A Dissertation

entitled

Perceptions of Dually Enrolled, Eighth-Grade College Students' College Readiness: A

Qualitative Study

by

Kenneth D. Hale

Submitted to the Graduate Faculty as partial fulfillment of the requirements for the

Doctor of Philosophy Degree in Higher Education

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An Abstract of

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Throughout the United States, dual enrollment programs enable high school students to earn college credit by completing college classes while in high school. In 2015, the State of Ohio expanded grade-level eligibility to participate in the state's dual enrollment program, College Credit Plus, to seventh- and eighth-grade students. The purpose of this study was to explore the college readiness perceptions of a newer and expanded audience of dual-enrollment participants: students who completed college classes at a community college as eighth graders.

Using a semistructured interview guide, data were collected from nine students who participated in in-depth interviews responding to questions related to their eighthgrade college experiences and their self-perceptions of their college readiness. Using a systematic qualitative data analysis process, eight themes emerged from the study and were interpreted using Conley's college readiness theoretical framework. The study's key findings revealed study participants, as dually enrolled, eighth-grade college students, possessed aspiration and motivation; found the cognitively stimulating college environment appealing; demonstrated content mastery; and felt college ready. Findings also revealed participants felt positive instructor rapport was meaningful, and most participants were socially comfortable in their college classes. Though the study revealed students demonstrated ownership of learning and adapted, matured, and persevered in their college classes, challenges were nonetheless experienced. Extending empirical research primarily examining high school students, this study contributes to the body of knowledge of dual enrollment and eighth-grade students' college enrollment and college readiness experiences, further deepening dual-enrollment research, qualitatively, through the voices of students.

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vi

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Abstract iii
Acknowledgements vi
Table of Contents
List of Tables xi
List of Figures xiii
I. Chapter One: Introduction
A. Background of the Study1
B. National Prevalence of Dual Enrollment
C. Dual Enrollment in Ohio3
D. College for Middle Grade Students5
E. Statement of the Problem
F. Purpose of the Study8
G. Research Question
H. College Readiness Theoretical Framework
I. Methodology9
J. Significance of the Study10
K. Definitions of Terms12
L. Delimitations14
M. Limitations15
N. Assumptions15
O. Organization of the Study16
II. Chapter Two: Literature Review

Table of Contents

	A. History of High School Students Earning College Credit	20
	B. Overview and Description of Dual Enrollment	24
	C. State Policy and Dual Enrollment	26
	D. Dual-Enrollment Research	33
	E. College Readiness Theoretical Framework	47
	F. Ohio's Middle School, College Students	52
	G. Chapter Summary	54
III.	Chapter Three: Methodology	56
	A. Research Design	56
	B. Role of the Researcher	57
	C. Sample and Site Selection—Participants and Setting	59
	D. Procedure	61
	E. Data Collection	62
	F. Data Analysis	66
	G. COVID-19's Impact on the Research Study	70
	H. Chapter Summary	70
IV.	Chapter Four: Findings	72
	A. Purpose of the Study	72
	B. Research Question	73
	C. Participants	73
	D. Data Collection	75
	E. Data Analysis	77
	F. Chapter Summary	108

V. Chapter Five: Discussion
A. Summary of the Study111
B. Discussion of the Findings114
C. Limitations
D. Implications for Policy and Practice
E. Recommendations for Future Research
F. Conclusion and Contributions142
References
Appendices
A. Interview Guide

List of Tables

Table 1	Texas Higher Education Coordinating Board Dual-Credit Enrollment Data30	
Table 2	State of Washington Running Start: 11th- and 12th-Grade Students Enrolled in	
	College-Level Courses	
Table 3	Ohio's Post Secondary Enrollment Options 15-Year Student Participation	
	Enrollment Data, 1998–201441	
Table 4	Ohio's College Credit Plus Dual Enrollment Participation43	
Table 5	Eighth-Grade College Credit Plus State of Ohio Participation Enrollment: 2015–	
	2016 through 2021–2022	
Table 6	Demographics of Research Study Participants75	
Table 7	Five Categories Comprising Theme 1 – Possessed Aspiration and Motivation.81	
Table 8	Three Categories Comprising Theme 2 – Appeal of Cognitively Stimulating	
	Environment	
Table 9	Three Categories Comprising Theme 3 – Demonstrated Content Mastery and	
	College Readiness	
Table 10) Three Categories Comprising Theme 4 – Positive Instructor Rapport and	
	Meaningful Support	
Table 11	Three Categories Comprising Theme 5 – Demonstrated Ownership of Learning	
Table 12	2 Three Categories Comprising Theme 6 – Socially Comfortable In College Class	
Table 13	3 Three Categories Comprising Theme 7—Adaptation, Growth and Maturation,	
	and Perseverance	

Table 14 Three Categories Comprising Theme 8 – Challenges Were Experienced		
Тоо		
Table 15 Eight Emerging Themes	115	

List of Figures

Figure 1 Facets of College Readiness	
6 6	
Figure 2 Conley's Four Keys to College and Career Readiness	49

Chapter One

Introduction

The United States has been outpaced internationally in higher education. In 1996, the United States ranked second in the world in 4-year degree attainment among 25–34 year old students (Organization for Economic Co-Operation and Development [OECD], 1999); in 2021, the United States ranked 10th (OECD, 2021). Since the 2010s, college completion rates have subsequently moved to the forefront of U.S. education reform efforts (Karp, 2015). For a myriad of reasons, many students do not finish college; nationwide, fewer than half of the high school class of 2004 earned a college degree in 8 years of their intended high school graduation (Lauff & Ingels, 2014). Most recently, the National Student Clearinghouse's (2022) "Completing College Report" revealed the 6year college graduation rate for first-time students in Fall 2016 was 62.3%. Researchers have identified one reason students do not complete their degree is a lack of preparation for college-level coursework (Callan et al., 2006). The expectations and norms students have learned and the skills they have cultivated throughout their primary and secondary education experiences may not translate well to postsecondary education (An & Taylor, 2019).

Background of the Study

Acknowledging the importance of the entire U.S. education system to become more effective and accessible for students, U.S. Secretary of Education, Miguel Cardona (2022, as cited by U.S. Department of Education, 2022), said:

At the Department [of Education] we will be student centered. As we work to make colleges more affordable and accountable, we must also make them more

accessible. That means creating strong college and career pathways between our pre-k through grade 12 systems, our 2- and 4-year colleges, and our workforce partners so that our systems lead the world. (p. 5)

Across the United States, high school students have been increasingly afforded more opportunities to participate in college credit-bearing programs in community colleges and universities. These credit-bearing programs consist of advanced placement (AP), International Baccalaureate (IB), Tech Prep, early and middle college high schools, and dual-enrollment programs, the latter of which is the fastest-growing credit-bearing program across the nation. Dual-enrollment programs are collaborative efforts between high schools and colleges in which high school students are permitted to enroll in college courses and, in most cases, earn college credit that is placed on a college transcript (Allen, 2010). Leading scholars in the dual-enrollment field have indicated in some programs, students earn high school and college credit simultaneously; these programs may be referred to as dual credit or concurrent enrollment (Hughes et al., 2005; Karp et al., 2007). Barnett and Stamm (2010) noted interest has grown in using dual enrollment as a way to smooth the transition for traditionally underrepresented college students in higher education.

According to the U.S. Deputy Assistant Secretary of the Office of Career, Technical, and Adult Education (2022), the Biden–Harris Administration has expressed a deep commitment to the use and expansion of high-quality dual-enrollment programs to improve student access to rigorous coursework and equitable postsecondary opportunities (Rhine, 2022). The U.S. Department of Education's commitment to expand high-quality dual-enrollment programs warrants additional research for audiences impacted by the

pathway strategy on which pre-K–12 and higher education systems have collaborated to help better prepare students for future success.

National Prevalence of Dual Enrollment

The practice of high school students earning college credit in the United States has emerged as a growing phenomenon as more colleges and high school partnerships have sought to provide students with an accelerated pathway to college (Taylor, 2015). Across the nation in the last 20 years, dual-enrollment participation has steadily increased. High school student participation in dual enrollment had an annual growth rate of over 7% during the 8-year period beginning in 2002–2003 (National Alliance of Concurrent Enrollment Partnerships, n.d.). In 2010–2011, approximately 1.4 million high school students enrolled in over 2 million college courses from postsecondary institutions nationwide (Thomas et al., 2013). This metric represented 10% of high school students, with higher representation in upper grades given the vast majority of students taking these classes are juniors and seniors (National Alliance of Concurrent Enrollment Partnerships, n.d.).

Dual Enrollment in Ohio

State policies and programs play a major role in promoting or deterring dual enrollment. Although many individual colleges and universities independently have developed dual-enrollment programs, others have resulted from state policies and programs. State policies exert major influence over whether these programs flourish or wither (Barnett & Stamm, 2010). The State of Ohio has more than 3 decades of legislative experience in dual enrollment. In the past 10 years, the Education Commission of the States identified Ohio as one of 13 states having model state-level policy

components focused on increasing student access and success in dual-enrollment programs (Zinth, 2014).

Beginning in 1989, the state legislature of Ohio enacted the Post Secondary Enrollment Options (PSEO) program "under which a secondary grade student who is a resident of this state may enroll at a college, on a full- or part-time basis, and complete nonsectarian courses for high school and college credit" (Ohio Revised Code 3365, 2015, p. 1). From 1989–2015, Ohio's PSEO program, sometimes referred to as the dualenrollment program more generally, allowed Ohio high school students to earn college credit and/or high school graduation credit through the successful completion of college courses. Ohio's PSEO program was open to qualified students in Grades 9–12 who were enrolled in the state's public, community, and nonpublic high schools.

The Ohio Department of Education did not provide data on dual-enrollment student participation for the years from 1989 through 1997; however, an examination of Ohio's PSEO participation data since 1998 revealed steady growth. In Fiscal Year 1998, 6,361 public school students participated in PSEO, and in Fiscal Year 2004, 9,781 public school students participated (Ohio Association for Gifted Children, 2005). Though the increase was substantial, proponents of PSEO pointed out the 2004 participation number only represented approximately 1.8% of Ohio's high school students (Ohio Association for Gifted Children, 2005). The State of Ohio's 2004 approximate dual-enrollment participation rate of 1.8% was also lower than national estimates from a few years prior, as cited in a National Center for Education Statistics (NCES) report that estimated about 5% of high school students were enrolled in courses for college credit nationwide (Kleiner & Lewis, 2005).

In 2013, Ohio's governor—along with the chancellor of the Ohio Board of Regents, state legislators, and state education officials—overhauled and prioritized the PSEO dual-enrollment strategy (Ohio Board of Regents, 2013). Effective in 2015, Ohio's new dual-credit program became known as College Credit Plus, established as an important strategy to increase college enrollment and degree attainment in the State of Ohio. In addition to providing high school students an opportunity to participate in College Credit Plus and earn high school and college credit upon completion of college classes, Ohio's new College Credit Plus dual-credit program also began allowing eligible seventh- and eighth-grade students to participate beginning in the 2015–2016 academic school year (Ohio Revised Code 3365, 2015). As such, Ohio's College Credit Plus program allows public colleges to enroll eligible Ohio students from Grades 7 through 12 who meet the individual college's regular admissions criteria, an implication that the younger, newly admitted seventh- and eighth-grade, dually enrolled students are college ready.

College for Middle Grade Students

Ohio's College Credit Plus provision for seventh- and eighth-grade students to also be allowed to complete college classes and earn college credits began during the 2015–2016 school year. The inclusion of middle grade students to be admitted into college classes, instead of only high school students in Grades 9 through 12, marked a relatively new legislated phenomenon in dual enrollment. After an extensive search, I only identified two additional states in the nation with a legislated dual-enrollment policy that allows younger students opportunities to earn college credits during their middle school years: Florida and Maryland (Jamieson et al, 2022). Although the states of Florida,

Maryland, and Ohio are the only three states that legislatively allow middle school students an opportunity to enroll in college courses as of 2023, research has revealed on a limited and restricted basis, the practice of admitting middle grade students into college classes actually began in the 1970s (Olszewski-Kubilius, 1995).

This practice started on an individual college-by-college basis to academically gifted students through early entry-to-college initiatives (Olszewski-Kubilius, 1995). The early entry-to-college programs were offered to select students with high intelligence quotients (IQs) by select universities as a radical acceleration pathway for gifted and talented students (Olszewski-Kubilius, 1995). Upon inception of early entrance-tocollege programs, most studies have often originated at sites where there were established early entrance programs, such as the University of Washington and California State University, Los Angeles (Gregory & Stevens-Long, 1986; Robinson & Noble, 1992). Increased research regarding early entry-to-college programs offered by select universities placed an emphasis on their own highly selective, primary audience of students (i.e., gifted and talented students), which seemed a narrower student base than the 2015–2016 legislated dual-enrollment programs offered in Ohio. For instance, College Credit Plus represented an explicit intent to widen college access to more students, including middle school students, without regard to being only academically gifted.

Statement of the Problem

Multiple models of dual-enrollment programs have emerged to provide students with alternatives or supplements to traditional college credit options. Participation in college-level coursework may begin earlier than other, more traditional programs starting

in ninth grade, even as early as middle school (Wilson, 2016). According to Creswell (2007), it is important in qualitative research to provide a rationale or reason for studying the problem. The strongest and most scholarly rationale for a study comes from scholarly literature; a need exists to add to or fill a gap in the literature or to provide a voice for individuals not heard in the literature (Creswell, 2007). I conducted an exhaustive review of dual-enrollment literature. The review of literature revealed that the majority of existing research of the emerging dual-enrollment phenomenon focused on descriptions of dual enrollment (Allen, 2010; Hughes et al., 2005); examinations of participation trends (Cowan & Goldhaber 2015; Waits et al., 2005); state policy reviews (Zinth, 2014); and purported benefits of dual enrollment, which includes improved academic performance in college, improved persistence, decreased time for students to earn a college degree, and college degree attainment (An, 2013a; Struhl & Vargas, 2012).

Upon reviewing existing literature, I uncovered scant qualitative research focused on examining 12th-grade high school students' perceptions of their dual-enrollment experiences (Kanny, 2015; Ramsey-White, 2012; Saenz & Combs, 2015), along with Karp's (2012) study, which also included 11th-grade high school students along with 12th graders. However, after an extensive literature review, I found no research investigating the perceptions of dually enrolled, eighth-grade college students, which has become a new population segment impacted by the dual-enrollment phenomenon particularly in the State of Ohio with its state legislated dual enrollment program, College Credit Plus.

Purpose of the Study

The purpose of this study was to explore the college readiness perceptions of students who were dually enrolled, eighth-grade college students. I found no previous dual enrollment research focused on eighth-grade college students' perceptions of their own college readiness. This study sought to fill a dual-enrollment research gap focused on eighth-grade students enrolled in college and provide a voice for individuals not presently heard in the literature, a strong rationale to conduct a study (Creswell, 2007).

Research Question

This qualitative study addressed the following research question:

• What are eighth-grade, dually enrolled college students' perceptions of their own college readiness?

College Readiness Theoretical Framework

Conley's (2007, 2010) college readiness theory was the theoretical and interpretive framework used for this study. *College readiness* was defined as the level of preparation a student needs to enroll and succeed—without remediation—in a credit-bearing course at a postsecondary institution that offers a baccalaureate degree or transfer to a baccalaureate program (Conley, 2007). *Success* was defined as completing entry-level courses at a level of understanding and proficiency that makes it possible for the student to consider taking the next course in the sequence of coursework in the subject area (Conley, 2007). Conley's (2010) college readiness framework is built on a comprehensive description of the knowledge and skills students need to succeed in college beyond simple academic performance measures, including four critical facets: key cognitive strategies, key content knowledge, academic behaviors, and contextual

skills and knowledge. Conley's college readiness theory was primarily used to interpret the study's findings.

Methodology

A qualitative research design was used for this empirical inquiry. According to Merriam (2002), when conducting a qualitative study, one seeks to discover and understand a phenomenon, a process, the perspectives and worldviews of the people involved, or a combination of these. Bogdan and Biklen (2003) asserted qualitative research is concerned with how people make sense of their lives. In a qualitative study, the researcher does not seek out evidence to prove or disprove a particular hypothesis; hypotheses are built as data are gathered and analyzed.

