed interviews to participants for member checking
October 16, 2022	Conducted last interview
October 17, 2022	All interview transcripts complete
October 17, 2022	Member checks complete
November 8, 2022	All journal entries received
January 4, 2023	Data analysis complete
February 24, 2023	Chapter 4 complete
March 14, 2023	Chapter 5 complete
March 16, 2023	Appendices and manuscript formatting complete

APPENDIX M: Example of a Transcribed Interview

Interviewee: [REDACTED]

Interviewer: Amy Taylor

Date of Interview: 10/14/2022

Location of Interview: Zoom

List of Acronyms: [REDACTED] AT=Amy Taylor

[Begin Transcript 00:00:01]

AT: The recording has now started.

[REDACTED]: Okay.

AT: Please introduce yourself and tell me a little more about yourself, as if we've never corresponded with one another before.

[REDACTED]: My name is [REDACTED]. I am 24 years old, and I have been at [REDACTED] for three years now, and I'm currently studying for nursing. I'm in the nursing program.

AT: Okay, and I know you just touched on this but I have to ask it, anyway. So, the question would be "How long have you been a student at [REDACTED]?" and you said three years. Is that continuous or did you ever take a break at some point?

[REDACTED]: It's been continuous.

AT: Okay. Have you been full-time every semester?

[REDACTED]: Um...

AT: That would be 12 [credit] hours. If you take at least 12 hours in a semester, that would be full-time.

[REDACTED]: I don't think I've been full-time the whole time. I think I was part-time a few semesters, but I'm full-time now.

AT: Okay. How would you describe your ability to face challenges and overcome them?

[REDACTED]: Um...let's see here...can you rephrase that again?

AT: Sure. So, just kind of thinking about any type of challenge that you want to. If that's something related to school or something in your personal life. How would you describe yourself as far as recognizing "This is a challenge," and then what do you do? I mean, do you just...be like "This is going to be hard. I just won't do it," you know?

[REDACTED]: Okay.

AT: Or are you kind of gung ho that "Okay, this is a challenge, but this is what I'm here for, and here's how I'm going to take care of it."?

[REDACTED]: Oh, yeah.

AT: So just however you feel you handle challenges and overcome them.

[REDACTED]: Okay, yes. I handle challenges really well. I'm not the kind of person who gives up. During my time in college, all I'd think about was getting into the nursing program and trying hard. And even though it's been a long, hard road, I've never gave up. I really strive to make the best grades I can in school and I'm not afraid to ask for help if I need it.

AT: Okay. Now, in your survey, you said that you have completed Learning Support for math.

■: Yes.

AT: How did you feel when you found out that you were going to have to complete the additional coursework?

■: I'm not going to lie to you, I was a little upset that I was going to have to take Learning Support classes. It made me feel like I was, I guess you could say *inadequate* to take to be in college. It made me feel like I wasn't prepared.

AT: Mm-hmm.

■: Yeah, I was pretty upset about it at first.

AT: So, you said "at first." Did that change or were you just still kind of frustrated with it even after you finished that class?

■: I was pretty upset for a while, and after I got my classes put together and knew what I was going to be taking, I was still a little upset and I was upset probably the first week of classes, you know? And then it started to change when I started being in that class.

AT: So, it sounds like you were just kind of annoyed at the idea of having to do it, but once you got in there, you felt differently.

■: Yeah, it made me feel like I was going to be behind in a way, which I know it wasn't, but it made me feel like I was going to be behind to be stuck in a Learning Support class.

AT: How do you see your remedial placements as being related to your major or your career goal?

■: Remedial placement?

AT: Yeah, so the math requirement. Because you just did math, right?

■: Yes, it was just math.

AT: Okay, so how do you see that Learning Support math class being related to your major or your career goal?

■: I believe that Learning Support math class did. It does have a link to the classes I'm in now. I mean, it gave me a basic understanding of math. Which I know math has never been my strongest subject, but now with the classes I'm taking I'm having to do a lot of math—actually more than I thought I would. So, it does give me an understanding. I feel like that Learning Support class did influence me and the classes I'm in now.

