

**Dual Enrollment Course Completion and the Academic Success of African
American Male First-Year Community College Students**

Mallory C. Mitchell
B.S., Northwest Missouri State University, 2006
MBA, Baker University, 2011

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Tes Mehring

Tes Mehring, Ph.D.
Major Advisor

Barbara Keener

Barbara Keener, Ph.D.

Margaret Waterman

Margaret Waterman Ed.D.

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Abstract

The focus of this study was to explore how dual enrollment course completion in high school impacted the academic success of African American male first-time, full-time community college students. In the current study, academic success referred to the number of credit hours earned in the first year of college, the cumulative grade point average (GPA) achieved at the end of the first year, and whether the student returned for the second year of college. The study was conducted using a quantitative, quasi-experimental research design, analyzing archival data from a Midwestern community college. The sample included 162 African American male first-time, full-time students who matriculated to the Midwestern community college from fall 2015 through fall 2018. Sixty-two students had completed dual enrollment coursework in high school and 100 had not completed any dual enrollment coursework. Independent-samples *t* tests and a chi-square test of independence test were conducted to compare the academic success of the African American male first-time, full-time students who completed dual enrollment coursework in high school to those who did not complete any dual enrollment coursework in high school. Results of the analyses indicated that the students who completed dual enrollment coursework in high school enrolled in more credit hours, earned higher end of first year cumulative GPAs, and re-enrolled for the second year of college more frequently than students who did not complete dual enrollment coursework in high school. Additional analyses were completed to determine if the number of dual enrollment credit hours earned had any impact on the academic success of the students in this group. There was a statistically significant difference in the end of the first year of college cumulative GPAs among African American first-time, full-time students based on

the number of hours of dual enrollment credit hours earned. High school administrators and counselors and personnel from higher education institutions that offer dual enrollment may be interested in the results of the current study as they research promising practices related to increasing the college academic success of African American male students.

Dedication

To God be the glory for the things He has done! I dedicate this study to my husband, my life partner, my best friend forever. Reggie, you have been more than supportive, more than encouraging, more than helpful, more than caring, and more than amazing to me on this journey. Since the beginning, you said, “*We’ve got this!*” and my belief in that has never wavered. You always made the load lighter for me in one way or another: ordering my textbooks, making sure the car was full of gas on Mondays for my long trek to class, and talking with me on the phone all the way home during the late nights. You made it possible for me to have undisturbed study sessions by keeping the boys busy, and you continuously prayed for me during my ups and downs. You pushed me beyond where I thought I could go, and I cannot thank you enough for who you are to me and our family. I could **not** have done this without you. One doctor down, one to go!

I also dedicate this study to our little boys RJ and Myles. RJ, your cuddly hugs and encouragement meant so much to me along the way. You also stepped up to be an amazing big brother when Myles was born a year into my doctoral journey. Myles, you taught me that balance is critical. Working full time, being a mom to two young boys, and being a full-time student was a joy and a challenge all at the same time. I have learned so many things along this journey, and I hope you two benefit from what I have come to know. I hope you two learn what it means to never give up. I hope you learn what it means to become each other’s support system and appreciate that support system as you experience life together. I hope you learn what it means to ask for help when help is needed. I hope you learn to remain confident in yourselves no matter how hard things get. I hope you learn to always rely on Christ, who gives you strength. These are things I

was reminded of throughout this doctoral program. So, if I can do these things, you can as well. Though you are young now, you will understand it all better by and by. I love my three Mitchell Men with all that I have and all that I am.

Last, but not least, I dedicate this study to my parents and my brother. You have been a blessing to me, and I am proud to call you my family. I never once questioned your support for me, and for that, I appreciate you dearly. Losing Dad on April 7, 2021 was unimaginable, but the experience pushed me to persevere through my program because he would not have wanted it any other way. All in all, this doctoral journey was one I will never forget. Through all the learning and incredible knowledge gained along the way, I also experienced some major life events such as welcoming a new life into the world and celebrating a great life lived. I have no complaints.

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Chapter 1

Introduction

The U.S. Department of Education (2016) noted that people with “college degrees are more likely to live healthier lives, be more civically engaged in their communities, have good-paying jobs, and experience greater job security” (para. 1). According to Geher (2018), obtaining a good-paying job is a top reason why students attend college. Students in college learn to become subject matter experts in a variety of career fields to become desired by employers upon graduation. Some students become entrepreneurs as well. In addition, Geher (2018) noted that college is where students learn time management skills and prepare for the future by being exposed to group work, people of other cultures, and public speaking opportunities. As college students build upon these experiences and gain confidence in their new skills, they must also focus on academic success and graduation. “A college education is more important now than ever before, for both tangible and intangible reasons” (Heckler, 2018, p. 1).

Two researchers, Adelman (1998) and Reason (2003), studied the contributors to academic performance and persistence in college. Reason (2003) noted that, “Rapidly changing demographics of the undergraduate student population suggest that we update our understanding of variables that predict undergraduate student retention...gender, race, ethnicity, age, and other demographic variables” (p. 187). Adelman (1998) conducted a longitudinal study that followed high school sophomores for 12 years after they graduated from high school. He reported that the grades earned in a student’s first year of college strongly predicted future degree completion. Adelman (1998) determined that as students take measures to prepare for college while in high school, they must

understand how their learning habits and behaviors carry over to their academic performance in college.

Bryant (2015) stated, “High school students need access to high-level courses with quality instruction to prepare them for the rigors of college by increasing their content knowledge and cultivating their higher order thinking skills” (p. 4). Chatlani (2018) noted that students who have access to college preparation opportunities while in high school are more likely to persist to completion in their post-secondary studies. High school students who take advantage of dual enrollment opportunities gain exposure to college-level rigor and have opportunities to earn college credit before formally starting college. Though dual enrollment opportunities are widely available, not every high school student will finish high school having earned postsecondary credit. The U.S. Department of Education, National Center for Education Statistics (2019a) reported that African American students make up the lowest percentage of students who take courses for postsecondary credit while in high school.

Ganzert (2012) noted that non-white male students are the students who need attention because they have traditionally been less likely to attend college, be successful in college, and graduate from college. Mintz (2019) indicated, “In college, male students perform more poorly than do their female counterparts, recording lower GPAs and earning fewer credit hours” (p. 1). Matias (2019) reported that women have been surpassing men academically and had earned more bachelor’s degrees than men since 1982. As female students continue to excel in college, male students are falling behind. A journal article titled “Black Women Students Far Outnumber Black Men at the Nation’s Highest Ranked Universities” (2006) documented that of all bachelor’s degrees

awarded to African American students in the United States, approximately 66% had been earned by female students in 2005. The U.S. Department of Education, National Center for Education Statistics (2019b) reported that by the end of the 2015-2016 academic year, 64% of all bachelor's degrees earned by African American students were earned by female students. Bryant (2015) noted that among high school students, African American male students enrolled in college-level courses at lower rates than their African American female classmates.

There is limited research on the impact of dual enrollment completion and college performance among African American male first-time, full-time community college students. The National Student Clearinghouse Research Center (2019) reported that among college students in two-year public institutions, African American first-year students had the lowest persistence rate among their peers. Price (2020) noted that intentional coordination of dual enrollment opportunities for African American male high school students could lead to an increase in their persistence rates in college. Howard (2014) stated, "The focus is not centered on how to *fix* Black males...but how we can *fix* schools and practices that serve Black males" (p. 13).

Background

The National Alliance of Concurrent Enrollment Partnerships (NACEP) was founded in 1999 (NACEP, 2020). However, high school and college partnerships have been in existence for the purpose of dual enrollment programming since before the inception of the NACEP. "Some high schools have had such programs for over 50 years...many colleges and universities have begun partnerships with schools, registering thousands of students each year" (Carey, 2015, para. 1). As each new dual enrollment

partnership develops, more opportunities become available for high school students, and they can utilize dual enrollment to get a head start on college.

Redden (2007) reported that dual enrollment programs are “associated with positive outcomes on such measures as high school graduation and college enrollment rates, college grade point averages, and progress toward college completion” (para. 1). Studies have continued to support the idea that dual enrollment students experience academic success in college. Noble, Radunzel, and Wheeler (2014) reported,

Attrition over time was less likely to occur for students who entered college with dual credit hours than for those who did not. In addition to having higher chances of remaining enrolled at the same institution...students with dual credit were more likely to earn a cumulative GPA of 3.0 or higher. (p. 3)

In the same study, Noble et al. (2014) determined “Students with dual credit were more likely than those with no dual credit to make progress toward degree completion by cumulative credit hours earned” (p. 3). Noble et al. (2014) concluded that at the end of the first year of college, “95% of students with dual credit had accumulated a total of 24 or more credit hours, compared to 70% for students with no dual credit” (p. 3). Gleeson (2020) also noted that dual enrollment students generally accumulate more credit hours at the end of their first year of college compared to students who did not complete any dual enrollment coursework in high school.

Hodara, Luke, and Pierson (2017) studied dual enrollment in Oregon’s public colleges and reported that “students in dual-credit programs at community colleges are more likely to be white, female, high achievers, and not economically disadvantaged” (para. 4). Chatlani (2018) investigated which student population completed dual

enrollment courses at higher rates than peers and concurred with Hodara et al. (2017) that the majority of dual enrollment participants are Caucasian females. Weissman (2020) noted that during the 2015-2016 academic year, data indicated that Black and Latinx students were in last place compared to Caucasian students in dual enrollment programs across the United States.