Data were collected through one-on-one interviews with study participants who were dually enrolled, eighth-grade college students. In all forms of qualitative research, some and occasionally all of the data are collected through interviews (Merriam, 2009). Both person-to-person and group interviews can be defined as a conversation—but it is important to have a "conversation with a purpose" (Dexter, 1970, p. 136). A system of organizing and managing data was established prior to data analysis. The coding process began before the first interview through assigning a pseudonym and noting the age of each student interviewe. According to Merriam (2009), ideally, verbatim transcription of recorded interviews provides the best database for analysis. Once verbatim transcription of the audio-recorded data was complete, I analyzed the qualitative data using a systematic process of coding, organizing, and synthesizing the data in an inductive process to produce broad themes. This process brought order, structure, and meaning to the data. Upon completion of multiple layers of analysis, thick, rich descriptions and

themes were presented in a narrative format to present the findings, followed by my interpretation in a concluding discussion section.

Significance of the Study

The study is significant in that it addressed a knowledge gap in dual-enrollment literature by focusing on eighth-grade students enrolled in college classes. Across the United States, the issue of high school students earning college credit has become increasingly significant, primarily due to the increasing number of students participating in dual-credit programming. A U.S. Department of Education NCES report from 2019 estimated 34% of high school students took courses for postsecondary credit in high school (Shivji & Wilson, 2019). State of Ohio elected officials and education leaders sought to increase the number of students earning college credit prior to graduating from high school, and beginning in the 2015–2016 school year, implemented an enhanced legislatively enacted dual-enrollment program, College Credit Plus. This program provided more structure, rules, and accountability provisions than the previous state dualenrollment program (i.e., PSEO), and expanded the grade level in which students could participate in dual enrollment to include seventh and eighth graders.

Though previous research on the dual enrollment topic has focused on quantitative analysis of academic outcomes (Hughes et al., 2012; Karp et al., 2007), one empirical study examined the perceptions of traditional high school students who dually enrolled in high school and college classes as 11th- and 12th-grade students through their early college high school (ECHS) experiences (Ramsey-White, 2012). A review of the literature revealed no research had been conducted on the perceptions of eighth-grade students related to their dual-enrollment college experiences. Blanco (2006) identified the

need to focus on what the students say as an area of future research. According to Blanco, very few studies exist about student perceptions of accelerated learning options, yet they are the primary consumers. A better understanding of what students think, their motivations, and whether participation is worth the effort can help policymakers better invest limited resources, identify problem areas, and develop effective solutions (Blanco, 2006). Ramsey-White (2012) also argued, given the current emphasis on education reform efforts that encourage early entrance to college for middle and high school students, empirical research is needed to help direct implementation efforts and inform policy.

Ohio's College Credit Plus began offering dual-enrollment opportunities to seventh- and eighth-grade students in 2015, and no researcher to date has investigated the perceptions of seventh- and eighth-grade students' perceptions of the dual-enrollment college experience. Learners as potential sources of valuable information about schooling have long been undervalued in educational research (Cook-Sather, 2002; Erickson & Schultz, 1992). Furthermore, when policymakers and school administrators routinely neglect to solicit the voice of students during reform planning and implementation, their direction may be undermined, particularly if their plans conflict with students' concerns (Cushman et al., 2003; Lee, 1999; Miron & Lauria, 1998).

This study sought to add to the body of literature by increasing understanding about dual enrollment with an examination of the perceptions and perspectives of younger students' dual enrollment college experiences as eighth-grade students. As such, this investigation on dual enrollment was positioned to provide new empirical research focused on a younger audience of students experiencing college. This qualitative research

can be of use to state education leaders, policymakers, secondary and higher education administrators and faculty, and parents and middle grade students.

Definitions of Terms

Some of the terms related to dual enrollment have been used interchangeably by scholars, practitioners, policymakers, educators, parents, and even students—for example, dual enrollment, dual credit, and concurrent enrollment. Certain states also refer to dual enrollment as concurrent enrollment or dual credit in some states (Education Commission of the States [ECS], 2019). As frequently practiced in the literature, I used the terms dual enrollment and dual credit interchangeably in this dissertation. In this section, associated terms are defined:

Advanced placement (AP) is an accelerated learning program that allows high school students to take advanced courses taught by specially trained teachers and then take an AP exam. With a score of 3 or better out of 5 (depending on the institution), the student is able to obtain college credit for the course (Plucker et al., 2006).

College-level entrance program (CLEP) is a program where students take an exam for a particular subject covering basic knowledge expected to be taught in an introductory college course in that subject. With a passing score, the student gets college credit for the course (Bragg et al., 2005).

Comprehensive programs refer to credit-based programs that encompass much of a student's educational experience. Most programs in this category require students to take many, if not all, of their courses, usually during the last year or two of high school. The key element of the comprehensive programs model is its ability to subsume students' full high school experiences under a credit-based program (Bailey & Karp, 2003).

Credit-based transition programs include programs such as dual enrollment, AP, IB, Tech Prep, and middle college high schools (MCHS) that enable high school students to take college classes and earn college credit while still in high school (Bailey & Karp, 2003). Bailey and Karp (2003) developed a terminology for various types and intensities of dual-enrollment programs.

Dual credit is a term used when students receive both high school and college credit for completing a college-level class successfully (Barnett & Stamm, 2010).

Dual enrollment refers to the opportunity for high school students to simultaneously enroll in both high school and college courses. Students who take college courses while in high school receive college credit but may or may not receive high school credit for college courses completed (Barnett & Stamm, 2010). Other terms, including concurrent enrollment dual credit, postsecondary enrollment, and co-enrollment may be used to describe dual enrollment (Robertson et al., 2001).

Early college high schools are schools that "integrate high school and college resources to create an accelerated curriculum and allow students to graduate with a high school diploma and an associate's degree in 4 or 5 years, instead of 6" (Krueger, 2006, p. 1).

Enhanced comprehensive programs are the most intensive form of credit -based programs, which seek to prepare students for college—not only through rigorous academic instruction, but also by offering a wide range of activities such as counseling, assistance with applications, mentoring, and general personal support (Bailey & Karp, 2003).

International Baccalaureate (IB) is a 2-year comprehensive high school diploma program of advanced classwork designed to promote international understanding and cooperation. Students in the IB Diploma Program must complete six interdisciplinary IB courses, write a research paper, and participate in community service. Many colleges grant college credit with successful completion of IB exams (International Baccalaureate Organization, 2019).

Middle college high schools (MCHS) often target at-risk populations; these high schools are administered by colleges and provide a seamless secondary–postsecondary transition. Students often graduate in 4 or 5 years (instead of 6) with Associate of Arts degrees or enter 4-year colleges as juniors (Krueger, 2006; Plucker et al., 2006).

Singleton programs are a category of credit-based transition programs that are offered to students with the primary goal of exposing students to college-level academics. Singleton credit-based transition programs are often only a small part of a student's high school experiences (Bailey & Karp, 2003).

Tech Prep is a program that promotes articulation agreements between high schools and community colleges to award transferable credits for high school classes (Cellini, 2006). Tech Prep encompasses the last 2 years of high school and 2 years in postsecondary program, leading to certification and matriculation into the workforce (Hughes & Karp, 2006). College credit in Tech Prep is articulated, meaning college credit is not awarded until completion of further requirements (Kerr, 2001).

Delimitations

This study was confined to the boundary of investigating the perceptions of eighth-grade students who were enrolled in college classes as dual-enrollment

participants in the public community college sector only, which does not include 4-year public or private colleges and universities. The purpose of the delimitation was to ensure a careful examination of the topic in the setting where the largest number of secondary school students earn college credits (i.e., community colleges) versus 4-year institutions of higher education.

Limitations

This study had several limitations. First, the purposeful sampling method used did not allow for inference that the results were generalizable to a larger population of dually enrolled, eighth-grade students. Second, the study investigated student perceptions at a single large, multicampus Ohio public community college, which also did not allow for inference that the results were generalizable to students' perceptions at all community colleges or other institutions of higher education.

Assumptions

An assumption is a condition that is believed to be true even though the direct evidence of its truth is either absent or very limited (Pyrczak & Bruce, 2007). I conducted this research study with the assumption that the participants would provide honest feedback during the interview process. To enable honest perspectives from the eighthgrade participants, I decided to conduct in-depth, one-on-one interviews with each study participant who had been a dually enrolled, eighth-grade college student versus collecting data from eighth graders about their dual-enrollment college experiences in focus group sessions. As noted by Janis and Mann (1977) as a limitation of focus group interviewing, participants can sway each other's opinions, resulting in "group think." Furthermore, according to Turner Kelly (2003), group interaction may also discourage participants who

are reluctant to reveal their experiences in front of other participants. As noted by a school counselor with more than 20 years of middle school counseling experience, "in group settings, sometimes eighth-grade students will simply agree with what other eighth graders are saying whether they believe it or not. In my experience, eighth graders are very honest during one-on-one conversations" (J. Thornhill, personal communication, April 17, 2016). Throughout the data collection process, participants were encouraged to be open and honest about their perspectives and perceptions; the assumption was that each study participant shared their honest views.

Organization of the Study

This qualitative study is presented in five chapters. Chapter 1 included the background of the study related to the topic of dual enrollment across the nation and in the State of Ohio, statement of the problem, purpose of the study, the research question, theoretical framework, significance of the study, definitions of terms, delimitations, limitations, and the assumptions of the study.

Chapter 2 presents a review of existing literature, which includes an overview and description of dual enrollment, dual-enrollment research, high school students' perceptions of dual enrollment, middle school students in college, and data on Ohio's College Credit Plus program. Chapter 3 describes the methodology used for this study and includes the research design, role of the researcher, selection of participants, site selection and procedure, instrumentation, data collection and data analysis procedures, and validity and reliability elements.

Chapter 4 presents the study's findings, and Chapter 5 provides a summary of the entire study, including a discussion of the findings, limitations, implications of the

findings for policy and practice, recommendations for future research, contributions to research, and conclusions.

Chapter Two

Literature Review

In recent decades, amid mounting pressures to raise K-12 academic standards and move more students into and through college, high schools have provided a growing array of programs that offer college-level content (Klopfenstein & Lively, 2012). One strategy policymakers and educators have increasingly endorsed to raise academic preparation is to provide students with college-level learning experiences in high school through programs such as dual enrollment (An, 2015). Dual enrollment programs are an increasingly common support for the transition to college, offering high school and college credits simultaneously (Allen, 2010). According to Taie and Lewis (2020), dual enrollment is enrollment in a class that offers both high school and college credit and is an educational strategy promoted as a means to help students prepare for college course work while potentially saving on college costs. According to Taylor et al. (2022), dual enrollment is an evidence-based practice that has broad positive impacts on student outcomes, including college enrollment and completion. Dual enrollment is prevalent nationwide, and is widely supported by students, parents, and education policymakers and practitioners (Taylor et al., 2022).

Despite growing research on the topic of dual enrollment, the majority of existing literature has focused on (a) descriptions of dual enrollment (Karp et al., 2007); (b) examinations of enrollment participation trends (Kleiner & Lewis, 2005; Thomas et al., 2013); (c) state policy adoption analysis (Mokher & McLendon, 2009); and (d) purported benefits, including improved academic performance, decreased time for students to earn a college degree, and increased degree completion (Blankenberger et al., 2017; Geise,

2011; Swanson, 2008). Research has highlighted the positive benefits of dual-enrollment programs, with a statistically significant difference between students who enrolled in dual enrollment courses and students who took only traditional high school classes (Wang et al., 2015). Students who took college courses scored higher on their ACT, spent less time in college, and had higher grade point averages (GPAs; Wang et al., 2015). However, scant research exists examining currently dually enrolled high school students' perceptions of their dual-enrollment experiences (Ramsey-White, 2012), and no research exists as of 2023 on dually enrolled, eighth-grade college students' perceptions of their college readiness. Responding to this research gap, the rationale to conduct this unique empirical investigation was twofold. First, there has been, and is expected to be, a continued increase in dual-enrollment participation by high school students throughout the nation, including the State of Ohio. Secondly, given the current emphasis on education reform efforts to encourage early entrance to college for middle and high school students, empirical research is needed to help direct implementation efforts and inform policy (Ramsey-White, 2012).

The State of Ohio's College Credit Plus dual enrollment program began allowing eighth-grade students to enroll in college classes during the 2015–2016 academic school year. This study sought to contribute new empirical research relative to dual enrollment by capturing the voices and perceptions of a new population (i.e., eighth-grade students) impacted by this educational phenomenon in a manner that may inform, influence, and improve dual-enrollment policy and implementation efforts. I also aimed to improve middle and high school education college preparatory curriculum and higher education student transition programs.

As such, this literature review provides a comprehensive examination of dual enrollment, beginning with the history of dual enrollment in the United States. Next, the review of literature provides an overview and description of dual enrollment, its practices, and purported benefits. The review of literature then presents pertinent policy information, followed by a review of national participation trends demonstrating the emergence of dual enrollment. I then take a closer examination of dual enrollment in two states and review previous research in the field. The next section of the literature review describes Ohio's dual-enrollment program, originally called Post Secondary Enrollment Options (PSEO) and subsequently renamed College Credit Plus. Then, this chapter focuses on the comprehensive college readiness theoretical framework formulated by Conley (2007, 2010), which focuses on academic and nonacademic readiness factors recommended for students to be "college-ready" prior to enrolling in college. Conley's (2007, 2010) college readiness theoretical framework was primarily used to interpret the study's findings. The literature review concludes by discussing the study's purpose, significance, and research questions prior to presenting the methodology section in Chapter 3.

History of High School Students Earning College Credit

Acceleration programs such as dual enrollment for high school students are not new concepts in higher education. In fact, dual enrollment may be traced back to 1876, when Johns Hopkins University established the Three-Year Collegiate Program (Greenberg, 1988). Other research has indicated that William Rainey Harper contributed to acceleration programs as president of University of Chicago when the university was restructured into a 2-year junior and 2-year senior college in 1892 (Stoel, 1988). The

junior program could be completed by advanced students while in high school, whereas the "average student could enter college after the eleventh grade" (Stoel, 1988, p. 16). Decades later, the rigorous advanced placement (AP) program was started in 1955 by the College Board. In 1959, the College Board gave students the opportunity to earn college credit through AP examinations (Boswell, 2001). Students potentially earn college credit by taking an AP exam, and many colleges give credit if a student earns a high enough grade on the exams (The College Board, 2001). Because AP was available mostly to elite students, dual enrollment became an attractive alternative more accessible by less gifted students (Heath, 2008).

The International Baccalaureate (IB) Diploma Program was started in 1968 as a liberal arts course of study for students in international schools around the world. Then IB Diploma Program provides high schools with a curriculum for IB classes overseen by the International Baccalaureate Organization, an organizing governing body whose mission is to develop inquiring, knowledgeable, and caring young people who create a better and more peaceful world through intercultural understanding and respect (International Baccalaureate Organization, 2019). The IB Diploma Program includes a 2year curriculum that students generally complete during their junior and senior years of high school. IB exams correspond to IB classes, and only students who have completed the corresponding classes are permitted to take the exams. Students who complete all requirements for the program and pass the exams earn IB diplomas, which are recognized by numerous colleges in the United States and around the world. Colleges may also choose to award academic credit based on IB exam scores (Jobs for the Future [JFF], 2015).

Janet Liberman's concept of middle college high schools (MCHS) opened in 1973, fully housed on the campus of LaGuardia Community College in New York (Cunningham & Wagonlander, 2000). MCHS were established to help students who were at risk of dropping out of high school meet graduation requirements and transition into postsecondary education. These schools are usually located on college campuses and provide both high school and college curricula (Wechsler, 2001).

A more recently established dual enrollment model is the early college high school (ECHS) initiative. Also based on college campuses, ECHS, akin to MCHS, were designed to focus on the success of underrepresented students. The goal of ECHS is for graduating high school students to leave high school with up to 60 college credits (Tobolowsky & Allen, 2016). The first ECHS, a collaboration between Bard College and the New York City Department of Education, opened its doors in 2001 (Barnett et al., 2015). Over the years, with support from Jobs for the Future (JFF), the Gates Foundation, and other philanthropic organizations, the number of ECHS schools has increased (Berger et al., 2010). In 2014, Michael Webb and Carol Gerwin reported there were approximately 280 ECHS across the United States, some of which were redesigned MCHS, serving over 80,000 students (Tobolowsky & Allen, 2016).

Dual-enrollment programs, which started in the 1970s, first gained popularity in the mid-1980s and have grown substantially since that time (American Association of State Colleges and Universities [AASCU], 2002). Dual-enrollment programs emerged in a decentralized way in the 1970s and 1980s to keep talented students challenged, help smooth the transition between high school and college, develop vocational readiness, and

give students momentum toward a college degree (AASCU, 2002; Adelman, 2006; Bailey & Karp, 2003; Burns & Lewis, 2000).