AT: Okay. What kind of impact do you think that requirement has had upon you with regard to your career goal?

■: Looking back to that math class, I think it had...it was good for me to take it. I don't regret taking it. I know I had to, but I do feel like, like I said, it did give me a better understanding of what to expect. So, I mean, I feel good about looking back and taking that class.

AT: So, when you say "what to expect," do you mean, like in other college classes that you would end up having to take? Or are you talking about, more specifically, a college-level math class?

■: I would say college-level math. I know I took statistics and that's a little more of a different type of math than what I was doing, but I feel like it was an easier level and it, like, prepared me to be in a harder level math class.

AT: Okay. So you said that you are in the nursing program now to become a registered nurse.

■: Yes.

AT: What kind of impact do you see in that Learning Support math class as far as a registered nurse goes? I mean, was there anything in there that [made] you think, "Yeah, it makes sense that a nurse would need to know this," or do you not see any relation at all?

■: I do see a relation. I feel like it was important that I took it. I mean, with nurses and nursing students, you have to do a lot of dosage calculations and the thing you're doing is called dimensional analysis and it's not taught in any math class. And, I mean, I think when I took that Learning Support class, like I said, I was upset at first, but I knew I wanted to get through and I wanted to make a good grade. I had to try really hard. I had to strive and I'm still doing that in my nursing classes today, I'm really striving and trying my best to do the best I can in my math portion of nursing classes.

AT: Okay. How has your remedial placement influenced your own attitude toward higher education?

■: Can you ask that again?

AT: Yeah, so your attitude toward higher education. So, just the idea, I guess. Before you even took a class, what was your attitude toward college? I mean, did you feel good about it? Did you think it was just kind of unnecessary? I mean, so how did you feel about attending college before you ever did?

■: Before I went to college, I really didn't know what I wanted to do and I'm not going to say, like, my family forced me to go to college. I knew I wanted to go to college, but I didn't know what for. So at first, I thought college was like one of those where it's like *meh*. I mean, I'm going to go and just see what I want to do. But that was my attitude at first.

AT: Okay, so when you did enroll and you found out you were going to have to do that remedial math class, did that change your attitude toward college at all?

■: Yeah, I believe it did. I mean, I just knew that the school didn't have the best outlook on me. And I realized, you know, college is going to be okay. It's going to be, it's going to be a good experience.

AT: So you're saying—and I do want you to correct me if I'm wrong, I just want to make sure we're on the same page—so, to me, it sounds like you're saying before college, you weren't necessarily opposed to going. You just thought it, you know, it was something that you would do. You were just kind of, you know, neutral. You know, just kind of "*meh*"?

■: Yeah, I was neutral about it. Like, I knew I needed to go to college, and I wanted to go to college, but I just didn't know what I wanted to major in. I didn't know what I was going for.

AT: You didn't know what you wanted to be when you grew up?

■: Yeah. I just, I had no idea until I got to college.

AT: Okay, so you get to college, you find out you've got to do this Learning Support, and you said "Yeah, that did change the way I felt about college." Did it change your opinion or alter your attitude in a positive way or was it more of a negative way?

■: I would say it was more of a positive. It was more positive, yes.

AT: Because you said you were disheartened...

■: At first, yeah.

AT: ...when you found out you were going to have to do that [remedial course], but...

■: Yeah. Like that first week or so, it did bother me, but like once I got through that class, I started realizing that it was going to be, it's going to get better and so I tried staying positive throughout it.

AT: How much time do you think was added onto your college career because of your Learning Support class?

■: How many hours?

AT: How much time?

■: I don't think it took up too much time. It like, college, they don't...

AT: I mean, do you think it put you a year behind, you know, your peers? Your classmates? Or do you feel like it didn't really change anything, or?

■: I mean, I still kind of feel like it did put me behind a little bit, but I understand that it was something that I needed to do. I needed to take that class, but I do feel a little bit behind.