Statement of the Problem

Howard (2014) stated, “African American males continue to be undereducated, over-incarcerated, socially and culturally misunderstood, and in pursuit of an identity that allows them to be viewed as intellectually adept and worthy of inclusion” (p. 5). The world is full of successful African American males who earned degrees, but “Completing college is more of a struggle for African American...men than for any other racial or ethnic group” (McBride, 2017, para. 1). K. Howell, a presenter at a college-sponsored town hall event in 2021 focused on the persistence and retention of male college students of color, shared the common barriers that sometimes prevent male college students of color from graduating from college. She noted that failure to finish college for this group has sometimes been attributed to their individual misunderstanding of their social identities, socioeconomic status, representation in marketing and in society, family environment, and self-worth (personal communication May 5, 2021).

However, dual enrollment completion is linked to college completion, according to Noble et al. (2014). “Dual enrollment allows students to get ahead and ease into college with a familiar, supportive framework” (Weissman, 2020, para. 1). According to Weissman, African American male students could possibly benefit from earning dual enrollment credit and could finish college in higher numbers than are currently being

reported. Ganzert (2012) indicated that “dual enrollment experiences show a heightened benefit for minority student populations” (p. 6). Noble et al. (2014) reported decreased attrition and more earned credit hours in college for high school students who had completed dual enrollment hours prior to formal college enrollment. Although a good amount of research on the benefits of dual enrollment has been conducted, there is limited research comparing the academic success of African American male first-year college students who completed dual enrollment coursework in high school to the academic success of African American male first-year college students who did not complete dual enrollment coursework while in high school.

Purpose of the Study

Three purposes guided the current study. The first purpose was to examine the difference in the number of credit hours earned in the first year of college between African American male first-time, full-time students who completed dual enrollment coursework in high school and those who did not complete dual enrollment coursework in high school. The second purpose of the study was to determine whether there was a difference in the cumulative GPAs at the end of the first year of college between African American male first-time, full-time students who completed dual enrollment coursework in high school and those who did not complete dual enrollment coursework in high school. A final purpose was to investigate whether there was a difference in the enrollment status (enrolled, not enrolled) from the end of the first year of college to the beginning of the second year of college for African American male first-time, full-time students who completed dual enrollment coursework in high school and those who did not complete dual enrollment coursework in high school.

Significance of the Study

The results of the current study added to a limited body of research regarding factors that contribute to the academic success of African American male community college students. The results of this study may be of interest to school district administrators who are considering the development of dual enrollment pathways for students of color. Additionally, results of the current study can benefit high school leaders who desire to see higher levels of dual enrollment participation from African American males who plan to attend college.

College administrators may be encouraged to use results from the current study to conduct additional research that focuses on how or whether dual enrollment participation contributes to other factors in college such as student engagement. Results from this study can be used by personnel at colleges and universities as they seek to partner with high schools to provide dual enrollment options to diverse student groups. Additionally, results of this study can be useful to parents of African American young men who may be interested in exploring ways to support the educational pursuits of their children.

Delimitations

“Delimitations are self-imposed boundaries set by the researcher on the purpose and scope of the study” (Lunenburg & Irby, 2008, p. 134). This study involved the use of archival data for first-time, full-time African American male students who attended a Midwestern community college. Archival data were retrieved for African American males who matriculated to the Midwestern community college from fall 2015 through fall 2018. Only data for the male students who self-disclosed they were African American on the official college admissions application were included in this study.

Assumptions

According to Lunenburg and Irby (2008), assumptions are “postulates, premises, and propositions that are accepted as operational for purposes of the research” (p. 135). In this study, it was assumed that all archival data were accurate and up to date. It was also assumed that students whose data were included in the study were correctly self-identified as African American males.

Research Questions

Three research questions directed this study:

RQ1. To what extent is there a difference between the number of credit hours earned in the first year of college by African American male first-time, full-time students who completed dual enrollment coursework in high school and the number of credit hours earned by African American male first-time, full-time students who did not complete dual enrollment coursework in high school?

RQ2. To what extent is there a difference between the end of first year of college cumulative GPAs of African American male first-time, full-time students who completed dual enrollment coursework in high school and the end of first year of college cumulative GPAs of African American male first-time, full-time students who did not complete dual enrollment coursework in high school?

RQ3. To what extent is there a difference between the enrollment status (enrolled, not enrolled) at the end of the first year of college and the beginning of the second year of college of African American male first-time, full-time students who completed dual enrollment coursework in high school and the enrollment status at the end of the first year of college and the beginning of the second year of college of African American male

first-time, full-time students who did not complete dual enrollment coursework in high school?

Definition of Terms

To better aid the reader in understanding the various terms used, the following section defines terms used throughout the study.

Dual credit. According to NACEP (2020), the term dual credit refers to the practice of high school students taking college credit-bearing courses taught by college-approved high school teachers in a secondary environment.

Dual enrollment. The term dual enrollment is often used interchangeably with the terms dual credit and concurrent enrollment because it involves high school students, who are not considered to be at the undergraduate level, taking college-level courses that earn college credit before graduating from high school (Barnett, Fink, Jenkins, Mehl, & Wyner, 2020, p. 6).

First-time student. The U.S. Department of Education, National Center for Education Statistics (2021) defined a first-time student as a student who is attending any institution for the first time at the undergraduate level. This definition includes students who formally enter college with advanced standing credit or recognized postsecondary credit earned before graduating from high school.

First year of college. In the current study, first year of college refers to a continuous fall and spring enrollment.

Persistence. The National Student Clearinghouse Research Center (2019) described persistence as the continued enrollment at any institution of higher education,

whether the institution is different from the institution of initial enrollment, in the fall term of the student's first and second year of college (p. 15).

Second year of college. In the current study, second year of college refers to the fall semester immediately following the first year of college.

Organization of the Study

This study includes five chapters. The first chapter provided background information on dual enrollment and how the academic success of African American male students relates to their peers. A statement of the problem, purpose of the study and how it is significant to higher education, were also provided. Delimitations and assumptions were included to provide general information on the parameters of the study. The chapter presented the research questions and provided definitions of key terms used in the study.

Chapter 2 includes an overview of college readiness, a summary of research focusing on the academic success and persistence of male students of color, the history of dual enrollment, and a description of dual enrollment programming. Chapter 3 describes the methods used to conduct the research study and the limitations of the study. This chapter includes the research design, selection of participants, measurement, data collection procedures, and the analysis of the hypothesis testing. Chapter 4 presents descriptive statistics for the sample and the results of the hypothesis testing. Chapter 5 includes a study summary, findings related to the literature, and conclusions.

Chapter 2

Review of the Literature

Chapter 2 provides a review of literature related to the major topics of this dissertation. First, college readiness is explained. Next, a summary of literature related to the academic success and persistence of male college students of color is presented. Then, the history of dual enrollment is described. The literature review is completed with a description of dual enrollment programming.

College Readiness

A high school student can discover a variety of skills to prepare for college. IvyWise (2014) reported five ways high school students can become college-ready upon graduation. First, students who build strong working relationships with their high school instructors will easily establish positive relationships with their future college instructors. Second, students who enjoy making friends benefit greatly when they participate in multiple group work projects in college. Third, students who are involved in extracurricular activities while in high school build strong time-management skills in college. Fourth, students who adjust to a variety of teaching styles in high school are prepared to face different teaching methods in college. Last, high school students who take advanced courses are more prepared for college-level courses in college (IvyWise, 2014).

Broderick (2020) stated, “College planning for high school students involves much more than filling out forms, taking standardized tests, and asking teachers for recommendation letters. The process also requires self-reflection” (para. 1). In addition, Broderick recommended that students should develop a detailed strategy as they prepare

for college. According to Broderick, high school counselors and college-level academic advisors are educational leaders who provide key support in this area because they can help students discern which degree and career programs will meaningfully impact their futures. Barnett et al. (2020) stated, “Successful leaders instill high expectations for all students – a belief that students can and will succeed in advanced work” (p. 17).

According to Aragon, Pascale, and White (2020), providing support and encouragement to students has a lasting impact. Not only is external support and encouragement essential to one’s academic success but acquiring a non-academic skill such as computer literacy is critical for student success today (Aragon et al., 2020).

Aragon et al. (2020) explained that cultural capital occurs when a person develops proficiencies to help effectively navigate a new situation. Cultural capital can positively impact college readiness, especially among minority students.

Cultural capital served as a foundation for reading the college environment in four key areas required for college readiness: understanding and calculating GPAs; computer literacy required for completing assignments; understanding the course listing and registration process; and finding other campus resources for addressing needs. (Aragon et al., 2020, p. 34)

If high school students are not equipped with cultural capital upon graduation, they are at risk of not successfully completing their college coursework. The attainment of cultural capital is just as important as the attainment of the academic knowledge students gain in school. Aragon et al. (2020) indicated the “absence of...cultural capital created through inequitable school experiences largely predicates failure within and, in some cases, withdrawal from college” (p. 38). Price (2020) indicated that cultural capital is pivotal in

achieving educational success, especially for students within the African American community.