Before the late 1980s, students had few options for earning college credit before enrolling in college (Haas, 2012). In the mid-1980s, some states also began to support concurrent high school and college enrollment for students who met certain eligibility requirements (Broughton, 1987). The requirements were not as stringent as those used by talented and gifted (TAG) programs, but many who took advantage of concurrent enrollment in its early years were TAG students seeking more challenging coursework than offered by their high schools (Howley & Howley, 1987).

Early programs were started by community colleges in partnership with local high schools (Kim et al., 2006). Unlike other programs aimed at offering advanced coursework such as AP courses or IB programs, the credit was tied to completing the course rather than passing an exam. These early dual-credit programs gradually increased through the 1980s, with greater expansion through the 1990s (Kim et al., 2006).

According to the AASCU (2002), although the original intent of dual enrollment was to provide more challenging educational opportunities to advanced high school students, access to dual-credit courses and programs gradually expanded to decrease drop-out rates and ease the transition to college, particularly for at-risk students. As a result, colleges now offer dual enrollment to a broad range of students (Loveland, 2017; Zinth & Taylor, 2019), which is especially important because the U.S. Bureau of Labor Statistics predicts an increased number of careers requiring an associate's or bachelor's degree in the future (Watson, 2017).
With different aims and a somewhat different clientele in view, the federally funded Tech Prep program links the curricula of vocational high schools with curricula at community or technical colleges (Blanco, 2006). Tech Prep is a highly diverse program established by the 1990 reauthorization of the Carl D. Perkins Vocational and Technical Act. The foundation of Tech Prep sought articulation and coordination between high school and college courses in particular areas, usually technical or occupational (Bailey & Karp, 2003). Many such programs have sought to enroll vocational students in postsecondary career programs prior to high school graduation (Lewis & Overman, 2008). College credit for work in high school is not necessarily a part of this strategy, although in some cases students earn credit "in-escrow," meaning they are given college credit for a course taken in high school if they complete one or more specified courses in college (Bailey & Karp, 2003).

In 2008, the James Irvine Foundation funded the Concurrent Courses Initiative (CCI), which provided support to eight secondary–postsecondary (mostly community college) partnerships in California as they developed, enhanced, and expanded dualenrollment programs that were rigorous, supportive, and career focused (Hughes & Edwards, 2012). The CCI specifically targeted low-income youth who were struggling academically or who came from populations historically underrepresented in higher education (Hughes & Edwards, 2012). Since the late 1980s, opportunities for high school students to earn college credit have expanded.

Overview and Description of Dual Enrollment

Dual-enrollment programs are collaborative efforts between high schools and colleges in which high school students are permitted to enroll in college courses and, in

most cases, earn college credit that is placed on a college transcript (Allen, 2010). In some programs, students earn high school and college credit simultaneously; these programs may be referred to as dual credit or concurrent enrollment (Hughes et al., 2005; Karp et al., 2007).

Dual enrollment is viewed by many as part of a promising college preparation strategy for a broad range of students (Bailey & Karp, 2003). The practice of permitting high school students to enroll in college early was originally considered a strategy restricted to students exhibiting high academic achievement or ability or those who had (on some authority) already mastered secondary curriculum (Gross & Van Vliet, 2005). Despite its past use as an alternative mostly reserved for students who demonstrate significantly advanced achievement compared with same-age peers, some school reformers have viewed early college attendance, structured through dual enrollment or early entry to college, as a possible strategy for supporting the academic engagement and higher levels of academic performance of a wider range of students (Bailey & Karp, 2003, 2005; Kim et al., 2006). As noted by Moreno et al. (2019), college access and readiness provided in high school through dual-enrollment courses may benefit student retention and success in college for traditionally underserved student populations. Since the early 2000s, early college and dual-enrollment options have become more available in many states to a wider range of students, including minority and low-income students and those who are the first in their families to attend college. This widespread availability has shifted the tenor of discourse from academic excellence to academic equity (Howley et al., 2013).

State Policy and Dual Enrollment

State policies have established general guidelines for student participation, instructor eligibility, course offerings, program funding, and accountability measures (Education Commission of the States, 2015). According to Hoffman (2005), states vary in their eligibility requirements for students, but most have opened up early college and dual-enrollment programs to students with moderate levels of ability or achievement not just to those who exhibit very high academic achievement or ability. As Hoffman (2005) noted, moreover, "Several states with large dual enrollment programs do not set a high bar for participation" (p. 8).

According to Cowan and Goldhaber (2015), although the design of dualenrollment programs varies somewhat from state to state, three common features of these are particularly salient to students' educational attainment. First, dual-enrollment programs aim to increase the rigor of the high school curriculum, either by offering advanced courses at the high school or allowing students to enroll in courses on nearby college campuses. Second, these programs reduce the costs of college to students by providing tuition-free enrollment in courses that count for college credit or allowing students to earn college credit while in high school, thereby shortening the time required to complete a college degree. Finally, these programs tend to have institutional features that may incentivize enrollment in particular kinds of colleges by locating courses on a college campus or by negotiating transfer agreements for credits earned while participating (Cowan & Goldhaber, 2015).

National prevalence of dual enrollment. The percentage of students who participate in early college and dual enrollment programs remains small, but even a small

percentage of U.S. high school students represents a large number of students (Howley et al., 2013). Citing data from the National Center for Education Statistics (NCES), Kleiner and Lewis (2005) reported during the 2002–2003 school year, approximately 1.1 million high school students in the United States enrolled in early college courses. Additional NCES data revealed, of the students taking advantage of this arrangement, approximately 64% were enrolled in academic classes and approximately 36% were enrolled in career or technical classes (Kleiner & Lewis, 2005).

More recently, according to Cowan and Goldhaber (2015), dual-credit programs have become the second-most popular college preparatory program nationally after AP, allowing more than 2 million students participating annually to earn college credits while still enrolled in high school. During the 2010–2011 school year, more than 50% of dualenrollment students participated in programs that offered dual-credit courses on the campuses of postsecondary institutions (Thomas et al., 2013). In the same year, 43% of public high schools nationwide offered students the opportunity to enroll in courses at a postsecondary institution. Because students earn college and high school credit simultaneously, these programs are seen as a cost-effective way of increasing college readiness and college enrollment among high school students (An, 2013b; Washington State Board for Community and Technical Colleges, 2011).

National data have shown increasing numbers of U.S. public high schools offer dual-enrollment opportunities, from 69.3% in the 2007–2008 school year to 82% in 2010–2011 (Snyder & Dillow, 2015). According to Taylor et al. (2022), the growth of dual-enrollment programs is difficult to assess at the national level due to limited data, but state-level data often suggest astounding growth. For example, 39% of high school

students in Indiana graduated with dual-enrollment credits in 2012, but that percentage grew to 60% by 2018. Not only has the percentage of high school students taking dualenrollment courses grown, but the number of dual-enrollment credits students take has also increased; for example, the average number of college credits earned through dual enrollment in Oregon increased from 6.8 per student in 2010–2011 to 10.4 per student in 2017–2018 (Taylor et al, 2022).

Dual enrollment within states. Early college and dual-enrollment programs differ by state in various ways, including (a) how many courses the state allows or expects students to take, (b) the grade levels at which students become eligible to participate, (c) other qualifications required of participating students, and (d) criteria for teachers who are allowed to offer dual-enrollment courses (Zinth, 2014). Arrangements for course delivery differ across programs, with some programs offered on college campuses, others at secondary schools with high school teachers servings as adjunct college faculty members, and others via distance education (Bailey et al., 2003; Blanco, 2006; Johnstone & Del Genio, 2001; Robertson et al., 2001). The following section reviews dual enrollment's prevalence in two key states that have intentionally focused on dual enrollment: Texas and Washington.

Texas. Texas has long worked to improve the college readiness and success of its public school graduates, and is a leader in standards-based reform and the institution of higher standards. Legislative, gubernatorial, business, and philanthropic efforts promote early college course taking by high school students. In higher education, the Texas Higher Education Coordinating Board's (2000) *Closing the Gaps* report and plan documented the connection of the state's economic prospects to its ability to close

postsecondary attainment gaps for its fastest-growing demographic groups. One of the recommendations in the report was to increase dual enrollment (Struhl & Vargas, 2012).

These forces were a major impetus for changes to state policy that have accelerated the growth in dual enrollment in Texas; for example, until 2003, school districts and colleges could not both claim per-pupil funding for dual enrollees. The legislature changed this structure, and districts now receive full Americans With Disabilities Act (ADA) funding for each high school student enrolled in college courses offered for dual enrollment. Community colleges receive the same funding for dually enrolled high school students as they receive for regular college students (Struhl & Vargas, 2012). In 2006, the legislature passed HB1, a comprehensive college-readiness bill emphasizing secondary–postsecondary partnerships. The state directed all districts to provide every student with the opportunity to earn a minimum of 12 college credits before graduating from high school and allocated per-student funding (\$275 per student; Struhl & Vargas, 2012). In 2007, the legislature passed HB2237, an omnibus bill providing \$57.4 million in funding for innovative high school design models. Support for early college high schools was a centerpiece of this bill, which helped underrepresented students earn 2 years of college credit or an associate's degree upon graduating from high school (Struhl & Vargas, 2012).

Texas Higher Education Coordinating Board (2011) figures indicate between 2004 and 2010, the number of dual-enrollment participants increased by 137%, from 38,082 to 90,364 students. Growth among historically underrepresented student groups in higher education was especially dramatic; for example, Hispanic participation grew from 10,673 to 33,480 (214%) and African American participation grew from 1,380 to 5,503

(299%; Struhl & Vargas, 2012). Moreover, such growth in dual-enrollment participation in the state of Texas has been sustained and has even accelerated. According to the Texas Higher Education Coordinating Board (2019), dual-credit enrollment participation totaled 202,417 in 2019. A visual presentation of the state of Texas' dual-enrollment participation growth of the state's three largest racial and ethnic demographic groups is depicted in Table 1.

Table 1

Texas Higher Education Coordinating Board Dual-Credit Enrollment Data

Dual credit enrollment	Fall 2004	Fall 2010	Fall 2019
White	24,237	41,237	65,290
African American	1,380	5,503	17,424
Hispanic	10,673	33,480	97,530
Total	38,082	90,364	202,417

Note. Data are from "Dual Credit Enrollment Data Updated for 2019" by Texas Higher Education Coordinating Board, 2019 (https://www.txhighereddata.org/index.cfm?objectid=3345B8F0-63B1-11EA-9C4C0050560100A9)

Table 1 reflects the significant increase the state of Texas has experienced in its dual credit enrollment. Notably, Table 1 also reveals that Hispanic students have surpassed all other demographic categories related to the number of students enrolled in college classes in the state's dual credit program (Texas Higher Education Coordinating Board, 2019).

Washington. The state of Washington Legislature initiated the Running Start

program as a component of the 1990 parent and student "Choice Act" (RCW

28A.600.300, 2009). Running Start provides high school juniors and seniors an

opportunity to enroll in college classes at Washington's 34 community and technical colleges, three state universities, and two public tribal colleges (Running Start, 2022). In Washington State, community colleges alone determine eligibility, which typically requires placemen into a college-level English or mathematics course using a placement exam such as COMPASS or Accuplacer. Washington law specifically prohibits high schools from conditioning participation on administrator approval or high school academic record (Cowan & Goldhaber, 2015). This arrangement in Washington in far less restrictive than the norm for dual-enrollment programs: 77% schools nationwide require the permission of a counselor or administrator, and 49% require a minimum cumulative grade point average (GPA; Thomas et al., 2013). Washington's dualenrollment program, Running Start, began enrolling juniors and seniors statewide in 1992, and by 2010 had enrolled about 10% of the state's high school juniors and seniors (Washington State Board for Community and Technical Colleges, 2010, 2011). The number of junior and senior high school students participating in Washington's Running Start program has steadily increased throughout the years. The growth experienced in the state is reflected in Table 2.

Table 2

State of Washington Running Start: 11th- and 12th-Grade Students Enrolled in College-

Level Courses

School year	Number of students completing at least one college course
2009–2010	12,089
2010-2011	16,950
2011-2012	16,974
2012-2013	17,025
2013-2014	19,305
2014-2015	22,184
2015-2016	22,871
2016-2017	25,842
2017-2018	27,832
2018-2019	29,285
2019-2020	30,605
2020-2021	31,944

Note. Data are from "Update: Dual Credit Programs Enrollment (Report to the Legislature)" by R. Wallace, 2021, Washington Office of Superintendent of Public Instruction.

(https://www.k12.wa.us/sites/default/files/public/communications/2022docs/03-22-UPDATE-Dual-Credit-Programs-Enrollment.pdf)

As noted in the Washington Office of Superintendent of Public Instruction's "Update: Dual Credit Programs Enrollment" (Wallace, 2021) report, the significant increase in the number of students who take at least one dual-credit course over the years demonstrates that Washington has made progress to reach goals outlined in the state's Every Student Succeeds Act (ESSA) plan; ESSA is a federal act that seeks to promote an increase in college access and completion (Malin et al., 2017). A 2018 research brief entitled *Running Start Participation and Success* (DuPree, 2018) estimated Running Start's participation growth at 15% of all public high school 11th and 12th graders completing a Running Start course in 2016–2017, while noting large gaps in Running Start participation by gender, race and ethnicity, and income. Male students, historically underserved students of color (students identifying as Black, Hispanic, Native American, or Pacific Islander) and low-income students (as determined by free or reduced-price lunch status) were about half as likely to participate in Running Start. Three years later, the Washington Office of Superintendent of Public Instruction's report (Wallace, 2021) report acknowledged the program's steady dual-enrollment participation growth, yet still noted that gaps persist in participation among historically underrepresented groups.

Dual-Enrollment Research

Literature on dual-enrollment programs has revealed some expected benefits, inconsistencies, and criticism. Proponents have argued that dual credit enhances the high school curriculum, raises students' motivation to attend college, acclimates students to college, and consequently facilitates the transition between high school and college (Hoffman et al., 2008; Hunt & Carroll, 2006). Studies have shown dual credit can positively impact educational aspirations (Hoffman et al., 2008; Howerter, 2011). Using surveys from one central Midwest high school, Howerter (2011) found female students and non-White students benefit most from participating in senior-year career and technical education (CTE) dual credit in terms of college aspirations. Similarly, Karp et al. (2007) found dual-credit opportunities were a useful strategy for postsecondary success beginning with high school graduation. In their Florida study, Karp et al. (2007) found male and low-income dual credit participants were more likely than their peers to graduate from high school, enroll in college, enroll full-time, persist past their 1st year, and generate a higher GPA.

Most of the rigorous research about statewide dual-enrollment programs has been limited to states in which it is possible to connect secondary and postsecondary data

systems or track students longitudinally between high school and college. Perhaps for this reason, no state dual-enrollment program has been more studied than that of Florida, which has long had a robust state data warehouse of this nature (Karp et al. 2007; Speroni 2011a, 2011b; Windham & Perkins, 2001). However, research has also been conducted with data from individual college systems or programs in California, Georgia, and New York City (Hughes et al., 2012; Lynch et al., 2007; Michalowski, 2007).

Within the past 10–15 years, many scholars have found positive relationships between dual enrollment and college attendance (Cowan & Goldhaber, 2015; Giani et al., 2014; Karp et al., 2007; Lichtenberger et al., 2014; Taylor, 2015) or retention (An, 2013a; Blankenberger et al, 2017; Giani et al., 2014; Grubb et al., 2017; Haskell, 2016; Karp et al, 2007; Speroni, 2011b; Taylor, 2015). The aforementioned research built upon earlier, notable studies using methods to partially control for student background characteristics—which also found positive associations between dual enrollment and outcomes such as high school graduation, college enrollment, 1st-year college GPA, 2ndyear persistence in college, and number of college credits accumulated after 3 years (Hughes et al., 2012; Karp et al., 2007; Michalowski, 2007).

Dual-enrollment policies may also increase overall educational attainment by raising the graduation rate of those students who choose to enroll in college. Some researchers examined longer term outcomes, such as college completion; for instance, An (2013a) found dual-enrollment students who enroll in college are more likely to complete a degree than nonparticipants, and Swanson (2008) found dual-enrollment participants from the National Educational Longitudinal Study were 16% to 20% more likely than nonparticipants to earn a bachelor's degree. Moreover, benefits of dual enrollment have been found regardless of how many college courses were completed prior to high school graduation. In a study examining the state of Nebraska's 2018 high school graduating class, Lee et al. (2022) found taking at least one dual-enrollment course increased the probability of students graduating from high school on time, attending college, choosing a 4-year college over a 2-year college, and persisting in the 2nd year of college.