AT: So, do you think that maybe you were, like, a semester behind? Or two semesters behind, or?

■: I wouldn't say more than a semester.

AT: Okay. How much money do you think those Learning Support classes cost you?

■: Um...I don't...it's been a while for sure, but I don't remember it being more than any other class. I don't remember it being, like a big difference. It was just like any other class or course that I took. But I can't give you...

AT: Yeah, it doesn't have to be a perfect number down to the penny, just...to the best that you can remember, do you remember how much that you paid for that class?

■: Um, I'm really trying to think of a number.

AT: And if you want to come up with a range, that's fine, too.

■: I mean, it was maybe I want to say between—I mean, and I know this is kind of broad—but it was somewhere between like, I want to say like \$300 to \$700, maybe? But, like I said, it's been a while.

AT: So, in that figure, are you counting just the tuition or are you counting books or materials or anything else in there as well?

■: I'm counting everything. The books, material, the tuition, the fees.

AT: How challenging do you believe your Learning Support course was?

■: I feel like it was a little challenging to me since I never really was great in math, but I feel like throughout the math class, I started to realize that I was doing better than I thought I was. I just didn't have the confidence in myself with math. But it was challenging at first.

AT: What do you think about the level of support that you received in your Learning Support class?

■: I feel like I was very supported. The teachers were very supportive and they really cared about your best interest and for you to understand the math. It was very, the class was very hands-on.

AT: Okay. How challenging would you say that the related college-level course was in comparison to the Learning Support counterpart?

■: I would say I would say it was, you know, it was more challenging to me. The other math class that I took that was required for my major was statistics and if I had to compare statistics to my Learning Support math, it was a lot more challenging. And plus, with my statistics class, it was hybrid and then mostly online because of Covid, so it was very hard to understand compared to my Learning Support class.

AT: Did you, I mean with your Learning Support class, did they do anything with you about statistics to kind of give you an idea of what you were going to face when you got there? Or was it different kinds of math?

■: The Learning Support class that I took at my school was mostly algebra. Like, it was algebra-related. There wasn't like any statistics or probability that was given to us. It was pretty much all algebra, so I don't feel like I had an outlook on what to expect in my college-level statistics class.

AT: Without having completed the Learning Support coursework that was assigned to you, what do you think the likelihood of completing its related college-level course would have been?

■: I feel like it would have been, I felt I would have had a harder time with the college-level class. The coursework in the Learning Support class they did, we did have a lot of homework and it did help me and let me practice the math. But, yeah, the coursework was well needed in that class.

AT: What kind of interactions have you had with college faculty and staff regarding that Learning Support requirement?

■: Nothing negative. I've not had much interaction about it besides with my advisor, really, but nothing was negative. It was all positive.

AT: How would you describe your overall experience with Learning Support coursework?

■: As I said at first, it was upsetting, but looking back on it, I just know that the Learning Support class made me realize I needed to try harder and it pushed me forward. It was a—looking back, it was a good experience.

AT: Okay. How would you define "academic achievement"?

■: I would define it as it's trying your hardest, finding time to study. You know, making a schedule and not being afraid to ask for help when you don't understand something because you know, there's another student in a class that's got the same question and they're not going to ask it and I feel like it's always good to ask questions. So, I feel like not being afraid to admit you don't understand something and just making a time and making a schedule to study. That would be the best academic achievement to me.

AT: At this point in your college career, what would you say has been your greatest academic achievement?

■: Um, I would just say, I mean the time and the road it took me to get in the nursing program was a big deal to me. I would just say it was, you know, getting into my nursing program and just being able to move on through it and now, being in second semester. I don't know, it's just, it's just really rewarding to know I'm almost there, and I'm almost done, and that next year, I'll be an RN.

AT: Presently, how do you think that your academic achievements compare to those of your peers?

■: Um, can you reword that for me?

AT: Yeah. So you mentioned that you felt like, at this point, your greatest academic achievement has been getting into the nursing program and being able to go through it to the point that, you know, you now see this light at the end of the tunnel.