Another aspect of college readiness is parent-readiness. Fenton-Esquinas (2021) reported that parents tend to feel concerned about their college students being able to handle personal and academic responsibilities without parental involvement. Therefore, parents need to understand what college entails as their children prepare for college. Bennett, Cataldi, and Chen (2018) noted that students of parents who did not receive a college education are less likely to access higher education and less likely to be successful in college if they attend at all. Students whose parents attended college benefit from their parents' experiences. Bennett et al. (2018) attributed the attainment of cultural capital to the parent experience. Barnett et al. (2020) recommended that colleges engage community partners in outreach efforts to host parent and family sessions for parents and families of first-generation college students. Parents not only need to understand what it takes to get their students to college, but they should also understand the various college destinations and advanced educational opportunities available: public colleges, private colleges, four-year colleges, two-year colleges, advanced placement courses, international baccalaureate courses, and dual enrollment courses (Barnett et al., 2020).

As students and parents embark on the college journey together, they must also stay abreast of potential obstacles that could prevent becoming college ready. Barnett et al. (2020) noted, "Historically, advanced educational opportunities have been structured so that only some students get access, with Black, Latinx, Indigenous, and Pacific Islander students are most often left out" (p. 56). Students who complete dual enrollment courses while in high school sometimes also navigate inequities as they decipher which

courses to take and to which colleges to transfer the credit. Therefore, intentionality in the design of programs made to prepare high school students for college is essential (Barnett et al., 2020). Price (2020) also argued that intentional pathways are effective, and pointed out that, “Intentional pathways provide various support components which allow educators opportunities to focus on personal, social, or educational deficits experienced by the African American male” (p. 6). Offering multiple courses that award college credit in high schools is useful, but students need an indication of what the college credit will and can do for them (Price, 2020). Robertson and Wallace (2019) noted that students who earn postsecondary certificates or degrees significantly enhance their economic statuses after graduating college. Therefore, students should identify and begin to incorporate long-term goals into their college planning even before they pursue a college credential.

Academic Success and Persistence in Male Students of Color

Harris and Wood (2017) suggested that simple acts to acknowledge the humanity, significance, existence, and intelligence of students of color substantially contribute to their motivation and academic success. Whiting (2006) suggested that young Black and Brown male students respond more positively to teachers, parents, and community members who view them as capable and competent individuals. As a result, receiving positive affirmations and encouragement “instills the idea of being a scholar” (Hebert, 2014, p. 91) and foundationally sets students up for academic success. Whiting (2006) developed a scholar identity model that summarized how gifted African American males comprehend their self-identity in relation to how they see themselves as students. “Gifted Black males find that their identity development, particularly their racial identity

development, influences their achievement, motivation, and attitudes toward school” (Flowers, 2014, p. 129).

Setting the tone for positive thinking in African American males at a young age is critical because “One of the most common microaggressions rendered to men of color is referred to as *ascription of intelligence*,” (Harris & Wood, 2017, p. 39) a theory that Harris and Wood said they believed can be dangerous for young African American males. The theory implies that the success of African American male students can become smothered due to the stereotypes that society and the media place on them - they are expected to usually succeed in the music industry or professional sports. Hudson (2016) also indicated that there is a difference between the personal identities of African American males and the “identity that society often circumscribes” (p. 44) for them. Kunjufu (1990) noted the *4th grade syndrome* as a phase in the life of young African American males where they become easily impressionable. Education becomes less important and their focus on education is interrupted by what others think of them and what society expects of them (Kunjufu, 1990).

Harris and Wood (2017) indicated that “negative stereotypes...suggest that students of color who ‘need help’ to succeed are less capable than those who do not and consequently, they may feel they do not belong” (p. 29) in school and avoid seeking help from instructors and counselors even if they really need it. At that point in a young man’s life, it can be difficult to shift his focus back to the importance of education. Therefore, opportunities may be missed to discover how intelligent the student really is.

Price (2020) reported that African American males are constantly underrepresented in the overall number of gifted students and dual enrollment completers

in the United States. That could be due to the idea that there are alternative ways to measure how students are considered gifted. According to Dreilinger (2020), definitions of giftedness have always been unclear because scholars have never agreed on how giftedness was measured: absolutely or relatively. Dreilinger (2020) indicated that high test scores do not necessarily determine a student's academic success because students display intelligence in a variety of ways.

Another way students display leadership and intelligence is through their athleticism. Student athletes "learn the value of dedication, commitment, and hard work" (Howard, 2014, p. 73) which can directly contribute to how they succeed academically. However, Shepherd (2019) indicated that society is quick to accentuate the achievement in athletics of African American males before recognizing their achievement in academics. Howard (2014) noted,

In a society that largely portrays Black males as problematic, inept, and lacking intellectually, the athletic domain is one of the few settings in the United States where Black males see their excellence acknowledged, their creativity cheered, their bravado and masculinity replicated on a major stage and promoted globally.
(p. 74)

It is important not to diminish the academic ability of African American students who happen to be astonishing athletes. Whether a student is academically inclined or physically inclined, colleges have student support resources available to endorse academic success (Howard, 2014). Anderson (2020) stated that minority students, whether gifted or athletically talented, need a sense of belonging and a connection with their colleges to be academically successful.

Harris and Wood (2014) reported that between 2000 and 2010, several initiatives were developed within colleges to promote “persistence, achievement, attainment, and transfer among men of color” (p. 174). This is especially important for community colleges because “The community college serves as the primary pathway for Black (and other minority) male students into postsecondary education. In fact, 70.5% of Black men who enter public higher education do so through community college” (Harris & Wood, 2014, p. 173).

Harris and Wood (2017) indicated that when male students of color start college, it is essential they are cognizant of the support services available as they strive to persist to completion and succeed academically. Understanding how to navigate the first year of college, having a sense of belonging, and utilizing student services assist in the endeavor to complete a certificate or degree (Harris & Wood, 2017). Aragon et al. (2020) reported that first-generation and minority freshmen students often start college with inadequate knowledge of concepts such as recognizing an academic progress report or knowing how GPAs are calculated. Lacking the knowledge of these concepts and not knowing how to utilize the resources to learn about these concepts could possibly inhibit motivation and persistence.

Aragon et al. (2020) emphasized how crucial it is for first-year college students to understand what it means to be registered as full-time compared to being part-time, how to register for classes, how to use a computer and send emails, and how to effectively communicate with instructors. Barnett et al. (2020) indicated that if underrepresented student groups were also introduced to college vocabulary words like “office hours and syllabus,” (p. 42) prior to starting college, they would have a better chance of being

academically successful. The more familiar students are with what to expect as first-time students, the more comfortable they will be with persisting to completion.

Barnett et al. (2020) noted, “Students are more likely to persist when they feel connected to their school. This sense of belonging is especially important for Black and Latinx students, who may feel out of place, and thus disengaged, at predominately white institutions” (p. 38). A new student orientation or a new student welcome event is a great opportunity to set the tone for new students, of all cultures, to understand how to be involved and engaged. Harris and Wood (2017) suggested that orientation events are a best practice for postsecondary institutions regarding new student onboarding. When students meet administration, faculty, staff, and upperclassmen with whom they can culturally relate at these events, it can provide them with comfort and security on their new journey. McBride (2017) noted that many colleges lack African American and Latino male professors and mentors. Aragon et al. (2020) recommended having “culturally-relevant peers and faculty role models” (p. 36) available to encourage and promote the academic success of minority college students. Price’s (2020) comments were similar to those made by Aragon et al. (2020),

It is incumbent upon institutions, community colleges specifically, seeking to address the underachievement of African American males to create an environment that is supportive, understanding, and conducive to the experience, culture, backgrounds, perceptions, gifts, talents, and resources of African American males. (p. 32)

When college students learn about and, in effect, utilize campus resources, they positively impact their academic success. Harris and Wood (2017) indicated that male

students of color, and students in general, who use student services are more likely to pass their classes and complete a certificate or degree on time. Student services include “academic advising, career services, transfer centers, campus libraries, computer labs, and tutoring services” (Harris & Wood, 2017, p. 50). Career planning is one service that effectively supports minority male college students of color because, as Harris and Wood (2017) noted, it involves post-graduation planning. It is beneficial to students if they can learn of potential career pathways early in life.

Price (2020) noted that many dual enrollment programs allow students to explore career options early, so when they go to college, they will carry with them the advantage of recognizing different career opportunities. Barnett et al. (2020) endorsed *Introduction to College* courses because they are designed to help students learn their strengths and become familiar with multiple career paths as they start the college journey. Harris and Wood (2017) reported that a high percentage of male college students of color enroll in career and technical programs, so the need for career planning assistance is necessary regarding persistence and academic success. Chan and Phelps (2016) reported that dual enrollment career and technical education courses deeply immerse students into career-specific courses and are associated with earning higher wages than students who choose not to take advantage of dual enrollment career and technical courses. During a NACEP webinar, a panelist (M. Vente, personal communication, May 19, 2021) noted that high school administrators can provide better guidance to underrepresented students regarding career planning if dual enrollment programs are structured to be used as economic development tools. Students will not only be equipped with college credit upon graduation, but they will also graduate knowing how certain careers impact the economy.