Though research has produced findings positively associated with dual enrollment, critics have identified various concerns as well. The 2008 Illinois Board of Higher Education task force noted dual credit may be offered with only limited oversight of the academic rigor or quality of the course. This concern was consistent with earlier research findings that faculty may not be qualified to teach at the college level or have experience teaching younger students (Kim et al., 2003). In Ohio, Harper (2015) revealed dual-enrollment criticism related primarily to funding. Harper's mixed-methods design dual-enrollment study collected qualitative data from a total of eight secondary and postsecondary personnel responsible for dual-enrollment coordination at their respective institutions. During the data collection period of Harper's (2015) research, the State of Ohio's dual enrollment program was known as Post Secondary Enrollment Options (PSEO). In response to open-ended questions about dual enrollment, "the costs of PSEO dominated nearly every interview" (Harper, 2015, p. 149). Each secondary education personnel stated the school district's per-pupil funding loss to colleges was too much when high school students participated in a college class, and postsecondary education personnel reported college reimbursements were insufficient to cover the costs for dualenrollment participants (Harper, 2015). In addition, the secondary and postsecondary personnel in Harper's (2015) study of dual enrollment in Ohio expressed concerns about

monitoring student attendance and the transferability of college credits to other institutions of higher education. Similarly, related to the transferability of college credit concerns, Taylor et al. (2015), in a study assessing dual credit policies among 47 states, found the transferability of dual-credit courses (or lack thereof) was of considerable concern and interest in many states. Many high school students received college credit for dual-credit courses from community colleges that students did not plan to attend after high school graduation, and the study revealed only about half of the state policies addressed the transferability of dual credit courses (Taylor et al., 2015).

Dual enrollment at community colleges. Two-year colleges have been among the most vocal proponents of dual enrollment programs, viewing these programs as way to increase enrollments and attain new sources of revenue (Crooks, 1998; Morest & Karp, 2006). Traditionally, collaborative partnerships have developed between secondary schools and community colleges, providing the leadership necessary for the establishment of this type of program. Community colleges became interested in offering dual-credit courses in the 1980s and earlier, perceiving some of the advantages discussed previously, such as viewing concurrent enrollment as a recruiting tool (Barnett et al., 2004).

Although high school students take courses at both 2-and 4-year institutions, most do so at community colleges. Data from the 1995–2015 Integrated Postsecondary Education Data System (IPEDS) on the number of students aged 17 or younger enrolled in college courses (i.e., a proxy for high school dual enrollment) indicated that the growth in dual enrollment has concentrated in the community college sector (Fink et al., 2017). The IPEDS data indicated that community colleges' market share of students aged 17 or

younger taking college courses increased from 56% in 1995 to 69% in 2015 (Fink et al., 2017).

In Illinois, community colleges have historically played a more dominant role in offering college credit to high school students when compared with 4-year institutions. Data specific to the Illinois High School Class of 2003 indicated nearly all of the dualcredit or dual-enrollment coursework was provided by the community colleges. Among the roughly 115,000 students who comprised the Illinois High School Class of 2003, approximately 13% had at least one record of enrollment at an Illinois Community College prior to high school graduation; fewer than 1% had at least one record of enrollment at a 4-year institution (Lichtenberger et al., 2014). Evidence from a quantitative study focused on the effects of community college dual credit, and which drew upon a sample of 12,800 Illinois high school graduates who earned college credit in their senior years, supported dual-enrollment proponents' claims that high school students' participation in college courses has a meaningful effect on college outcomes (e.g., college enrollment and completion; Taylor, 2015).

Another study from the federal What Works Clearinghouse (2017) summarized findings from studies on dual enrollment that found positive effects on several outcomes, including high school grades and completion, college enrollment, college credit accumulation, and college degree completion. Further evidence supporting community colleges' association with dual enrollment, facilitated by state policy, was reflected in Mokher and McLendon's (2009) event history analysis study; their findings reflected that "results indicate that states with a large percentage of higher education enrollments in two-year institutions are more likely to adopt dual enrollment policies than states with

small two-year sectors" (pp. 265–266). This finding was consistent with qualitative studies that have identified community colleges as key proponents of dual-enrollment programs (Crooks, 1998; Morest & Karp, 2006).

Although community colleges have historically embraced dual enrollment, a few sources within community college faculty ranks with experience in dual-enrollment programming have also noted concerns. Dougan (2005), herself a community college faculty member, dean, and vice president, described her concern regarding assessing the efficacy of dual enrollment courses:

In my 15 years of teaching in the arts and in business, many high school-age students attended my classes. Rarely did their work approach the quality or reveal the level of understanding that I expected of my students. It seemed to me that students with little life experience and maturity dragged down the level of discourse in my college classes . . . faculty members told me of their struggle to maintain quality and integrity in their dual enrollment classes. (p. B20)

Dougan's (2005) sentiments were validated in another qualitative study at a small, public community college in the southern United States, which studied 15 faculty members' perceptions of rigor in dual enrollment, accelerated programs, and standard community college courses (Ferguson et al., 2015). Ferguson et al. (2015) found faculty perceived students in dual-enrollment courses did not behave like college students and were less mature than their older, standard community college students. Whereas the academic "college readiness" of these students may have been adequate, their affective readiness to participate in college courses 2 years before high school graduation presented challenges that could require significant support (Ferguson et al., 2015). The same qualitative faculty

perceptions study also found dual-enrollment courses were at least as rigorous, if not more rigorous, than general education courses taught to standard students on the community college campus; moreover, faculty tended to assess the academic ability of accelerated program students and students enrolled in dual-enrollment courses as generally higher than standard students (Ferguson et al., 2015).

Dual enrollment has widespread support at the community college level. On a limited basis, empirical research on dual enrollment's influence has also been examined in the 2-year technical college setting. Wang et al. (2015) conducted a quantitative study examining student data from the Wisconsin Technical College System's 16 2-year technical colleges focused on assessing whether the association of dual enrollment and academic momentum produced student success as measured by retention or completion. Results from Wang et al. (2015) indicated dual enrollment did have a positive, direct association with technical college students' fourth-term retention or completion without accounting for academic momentum or dual enrollment's mediating role.

Across the nation, more high school students have been exposed to higher education through dual enrollment by enrolling in college classes through community colleges versus 4-year institutions. As reported by Marken et al. (2013), 873,600 high school students enrolled in dual credit at 2-year institutions versus 259,800 high school students at 4-year institutions. When participating in dual credit on a postsecondary campus, most high school students enroll in community colleges (Tobolowsky & Allen, 2016). Community colleges' support of dual enrollment is evident in the dual enrollment literature.

Dual enrollment in Ohio. In the State of Ohio, dual enrollment legislatively began in 1989 with the adoption of the PSEO program, which was modeled after Minnesota's dual-enrollment model (Blanco et al., 2007). The details of Ohio's PSEO program were established within Ohio Revised Code 3365.02, which covered essential program elements and noted Ohio's legislatively enacted dual-enrollment program was originally established to provide an opportunity for 11th- and 12th-grade students to pursue rigorous academic coursework and earn college and/or high school credit (Geise, 2011). In 1997, the state program was expanded to include ninth- and tenth-grade students. In 1999, the State of Ohio established a minimum subject area GPA of 3.0 in the content area in which students desired to enroll (Geise, 2011). Throughout the State of Ohio, 2-year colleges have typically had a higher number of high school students enrolled in dual enrollment compared to 4-year universities. In a 2015 study, Harper noted 83% of students in a Blanco et al. (2007) study had enrolled at 2-year colleges. Though still the dominant location of PSEO attendees, the choice of 2-year colleges did decrease to 63.57% the year after the Blanco et al.'s (2007) study and continued to fluctuate to 71.54% in 2010–2011. Table 3 presents 15-year public school student participation data for the State of Ohio's PSEO program from 1998–2014. Participation data provided by the Ohio Department of Education, depicts student participation increases in 12 years, with slight decreases in 3 years. Overall, student participation data demonstrate an increasing number of public school students participating in Ohio's legislated dual-enrollment program.

Table 3

Ohio's Post Secondary Enrollment Options 15-Year Student Participation Enrollment

Year	Number of students
FY 1998	6,361
FY 1999	7,157
FY 2000	6,601
FY 2001	7,877
FY 2002	8,554
FY 2003	9,484
FY 2004	9,666
FY 2005	10,364
FY 2006	10,656
FY 2007	10,927
FY 2008	11,676
FY 2009	13,375
FY 2010	13,505
FY 2011	14,879
FY 2012	14,621
FY 2013	15,330
FY 2014	14.721

Data, 1998–2014

<i>Note</i> . Data are fr	om Ohio Departm	nent of Educa	ation (n.d.), 19	998–2012 _I	participation	data.
Through a 2016	public records req	uest, ODE p	rovided 2013	and 2014	participation	data.

Even though dual-enrollment participation data in the State of Ohio increased in most years (see Table 3), these data may mask low statewide participation or wide variability in participation rates among certain high schools within a state (Zinth, 2014). For example, a December 2013 report from Ohio Board of Regents noted only 5% of the state's roughly 560,000 public high school students participated in dual-enrollment opportunities (Ohio Board of Regents, 2013). Beginning in 2013, due to lower than anticipated dual-enrollment participation and inadequate program and oversight structure, Ohio lawmakers and state education officials began the process through legislative action to overhaul the state's dual-credit program. Effective in 2015, Ohio's new dual-credit program became known as College Credit Plus. College Credit Plus replaced Ohio's PSEO and all alternative dual-enrollment programs previously governed by Ohio Revised Code 3365. Amended Ohio Revised Code 3365.02 states:

(A) There is hereby established the college credit plus program under which, beginning with the 2015-2016 school year, a secondary grade student who is a resident of this state may enroll at a college, on a full- or part-time basis, and complete nonsectarian, nonremedial courses for high school and college credit. The program shall govern arrangements in which a secondary grade student enrolls in a college and, upon successful completion of coursework taken under the program, receives transcripted credit from the college. (p. 1)

Ohio's College Credit Program, formed collaboratively with Ohio's Chancellor and Board of Regents and Ohio's Superintendent of Instruction and Department of Education, provides a structure for expanding program participation, enabling predictable and adequate funding, ensuring relevant and meaningful coursework, facilitating effective communication to parents and students about dual-credit opportunities and requirements, and establishing a system-wide data collection and reporting structure (Ohio Board of Regents, 2013). In 2015, the State of Ohio was one of 13 states across the nation identified by the Education Commission of the States as possessing model dualenrollment program elements (Zinth, 2015). The Education Commission of the States assessed policy in all 50 U.S. states to ascertain those practices more highly aligned with successful programs and successful student outcomes (Zinth, 2015). Though Ohio's policy was evaluated primarily assessing parameters under postsecondary enrollment options, many recommendations are reflected in College Credit Plus policy rules (Wilson, 2016). Ohio was among the first states to implement state policy with centrally

defined dual-enrollment characteristics required for all public educational institutions (Wilson, 2016). Compared to the State of Ohio's dual-enrollment participation rate under PSEO program, dual-enrollment participation in the State of Ohio has increased significantly since it began its College Credit Plus dual enrollment program. The state's dual-enrollment participation data beginning in the 1st year of College Credit Plus implementation is reflected in Table 4.

Table 4

Year	Number of students
2015-2016	54,053
2016-2017	68,365
2017-2018	71,485
2018-2019	73,152
2019-2020	76,973
2020-2021	76,601
2021-2022	78,316

Ohio's College Credit Plus Dual Enrollment Participation

Note. Data are from State of Ohio College Credit Plus 2021–2022 Annual Report.

High school students' perceptions of dual enrollment. A few qualitative empirical studies have been conducted to garner a better understanding of the dualenrollment experience from 12th-grade high school students near the completion of their dual-enrollment experience prior to graduating from high school, or upon graduation from high school. Ramsey-White (2012) examined the high school experiences of dualenrollment students who participated in an ECHS from 2005–2009. ECHS are small school models merging aspects of the high school and college experiences to create a new environment dedicated to increasing the number of students who graduate from high school and enroll and succeed in postsecondary education (Edmunds, 2012). Through focus group interviews consisting of 24 participants and individual interviews consisting of 13 participants from the 24 participants who were involved in the focus group interviews, Ramsey-White (2012) qualitatively examined the students' perceptions of their ECHS experiences; these students were the first cohort in the state to experience the ECHS model. The initial interviews began in the high school students' senior years as 12th graders, and additional data were collected from the participants through their 1st year of their postsecondary enrollment. Findings from Ramsey-White's (2012) study indicated the students perceived benefits from the ECHS experience, including increased confidence, more effective time management skills, and a developed appreciation and ability to benefit from meaningful relationships and social networks. Ramsey-White (2012) noted a limitation of the study was the students were all from the same school; thus, the generalizability of the findings was lessened.

Saenz and Combs' (2015) qualitative inquiry examined the prior experiences, perceived challenges, and support systems of 17 12th-grade Hispanic students at an early college high school. The findings revealed five major clusters that emerged from the collected and analyzed data, including (a) the significance of having an opportunity to earn an associate's degree, (b) the importance of a positive school environment, (c) the establishment of identity and values, (d) the impact of family members, and (e) the necessity of support from peers and teachers. Saenz and Combs (2015) posited the importance of understanding the perceptions of ECHS students who earn college credits while in high school as dually enrolled students, as the success of the ECHS initiative

may be a possible solution to diminish the impact of college completion challenges faced by postsecondary institutions.

Middle grade students in college. Though early entrance to college for seventhand eighth-grade students did not begin with Ohio's and Florida's legislated dualenrollment policies, the states' legislative dual-enrollment policies significantly expanded the opportunity for middle grade students to enroll in college classes based upon admission criteria established by each institution of higher education, both public and private. Prior to Ohio's and Florida's dual-enrollment legislation, individual institutions, mainly highly selective universities, established provisions for highly gifted middle and high school students to gain admission to college. This early college access for gifted students was enabled through an educational intervention known as "radical acceleration" (Gross & van Vliet, 2005). Acceleration was one of the few educational procedures endorsed by Shore et al. (1991) in their comprehensive analysis of research in gifted education as being strongly validated by research. Radical acceleration, which employs a range of procedures leading to school graduation 3 or more years earlier than usual, addresses the needs of students who can move at an extremely fast pace through the prescribed curriculum. Where IQ is cited, these students are exceptionally (IQ 160–179) or profoundly (IQ 180+) gifted (Gross & van Vliet, 2005).

In 1977, the Early Entrance Program was created by the Halbert and Nancy Robinson Center for Young Scholars (Robinson Center) at the University of Washington so gifted young scholars could accelerate their education by entering the university before age 15 (Noble et al., 2008). Such growth of programs for gifted elementary and high school students, such as regional talent searchers, has resulted in many gifted students

taking advanced classes early and completing the high school curriculum prior to the 12th grade. These gifted students need and desire early access to college level work (Olszewski-Kubilius, 1995).

Upon reviewing existing dual-enrollment literature, it does not appear that there have been many legislatively supported opportunities for middle grade students to have access to enroll in college classes. Even the ECHS model, created by the Bill and Melinda Gates Foundation in 2002 to facilitate postsecondary access and completion, does so by combining high school and the first 2 years of college (Berger et al., 2010) and focuses its middle school grade student engagement on recruiting rising ninth graders. To recruit applicants, ECHS typically distribute material to middle schools (Munoz et al., 2014) and word spreads to parents and students by way of counselors (Fischetti et al., 2011), prior to any ECHS using a lottery to select students (Edmunds, 2012; North, 2011; Song & Zeiser, 2019).

In light of Ohio's legislative mandated College Credit Plus dual-enrollment program being offered to seventh- and eighth-grade students, empirical research appeared warranted that adds to the body of research that has traditionally focused on high school students. For example, related to enrolling in college prior to high school graduation, Noble and Drummond (1992) asserted the most common reason for deciding to enter college early is the desire for a stronger academic challenge than one could receive in their previous education institution. Similarly, Rinn and Plunker (2004) found high schools are often not able to offer gifted students the kind of academic stimulations they need to thrive intellectually. Further, high-achieving students especially may seek dual enrollment because they want to challenge themselves and develop their academic

abilities (Dare & Nowicki, 2015). However, a primary central consideration for middle school-grade early college student participation is the issue of college readiness: Are middle school grade students ready for college? The next section of Chapter 2 focuses on college readiness, which includes the theoretical framework in which the findings of the qualitative research were interpreted.

College Readiness Theoretical Framework

According to Conley (2007), *college readiness* can be defined operationally as the level of preparation a student needs to enroll and succeed, without remediation, in a credit-bearing general education course at a postsecondary institution that offers a baccalaureate degree or transfer to a baccalaureate program. *Succeed* is defined as completing entry-level courses at a level of understanding and proficiency that makes it possible for the student to consider taking the next course in the sequence or the next level of course in the subject area (Conley, 2007). Conley's (2007) college readiness model emphasizes four main elements of college readiness that are necessary to increase the probability of college success: key cognitive strategies, content knowledge, academic behaviors, and contextual skills and awareness (see Figure 1).