■: Yeah.

AT: And you said, you know, "In a year, I'm going to be an RN." How would you compare that achievement for yourself to achievements of your peers? And peers could be your classmates, peers could be any college student, you know, that's around your age or, you know, entered at the same time.

■: Yeah.

AT: However you want to, you know, identify a peer. Would you think that your achievements are greater than theirs? Do you think they may be less? Do you think they're maybe even? So I mean, just in general and it may not even necessarily be true, but how do you think that your achievements compare to others?

■: I feel like it's about equal. I'm not going to say mine's greater than another student necessarily, but I feel like the road I've been through to get into the program, I've had to try a lot harder than most people, I believe. So if I had to compare myself to a classmate, it wouldn't be much different. I just feel like, you know, I had to try a lot harder to get into it.

AT: How do you feel about the remedial coursework you've done as far as effectiveness is concerned.

■: For the Learning Support?

AT: Mm-hmm.

■: I feel like it was very effective. They were very thorough with working with us in class and, as I said earlier, it was very hands-on. We all, you know, got up in worked in groups and we got sent home with homework. I feel like it was very effective, my learning in that class.

AT: How do you think that Walters State should approach students who may need remediation in the future?

■: I feel like just being like, I feel like the faculty should be just, you know, they should stay sensitive because they don't realize, you know, how it can be devastating to some students that have to take those classes. Because it may be that it may make them feel like they're not smart enough like as I did, and not saying that they weren't sensitive to me, but just to continue to stay sensitive to people that have to take those classes and feel like a little negative about it at first. But, other than that, they've been very supportive with me taking that class.

AT: So if someone were to approach you and say, "Hey ■■■■■, this is my very first semester and I have to do Learning Support math. I know you did it, what do I need to know?" I mean, is there something

that you feel like maybe you, personally, could have benefited with if someone had told you or not really?

■: I guess if someone would have told me they took Learning Support classes at the time that I was starting mine, I feel like I would have felt less alone in it. But if somebody approached me and was just wanting advice and asking my opinion on it, I would just tell that that, "Hey, it's a normal part of, you know, life. It's normal in college that you may need help and just don't look at it negatively and that, you know, it's going to be okay," I guess. I would not talk negative towards the Learning Support classes if someone asked me about it. But I'd just be very supportive toward that student.

AT: Okay. We have covered a lot of ground here and I certainly appreciate and commitment to this study. To conclude, what else do you think would be important for me to know about how you feel about remediation or how it has affected you?

■: Um, for remediation, you said?

AT: Mm-hmm, so that Learning Support math class that you did.

■: Um, I would just say that like, I'm grateful that I took it. I know it was well needed. It did support me through college, I believe, and I do look back on that class in a positive way. But, I guess, just that it was needed and I'm glad that I took it.

AT: Okay. Is there anything else that you want to add or any questions that you have?

■: Um, no, I don't believe so.

AT: Okay. The recording will now stop.

[End Transcript 00:22:19]

APPENDIX N: Enumeration Table

college-level	69	Education and Experience
content	49	
degree	38	
education	15	
elementary school	5	
goal	20	
graduate	10	
high school	67	
learn	98	
major	90	
middle school	7	
nontraditional	11	
plan	9	
prepared	14	
ready	4	
skills	15	
smart	16	
test	52	
traditional	11	
understand	55	
cost	20	Value
effective	13	
expensive	7	
fail	15	
financial aid	24	
help	141	
money	34	
need	99	
pass	35	
pay	28	
pointless	10	
purpose	17	
refresh	22	
relevance	10	
support	28	
time	146	
unhelpful	27	
useful	22	
waste	17	