Hudson (2016) noted that the focus should not solely be on the low rate of African American male students who complete dual enrollment but should include an investigation on why African American male students are reluctant to participate in dual enrollment opportunities. An African American male who is an instructor at a Midwestern university stated in a forum that technology has provided increased access to education, but there is still not much desire to learn (T. Lagan, personal communication, April 30, 2021). He stated that not enough young African American male students learn about what dual enrollment is and what it does. In his experience as a high school student, he did not realize the significance of dual enrollment until he was close to graduation, and it was too late at that point. He recommended that leadership at every high school make it a priority to share information about dual enrollment with every student in their freshman year of high school. Providing the information early allows the students to have time to make an informed decision about whether they should participate in dual enrollment opportunities.

The History of Dual Enrollment

Grant (2019) explained that the first cohort of high school students involved in a dual enrollment program earned college credit through the University of Connecticut during the 1955-1956 academic year. Grant (2019) noted that Albert E. Waugh was a college instructor who later worked as an administrator at the University of Connecticut. Waugh met with the university's president, Mr. Jorgensen, to share an idea of starting an academy for talented and gifted high school students. With permission from Jorgensen, Waugh met with an association of principals from the local high schools to share his vision.

Grant (2019) indicated that Jorgensen took an interest in Waugh's idea because he was concerned about high school graduates during the war era. Grant (2019) documented that Jorgensen was uneasy about the numerous students being drafted into the military shortly after finishing high school. Jorgensen learned that these students were hesitant to re-enter college years after finishing high school and serving in a war. Grant (2019) reported Jorgensen was thrilled with the idea that students could complete college courses in high school because it was a way to help them fulfill college credentials earlier than usual.

Grant (2019) indicated that in February of 1953, Waugh's proposal was accepted by the University of Connecticut board. Then, in November of 1953, Waugh along with other University of Connecticut professionals who supported his idea, presented the plan for an early college opportunity to the local Secondary School Principals Association. According to Grant (2019), Waugh proposed that gifted and talented high school students could "do extra work and take the University's examinations" (Pivotal to the Development para.) to earn college credit while in high school. The association agreed with the idea and collaboratively implemented Waugh's strategy. Grant (2019) reported that at the program's inception, the principals of seven high schools within the University of Connecticut's service area committed to being the first high school partners.

As years went on, the term dual credit was primarily used to define high school students taking college courses while in high school (NACEP, 2020). However, Barnett et al. (2020) noted that the term dual enrollment is often used interchangeably with the term dual credit. During the first meeting of dual enrollment professionals at a conference for the American Association of Higher Education on the campus of Syracuse

University in 1997 (NACEP, 2020), the term concurrent enrollment was introduced as a descriptor that is used interchangeably with dual credit and dual enrollment. In 1999, concurrent enrollment professionals from 20 higher education institutions came together to establish the National Alliance of Concurrent Enrollment Professionals and embraced the use of all the terms. To date, the leaders of the NACEP host multiple workshops, seminars, and conferences for higher education professionals engaged in offering dual credit coursework (NACEP, 2020). Today, hundreds of dual enrollment program courses are offered through high school and college partnerships in all 50 states (NACEP, 2020).

Dual Enrollment Programming

Barnett et al. (2020) stated that 86% of dual enrollment students take classes at a high school, while 17% of dual enrollment students take their courses on a college campus. Some high school students take part in both options to optimize their dual enrollment opportunities. Barnett et al. (2020) reported, “Most high school students taking dual enrollment do so in partnership with community colleges rather than four-year institutions” (p. 6). Concurring with Barnett et al. (2020), Price (2020) stated, “Community and technical colleges are the sites deemed most suitable to provide intentional dual enrollment pathways” (p. 35).

In high schools, dual credit courses are generally delivered by high school instructors. For a high school course to count as a dual credit course, the high school instructor teaching the course must meet specific requirements. The NACEP (2020) outlined a standard for all high school dual credit instructors to meet the same qualifications as the faculty of the partner college. The Higher Learning Commission (HLC, 2020) also has standards in place that align with NACEP noting that institutions

must require the same level of credentials and qualifications for high school faculty in dual credit courses that it does for its standard courses at the college. For example, if a college's standards are that a calculus professor must have a graduate degree in mathematics, the instructor at the partnering high school must have the same credentials or higher. However, some inequities might arise if a high school is mostly staffed by instructors with bachelor's degrees. Students might not have access to as many dual credit courses as students at other schools in the same city or region because of a lack of credentialed instructors (HLC, 2020). On the other hand, Hebert (2014) noted some high school instructors might not be attracted to work at high schools in undesirable or impoverished neighborhoods, which could leave students with a minimal selection of dual credit courses. Students could then consider taking online college courses as an alternative.

Depending on the courses available at a high school, students access dual enrollment courses by selecting college credit-bearing courses that align with their high school requirements. "Concurrent enrollment...facilitates close collaboration between high school teachers and college faculty that fosters alignment of secondary and postsecondary curriculum" (NACEP, 2020). Barnett et al. (2020) indicated that students who have access to academic advising while navigating college courses achieve greater success in college. According to Barnett et al., "They should be earning credit that counts toward something" (p. 31). Aragon et al. (2020) recommended that colleges establish a travel team consisting of admissions representatives and academic advisors. The teams would be created to visit local high schools to provide college advising including information regarding how courses will impact general education course

completion. This practice would support the high school students as if they were attending school on the college campus. Gaining access to advising and career counseling services early also helps students as they transition to college because they will have exposure to the college advising processes. Academic advising services also come in handy as students become familiar with prerequisite course requirements (Aragon et al., 2020).

To qualify for *some* dual enrollment courses, the NACEP (2020) requires students to meet the course prerequisites the partner college has established. Depending on the partner college, that could mean that students meet a prerequisite ACT score or a placement test score. Placement testing can be a barrier for students who cannot afford testing fees or for students who have no transportation to the college to participate in testing. Barnett et al. (2020) suggested that the leadership at secondary schools should develop ways to “make testing free and easily available” (p. 26) by absorbing the testing costs or finding innovative ways to make placement testing available on site at the high schools.

Hudson (2016) suggested that students consider how dual enrollment impacts future college records; they must be selective when choosing the dual enrollment courses best for them. Hudson (2016) also indicated how important it was for students to understand the time commitment that each course entails to ensure proper balance regarding outside commitments such as extracurricular activities or part-time employment. Setting aside plenty of time for schoolwork promotes successful completion of coursework. Barnett et al. (2020) noted the importance of students balancing seat time with the time spent on schoolwork outside of a normal school day.

Also, the cost of tuition is worth considering as a student decides whether to enroll in dual enrollment courses.

The cost of dual enrollment courses varies among states for high school students. Barnett et al. (2020) stated that almost half the United States cover the tuition for dual enrollment students. In effect, the states with no laws in place on funding dual enrollment programs leave the tuition regulations up to their colleges and universities. Students who do not reside in the tuition-funded states may bear the financial responsibility of their dual enrollment tuition. Broome Community College, which is part of the State University of New York system, has a dual enrollment program that consists of more than 25 high schools and serves thousands of students (SUNY Broome Community College, 2021). High school students can take dual enrollment courses at no cost to them (SUNY Broome Community College, 2021). Elgin Community College (2021), a community college in Illinois that has a dual enrollment program with 13 partnering high schools, is another institution where dual enrollment courses are available at no cost to students.

Tarrant County College is an example of an established dual enrollment program at a two-year college in the state of Texas where students are required to pay their own tuition (Tarrant County College, 2020). Tarrant County College's dual enrollment program includes over 60 high schools and serves approximately 6,500 dual enrollment students each year (Tarrant County College, 2020). In Texas, "state laws require that public institutions of higher education collaborate with local school districts to develop and implement dual enrollment programs," (Hudson, 2016, p. 1) so that every student has the opportunity to take dual enrollment courses.

The cost of tuition can sometimes be a barrier for underrepresented students. Price (2020) indicated that students who reside in communities where many residents are from low socio-economic backgrounds often face financial challenges regarding post-secondary education. Barnett et al. (2020) noted that dual enrollment is “viewed as an extra niche rather than a core acceleration strategy” (p. 11) so equity gaps are easily unnoticed because they are not prioritized. This may cause underrepresented students to fall through the cracks and they may miss out on dual enrollment opportunities.

Howard (2014) suggested that high school administrators consider the importance of equal opportunity for all students and that commitment must be initiated from the top down. It becomes unfortunate when dual enrollment programs exist for years without leadership taking the time to assess the program to examine the positive and negative outcomes. Barnett et al. (2020) indicated,

It’s possible for a dual enrollment program to appear to be thriving while it is actually leaving out many students of color, students from low-income backgrounds, and first-generation students who would benefit from the early exposure and preparation for college. (p. 13)

Though keeping equity in the forefront is necessary, Price (2020) claimed that high school administrators should also keep in mind the long-term benefits of dual credit, such as college degree completion or job placement.

Ark (2019) reported that the administrators from approximately 60 schools that span over 15 school districts in Kansas and Missouri have been exploring ways that high school students can gain real-world experiences. “The goal is to add more powerful and relevant learning experiences for youth and to capture and communicate those

experiences with credentials and assets recognized by higher education and employers” (Ark, 2019, para. 3). According to Ark (2019), researchers from the two states developed four *market value assets* that colleges and employers would appreciate high school students possessing once they graduate: internships, industry recognized credentials, entrepreneurial experiences, and earning at least three college credits while in high school. Regarding the college credit market value asset, high school students benefit from taking dual enrollment courses at local colleges.