Figure 1. Facets of College Readiness

Note. Figure reprinted from *Redefining College Readiness* by D. T. Conley, 2007, Educational Policy Improvement Center (p. 12).

Conley's (2010) college readiness framework provides a comprehensive

description of the knowledge and skills students need to succeed in college beyond

simple academic performance measures (see Figure 2).



Figure 2. Conley's Four Keys to College and Career Readiness

Note. Figure reprinted from *A Complete Definition of College and Career Readiness* by D. T. Conley, 2012, Educational Policy Improvement Center.

Based on extensive research, Conley (2007, 2010) identified four interdependent skill areas that comprise college readiness: (a) key content knowledge in reading writing, and other core academic subject areas; (b) college knowledge, i.e., the "privileged information" needed to prepare for and apply to college and the contextual awareness skills needed to be successful there; (c) academic behaviors, such as self-awareness and self-monitoring; and (d) key cognitive strategies, such as intellectual openness and problem solving. Conley (2007) noted research has increasingly shed light on several key elements of college success. Most important for this study was the realization that a range of cognitive and metacognitive capabilities, often described by Conley as key cognitive strategies, have been consistently and emphatically identified as being as important or more important than any specific content knowledge taught in high school. Examples of key cognitive strategies include analysis, interpretation, precision and accuracy, problem solving, and reasoning. Close behind in importance is knowledge of specific types of content knowledge (Conley, 2010).

Similarly important are the attitudes and behavioral attributes that students who succeed in college must demonstrate (i.e., students' academic behaviors). Academic behaviors are the visible, outward signs a student is engaged and putting forth effort to learn (Farrington et. al., 2012). Conley (2010) posited study skills, time management, awareness of one's performance, persistence, and ability to set and achieve academic and personal goals are among academic behavior attributes. These academic behaviors require mastery of specific skills combined with a mindset and attitude toward learning (Conley, 2010). Finally, transition to college has a component of culture shock for students, one that is more severe for students from some communities than others. Information about the culture of college helps students understand how to interact with professors and peers in college and how to navigate college as a social system and learning environment (Conley, 2010).

Conley (2007) asserted this more robust, inclusive definition of college readiness can help shape student behaviors and high school practices in ways that lead to more students entering college ready to succeed. Because college is truly different from high school, college readiness differs fundamentally than high school competence. Detailed analyses of college courses have revealed although a college course may have the same name as a high school course, college instructors pace their course more rapidly, emphasize different aspects of material taught, and have very different goals for their

courses than do high school instructors (Conley et al., 2006). The college instructor is more likely to emphasize a series of key thinking skills that students, for the most part, do not develop extensively in high school. Instructors expect students to make inferences, interpret results, analyze conflicting explanations of phenomena, support arguments with evidence, solve complex problems that have no obvious answer, reach conclusions, offer explanations, conduct research, engage in the give-and-take of ideas, and generally think deeply about what they are being taught (National Research Council, 2002). Research findings have described college courses that require students read 8–10 books in the same time that a high school class requires only one or two (Standards for Success, 2003). In these college classes, students write multiple papers in short periods of time. These papers must be well-reasoned, well-organized, and well-documented with evidence from credible sources (National Survey of Student Engagement, 2003, 2004, 2006). By contrast, high school students may write one or two research papers at the most during high school, and may take weeks or months to do so. Increasingly, college courses in all subject areas require well-developed writing skills, research capabilities, and what researchers have commonly described as thinking skills (National Survey of Student Engagement, 2003, 2004, 2006).

Related to academic and college readiness of middle grade students, based in adolescent brain research on middle grade students and learning, Blakemore and Robbins (2012) found during adolescents' growth process, their brains display more adult-like processing, including the development of executive functioning, which includes strengthened response inhibition, enhanced ability to shift within and between tasks, and more efficient updating and altering of their working memory during a cognitive task.

Researchers have observed differences between adolescents in the development of executive functioning based on culture, genetics, economic status, and social status (Choudhury, 2010). Further, Robinson (2017) asserted as middle school students' brains mature, they are able to accomplish more complex tasks using higher order thinking skills, which may go unnoticed and underutilized in students who are not trained in techniques to use these executive functioning sills. Motes et al. (2014) found benefit in a course that involved higher order cognitive training for middle school students that involved teaching students to eliminate irrelevant information, make inferences and generalizations, and find relationships within the presented information. Robinson (2017) noted schools are charged with the task of helping students develop complex thinking skills as they become young adults and concluded by emphasizing the importance of focusing attention on the early years of adolescence to better prepare students for the rigors of high school, college and career level thinking by optimizing their brain development.

Ohio's Middle School, College Students

In addition to enabling high school students an opportunity to participate in College Credit Plus, in which students earn high school and college credit upon completion of college classes, the State of Ohio's new College Credit Plus dual-credit program began allowing eligible seventh- and eighth-grade students to participate beginning in the 2015–2016 academic year. College Credit Plus allows public colleges to enroll eligible Ohio students from Grades 7 through 12 who meet the particular college's regular admissions criteria. Admissions criteria differ at individual institutions of higher education, but typically require a specific ACT or SAT score and exceed a cut-off college

English and mathematics assessment score at Ohio community colleges, which implies admitted dually enrolled students are college-ready.

The State of Ohio's 25-plus year legislative engagement in dual enrollment, plus its 2015–2016 implementation of College Credit Plus—which included provisions for seventh- and eighth-grade students to be enrolled in college classes—positioned Ohio for further scholarly review in the field of dual enrollment. For this study, which examined the college readiness perceptions of students who were dually enrolled as eighth-grade college students, it was worthwhile to examine dual-enrollment participation enrollment data for eighth-grade students during the State of Ohio's first 7 years of College Credit Plus implementation, academic years 2015–2016 to 2021–2022, as depicted in Table 5.

Table 5

Eighth-Grade College Credit Plus State of Ohio Participation Enrollment: 2015–2016 through 2021–2022

School year	Number of college credit plus eighth-grade participants in Ohio
2015-2016	219
2016-2017	364
2017-2018	301
2018-2019	308
2019-2020	530
2020-2021	390
2021-2022	435

Note. Data are from State of Ohio College Credit Plus 2021–2022 Annual Report.

Table 5 reveals the number of eighth-grade students enrolled in college classes through the State of Ohio's College Credit Plus increased from 219 to 530 students in the first 5 years, followed by a decrease in participation during the first full school year that was impacted by the COVID-19 global pandemic. There was subsequently a slight increase the following school year, 2021–2022. The steady, increasing number of eighth graders enrolling in college classes, except for the first full year impacted by the COVID-19 global pandemic, reveals a growing interest by middle grade students to experience the new State of Ohio phenomenon, eighth-grade students enrolled in college classes, which served as the basis for this study.

Chapter Summary

Though much of the research on dual enrollment revealed promising findings, this review of literature reflected an empirical research gap associated with middle school students enrolled in college classes, and whether middle school students perceived that they were college ready. Hughes and Edwards (2012) reported an action research project's findings and noted two general types of college transition challenges: (a) students' lack of academic skills, and (b) students' affective adjustments to the college environment. Nearly all action research participants identified a lack of academic preparation as the primary barrier to student success in college coursework.

For many students, a gap exists between their academic skills and the academic level in an authentic college course. This disconnect is partly a result of structural, cultural, and functional differences between high school and college institutions—where "the ways of knowing and intellectual norms" (Conley, 2007, p. 6) may differ. These gaps make it challenging for high school students to grasp new material and be successful in college courses. As many action researchers indicated, the misalignment of skills is further exacerbated by students' lack of academic success skills, which makes it challenging to narrow this gap. These critical academic behaviors include out-of-class

study, class participation, time management, stress management, and notetaking (Hughes & Edwards, 2012). The differences in expectations between high school and college are manifold and significant. Students must be prepared to use quite a different array of learning strategies and coping skills to be successful in college than those developed and honed in high school (Conley, 2007).

The State of Ohio's 2015–2016 implementation of its new dual-enrollment program, College Credit Plus, introduced a younger audience of students to public colleges and universities throughout the higher education landscape. This study sought to respond to a dual-enrollment research gap by qualitatively examining the college readiness perceptions of students who were dually enrolled in college classes as eighth graders through the State of Ohio's College Credit Plus program. The following section of this dissertation, Chapter 3, describes the methodological framework, protocols, and activities employed in this empirical investigation.

Chapter Three

Methodology

The primary goal of this study was to explore the college readiness perceptions of study participants who were dually enrolled college students as eighth graders at a public community college in the State of Ohio's College Credit Plus dual-enrollment program. The research methodology used to examine study participants' perceptions of their college readiness is presented in this chapter. The research purpose was particularly relevant, given the State of Ohio began implementing its College Credit Plus dual enrollment initiative during the 2015–2016 school year by allowing middle grade students in the seventh and eighth grades an opportunity to enroll in college classes in public colleges and universities throughout the state. Previously, only high school students in Grades 9–12 had been afforded the opportunity to do so. Chapter 3 presents: (a) an overview of the research design and its characteristics; (b) the role of the researcher; (c) a description of the sampling method, including identification of study participants, site selection, and procedures; (d) an explanation of how the data were collected; and (e) a review of the data analysis methodology.

Research Design

A basic qualitative study was used for this empirical investigation. According to Merriam (2009), the basic qualitative study is the most common form of qualitative study in the field of education. The key to understanding qualitative research hinges on the idea that meaning is socially constructed by individuals in interactions with their world. Qualitative researchers are interested in understanding those interpretations at a particular point in time and in a particular context (Merriam, 2002). Qualitative research is an

emergent design in its negotiated outcomes. Meanings and interpretations are negotiated with human data sources because it is the subjects' realities that the researcher attempts to reconstruct (Lincoln & Guba, 1985; Merriam, 1998). The purpose of this study was to develop an understanding of the college readiness perceptions of study participants who were eighth-grade, dually enrolled college students through the State of Ohio's College Credit Plus dual-enrollment program, a dual-enrollment research topic on which I had found no previous research.

Role of the Researcher

A characteristic of all forms of qualitative research is that the researcher is the primary instrument for data collection and analysis (Merriam, 2009). Qualitative researchers collect data themselves through examining documents, observing behavior, and/or interviewing participants (Creswell, 2014). Because understanding is the goal of qualitative research, the human instrument, which is able to be immediately responsive and adaptive, would seem to be the ideal means of collecting and analyzing data. Other advantages are that the researcher can expand their understanding through nonverbal and verbal communication, process information (e.g., data) immediately, clarify and summarize material, check with respondents for accuracy of interpretation, and explore unusual or unanticipated responses (Merriam, 2009). Still, the human instrument has shortcomings and biases that might have an impact on the study. Rather than trying to eliminate these biases or "subjectivities," it is important to identify and monitor them as to how they may shape the collection and interpretation of data (Merriam, 2009).

As the researcher, I had knowledge of, and experience in, dual-enrollment programming. Beginning the 2000–2001 academic year, while working at an urban,

public school district, I facilitated the development and led the implementation of a new dual-enrollment program at the community college in which this study was situated. As a practitioner in the field and directing administrator of the dual-enrollment program for 6 years (i.e., 2000–2006 school years), I was completely immersed in varied components of the project, particularly as it related to scheduling classes, facilitating transportation, establishing academic and social support systems, serving as a liaison to high school principals and guidance counselors and college faculty, increasing parent engagement, and expanding student recruitment and advising.

Beginning in 2008, I was employed by the community college that launched the dual-enrollment program in 2000, and served as a college administrator responsible for various precollege and early college programs—including the same dual-enrollment program I helped start in 2000. However, my employment role beginning in 2008 did not include day-to-day interaction nor leadership of the referenced dual-enrollment program, as the dual-enrollment program had a lead administrator (i.e., principal) and two coordinators employed by the urban public school district. The community college also had a coordinator and part-time student advisor, all responsible for day-to-day student engagement and dual-enrollment program operation and implementation. In my present role at the college, I rarely have any interaction with students who are enrolled in the dual-enrollment program that was originally established in 2000, or any similar dual-enrollment programs at the community college for students enrolled at the college through Ohio's College Credit Plus program.

My experiences in the field as an education practitioner since 2000 influenced my decision to select dual enrollment as a topic to study. As such, I have a personal,

professional, and passionate bias for the topic of dual enrollment. On the other hand, my doctoral journey of more than 12 years equipped me with a scholarly frame of reference to critically examine topics, and a desire and ability to carry out an empirical research project in a scientific and credible manner regardless of what results would be revealed about a topic that I value. I commenced this study with the perspective that dual enrollment is a beneficial educational option for high school students to earn college credits while still enrolled in high school; I did question what the earliest age and/or grade of a student should be to enroll in college classes, and had an interest in examining and reporting on the college readiness perceptions of students who had been dually enrolled in college classes as eighth graders. I felt the voices and perspectives of students who were eighth-grade college students would prove insightful and may provide pertinent knowledge in the dual-enrollment field. As a doctoral student and emerging scholar, I implemented research protocols and proceeded with care and objectivity, which enhanced the trustworthiness, credibility, and validity of the study.

Sample and Site Selection—Participants and Setting

Qualitative research uses sampling techniques that produce predominantly small and nonrandom samples, in keeping with qualitative research's emphasis on in-depth descriptions of participants' perspectives and context (Lunenburg & Irby, 2008). For this basic qualitative inquiry, a purposeful sampling strategy was used to identify the study participants. In purposeful sampling, researchers intentionally select individuals and sites to learn or understand the central phenomenon (Creswell, 2012). This method reflects a strategy in which particular settings, persons, or events are deliberately selected for the important information they can provide that cannot be gleaned as effectively from other
choices (Maxwell, 2009). The standard used in choosing participants and sites is whether they are "information rich" (Patton, 1990). A public community college and higher education institution in the State of Ohio with dually enrolled middle and high school students enrolled as college students was the selected college site for the investigation. The selected research site was deemed information rich.

Polkinghorne (1989) recommended researchers interview from 5–25 individuals who have all experienced the studied phenomenon. According to Ortiz (2003), methodologically, two constructs help to determine how many interviews are needed in a study. Sufficiency is met when the numbers of interviewees reflect the range of experiences in the site. Saturation is met when the same information is heard repeatedly throughout the interviews; the research is "no longer learning anything new" (Seidman, 1998, p. 48).

In this study, purposeful sampling was used to identify nine study participants who had been dually enrolled, eighth-grade college students. Of the nine research participants, five were female students and four were male students. All five female students were White and were enrolled in college classes as eighth-grade students from suburban public middle schools. Three of four male students were Black, and one male student was White. One of the male students was the single homeschool participant in the research study, whereas one of the male students was enrolled in a suburban public middle school and two of the male students were enrolled in the same middle school situated in a large urban public school district. The nine study participants were information rich. Sufficiency seemed met and saturation was deemed reached after nine study participants were interviewed and preliminary data analysis was completed.

Procedure

I submitted the research proposal to the university at which I was a doctoral student and to the selected community college research site and secured approval from both institutions of higher education to conduct the study. Several recruitment activities were employed to identify and secure study participants. The community college's Office of Research and Inquiry was contacted and requested to identify and release the contact information for eighth-grade students who were dually enrolled at the middle school and the college during the 2016–2017 school year, which was the second school year that eighth-grade students were allowed to enroll in college classes through the state's College Credit Plus dual-enrollment program. I mailed letters through the U.S. Postal Service to the students identified as having completed college classes as dually enrolled, eighthgrade students and their parents, informing them about the dual-enrollment study and requesting their participation. The community college in which the prospective study participants were enrolled also texted two separate messages to students and their parents inviting students participation in the study. As an incentive to participate, eventual study participants were offered a \$50 gift card to participate in the study. The incentive opportunity was emphasized in the recruitment letters and the text messages.

Prospective study participants began contacting me and expressed interest in participating in the study. I met with each prospective study participant and their parents who responded to my recruitment outreach to discuss the study and answer their questions. Nine study participants and their parents, as each study participant was a minor, agreed to participate in the study. Student assent and active parental consent was obtained for each study participant.

Data Collection

In education, if not in most applied fields, interviewing is the most common form of data collection in qualitative studies (Merriam, 2009). Interviews are a concrete way to collect key data from relevant individuals in an effective and controlled manner (Butin, 2010), The primary data collection method used in this study was one-on-one interviews among study participants who were dually enrolled, eighth-grade college students. DeMarrais (2004) defined an *interview* as "a process in which a researcher and participant engage in a conversation focused on questions related to a research study" (p. 55). The main purpose of an interview is to obtain a special kind of information. The researcher wants to find out what is "in and on someone else's mind" (Patton, 2002, p. 341). Though more time-consuming than a focus group format, the one-on-one interviews were used to yield responses to open-ended questions in a comfortable and private setting. Because a wide range of authentic perspectives were sought, study participants may not comfortably and openly have shared their responses in a focus group format if they experienced challenges during their dual-enrollment college experience.