APPENDIX O: Research Questions Addressed by Interview Questions

Research Questions	Interview Questions
<p>What are the perceptions of community college students regarding remediation?</p>	<p>5. How do you see your remedial placement(s) being related to your major or career goal?</p> <p>6. What kind of impact do you think that requirement has had upon you with regard to your career goal?</p> <p>7. How has your remedial placement influenced your attitude toward higher education?</p> <p>11. What do you think about the level of support that you received in your Learning Support class/classes?</p> <p>15. How would you describe your overall experience with Learning Support coursework?</p>
<p>What are the perceptions of community college students regarding the financial impact of remediation?</p>	<p>9. How much money do you think that your Learning Support class(es) cost you?</p>
<p>What are the perceptions of community college students regarding the impact of remediation as it relates to degree-seeking students' time to completion?</p>	<p>8. How much time do you think was added onto your college career because of your Learning Support class(es)?</p>
<p>What are the perceptions of community college students regarding the effectiveness of remediation?</p>	<p>10. How challenging do you believe that your Learning Support course(s) was/were?</p> <p>12. How challenging would you say that the related college-level course(s) was/were in comparison to the Learning Support counterpart(s)?</p> <p>13. Without having completed the Learning Support coursework that was assigned to you, what do you think the likelihood of completing its related college-level course(s) would have been?</p> <p>19. How do you feel about the remedial coursework that you've done as far as effectiveness is concerned?</p> <p>20. How do you think that AVCC should approach students who may need remediation in the future?</p>

APPENDIX P: Research Questions Addressed by Journal Prompts

Research Questions	Journal Prompts
What are the perceptions of community college students regarding remediation?	1. If you are currently enrolled in Learning Support course(s), describe how you felt about the course(s) after your first week of enrollment. If you are not currently enrolled in a Learning Support course but have already completed at least one, recount how you felt about the course after your first week to the best of your memory.
What are the perceptions of community college students regarding the financial impact of remediation?	5. Recall the financial costs that you have faced as a result of being enrolled in college thus far as well as those you expect to face in the future. Explain how your experiences with Learning Support are related to these costs.
What are the perceptions of community college students regarding the impact of remediation as it relates to degree-seeking students' time to completion?	6. Students typically expect to spend between 2-3 years to earn their associate's degree. Compare the academic plan for your major with the progress that you have already and/or are currently making toward earning your degree and describe how your Learning Support course(s) relate to your academic plan. Detail how/if Learning Support added, reduced, or made no difference in your expected time to completion and how you feel about the impact.
What are the perceptions of community college students regarding the effectiveness of remediation?	7. If you have already completed a Learning Support course, identify any specific materials, activities, content, assignments, lessons, etc. that you found to be particularly beneficial to you and why. Benefits may be directly applied to other courses, personal situations, professional experiences, your status as a college student, or any other part of your life. If you have not completed a Learning Support course but are currently enrolled in one, identify how you feel that your Learning Support could or will influence any of the specifics previously listed and why. 8. Reflect upon your experience(s) with Learning Support and describe how effective you perceive it to be. Effectiveness may include whether or not you believe you could have passed its college-level counterpart without it (math < statistics, college algebra

	<p>or higher; reading < public speaking; writing < English I), learning new material, concepts, or skills that you found to be useful for other courses, in the personal/professional aspects of your life, as a college student, etc. If your experiences make you feel like Learning Support was ineffective, address the previously listed factors or include any others.</p>
<p>All research questions</p>	<p>2. Explain the concerns that you feel/felt about having to complete Learning Support. Concerns may be academic, personal, financial, professionally, emotional, etc. If your concerns are/were related to multiple aspects, please explain how your feelings are/were related to each one.</p> <p>3. After reviewing the list of courses required for your major, explain the significance of completing your Learning Support course(s). If you do not believe that Learning Support is important for your major, explain why.</p> <p>4. Describe how you feel/felt about your Learning Support course when compared to a college-level course. The college-level course may be one that was paired with Learning Support or one that is outside of your Learning Support's subject area. Feelings may include but are not limited to time, content, skills, learning strategies, finances, or significance. If your feelings affected more than one factor, please address each one.</p>