Dual enrollment opportunities are beneficial to students in a variety of ways. Gleeson (2020) reported that students who complete dual enrollment coursework are more likely to accumulate more credit hours at the end of their first year of college compared to students who do not complete dual enrollment coursework. Chen (2020) noted that students who earned dual enrollment credit in high school tend to have higher GPAs than their classmates who chose not complete dual enrollment coursework. According to Fenton-Esquinas (2021), students who complete dual enrollment coursework in high school are more likely to return for the second year of college. Students who complete dual enrollment coursework while in high school enroll in college at higher rates than students who do not complete dual enrollment courses (Robertson & Wallace, 2019). While Barnett et al. (2020) also argued that high school students who take advanced coursework have smoother pathways to higher education, they noted that African American high school students complete advanced coursework at lower rates than their Caucasian counterparts. Additionally, Price (2020) reported that many dual enrollment students transfer effortlessly into college, but echoed Barnett et al. (2020)

noting that African American males “do not represent a significant percentage of high school students enrolled in advanced academic program offerings” (p. 15).

As African American males matriculate from high school to college, Robertson and Wallace (2019) noted that they are the “lowest academically performing group entering college and persisting through the first year at any postsecondary institution” (p. 142). Price (2020) stated that dual enrollment partnerships between colleges and high schools are a “lucrative channel for African American males to matriculate to college” (p. 31). Today, partnerships between high schools and colleges are more important than ever. Anne Kim, keynote speaker at the NACEP 2020 National Conference, noted that dual enrollment partnerships and programming are the handshake between a student’s secondary success and post-secondary success, especially for underrepresented students (personal communication, November 4, 2020). Barnett et al. (2020) said, “The best dual enrollment instructors don’t let students sink or swim. They provide instruction that leaves students – especially those in underrepresented groups in higher education – academically prepared to successfully continue their college education” (p. 41).

Summary

This chapter presented literature related to college readiness, factors that contribute to the success of male college students of color, dual credit history, and dual credit programming. Chapter 3 explains the methods used in the current study. The chapter includes the research design, selection of participants, measurement, data collection procedures, data analysis and hypothesis testing, and limitations.

Chapter 3

Methods

This quantitative study examined the differences in the academic success of African American male first-time, full-time community college students who completed dual enrollment coursework in high school and African American male first-time, full-time community college students who did not complete any dual enrollment coursework in high school. For this study, academic success refers to the number of credit hours earned in the first year of college, the end of first year cumulative GPA achieved, and whether the student returned to the college the second academic year. This chapter describes the research design, selection of participants, measurement, data collection procedures, data analysis and hypothesis testing, and the limitations of the study.

Research Design

A quasi-experimental research design was used in the current study. Creswell and Creswell (2018) stated that a quasi-experimental approach “helps the researcher make inferences about relationships among variables, and how the sample results may generalize to a broader population of interest” (p. 148). The independent variable in the current study was dual enrollment course completion in high school. The dependent variables were the total number of credit hours earned in the first-year college, the end of freshman year cumulative GPA, and the enrollment status (enrolled, not enrolled) at the beginning of the second year of college.

Selection of Participants

The population for this study was African American male first-time, full-time students attending community colleges in the United States. Purposive sampling was

used to select the sample for the current study. Lunenburg and Irby (2008) said, “Purposive sampling involves selecting a sample based on the researcher’s experience or knowledge of the group to be sampled” (p. 175). The sample for the current study included African American male students who enrolled as first-time, full-time freshmen at a suburban Midwestern community college in the fall of 2015, 2016, 2017, and 2018. The total sample in the study included 162 African American male community college students. The data obtained from the Midwestern community college included a disparate, much higher number of students who did not complete dual enrollment coursework compared to those students who did complete dual enrollment coursework. Therefore, a random sample of the non-completer students was evaluated in this study to carry out a more even-sized comparison to the dual enrollment course completers. The sample for the study included 62 dual enrollment completers and 100 non-dual enrollment participants.

Measurement

Archival data stored by the suburban Midwestern community college’s Office of Institutional Effectiveness, Research and Planning were retrieved to identify the African American male first-time, full-time students who started college having completed dual enrollment coursework while in high school and those who had not completed any dual enrollment coursework while in high school. Two numerical variables from the dataset were priority in the current study: the number of credits hours completed at the end of the first year of college (1-18 credit hours), and the end of freshman year cumulative GPA. Cumulative GPA was measured on a four-point scale (0.0-4.0). The dual enrollment status (completed dual enrollment, did not complete dual enrollment) was measured as a

categorical variable and the enrollment status from the end of the first year of college to the beginning of the second year of college was also measured as a categorical variable (enrolled, not enrolled). Dual enrollment hours were not included in the database. Only credit hours and cumulative GPA earned during the first year of college (fall and spring semesters) were included in the data analysis.

Data Collection Procedures

Prior to data collection, a request to conduct the study was submitted to the Baker University Institutional Review Board (IRB) on March 15, 2021. Approval to carry out the study was received on March 17, 2021 (see Appendix A). A request for permission to conduct the study was then submitted to the Research Participant Protection Program (RPPP) at the Midwestern community college on May 17, 2021. Permission was granted from the Midwestern community college's RPPP on May 20, 2021 (see Appendix B). Archived quantitative data were collected from the community college's records database. Retrieved information included the number of dual enrollment hours completed, the number of credit hours completed at the end of the first year of college, the end of the first year of college (fall and spring semesters) cumulative GPA, and the enrollment status for the subsequent academic year for every African American male student whose application status was first-time, full-time. Data were organized into a spreadsheet and input into IBM SPSS Statistics 27 Faculty Pack for Windows for analysis.

Data Analysis and Hypothesis Testing

The following section includes the three research questions that were the focus of the study. In addition, there is a hypothesis and description of the statistical analysis used to analyze data associated with each question.

RQ1. To what extent is there a difference between the number of credit hours earned in the first year of college by African American male first-time, full-time students who completed dual enrollment coursework in high school and the number of credit hours earned by African American male first-time, full-time students who did not complete dual enrollment coursework in high school?

H1. There is a difference between the number of credit hours earned in the first year of college by African American male first-time, full-time students who completed dual enrollment coursework in high school and the number of credit hours earned by African American male first-time, full-time students who did not complete dual enrollment coursework in high school.

An independent-samples t test was conducted to address RQ1. The two sample means were compared. An independent-samples t test was chosen for the hypothesis testing because the hypothesis test examined the mean difference between the group of African American male first-time, full-time students who completed dual enrollment coursework in high school and the group of African American male first-time, full-time students who did not complete dual enrollment coursework while in high school. The means were calculated using data for numerical variables. The level of significance was set at .05. When appropriate, an effect size is reported.

RQ2. To what extent is there a difference between the end of first year of college cumulative GPAs of African American male first-time, full-time students who completed dual enrollment coursework in high school and the end of first year of college cumulative GPAs of African American male first-time, full-time students who did not complete dual enrollment coursework in high school?

H2. There is a difference between the end of first year of college cumulative GPAs of African American male first-time, full-time students who completed dual enrollment coursework in high school and the end of first year of college cumulative GPAs of African American male first-time, full-time students who did not complete dual enrollment coursework in high school.

An independent-samples *t* test was conducted to address RQ2. The two sample means were compared. An independent-samples *t* test was chosen for the hypothesis testing because the hypothesis test examined the mean difference between the group of African American male first-time, full-time students completed dual enrollment coursework while in high school and the group of African American male first-time, full-time students who did not complete dual enrollment coursework while in high school. The means were calculated using data for numerical variables. The level of significance was set at .05. When appropriate, an effect size is reported.

RQ3. To what extent is there a difference between the enrollment status (enrolled, not enrolled) at the end of the first year of college and the beginning of the second year of college of African American male first-time, full-time students who completed dual enrollment coursework in high school and the enrollment status at the end of the first year of college and the beginning of the second year of college of African American male

first-time, full-time students who did not complete dual enrollment coursework in high school?

H3. There is a difference between the enrollment status (enrolled, not enrolled) at the end of the first year of college and the beginning of the second year of college of African American male first-time, full-time students who completed dual enrollment coursework in high school and the enrollment status at the end of the first year of college and the beginning of the second year of college from of African American male first-time, full-time students who did not complete dual enrollment coursework in high school.

A chi-square test of independence was conducted to address RQ3 because the relationship between two categorical variables was analyzed. A cross tabulated frequency table was constructed for the two categorical variables: dual enrollment coursework completion in high school (yes or no) and the enrollment status at the end of the first year of college and beginning of the second year of college (enrolled, not enrolled). The observed frequencies were compared to those expected by chance. The level of significance was set at .05. An effect size is reported, when appropriate.

Limitations

Lunenburg and Irby (2008) described limitations as “factors that may have an effect on the interpretation of the findings” (p. 133). Interpretation of the results for this study might potentially have been limited by the following:

1. African American male students may have chosen not to disclose their ethnicity, gender, or first time-first generation status on the admissions application. Data for students who did not include a response to the questions about ethnicity,

gender, or first time-first generation were not included in this study. This may have impacted the results of the study.