I developed a semistructured interview guide for the one-on-one interviews. The interview guide is a list of questions a researcher intends to ask in an interview (Merriam, 2009). According to Turner Kelly (2003), interview guides allow researchers to map out questions to yield the richest data possible from the time together with participants. These questions, based on literature about the topic being discussed, are clearly phrased, appropriately sequenced, and explicitly aligned with the study's conceptual framework. Thus, the interview guide ensures that the questions posed elicit responses that address the study's research questions (Turner Kelly, 2003).

Using a semistructured interview protocol, I created a series of open-ended questions addressing the research question (Ortiz, 2003). Qualitative researchers often use open-ended interview questions (i.e., questions are asked but respondents are not provided choices to use as answers, such as Likert scales, multiple choice, yes/no questions; Lunenburg & Irby, 2008). In this type of interview, specific information was elicited from all the respondents, in which case the semistructured interviews were deemed appropriate (Merriam, 2009). To enhance the interview protocol instrument's validity, the degree to which an instruments measures what it purports to measure (Lunenburg & Irby, 2008), I met virtually with the director of Ohio's College Credit Plus program, who reviewed and provided critical feedback on my proposed interview questions. Based on recommendations from the director, I revised several of my proposed interview questions to enhance the clarity and content of the questions being asked.

The final semistructured interview guide used in the study consisted of 11 broad questions and included five two-part questions and one four-part question. The interview questions were designed to assess varied dimensions of study participants' eighth-grade college student experiences and their perceived readiness for their college classes, such as: (a) their motivation to enroll in college as eighth-grade students, (b) biggest accomplishments, (c) biggest challenges, (d) assessment of how college and middle school classes differed, and (e) their comfortability in interacting with their college instructors and classmates. The second part of those aforementioned five interview questions addressed how students felt about their experiences and perceived college readiness, which enabled additional opportunities for students to express themselves

about their interaction with the phenomenon of dual enrollment in college classes as eighth graders.

Each study participant was asked 11 broad interview questions, which included the five two-part questions and one four-part question. Probing or follow-up questions were developed and asked as the interviews progressed based on participant responses to gain more specific and detailed information or to clarify a statement (Lunenburg & Irby, 2008). The list of questions posed to each study participant who had been a dually enrolled, eighth-grade college student is included in Appendix A.

According to Ortiz (2003), the time and resources needed to conduct interview research leads many methodologists to recommend a minimum of 60 minutes for any interview, the approximate length of time to enable the researcher and respondent to explore issues in depth. Each interviewee was advised the interview would take approximately 60 minutes and be conducted at a quiet location at the college campus. The nine initial one-on-one interviews ranged from 35–60 minutes, varying on the length of responses from each participant, and each interview was audiotaped and transcribed verbatim.

According to Merriam (2009), verbatim transcription of recorded interviews provides the best database for analysis. In addition to audio recording each interview, I wrote field notes as well that documented thoughts, impressions, and events capturing the context and the processes of the interviews. Audio recording and written field notes are the primary data collection techniques used during interviews. Most researchers use these techniques in tandem, rather than relying on either method exclusively (Ortiz, 2003).

After the transcription of each interview, I met with each of the nine study participants a second time for 20–30 minutes to review their transcribed responses to each of the interview questions. This process served as a member-checking step to review the accuracy of transcribed responses and assess the completeness of each respondent's views related to each interview question. Each student was afforded an opportunity to offer any corrections to transcribed responses or additional perspectives to the interview questions in the follow-up member-checking interview. Only one respondent noted a response correction, which was a misspelled word in their transcribed interview response. Upon correcting the misspelled word in the one transcribed interview, all nine study participants communicated their transcribed interview responses were accurate and fully conveyed their perspectives. In total, between the initial interview and member-checking interview, data collection time with each study participant ranged from 55–80 minutes. After each member-checking session, the respective study participant was given a \$50 gift card to express appreciation for their participation in the study.

Privacy was an important consideration of building trust and a requirement of the human subjects review process (Ortiz, 2003). The first six interviews of study participants were held at a private space at the community college campus. Due to COVID-19 global pandemic restrictions, three study participants were interviewed through a secure WebEx visual platform. Confidentiality of transcribed data was addressed by using study participants' first names only during the data collection process. Then, to ensure anonymity while analyzing the data, I used pseudonyms instead of students' first names when coding, categorizing, identifying the findings, and preparing the final report. The audiotapes were erased after I listened to each and conducted a

member check with each respondent to verify the accuracy and completeness of their responses. After completing my initial data analysis process, I revisited the data several times, as described in the next section.

Data Analysis

According to Patton (1985):

Qualitative research is an effort to understand situations in their uniqueness as part of a particular context and the interactions therein. This understanding is an end in itself, so that it is not attempting to predict what may happen in the future necessarily, but to understand the nature of that setting—what it means for participants to be in that setting, what their lives are like, what is going on for them, what their meanings are, what the world looks like in that particular setting . . . the analysis strives for depth of understanding. (p. 1)

Data analysis is the process of making sense out of the data. Making sense out of the data involves consolidating, reducing, and interpreting what people have said and what the researcher has seen and read as the process of making meaning (Merriam, 2009).

For this study, I began analyzing the data as the data were collected. After each participant checked their transcribed interview transcript for accuracy and completeness, I began reading and rereading the interview transcripts (Agar, 1980), and writing memos of short phrases, ideas, or key concepts in the margins that emerged during my review of the transcripts. My initial database exploration approach was guided by data analyses techniques presented by Creswell (2007) and Merriam (2009) in that the margin notes captured reflections, tentative themes, hunches, ideas, and things to pursue that derived from this first set of data. The process I employed of making notations next to bits of data

that were potentially relevant for answering my research question is also called coding (Merriam, 2009). After the second interview, I repeated the coding process on the second data set and then compared the first set of data with the second data set. This preliminary analysis was completed in a timely manner after collecting each set of data. Without ongoing analysis, the data can be unfocused, repetitious, and overwhelming in the sheer volume of material that needs to be processed (Merriam, 2009).

Qualitative coding is a systematic, subjective, and transparent process of reducing data to meaningful and credible concepts that adequately represent the data and address the research problem, purpose, or questions (Adu, 2013). Coding involves reducing data but not losing meaning behind the data. I employed a systematic analytical process so readers believe what I found in the data (Adu, 2019).

During my data analysis, I read each participant interview transcript 3 to 4 times to immerse myself in the details, trying to get a sense of each interview as a whole before breaking the interviews into parts (Agar, 1980). I also established a codebook for each of the nine interview participants that included qualitative data (i.e., interviewee quotes) and codes that emerged from my analysis of participants' responses to each interview question. Using this open-coding analysis method for each individual interview participant's responses immersed me into the thoughts and perspectives of each individual relative to their eighth-grade college experiences and reflections prior to exploring patterns or distinctions. The systematic coding data analysis approach I employed resulted in 107 codes emanating from my careful review of each interview participant's responses to each interview question, situated in the nine interview

The next step in my data analysis involved implementing a code categorization strategy. Categorization entails assessing the characteristics of each code, reviewing commonalities among them, and grouping them based on their shared characteristics (Charmaz, 2014; Creswell & Poth, 2016; Dey, 1993; Saldana, 2018). According to Adu (2019), this qualitative analysis method is also called clustering or sorting, as it entails grouping codes into clusters based on what they have in common. As such, clusters of codes are called categories.

The code categorization strategy I used to transform the codes into categories was the individual-based sorting strategy. Sorting was the process of grouping codes in a way that would help address a research question or meet the purpose of a study (Adu, 2019). Applying the individual-based sorting strategy involved examining what the codes represented, comparing them to each other, and categorizing them based on shared similarities. After assessing the features of each code, I put them into clusters with the research question in mind, and labeled (i.e., titled) each cluster based on the characteristics of the codes in each cluster (Adu, 2019). Once I titled each cluster, the titled clusters became my category headings.

Using Adu's (2019) systematic qualitative data analysis method and individualbased sorting strategy technique to analyze and sort the 107 codes, 26 categories were developed. Further analysis of the 26 categories led to the emergence of eight themes, which helped to describe eighth-grade college students' perceptions of their own college readiness. The following chapter identifies and describes each of the eight themes.

Validity does not carry the same connotations in qualitative research as it does in quantitative research (Creswell, 2014). Qualitative validity means the researcher checks

for the accuracy of the findings by employing certain procedures (Gibbs, 2007). Qualitative researchers use a variety of methods to ensure their data are trustworthy (Pyrczak & Bruce, 2007). I employed two research practices to ensure the data collected were trustworthy, accurate, and valid, including member checking and triangulation.

Member checking was employed by meeting each study participant for a second time (i.e., after their first interview) to review their transcribed responses for accuracy and to seek any additional, different, or clarifying responses to each of the interview questions. Each respondent felt their responses were accurately recorded and captured their complete views to each question. Triangulation was employed in the study by using multiple sources of data to compare and cross-check interview data collected from study participants with different perspectives (Merriam, 2009). The themes that were established were based on converging perspectives from several study participants, a process which adds to the validity of the study (Creswell, 2014).

According to Merriam (2009), reliability refers to the extent to which research findings can be replicated. Qualitative research is not conducted so that laws of human behavior can be isolated; rather, researchers seek to describe and explain the world as it is experienced (Merriam, 2009). Qualitative reliability indicates the researcher's approach is consistent across different researchers and different projects (Gibbs, 2007). Replication of a qualitative study will not yield the same results, but this reality does not discredit the results of any particular study, as there can be numerous interpretations of the same data. The more important question for qualitative research is whether the results are consistent with the data collected (Merriam, 2009). I recorded an audit trail in an effort to enhance reliability throughout the research study. The audit trail, recorded in a research journal,

described in detail how data were collected, how categories were derived, and how decisions were made throughout the inquiry (Merriam, 2009).

COVID-19's Impact on the Research Study

The impact of the COVID-19 global pandemic restrictions on my study was limited to a segment of the data collection process. All nine study participants completed their college classes during their eighth-grade years, prior to the COVID-19 global pandemic; thus, none of the nine participants in the study enrolled in college classes online due to any restrictions or social distancing implications caused by the COVID-19 global pandemic. However, during the data collection process, whereby I conducted individual interviews with each of the study participants, I interviewed the first six interviewees in-person, prior to the pandemic, but interviewed the final three (i.e., Participants 7, 8, and 9) virtually through a private and secure visual platform, Cisco Webex. The virtual interviews of Participants 7, 8, and 9 did not adversely affect the data collection process, as each of the participants in the visual interviewed appeared comfortable, provided eye contact through the web camera, and answered each of the interview questions and even asked for clarification if they did not hear or understand the interview questions. The impact of the COVID-19 global pandemic did not appear to adversely affect the results of the study.

Chapter Summary

Chapter 3 reviewed the purpose of this study, which sought to explore the college readiness perceptions of study participants who were dually enrolled college students as eighth graders at a public community college in the State of Ohio's College Credit Plus dual-enrollment program. The research methodology used to examine study participants'

perceptions of their college readiness was presented in Chapter 3. This research purpose was particularly relevant, given the State of Ohio began implementing its College Credit Plus dual enrollment initiative during the 2015–2016 school year. This initiative allowed middle grade students in seventh grade and eighth grade an opportunity to enroll in college classes in public colleges and universities throughout the state, the same opportunity as high school students in Grades 9–12 had previously been afforded. Chapter 3 presented: (a) an overview of the research design and its characteristics; (b) the role of the researcher; (c) a description of the sampling method, including identification of study participants, site selection, and procedures; (d) an explanation of how the data were collected; and (e) a review of the data analysis methodology. The following chapter presents the study's findings and analysis of data.

Chapter Four

Findings

This study examined eighth-grade, dually enrolled college students' perceptions of their college readiness while enrolled at a public community college in Ohio. The research purpose's relevance emerged as the State of Ohio began implementing its new dual-enrollment program initiative during the 2015–2016 school year, called College Credit Plus. Prior to the 2015–2016 school year, the State of Ohio's previous dualenrollment program initiative, Post Secondary Enrollment Options (PSEO) program, only enabled high school students in Grades 9 through 12 to dually enroll in college classes. With the launch of Ohio's College Credit Plus program, in addition to high school students being afforded an opportunity to enroll in college classes, the State of Ohio began allowing seventh- and eighth-grade students to participate in college classes as well. Chapter 4 includes a review of (a) the purpose of the study, (b) the research question, (c) a description of participants, (d) the data collection method, (e) the data analysis process, (e) the results of the data analysis, and (f) identification of the emerging themes.

Purpose of the Study

The purpose of the study was to fill a dual-enrollment research gap by describing and analyzing perceptions of dually enrolled, eighth-grade college students' college readiness. Dual-enrollment programs are collaborative efforts between high schools and colleges in which high school students are permitted to enroll in college courses and, in most cases, earn college credit that is placed on a college transcript (Allen, 2010). Leading scholars in the dual-enrollment field have indicated in some programs, students

earn high school and college credit simultaneously; these programs may be referred to as dual credit or concurrent enrollment (Hughes et al., 2005; Karp et al., 2007). Prior to beginning this study, I found no dual-enrollment research had focused on eighth graders enrolled in college classes. This study filled a dual-enrollment research gap and provided a voice for individuals not presently heard in the literature, a strong rationale to conduct a study (Creswell, 2007).

Research Question

The research question for this qualitative study was:

• What are eighth-grade, dually enrolled college students' perceptions of their own college readiness?

Participants

For this basic qualitative inquiry, I employed a purposeful sampling strategy to identify participants. Purposeful sampling is a strategy in which particular settings, persons, or events are deliberately selected for the important information they can provide that cannot be gotten as well from other choices (Maxwell, 2009). For this study, I intentionally selected the individuals—dually enrolled, eighth-grade college students who volunteered to participate in the research study—from a public community college in Ohio to further understand the central phenomenon: eighth-grade college students' perceptions of their college readiness after completing a college class (Creswell, 2012).

To identify the eventual participants, I secured approval to conduct the research from the Institutional Review Board (IRB) of the public community college where the study participants were enrolled. The public community college's Office of Evidence and Inquiry forwarded me an electronic file containing the names, college identification

numbers, email addresses, and phone numbers of 25 public community college students who met the participant profile criteria (i.e., college students who were also dually enrolled as eighth-grade students). Because the study's prospective participants were minors under the age of 18, invitations for prospective participants to consider voluntarily participating in the study were mailed and emailed to the parents or guardians of the prospective research participants. I mailed two research invitation letters and two email invitations to the 25 prospective research subjects. The parents or guardians of nine prospects who were dually enrolled, eighth-grade college students agreed for their children to voluntarily participate in the study after consulting with their children. I discussed the study with each prospective research participant and their parent or guardian and answered any questions they had. After securing student assent and active parental consent through the described purposeful sampling method, nine participants who were enrolled in college classes as eighth graders were interviewed for the qualitative study.

This research study included five female participants and four male participants. Table 6 provides a brief description of participants' middle school type, gender, race, and college class instructional method of the college class(es) in which they were enrolled. Each participant was also identified by a pseudonym, which I used throughout the study to ensure confidentiality. Participants 1–6 were interviewed in person. Due to COVID-19 global pandemic restrictions, Participants 7, 8 and 9 were interviewed virtually through Cisco Webex's secure virtual platform.

Table 6

Participant	Pseudonym	Middle school	Gender	Race	College class method
#		type			
1	Terrell	Public	Male	Black	On-campus/in-person
2	Nancy	Public	Female	White	On-campus/in-person
3	Diane	Public	Female	White	On-campus/in-person
4	Emily	Public	Female	White	On-campus/in-person
5	Brian	Public	Male	Black	At high school/in person
6	Austin	Home school	Male	White	On-campus/in-person
7	Laura	Public	Female	White	Online/independent study
8	Max	Public	Male	Black	On-campus/in-person
9	Kate	Public	Female	White	Online and on-campus/in-
					person

Demographics of Research Study Participants

Table 6 reflects that male and female genders were nearly equally represented, 6 of 9 participants were White and 3 were Black, and 8 of the 9 eighth-grade, dually enrolled college students participating in the study were public middle school students, with one homeschooled eighth-grade student (Austin). Table 6 also reflects that 6 of the 9 participants were enrolled in college classes in-person at the college campus. One student (Brian) completed college classes in-person at a high school. One student (Laura) completed an online, independent study college course, and one student (Kate) completed college courses in-person on campus and online.