APPENDIX Q: Interview Questions

1. Please introduce yourself and tell me a little more about yourself, as if we've never corresponded with one another before.
2. How long have you been a student at AVCC?
3. In your survey, you stated that you have completed or are currently enrolled in Learning Support for (disclosed subject area(s)). How did you feel when you found out that you would have to complete the additional coursework?
4. How would you describe your ability to face challenges and overcome them?
5. How do you see your remedial placement(s) being related to your major or career goal?
6. What kind of impact do you think that requirement has had upon you with regard to your career goal?
7. How has your remedial placement influenced your attitude toward higher education?
 - a. If needed, clarify that this could be specific to the institution, a person's ability to obtain an associate's degree, progress to a four-year institution, enter the workforce, etc.
8. How much time do you think was added onto your college career because of your Learning Support class(es)?
9. How much money do you think that your Learning Support class(es) cost you?
10. How challenging do you believe that your Learning Support course(s) was/were?
11. What do you think about the level of support that you received in your Learning Support class/classes?
12. How challenging would you say that the related college-level course(s) was/were in comparison to the Learning Support counterpart(s)?

13. Without having completed the Learning Support coursework that was assigned to you, what do you think the likelihood of completing its related college-level course(s) would have been?
14. What kind of interactions have you had with college faculty and staff regarding your Learning Support requirement(s)?
15. How would you describe your overall experience with Learning Support coursework?
16. How would you define “academic achievement”?
17. At this point in your college career, what would you say has been your greatest academic achievement?
18. Presently, how do you think your academic achievements compare to those of your peers?
19. How do you feel about the remedial coursework that you’ve done as far as effectiveness is concerned?
20. How do you think that AVCC should approach students who may need remediation in the future?
21. We’ve covered a lot of ground here and I certainly appreciate your time and commitment to this study. To conclude, what else do you think would be important for me to know about how you feel about remediation or how it has affected you?

APPENDIX R: Journal Prompts

Week One

1. If you are currently enrolled in Learning Support course(s), describe how you felt about the course(s) after your first week of enrollment. If you are not currently enrolled in a Learning Support course but have already completed at least one, recount how you felt about the course after your first week to the best of your memory.
2. Explain the concerns that you feel/felt about having to complete Learning Support. Concerns may be academic, personal, financial, professionally, emotional, etc. If your concerns are/were related to multiple aspects, please explain how your feelings are/were related to each one.

Week Two

3. After reviewing the list of courses required for your major, explain the significance of completing your Learning Support course(s). If you do not believe that Learning Support is important for your major, explain why.
4. Describe how you feel/felt about your Learning Support course when compared to a college-level course. The college-level course may be one that was paired with Learning Support or one that is outside of your Learning Support's subject area. Feelings may include but are not limited to time, content, skills, learning strategies, finances, or significance. If your feelings affected more than one factor, please address each one.

Week Three

5. Recall the financial costs that you have faced as a result of being enrolled in college thus far as well as those you expect to face in the future. Explain how your experiences with Learning Support are related to these costs.

6. Students typically expect to spend between 2-3 years to earn their associate's degree. Compare the academic plan for your major with the progress that you have already and/or are currently making toward earning your degree and describe how your Learning Support course(s) relate to your academic plan. Detail how/if Learning Support added, reduced, or made no difference in your expected time to completion and how you feel about the impact.

Week Four

7. If you have already completed a Learning Support course, identify any specific materials, activities, content, assignments, lessons, etc. that you found to be particularly beneficial to you and why. Benefits may be directly applied to other courses, personal situations, professional experiences, your status as a college student, or any other part of your life. If you have not completed a Learning Support course but are currently enrolled in one, identify how you feel that your Learning Support could or will influence any of the specifics previously listed and why.

8. Reflect upon your experience(s) with Learning Support and describe how effective you perceive it to be. Effectiveness may include whether or not you believe you could have passed its college-level counterpart without it (math < statistics, college algebra or higher; reading < public speaking; writing < English I), learning new material, concepts, or skills that you found to be useful for other courses, in the personal/professional aspects of your life, as a college student, etc. If your experiences make you feel like Learning Support was ineffective, address the previously listed factors or include any others.