2. The students' access to dual enrollment participation in high school depended on the high schools' capability to provide dual enrollment courses. The students in this study did not necessarily all have equal access to the same dual enrollment opportunities. The researcher did not determine whether dual enrollment courses were offered at the high school from which a student graduated. The researcher was also not able to obtain the names of the colleges from which the students in the sample earned their dual enrollment credit. Availability of high school dual enrollment offerings may have impacted the results of the study.
3. Some high schools might have had more college-approved faculty than other high schools and could have offered a wider array of dual enrollment courses.

According to the Higher Learning Commission (2020), dual credit instructors should

hold a master's degree or higher in the discipline...If a faculty member holds a master's degree or higher in a discipline or subfield other than that in which he or she is teaching, that faculty member should have completed a minimum of 18 graduate credit hours in the discipline or subfield in which they teach (p. 3)

The researcher was not able to determine what dual enrollment courses were available at the high schools participants attended. Availability of dual enrollment courses may have impacted the results of this study.

Summary

This chapter included an explanation of the research design used for this study. The chapter also included a description of the selection of participants, measurement, data collection procedures, data analysis and hypothesis testing, and limitations. The fourth chapter presents the descriptive statistics for the sample and the results of the hypothesis testing.

Chapter 4

Results

Three purposes guided the current study. The first purpose was to examine the difference in the number of credit hours earned at the end of the first year of college between African American male first-time, full-time students who completed dual enrollment coursework in high school and those who did not complete dual enrollment coursework in high school. The second purpose of the study was to determine whether there was a difference in the cumulative GPAs at the end of the first year of college between African American male first-time, full-time students who completed dual enrollment coursework in high school and those who did not complete dual enrollment coursework in high school. A final purpose was to investigate whether there was a difference in the enrollment status (enrolled, not enrolled) at the end of the first year of college and the beginning of the second year of college between African American male first-time, full-time students who completed dual enrollment coursework in high school and those who did not complete dual enrollment coursework in high school. Chapter 4 presents the descriptive statistics for the sample, the results of the hypotheses testing, and the additional analysis results.

Descriptive Statistics

Descriptive statistics were utilized to explain the sample of this study. Students who were included in this study were African American male first-time, full-time students who enrolled at a Midwestern community college in the fall of 2015, 2016, 2017, and 2018. Students who completed dual enrollment coursework in high school and

those who did not take any dual enrollment courses were identified. Students who enrolled in dual enrollment courses but failed or withdrew from the courses were removed from the database since they did not meet the criteria of successfully completing a dual enrollment course. The data obtained from the Midwestern community college included a disparate, much higher number of students who did not complete dual enrollment coursework compared to those students who did complete dual enrollment coursework. Therefore, a random sample of the non-completer students was evaluated in this study to carry out a more even-sized comparison to the dual enrollment course completers.

Hypothesis Testing

The first two research questions were analyzed using the independent-samples t test. The third research question was analyzed using the chi-square test of independence. Additional analyses were completed using the one-factor analysis of variance test and the chi-square test of independence.

RQ1. To what extent is there a difference between the number of credit hours earned in the first year of college by African American male first-time, full-time students who completed dual enrollment coursework in high school and the number of credit hours earned by African American male first-time, full-time students who did not complete dual enrollment coursework in high school?

H1. There is a difference between the number of credit hours earned in the first year of college by African American male first-time, full-time students who completed dual enrollment coursework in high school and the number of credit hours earned by

African American male first-time, full-time students who did not complete dual enrollment coursework in high school.

An independent-samples *t* test was conducted to address RQ1. The two sample means were compared. An independent-samples *t* test was chosen for the hypothesis testing because the hypothesis test examined the mean difference between the group of African American male first-time, full-time students who completed dual enrollment coursework in high school and the group of African American male first-time, full-time students who did not complete dual enrollment coursework in high school. The means were calculated using data for numerical variables. The level of significance was set at .05. When appropriate, an effect size is reported.

The results of the independent samples *t* test indicated a statistically significant difference between the two means, $t(142) = 3.413$, $p = .001$, $d = 0.577$. The sample mean for the group of African American male first-time, full-time students who completed dual enrollment coursework in high school ($M = 22.73$, $SD = 5.75$, $n = 60$) was higher than the sample mean for the group of African American male first-time, full-time students who did not complete dual enrollment coursework in high school ($M = 18.65$, $SD = 7.88$, $n = 84$). H1 was supported. The effect size indicated a medium effect. African American male first-time, full-time students who completed dual enrollment coursework in high school earned more credit hours than African American male first-time, full-time students who did not complete dual enrollment coursework in high school.

Table 1

Descriptive Statistics for Testing H1

Dual Enrollment Coursework	<i>M</i>	<i>SD</i>	<i>N</i>
Completed	22.73	5.75	60
Did Not Complete	18.65	7.88	84

RQ2. To what extent is there a difference between the end of the first year of college cumulative GPAs of African American male first-time, full-time students who completed dual enrollment coursework in high school and the end of the first year of college cumulative GPAs of African American male first-time, full-time students who did not complete dual enrollment coursework in high school?

H2. There is a difference between the end of first year of college cumulative GPAs of African American male first-time, full-time students who completed dual enrollment coursework in high school and the end of first year of college cumulative GPAs of African American male first-time, full-time students who did not complete dual enrollment coursework in high school.

An independent-samples *t* test was conducted to address RQ2. The two sample means were compared. An independent-samples *t* test was chosen for the hypothesis testing because the hypothesis test examined the mean difference between the group of African American male first-time, full-time students who completed dual enrollment coursework in high school and the group of African American male first-time, full-time students who did not complete dual enrollment coursework in high school. The means were calculated using data for numerical variables. The level of significance was set at .05. When appropriate, an effect size is reported.

The results of the independent samples t test indicated a statistically significant difference between the two means, $t(137) = 2.501$, $p = .014$, $d = 0.428$. The sample mean for the group of African American male first-time, full-time students who completed dual enrollment coursework in high school ($M = 2.72$, $SD = 1.14$, $n = 60$) was higher than the sample mean for the group of African American male first-time, full-time students who did not complete dual enrollment coursework in high school ($M = 2.22$, $SD = 1.19$, $n = 79$). H2 was supported. The effect size indicated a small effect. African American male first-time, full-time students who completed dual enrollment coursework in high school earned higher cumulative GPAs at the end of the first year of college than African American male first-time, full-time students who did not complete dual enrollment coursework in high school.

Table 2

Descriptive Statistics for Testing H2

Dual Enrollment Coursework	M	SD	N
Completed	2.72	1.40	60
Did Not Complete	2.22	1.19	79

RQ3. To what extent is there a difference between the enrollment status (enrolled, not enrolled) at the end of the first year of college and the beginning of the second year of college of African American male first-time, full-time students who completed dual enrollment coursework in high school and the enrollment status at the end of the first year of college and the beginning of the second year of college of African American male first-time, full-time students who did not complete dual enrollment coursework in high school?

H3. There is a difference between the enrollment status (enrolled, not enrolled) at the end of the first year of college and the beginning of the second year of college of African American male first-time, full-time students who completed dual enrollment coursework in high school and the enrollment status at the end of the first year of college and the beginning of the second year of college of African American male first-time, full-time students who did not complete dual enrollment coursework in high school.

A chi-square test of independence was conducted to address RQ3 because the relationship between two categorical variables was analyzed. A frequency table was constructed for the two categorical variables: dual enrollment completion in high school (completed dual enrollment, did not complete dual enrollment) and the enrollment status (enrolled, not enrolled) from the end of the first year of college to the beginning of the second year of college. The observed frequencies were compared to those expected by chance. The level of significance was set at .05. An effect size is reported, when appropriate.

The results of the chi-square test of independence indicated a statistically significant difference between the observed and expected values, $\chi^2(1) = 9.760, p = .002$, Cramer's $V = .246$. See Table 3 for the observed and expected frequencies. The observed frequency of African American male first-time, full-time students who completed dual credit coursework in high school ($n = 37$) was higher than the expected frequency ($n = 28.3$). The observed frequency of African American male first-time, full-time students who did not complete dual credit coursework in high school ($n = 53$) was higher than the expected frequency ($n = 44.3$). H3 was supported. The effect size indicated a small effect. African American male first-time, full-time students who

completed dual enrollment coursework in high school re-enrolled in college a second year more frequently than African American male first-time, full-time students who did not complete dual enrollment coursework in high school.

Table 3

Observed and Expected Frequencies for H3

Dual Enrollment Coursework	Enrollment Status	f_{observed}	f_{expected}
Did Not Complete	Not enrolled	37	28.3
	Enrolled	62	70.7
Completed	Not enrolled	9	17.7
	Enrolled	53	44.3

Additional Analyses

The results of the hypotheses tests prompted additional investigation because their outcomes indicated that dual enrollment had a positive relationship with the academic success variables included in the study. The data obtained from the Midwestern community college included the number of dual enrollment credit hours each student earned prior to graduating high school. Having access to the number of dual enrollment credit hours each student earned allowed to researcher to create a categorical variable to compare the differences in credit hours earned during the first year of college, cumulative GPAs earned at the end of the of first year of college, and subsequent-year enrollment status among students with varying numbers of dual enrollment credit. The first category included students who completed between one and five credits of dual enrollment coursework. The second group included students who completed between six and nine

credits of dual enrollment coursework. The third group included students who completed 10 or more credits of dual enrollment coursework.