Data Collection

According to Merriam (2009), in education and most applied fields, interviewing is probably the most common form of data collection in qualitative studies. As such, for this study, I used one-on-one interviews among participants who were dually enrolled, eighth-grade college students as my data collection method. During the one-on-one interviews with research subjects, I also used a semistructured interview guide (see Appendix A), which was comprised of a list of questions I asked each participant (Merriam, 2009). The interview guide consisted of questions designed to elicit responses that addressed the study's research question (i.e., What are dually enrolled, eighth-grade, college students' perceptions of their college readiness?) and yielded the richest data possible from my time with the participants (Turner Kelly, 2003).

The basic qualitative research method was employed to provide participants, all minors, an opportunity to openly share their perspectives in a comfortable, private setting. The chosen research method was relevant and deemed appropriate for this particular age group, as participants did not appear anxious during their interviews. Respondents were engaged, as demonstrated through exhibiting eye contact with me and asking for an interview question to be repeated if they did not hear the question. The participants also asked for clarification if they did not understand the question or provided follow-up responses if I asked for them.

Due to the implications of the COVID-19 global pandemic, not all of the one-onone interviews occurred in-person, face-to-face. The first six participants were interviewed in person in a private location at one of the community college's campuses. The final three participants (Participants 7, 8, and 9), were individually interviewed in a secure and private online, visual session using Cisco WebEx, an online virtual platform. Each of the three online, visual session respondents exhibited direct eye contact into the web camera when answering questions and provided their responses to each of the interview questions, as was done during the face-to-face, in-person interview sessions for Participants 1 through 6.

Each of the nine interviews lasted between 35 and 50 minutes in length. I audiorecorded or virtually recorded each interview and simultaneously wrote field notes which, according to Ortiz (2003), is a similar approach used by most researchers. In this method, using audio-recording and field note writing techniques occurs in tandem, rather than relying on either method exclusively. Finally, each interview was also transcribed verbatim using an online, paid transcription service, Rev.com.

Data Analysis

According to Patton (1985), qualitative research requires an effort to understand situations in their uniqueness as part of a particular context and the interactions therein. Data analysis is the process of making sense out of the data; making sense out of the data involves consolidating, reducing, and interpreting what people have said and what the researcher has seen and read—it is the process of making meaning (Merriam, 2009).

After the transcription of the first interview and each subsequent transcribed interview, I met with each of the nine participants a second time for 20–30 minutes to allow participants to review their transcribed responses to each of the interview questions. This member-checking step was completed to ensure accuracy of transcribed responses and enable each participant an opportunity to revise, correct, or expand on any of their interview responses. One respondent, Emily, identified one misspelled word in her transcript. Upon correcting the misspelled word in Emily's transcript, all nine participants communicated their transcribed interview responses were accurate and fully conveyed perspectives. Coupled between the initial interview and member-checking session, total data collection time with each participant ranged from 55–80 minutes. After

each member-checking session, the participant was given a \$50 gift card to express appreciation for their participation in the study.

I began analyzing the data as they were collected. After each participant checked their transcribed interview transcript for accuracy and completeness, I read and reread the interview transcripts and writing memos of short phrases, ideas, or key concepts in the margins that occurred to me during my review of the transcripts. My initial database exploration approach was guided by data analysis techniques presented by Creswell (2007) and Merriam (2009) in that the margin notes captured reflections, tentative themes, hunches, and ideas to pursue that derived from this first set of data. The process I employed of making notations next to bits of data that were potentially relevant for answering my research question is also called coding (Merriam, 2009).

Qualitative coding, a subcategory of qualitative analysis, is a systematic, subjective, and transparent process of reducing data to meaningful and credible concepts that adequately represent the data and address the research problem, purpose, or questions (Adu, 2013). Coding entails data reduction but not losing meaning behind the data. I employed a systematic analytical process so readers would believe what I found in the data (Adu, 2019).

During my data analysis, I read each participant interview transcript three to four times to immerse myself in the details, trying to get a sense of each interview as a whole before breaking the interviews into parts (Agar, 1980). I also established a codebook for each of the nine participants that included qualitative data (i.e., interviewee quotes) and codes that emerged from my analysis of participants' responses to each interview question. Using this open-coding analysis method for each individual participant's

responses immersed me in the thoughts and perspectives of each individual relative to their eighth-grade college experiences and reflections prior to exploring patterns or distinctions. The systematic data analysis coding approach I employed resulted in 107 codes emanating from my careful review of each participant's responses to each interview question, situated within the nine participant codebooks.

The next step in my data analysis involved implementing a code categorization strategy. Categorizing involved assessing the characteristics of each code, reviewing commonalities among them, and grouping them based on their shared characteristics (Charmaz, 2014; Creswell & Poth, 2016; Dey, 1993; Saldana, 2018). According to Adu (2019), this qualitative analysis method is also called clustering or sorting because it entails grouping codes into clusters based on what they have in common. Clusters of codes are called categories.

The code categorization strategy I used to transform the codes into categories was the individual-based sorting strategy. Sorting is the process of grouping codes in a way that would help address a research question or meet the purpose of a study (Adu, 2019). Applying the individual-based sorting strategy involved examining what the codes represented, comparing them to each other, and categorizing them based on shared similarities. After assessing the features of each code, I put them into clusters with the research question in mind, and labeled (i.e., titled) each cluster based on the characteristics of the corresponding codes (Adu, 2019). Once I titled each cluster based on the shared characteristics of the codes in each cluster, the titled clusters became my category headings.

Using Adu's (2019) systematic qualitative data analysis method and individualbased sorting strategy technique to analyze and sort the 107 codes, 26 categories were developed. Further analysis of the 26 categories led to the emergence of eight themes that helped to describe eighth-grade college students' perceptions of their own college readiness. The following sections identify and describe each of the eight themes.

Theme 1: Possessed aspiration and motivation. The Possessed Aspiration and Motivation theme emerged to describe the pattern of eighth-grade middle school participants' desire and drive for more academic rigor and accelerated academic preparation and experiences for their possible future full-time college enrollment or future plans after graduating from high school. As Pintrich (2003) pointed out, the term *motivation* derives from the Latin verb *movere*, which means to move. For this study, motivation implied self-directed movement and represented the primary intrapersonal dynamic that orients an individual to particular learning goals (Pintrich, 2003).

Theme 1 was comprised of five categories. Each of the five categories were derived from a thorough review of the participants' transcribed interviews in response to the interview questions, followed by the analytic coding procedure and code categorization process referenced in the preceding section on data analysis of this chapter. Table 7 presents the categories comprising Theme 1 – Possessed Aspiration and Motivation, followed by a discussion related to several of the categories.

Table 7

Categories comprising Theme 1
Wanted more academic challenge
Ready to earn college credits
Ready for early college matriculation
Ready for better preparation opportunity
Ready to experience college early

Five Categories Comprising Theme 1 – Possessed Aspiration and Motivation

The Wanted More Academic Challenge category reflected participants' views on their motivations and desires to enroll in college classes as eighth-grade middle school students. For example, in response to the first interview question (i.e., What was the reason [or reasons] that you chose to enroll in college classes?), one student replied, "Um, I chose to enroll in college classes because I wanted more of a challenge, because I feel like what I was taking before, just in my normal classes, just wasn't hard enough."

The desire for more academic rigor was also expressed by another student, who indicated they were not adequately challenged in middle school. This student's response to the interview question asking the reason that they enrolled in college classes as an eighth-grade student was, "I didn't really like the classes at the middle school because it took a really long time to get through everything that we learned, and I was really bored in class."

Also contributing to the development of the Wanted More Academic Challenge category was a third student's response to the reason they chose to enroll in college classes. Their response revealed their experience with a slower than desired pace and boredom in middle school motivated their desire to enroll in college classes. This third

student replied, "My teacher was like walking us through everything really slowly and it was kind of boring and English is my favorite subject, so I didn't like that."

Each of the three aforementioned responses provided examples of perspectives from dually enrolled, eighth-grade college students that contributed to the development of the Wanted More Academic Challenge category.

In addition to participants' motivation to enroll in college classes seeking more academic challenge, several respondents were more motivated by other factors. For example, the only two participants who were also enrolled in the same urban public middle school did not mention they enrolled in college because they sought more academic challenge or were dissatisfied by their middle school's academic experience. Both respondents instead attributed their motivation to enroll in a college class as an eighth-grade student to a desire to earn college credits, which formed the Ready to Earn College Credits category.

Meanwhile, other participants' motivations to enroll in college classes as eighthgrade students were rooted in their future aspirations to be better prepared when they enrolled in college full-time after graduating from high school. Contributing to the formation of the Ready for Early College Matriculation category, one student replied, "I wanted to complete my basic classes so that when I get to college, I can concentrate on my major subjects."

The first theme, Possessed Aspiration and Motivation, was comprised of categories that captured participants' perspectives about their varying motivations to enroll in college classes as eighth-grade, middle school students. Three of 9 respondents

expressed their motivation was rooted in wanting more academic challenge. The remaining four categories comprising Theme 1 were each supported by two respondents.

Theme 2: Appeal of cognitively stimulating environment. The second theme that emerged from an analysis of the in-depth, individual interview responses from dually enrolled, eighth-grade college students was Appeal of Cognitively Stimulating Environment. This particular theme emerged based on the clustering of established categories focused on participants' perceptions of their own college readiness related to academic rigor and learning environment in their college classes. Table 8 presents the categories comprising Theme 2.

Table 8

Three Categories Comprising Theme 2 – Appeal of Cognitively Stimulating Environment

Theme 2	Categories comprising Theme 2
Appeal of cognitively stimulating environment	Appeal of college rigor
	Diverse and expressive environment stimulating Positive eighth-grade college experience

The Appeal of College Rigor category emerged based on an analysis, and grouping, of interview responses from 6 of the 9 participants—three female participants and three male participants. The second theme primarily emanated from participant responses to the two-part interview question, "Do you believe that your college classes were too hard, too easy, or just the right academic challenge for you? Why do you feel that way?" Though participants occasionally described college classes as challenging, the classes were neither too easy nor too hard, as evident by the following response from one student about the rigor-level of their college classes. The student noted, "They were definitely challenging, but I don't think they were too hard, because, I mean, that was the reason that I wanted to do them in the first place, was so that they would be harder."

Additionally, in response to the same two-part question assessing perceptions about the rigor-level in the college classes, another participant also felt the college academic rigor level was just right, and added the following response on how to best manage a college class:

Oh, so this kind of is something I really liked about the class . . . if you do the work, it's easy, and if you don't and if you procrastinate, then it gets trickier . . . the class is designed so that if you do the work, the information comes with it. So, just right.

A second category comprising the Appeal of Cognitively Stimulating Environment theme was Diverse and Expressive Environment Stimulating. This category emerged from an analysis of participants' interview responses related to the comfort level and appeal of the college classroom learning environment. The following response from a respondent conveyed their favorable impression of the college learning environment, characterized by increased opportunities to discuss and express ideas in their college history class about more relevant issues than compared with their middle school classroom learning experience:

I like how the issues that we talked about relate to the world today and what's happening today, which we didn't really ever talk about in middle school . . . in my college classes, I felt like there was actually a reason that we were talking about the different things that we were learning about.

Two participants also provided the same response to the interview question "What did you like most about your college course(s)?" Both students replied, "I enjoyed writing the papers," which conveyed their appeal of the traditional college method of expression, essay writing.

The third category depicted in Table 6 that underpinned the Appeal of Cognitively Stimulating Environment theme is Positive Eighth-Grade College Experience. This category emerged from a careful analysis of interview responses from a majority of the participants, in which 6 of the 9 respondents conveyed positive statements related to their perceived college readiness as eighth-grade college students and favorable feelings about their college experience.

In sharing their overall feelings about their eighth-grade college experience, one student, who at the time of the research study interview had just begun their ninth-grade school year and had already enrolled in an additional college class, replied, "It was a good experience. Otherwise, I wouldn't be doing it again this year . . . taking physics now." Additionally, a participant who was enrolled in an online college course also communicated the following favorable perspective when reflecting upon their eighth-grade college experience, noting:

I was very glad that I took this course. I feel very lucky that I was able to take it because I have the most basic form of a college class right in front of me. It was worth my time, and I would take it again.

As referenced in the preceding examples, each of the categories that emerged comprising the Appeal of Cognitively Stimulating Environment theme was supported by perspectives expressed by participants. The majority of respondents, 6 of 9, conveyed in

some way that the college rigor was appealing and that their eighth-grade college experience was positive.

Theme 3: Demonstrated content mastery and college readiness. Demonstrated

Content Mastery and College Readiness emerged as the third theme from the qualitative analysis of the individual interview responses from dually enrolled, eighth-grade college students. Theme 3 differed distinctly from the previous theme, Appeal of Cognitively Stimulating Environment, which revealed students' stated preferences of a more rigorous college environment compared to their rigor level in middle school. The Demonstrated Content Mastery and College Readiness theme was comprised of three categories identified in Table 9 and reflected students' perceptions of their own college readiness based on their direct experiences of achievement in their college classes.

Table 9

Three Categories Comprising Theme 3 – Demonstrated Content Mastery and College

Readiness

Theme 3	Categories comprising Theme 3	
Demonstrated content mastery and college	Demonstrated high academic	
readiness	achievement	
	Excelled on major college assignments	
	Felt prepared, felt college ready	

The Demonstrated High Academic Achievement category emerged from an analysis of participant perspectives to interview questions describing their biggest accomplishments as eighth-grade college students and how they felt they performed in their college classes. For example, more than half of the participants (i.e., 5 of 9) earned an A grade in each of their college classes as eighth-grade students. When responding to the interview question of, "What were your biggest accomplishments as an eighth-grade, college student?", one student replied, "I got 'As' in both of my classes. It was English 1010 and English 1020." This student's experience of earning all As in their college classes was also experienced by four other participants, which contributed to the development of the Demonstrated High Academic Achievement category.

The second category comprising the Demonstrated Content Mastery and College Readiness theme was the Excelled on Major College Assignments category. This category emerged from an analysis of the responses of three participants discussing their biggest accomplishments as eighth-grade college students on a more a micro-level (e.g., an individual major college class assignment or exam) instead of the macro-level, final college course grade earned. For example, in responding to what they felt was one of their biggest accomplishments as a dually enrolled, eighth-grade college student, one student reflected proudly upon earning an A grade on their first college class assignment by remarking, "When I got my first assignment back, I had an A on there, and it was surprising because everybody else in my class had got a C on their paper."

A second student also responded to the interview question regarding their biggest accomplishment as an eighth-grade college student, with a response focused on excelling on a major class assignment instead of the final course grade that was earned in class. This student said:

My biggest accomplishment was my final exam. We had to pick and review and analyze a certain event in history . . . I decided to study U.S. fashion trends . . . I did a long report on that. And I was really proud of that project, and I go an A on it because I put a lot of effort into it.

Finally, the Demonstrated Content Mastery and College Readiness theme was comprised of a third category that emerged, Felt Prepared, Felt College Ready. The emergence of this category emanated from an analysis of interview responses conveyed by a notable 7 of 9 participants related to their perceptions of their own college readiness. For example, in addition to earning all As in their college classes, one student's response to the interview question, "Overall, how prepared or college ready do you feel you were to be successful in your college course(s)?", referenced additional college readiness traits and noncognitive skills such as possessing the necessary level of maturity and responsibility to demonstrate college readiness. This student replied, "I feel like I was pretty ready . . . it was like more mature, but also, like more fun and more responsibility. It was a mix of all of those. So, I feel I was pretty ready."

Another participant's response to the same interview question offered another example of a respondent expressing they were prepared while referencing a noncognitive college readiness trait, being responsible. When mentioning they were bored in their middle school classes, the student replied, "Hmmm, well, I was bored in my other classes [in middle school], so that was like an obvious sign that I needed a challenge. . . . You just kind of have to be responsible. . . . Yes, I was pretty prepared."

Moreover, in addition to participants' verbalized perspectives that contributed to the emergence of the Demonstrated Content Mastery and College Readiness theme, respondents also expressed nonverbal cues, such as smiles and affirmative nods of their heads as they described their accomplishments and shared their responses to whether or not they felt prepared or college ready to embark on completing college classes as dually enrolled eight-grade college students. The nonverbal cues emanated a sense of pride from

each of the participants for taking on the more rigorous academic college class experience as eighth-grade students; the verbal responses from 7 of 9 participants confirmed they felt prepared or felt college ready.