Two one-factor analyses of variance (ANOVAs) and a chi-square test of independence were conducted to examine the differences between groups based on the number of dual enrollment credit hours earned prior to graduating from high school. The first one-factor ANOVA was conducted to compare the end of first year of college credit hours earned by African American male first-time, full-time students based on the number of dual enrollment credit hours completed in high school. The second one-factor ANOVA test was conducted to compare their end of first year of college cumulative GPAs based on the number of dual enrollment credit hours completed in high school. The chi-square test of independence was conducted to compare the number of African American male first-time, full-time students who returned for the second year of college to those who did not return based on the number of dual enrollment credit hours completed in high school.

Regarding the first one-factor analysis of variance (ANOVA), the categorical variable was the number of hours of dual enrollment credit hours completed in high school (1-5, 6-9, 10+). The categorical variable was used to group the dependent variable, which was the number of end of first year of college credit hours earned. The results of the one-factor ANOVA can be used to test for differences in the means for a numerical variable among three or more groups. The level of significance was set at .05. When appropriate, an effect size is reported.

For the end of first year of college credit hours earned, the results of the one-factor ANOVA indicated there was not a statistically significant difference between at

least two of the means, $F(2, 57) = 1.418, p = .251$. See Table 4 for the means and standard deviations for this analysis. No post hoc was warranted. The end of first year of college credit hours completed were not different based on the number of dual enrollment credit hours taken prior to graduating from high school.

Table 4

Descriptive Statistics for the ANOVA for End of Freshman Year Credit Hours Earned

Dual Enrollment Credit Hours	<i>M</i>	<i>SD</i>	<i>N</i>
1-5	22.00	5.18	22
6-9	21.90	6.74	21
10+	24.71	4.90	17

The second one-factor analysis of variance (ANOVA) was also conducted to examine the differences between groups based on the number of dual credits earned prior to graduating from high school. The categorical variable used to group the dependent variable, the average cumulative GPAs, was the number of hours of dual enrollment credit hours completed in high school (1-5, 6-9, 10+). The results of the one-factor ANOVA can be used to test for differences in the means for a numerical variable among three or more groups. The level of significance was set at .05. When appropriate, an effect size is reported.

For end of the first year of college cumulative GPAs, the results of the one-factor ANOVA indicated a statistically significant difference between at least two of the means, $F(2, 57) = 3.187, p = .049, \eta^2 = .101$. See Table 5 for the means and standard deviations for this analysis. A follow up post hoc was conducted to determine which pairs of means were different. The Tukey's Honestly Significant Difference (HSD) post hoc was

conducted at $\alpha = .05$. One of the differences was significant. The average cumulative GPAs of students with more than 10 dual enrollment credit hours ($M = 3.28$) was higher than the average cumulative GPAs ($M = 2.40$) of students with 1-5 dual enrollment credit hours. The effect size indicated a medium effect.

Table 5

Descriptive Statistics for the ANOVA for Cumulative GPA Completed by Enrollment

Status

Dual Enrollment Credit Hours	<i>M</i>	<i>SD</i>	<i>N</i>
1-5	2.40	1.71	22
6-9	2.62	1.24	21
10+	3.28	0.80	17

A chi-square test of independence was conducted to examine the differences between groups based on the number of dual enrollment credit hours completed prior to graduating from high school. A frequency table was constructed for the two categorical variables: number of hours of dual enrollment credit hours completed in high school (1-5, 6-9, 10+) and the enrollment status from the end of the first year of college to the beginning of the second year of college (enrolled, not enrolled). The observed frequencies were compared to those expected by chance. The level of significance was set at .05. An effect size is reported, when appropriate.

The results of the chi-square test of independence indicated there was not a statistically significant difference between the observed and expected values, $\chi^2(2) = 0.483, p = .786$. See Table 6 for the observed and expected frequencies. The observed frequencies were not different than the expected frequencies. Therefore, the

number of dual enrollment credit hours completed has little to no impact on a student's decision to return to college the second year.

Table 6

Observed and Expected Frequencies for Dual Enrollment Credit Hours Completed by Enrollment Status

Dual Enrollment Credit Hours Completed	Enrollment Status	f_{observed}	f_{expected}
1-5	Enrolled	18	18.8
	Not Enrolled	4	3.2
6-9	Enrolled	18	18.0
	Not Enrolled	3	3.0
10+	Enrolled	17	16.2
	Not Enrolled	2	2.8

Summary

Chapter 4 included descriptive statistics and the results of the testing of three hypotheses derived from the three research questions for the study. Additionally, chapter 4 included the results of two ANOVAs and a chi-square test of independence that were conducted to examine the differences between groups based on the number of dual enrollment credit hours completed prior to graduating from high school. Results of the hypothesis testing indicated statistically significant differences in credit hours earned in the first year of college between African American male first-time, full-time students who completed dual enrollment coursework while in high school and African American male first-time, full-time students who did not complete dual enrollment coursework

while in high school. Results of the hypothesis testing also indicated statistically significant differences in the end of freshman year cumulative GPAs between African American first-time, full-time students who completed dual enrollment coursework in high school and African American first-time, full-time students who did not complete dual enrollment coursework in high school. Additionally, there was a statistically significant difference in enrollment status from the end of the first year of college and the beginning of the second year of college between African American male first-time, full-time students who completed dual enrollment coursework in high school and African American male first-time, full-time students who did not complete dual enrollment coursework in high school.

From the additional analyses, it was determined that there was no significant significance between the number of dual enrollment credit hours completed and the number of credit hours earned in the first year of college by African American male first-time, full-time students. It was also determined that there was no statistical significance between the number of dual enrollment credit hours completed and the enrollment status at the end of the first year of college and the beginning of the second year of college of African American male first-time, full-time students. However, there was a statistically significant difference between the number of dual enrollment credit hours completed and the end of freshman year average cumulative GPAs of African American male first-time, full-time students who completed at least 10 hours of dual enrollment credit.

Chapter 5 provides interpretations and recommendations based on the current study. The chapter contains a study summary, which includes an overview of the problem, purpose statement, research questions, methodology, and major findings. The

chapter also includes findings related to the literature, and conclusions that include implications for action, recommendations for future research, and concluding remarks.

Chapter 5

Interpretation and Recommendations

The purpose of this study was to investigate whether the completion of dual enrollment coursework impacted the academic success of African American male first-time, full-time college students. For this study, academic success referred to the number of credit hours earned in the first year of college, the end of first year cumulative GPA achieved, and whether students returned for the second year of college. This chapter contains a study summary, which provides an overview of the problem, purpose statement, research questions, methodology, and major findings. In addition, Chapter 5 reports findings related to the literature, and conclusions that include implications for action, recommendations for future research, and concluding remarks.

Study Summary

This section revisits the problem of the study. The purpose statement and research questions that guided the study are identified. The methodology is reviewed, and major findings from the hypothesis testing are explained.

Overview of the problem. Hodara and Pierson (2017) and Barnett et al. (2020) reported that American Indian, Indigenous, Hispanic, Latinx, Pacific Islander, and African American students historically trail Caucasian students in dual enrollment completion. Additionally, Hodara and Pierson (2017) reported that across all racial groups, male students completed dual enrollment coursework less than female students by close to 10%. There is limited research comparing the academic success of African American male first-year college freshmen who completed dual enrollment coursework

in high school compared to the academic success of African American male first-year college freshmen who did not complete dual enrollment coursework while in high school.

Purpose statement and research questions. Three purposes guided the current study. The first purpose and research question were established to examine the difference in the number of credit hours earned in the first year of college between African American male first-time, full-time students who completed dual enrollment courses in high school and those who did not complete dual enrollment courses in high school. The second purpose and research question were established to determine whether there was a difference in the cumulative GPAs at the end of the first year of college between African American male first-time, full-time students who completed dual enrollment courses in high school and those who did not complete dual enrollment courses in high school. The third purpose and research question were established to investigate whether there was a difference in the enrollment status from the end of the first year of college to the beginning of the second year of college between African American male first-time, full-time students who completed dual enrollment courses in high school and those who did not complete dual enrollment courses in high school.

Review of the methodology. A quantitative quasi-experimental research design was used in the current study. The sample included 162 African American male first-time, full-time students who attended a suburban, Midwestern community college from fall 2015 through fall 2018. Sixty-two students had completed dual enrollment coursework in high school and 100 had not completed any dual enrollment coursework. Archival data from a Midwestern community college were analyzed. The independent variable in the study was dual enrollment course completion in high school. The

dependent variables were the total number of credit hours earned in the first year college, the end of first year of college cumulative GPA, and the enrollment status (enrolled, not enrolled) at the beginning of the second year of college. The first two hypotheses were analyzed using the independent-samples t test. The third hypothesis was analyzed using the chi-square test of independence. Additional analyses were completed using two one-factor analyses of variance and a chi-square test of independence to explore the differences between groups based on the number of dual enrollment credit hours completed prior to graduating from high school.

Major findings. The three hypotheses were supported. The African American male first-time, full-time students who completed dual enrollment coursework in high school earned more credit hours in the first year of college than the African American male first-time, full-time students who did not complete dual enrollment coursework in high school. The African American male first-time, full-time students who completed dual enrollment coursework in high school achieved higher cumulative GPAs at the end of their first year of college than those who did not complete dual enrollment coursework. In addition, the African American male first-time, full-time students who completed dual enrollment coursework in high school were more likely to return for the second year of college than the African American male first-time, full-time students who did not complete any dual enrollment coursework in high school.

Shifting from the evaluation of the impact of the completion of dual enrollment coursework to the impact of the number of dual enrollment credit hours earned while in high school, it was determined that students who completed 10 or more dual enrollment credit hours in high school earned higher cumulative GPAs at the end of their first year of

college compared to the students who had completed between one and five dual enrollment credit hours in high school. The number of dual enrollment credit hours completed in high school did not significantly impact the number of credit hours earned during the first year of college or the students' enrollment status (enrolled, not enrolled) at the end of the first year of college and beginning of the second year of college.

Findings Related to the Literature

Noble et al. (2014) and Gleeson (2020) reported that students who earned dual enrollment credit in high school accumulated more credit hours at the end of the first year of college than students who did not earn dual enrollment credit. Findings in the current study were similar to those reported by Noble et al. (2014) and Gleeson (2020). African American male dual enrollment completers earned a higher number of credit hours in the first year of college compared to those who did not complete dual enrollment coursework.

Redden (2007) stated that dual enrollment is associated with positive outcomes on measures including college GPA and progress toward completion. Chen (2020) reported that students who completed dual enrollment coursework in high school were more likely than those who did not complete dual enrollment coursework to earn higher cumulative GPAs at the end of the first year of college. Chen (2020) also noted that students who completed dual enrollment coursework in high school tended to have higher GPAs during their second and third years of college compared to their peers who did not complete dual enrollment coursework in high school. Findings in the current study were similar to those reported by Redden (2007) and Chen (2020). African American males who completed dual enrollment coursework in high school earned higher cumulative GPAs at

the end of their first year of college than their peers who did not complete dual enrollment coursework.

Noble et al. (2014) and Fenton-Esquinas (2021) found that students who completed dual enrollment coursework are more likely to remain enrolled at the same institution for the second year of college. Findings in the current study were similar to those reported by and Noble et al. (2014) and Fenton-Esquinas (2021). African American males who completed dual enrollment coursework in high school were more likely to return for the second year of college than their peers who did not complete dual enrollment coursework.

Conclusions

Findings from the current study indicated significant differences in end of freshman year earned credit hours, cumulative GPAs, and persistence to the second year of college between African American male first-time, full-time students who completed dual enrollment coursework in college and those who did not. Several implications for action and recommendations for future research based on the findings of the current study are provided in the next section. Concluding remarks are also included in this section.

Implications for action. The results of the current study led the researcher to recommend seven actions.

1. Price (2020) recommended intentional coordination of dual enrollment courses for African American high school students and noted the increase in college persistence associated with these classes. Parents of African American male students entering high school need to be educated about the benefits of dual enrollment coursework. High school counselors should be encouraged to work with higher education personnel to

create an information guide for parents that explains the benefits of dual credit and dual enrollment procedures.

2. High school counselors should be informed about the results of the current study. Knowing about the benefits of dual enrollment coursework may better equip and encourage them to be more intentional in encouraging African American males to enroll in dual enrollment courses.

3. High school counselors should be encouraged to host an event for high school African American males that includes a panel of recent African American male college graduates who completed dual enrollment coursework in high school as panelists. The graduates could share their experiences about how dual enrollment completion interfaced with their academic success in college.

4. Some states require an ACT score or other entry exam criteria to be eligible to enroll in dual enrollment coursework. In addition, in many states, students are responsible for their dual enrollment coursework tuition. Depending on the high school – college dual enrollment partnership, students may be required to purchase a college-level textbook in order to successfully complete a dual enrollment course. Some students may not be able to afford the expenses that may be associated with dual enrollment. High school administrators should be encouraged to create a fund that could be used to provide financial support for students who have financial needs related to dual enrollment courses.

5. Presidents and chancellors of community colleges should consider including dual enrollment initiatives into their college's strategic plans. This would ensure that all

departments within the colleges are aware of and understand the charge to prioritize and strengthen dual enrollment pursuits.

6. Academic advisors at community colleges could develop pamphlets for their college's degree programs and certificates that specifically outline the courses a high school student could take to intentionally and purposefully follow a degree program that has included completion of dual enrollment coursework.

7. The results of the current study should be shared at a state, regional, or national conference. Results from the study may encourage others to study the impact of dual enrollment coursework completion on African American males. An executive summary of the results of the current study should be shared with the leaders of NACEP. As the professional organization that focuses on dual enrollment accreditation and initiatives, there may be an interest in conference presentations or additional research related to the impact dual enrollment has on the college performance of African American male students.

Recommendations for future research. The current study examined the differences in credit hours earned at the end of the first year of college, cumulative GPAs achieved at the end of the first year of college, and enrollment status (enrolled, not enrolled) at the end of the first year of college and beginning of the second year of college between African American male first-time, full-time students who completed dual enrollment coursework in high school and African American male first-time, full-time students who did not complete dual enrollment coursework in high school. The students in the current study attended a large community college. Future research should be conducted at additional community colleges of various sizes, including those located

in urban, suburban, and rural communities. The community college in the current study was located in the Midwest. Future studies should be conducted at community colleges located in other regions of the United States.

A quantitative research design was used in the current study. Future research using a qualitative research design should be conducted. Furthermore, a future qualitative study might address factors that prevent students from participating in dual enrollment programs. Not all high schools offer dual enrollment courses. Future research could consider factors that inhibit high schools from offering dual credit. High school students learn of dual enrollment opportunities from multiple channels. Future studies should be conducted to examine how dual enrollment students are recruited or selected to participate in dual enrollment programs. Future studies could also explore if there is any relationship between dual enrollment completion and attending college after finishing high school.

Regarding the possible costs affiliated with dual enrollment completion, future studies could compare the success of dual enrollment programs that are free of charge to students compared to the dual enrollment programs that place the financial responsibility on the student. The current study investigated the impact of dual credit courses on African American males. Future research could also be conducted with other under-represented groups including those who identify as Hispanic, Latinx, Indigenous, Pacific Islander, and Native American.

Concluding remarks. The explanation for why African America male college students trail their peers of other ethnicities regarding degree completion remains complicated. However, the results of this study might help secondary administrators as

well as post-secondary administrators, recruiters, and advisors understand the particular needs and challenges of this student group. The empirical information generated from this study will enhance the quality of the conversations between African American males and parents, school staff, and faculty about the importance of high school and college persistence and completion and how dual enrollment completion can play a part in the academic success of these students.

McBride (2017) noted that the college graduation rate gap between African American men and their Caucasian peers has been widening for years. Bryant (2015) also noted a steady college completion gap between African American males and their African American female peers as well. A multitude of factors could be linked to these statements, but the fact of the matter is that “educators, administrators, and policymakers alike have grappled with the question of what must be done to improve the success of African American male college students” (McBride, 2017, para. 1). Findings from the current study revealed that dual enrollment completion could be an intentional intervention to help increase the number of African American male, first-time college students who persist to completion and college graduation.

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Appendices

Appendix A: Baker University IRB Approval



Baker University Institutional Review Board

March 17th, 2021

Dear Mallory Mitchell and Tes Mehring,

The Baker University IRB has reviewed your project application and approved this project under Exempt Status Review. As described, the project complies with all the requirements and policies established by the University for protection of human subjects in research. Unless renewed, approval lapses one year after approval date.

Please be aware of the following:

1. Any significant change in the research protocol as described should be reviewed by this Committee prior to altering the project.
2. Notify the IRB about any new investigators not named in original application.
3. When signed consent documents are required, the primary investigator must retain the signed consent documents of the research activity.
4. If this is a funded project, keep a copy of this approval letter with your proposal/grant file.
5. If the results of the research are used to prepare papers for publication or oral presentation at professional conferences, manuscripts or abstracts are requested for IRB as part of the project record.
6. If this project is not completed within a year, you must renew IRB approval.

If you have any questions, please contact me at npoell@bakeru.edu or 785.594.4582.

Sincerely,

A handwritten signature in blue ink that reads "Nathan D. Poell". The signature is written in a cursive style and is positioned above a faint, light blue rectangular stamp.

Nathan Poell, MLS
Chair, Baker University IRB

Baker University IRB Committee

Sara Crump, PhD

Nick Harris, MS

Christa Manton, PhD

Susan Rogers, PhD

Appendix B: Midwestern Community College IRB Approval

From: [REDACTED].edu>
Sent: Thursday, May 20, 2021 3:51:38 PM
To: Mallory Mitchell <mmitch96 [REDACTED]>
Subject: RE: Dissertation Research Specifics - Mallory Mitchell, Baker University

Hi, Mallory,

The data from Institutional Research would be de-identified before you receive them. This means you would be working exclusively with non-identifiable data.

You have RPPP permission to proceed with your study!

Best,

[REDACTED]
Chair, Research Participant Protection Program
[REDACTED] College