Theme 4: Positive instructor rapport and meaningful support. In addition to previously noted themes that emerged from analyzing participants' responses to interview questions about their motivation to enroll in college classes, and their views of their ability to manage the college coursework, a fourth theme emerged that derived from respondents' perceptions of their interactions with their college instructors: Positive Instructor Rapport and Meaningful Support. This particular theme was developed after an analysis of respondents' answers to interview questions pertaining to their comfort levels in speaking to and interacting with their college instructors. Eight of the 9 participants responded they were comfortable speaking with their college instructors or liked their college instructors. Table 10 identifies the three categories that emerged from an analysis of interview responses, which evolved into the Theme 4.

Table 10

Three Categories Comprising Theme 4 – Positive Instructor Rapport and Meaningful Support

Categories comprising Theme 4
Positive rapport with instructors
Familial connection with instructors
Instructor support helpful

Participants were asked a two-part interview question to assess their comfort level interacting with their college instructors: "How comfortable were you speaking with your

college instructors? How did you feel speaking with your college instructors?" The questions were designed to solicit concise responses relating to their comfort level, and more nuanced responses when describing their feelings associated with speaking with their college instructors. For example, one student shared the following perspective, which contributed to the development of the first category, Positive Rapport With Instructors:

My college instructor, I felt pretty comfortable talking to him. He's pretty funny. So yeah, he's very comfortable to talk to if I say I don't understand a question or I need help. . . . Yes, both of them, I was just pretty comfortable just asking any question.

The preceding student's response revealed they felt comfortable with their college instructors; as a result of the positive rapport they built with their college instructors, they felt very comfortable talking with their college instructors or asking the instructors questions to clarify any unclear topics. Similarly, a second student's response to the same two-part interview question also expressed their positive rapport with his college instructor. The second student replied, "Pretty comfortable. Sometimes I'd stay a bit after class to ask a question or something . . . that was helpful."

A third student's response provided another perspective contributing to the Positive Instructor Rapport and Support Meaningful theme. The third student said, "I felt comfortable, pretty comfortable. I believe that before we actually took classes and stuff, we met them, and they talked to us and stuff." The third student's response also affirmed their comfort level with their college instructor, but also pointed out that arrangements were made before the college class began for the college instructor to meet with the

incoming eighth-grade college students to get acquainted with one another and communicate relevant information.

Meanwhile, two additional participants offered illuminating responses when describing their positive rapport with college instructors, which comprised Theme 4's second category, Familial Connection With Instructors. To the two-part question, "How comfortable were you speaking with your college instructors? How did you feel speaking with your college instructors?", one student responded, "My first professor, I was really, really comfortable with. She was like, kind of like a grandmother, kind of, and like her actions, and she was really nice." The response evoked a genuine, sentimental familial connection with their first college professor Similar to that of a grandmother and granddaughter.

Additionally, another student also referenced a familial connection when discussing the rapport they had with their college class instructor. The student replied, "She [the teacher] was very kind to me. She treated me almost like a daughter, and it was a very good experience." The student's response, just like the preceding example, evoked a genuine familial connection with their college instructor, similar to a positive mother– daughter relationship.

Finally, related to the fourth theme, 7 of the 9 participants also provided insightful perspectives—when analyzed, these perspectives evolved into the formation of another distinct category related to respondents' ability to see instructors as a resource in college, Instructor Support Helpful. For example, one student shared the following unprompted reflection relating to instructor support as they were discussing how they liked that their college classes were harder compared to their middle school classes:

They were definitely challenging, but I don't think they were too hard because, I mean, that was really the reason that I wanted to do them in the first place, so that they would be harder. And, I really liked the fact that they were harder, but I never really felt too stressed out about them. . . . And the teachers, they always offered help to anybody that needed it. So, I felt like if I did have a problem with anything I could ask them about it.

Another example contributing to the Instructor Support Helpful category that emerged was gleaned from the following response from the single homeschooled participant to the two-part interview question, "How were your college classes different from your homeschool classes, and did your college classes feel different from your homeschool classes?" The student answered, "Well, like I said, the biggest thing is a lot less self-study, and definitely felt more, like with, you can talk to the teacher." The student's brief response described a reduction of self-study time in their college class environment compared to their home school environment as a difference between the two learning environments, and they also briefly acknowledged the benefit of being able to talk to their college instructor as needed, a perspective also contributing to the development of the Instructor Support Helpful category.

Theme 4, Positive Instructor Rapport and Meaningful Support, emerged from an analysis of responses that suggested the eighth-grade college students benefitted from having a positive rapport with their college instructors. Eight of 9 participants responded they were comfortable speaking with their college instructors or liked their college instructors, demonstrating a keen postsecondary awareness level in understanding the benefits of having supportive and meaningful relationships with their college instructors.

Theme 5: Demonstrated ownership of learning. Participants in this study were also asked to respond to interview questions about what they did to help them pass their college classes and how they solved difficult college assignments. The interview questions were designed to solicit the strategies they employed to enable success as dually enrolled, eighth-grade college students. Emerging from an analysis of participants' responses was the fifth theme, Demonstrated Ownership of Learning, comprised of the three categories identified in Table 11.

Table 11

Three Categories Comprising Theme 5 – Demonstrated Ownership of Learning

Theme 5	Categories comprising Theme 5
Demonstrated ownership of learning	Demonstrated project and time management skills
	Utilized resources
	Demonstrated ownership of learning

The first category comprising Theme 5, Demonstrated Project and Time Management Skills, emerged based on an analysis of the perspectives provided by three participants to the interview question, "What are some things that you did to help you pass your college classes?" For example, in the following response, one student discussed the use of project management and time management skills explaining how they completed their college course assignments during times at their middle school when they were not busy with middle school coursework:

Um, I would definitely, like, this is more a basic thing, but I used a planner, and it was on my phone and just like the paper one. Because I would have it with me at school. I would bring my dual enrollment program stuff to school, so when it was down time, I could work on it, instead of having to do it all the night before, every night with all my other homework.

Another student also discussed the benefit of being more organized, a key component of project and time management skills. In their response, they also acknowledged time management helping in their middle school environment, too, noting:

The second class I definitely stayed more organized than in my first class, which made everything a lot easier. And, I think, overall, even with my middle school classes, the college classes helped me stay more organized and keep better track of time.

Similar to the number of participants who provided perspectives comprising the previous category, the views of three respondents also contributed to the development of the second category for Theme 5, Utilized Resources. When discussing strategies that they employed to succeed in their college classes, one participant said, "I went to the library and the TLC [Technology Learning Center], and I just kind of sat there and, uhm, typed up some stuff for my papers and did all of the research." Responding to the same interview prompt, "How did you solve hard or difficult college class assignments?", another respondent also referenced the utilization of resources when they replied:

Uhm, I solved them by, I definitely used, like Google for sure. It helped me, like, know how to write a thesis or what should be added into in, or like similar stuff, I like, already know just from like writing papers, in younger days. But, there were, like, definitely different aspects to this kind of writing.

The student was asked a follow-up question to their response about the use of Google as a resource, "Did you utilize any resources at the College?" The student replied they used

the college's online library, answering, "Online, I did because that had like the online library that had good articles and stuff. So, I did use that. So, I knew that they had articles to use, and they were reliable." Both participants' responses are examples of respondents articulating their commitment to their learning by using college resources, including the college's physical library, online library, and Technology Learning Center.

The third distinct category, Demonstrated Ownership of Learning, which is also the name of the fifth theme, was developed from an analysis of interview responses discussing the strategies participants used to pass their college classes or to solve difficult college class assignments. Responding to the interview question, "How did you solve hard or difficult college class assignments?", one student identified completing citations as a new and demanding challenge in the following response:

So citations and getting all the right things down, that was really hard for me cause I never had to do it before. . . . And just having, like going through, kind of, and just, like, re-reading all my citations to make sure they were right. Citations, they are an interesting, but necessary. There's so much stuff to do with them. It's like every single citation needs like 50 different things and if you're doing a website, you cite it different, different than a book. It's a lot of stuff.

The student's response acknowledged the rigor of the college class writing citation expectation, while also reflecting their commitment and responsibility to invest the time, effort, and attention to detail required to complete citations for their college class assignments.

Another example of participants expressing perspectives contributing to the emergence of the Demonstrated Ownership of Learning category was shared by another
student in the following response to the interview question, "What are some things that you did to help you pass your college classes?" The student noted:

A couple of things I did to pass was just, basically, studying or just doing research

... I feel like the classes were pretty straight-forward.... They kind of told you, okay, you need to study this, you need to study that. It was pretty straight-forward. No surprises or anything.

This student's response highlighted their success in applying studying, researching, and listening techniques which aided their success in their college class, as a dually enrolled, eighth-grade student.

An even number of participants (i.e., three participants per category) offered views contributing to the development of the Demonstrated Project and Time Management Skills and Utilized Resources categories. However, all nine respondents described skills contributing to the development of the Demonstrated Ownership of Learning category, also emerging as the fifth theme.

Theme 6: Socially comfortable in college class. Socially Comfortable in College Class was the sixth theme that developed based on an analysis of participants' responses to interview questions assessing their perceptions of their college readiness while enrolled in college classes as eighth-grade students. This theme emanated based on an analysis of interview question responses pertaining to participants' comfort levels when interacting with their college class peers. The three categories that make up Theme 6 are represented in Table 12.

Table 12

Theme 6	Categories comprising Theme 6
Socially comfortable in college class	Very comfortable speaking with classmates
	Gradually, became comfortable speaking with classmates Appeal of social environment and interaction

Three Categories Comprising Theme 6 – Socially Comfortable In College Class

In response to the interview question, "How comfortable were you speaking with your college classmates?", 7 of 9 participants expressed that they were, or became, comfortable speaking with their classmates. Though 7 of 9 participants communicated they were very comfortable speaking with their classmates, the reasons why they were very comfortable varied and was more nuanced. Two respondents felt very comfortable speaking with their college classmates, and both attributed their comfort level with having older siblings who were concurrently in college. As a result, both students felt their previous interactions with their older siblings' college friends helped each of them interact more comfortably with their current college classmates, even as eighth-grade students. When asked "How comfortable were you speaking with your college classmates?", one student responded:

Uhm, I was comfortable speaking with, like my college classmates. . . . Like my sister, she is in college, so, I kind of, like, knew what the atmosphere would be like, because I been down there before. She goes to . . . [name of college] and, like, I met some of her friends too, and like they are all very nice, and so is everyone in all of my classes.

Distinct from the previous reason of having an older sibling in college, but still contributing to the high comfort level when speaking with college classmates, three other

participants who stated they felt comfortable speaking with their college classmates acknowledged most of their college classmates were also classmates from their middle school or ninth graders at the local high school. In the dual-enrollment models these three participants experienced, a majority of students enrolled in their college class were either enrolled at the same middle school or the college class was physically taught at the school district's high school to ninth graders, enabling one participant to attend his college class at his school district's high school along with other ninth graders. When asked how comfortable the participants were in communicating with their college classmates, one participant replied, "I felt pretty comfortable because most of them was from my school, and there was only two people that wasn't."

Meanwhile, two additional participants provided more nuanced responses to the question of their comfort level speaking with their college classmates, contributing to the category, Gradually Became Comfortable Speaking With Classmates. For example, in response to the interview question, "How comfortable were you speaking with your college classmates?", one student replied:

Not at all on the 1st week, but after that, I began to get used to it. And nobody really cared that I was younger. At a certain point, I realized that I was being irrational and that nothing bad came of actually talking.

Additionally, in another participant's response to the same question, they revealed their comfort level of speaking to college classmates gradually improved, too, but over a longer period in their second college class. The student replied, "With the first class I took, I didn't really talk to my classmates that much, and in my second class, I got to know people more."

Finally, related to the comfort level of speaking with college classmates interview question, only one participant did not feel comfortable speaking with college classmate. Additionally, only one participant did not have any college classmates with whom to speak, as they were enrolled in an online, independent-study college course.

Theme 6's third category, Appeal of Social Environment and Interaction, was indicative of interview response perspectives associated with respondents' appeal for seeing and interacting with new people, beyond just their comfort level speaking with their classmates. For example, in response to the interview question, "What did you like most about your college course or courses?, one student replied, "We got more time to hang out with my friends and meet new people." To the same interview question, another student said, "Well, I liked going to a college. It was pretty interesting to go to a college, because you get to see all the other people."

The perspectives comprising the development of the Appeal of Social Environment And Interaction category evoked emotion from respondents. Even one student who did not appear to exhibit much emotion during the interview described their eighth-grade college experience as "fun." The student said, "Was pretty exciting for me because I got to go somewhere different than my own school, and it was an actual college. Yeah, it was pretty fun. Meeting new people, doing new things. Yeah."

With one exception, participants who were enrolled in college classes with other classmate were, or gradually became, comfortable speaking with and interacting with their classmates—enabling them to describe they were socially comfortable in their college class environment.

Theme 7: Adaptation, growth and maturation, and perseverance. Adaptation, Growth and Maturation, and Perseverance was the seventh theme that emerged from an analysis of participants' responses related to their perceptions of their college readiness while enrolled in college courses as eighth-grade students. Participants' responses to interview questions about the biggest challenges they faced as eighth-grade college students, or what they liked least about their dual-enrollment experiences contributed to the development of three categories comprising Theme 7, as shown in Table 13.

Table 13

Three Categories Comprising Theme 7—Adaptation, Growth and Maturation, and

Perseverance

Theme 7	Categories comprising Theme 7
Adaptation, growth and maturation, and perseverance	Initial adaptation challenges to overcome Initial anxiety and social discomfort
	Demonstrated self-awareness, growth and evolving maturity

The Initial Adaptation Challenges To Overcome category emerged from an analysis of perspectives provided by participants to the question, "What were your biggest challenges as an eighth-grade, college student?" One participant offered a brief, yet concise response to the biggest challenges interview question, responding, "Definitely, managing my time! I did a lot of stuff on Sunday night. . . . My class was Monday morning." A second student also expressed managing time well to complete their class assignments was an initial adjustment challenge in their first college class. The second student elaborated in their response by mentioning in their first college class, they had a big two-part project due but missed the due date deadlines. In their explanation, the student pointed out their college instructor did not offer frequent assignment due date reminders, as they were accustomed to receiving from their teachers in middle school. The student said:

We had a big final project to do . . . but I'm very, very bad at time management. So, it was due in two parts and then, the night before it was due or the weekend before, I did all of it, and it wasn't very good and I didn't get a very good grade on that part. But, then, the second part, I also didn't, I don't know, it was just hard because in middle school, I feel like every day we came in and the teacher's like, "Remember, you have to do this, and this is due tomorrow." And it wasn't like that in college, just at the beginning, the teacher said, "This project is due, and these are the requirements," and then, just expected it on the due date. I guess I wasn't really used to that.

The preceding examples from both students focused on their adjusting and adapting to differences between their middle school class experiences and their college class experiences.

Another initial adjustment challenge that 3 of the 9 participants described emerged as a category labeled Initial Anxiety and Social Discomfort. As an example, one student described their initial anxiety about even starting their new eighth-grade college experience by responding, "At first, I was really scared to do the college classes because I thought they'd be too hard." The participant went on further to say, once their first college class began, "My least favorite thing was that I kind of felt out of place because I was the only girl in the class, and everybody was significantly older than me." A second participant, providing another example associated with an initial adjustment challenge

when they first started their college class experience, said, "I felt kind of nervous, because I didn't know what to expect."

Lastly, even though three participants spoke about their initial anxiety and discomfort when they first began their college class or in their first college class, all nine respondents described possessing or developing college readiness traits during their eighth-grade college class experiences. These descriptions contributed to the development of the Demonstrated Self-Awareness, Growth and Evolving Maturity category.

In responding to the interview question, "Overall, how would you describe your experience as an eighth-grade, college student?", participants reflected on topics ranging from overcoming their anxieties to gaining confidence and realizing the college experience is a maturing experience. For example, as previously noted, one student acknowledged that they were initially "scared to do the college classes because I thought they'd be too hard." However, this particular student persisted and gained confidence along the way, as evident by their response, saying, "But, after I've done two [college classes] now, and I think I'll definitely do more because they're challenging, but I know that I can do them now." Furthermore, another student discussed the aspect of maturity when discussing their eighth-grade college experience by replying, "It was like more mature, but also, like, more fun and more responsibility. It was a mix of all of those."

As a final example, one participant's perspective on their dual enrollment experience as an eighth-grade college student was framed introspectively with the student acknowledging their growth and evolving maturity. The student said:

It was pretty interesting just to see how I grew up from a little kid who really didn't want to do no college class. . . . And then, my horizons were broadened, in terms of knowing different things, different skills sets I could build upon and stuff like that.

The sentiments comprising the Demonstrated Self-Awareness, Growth, and Evolving Maturity category encompassed a range of responses reflective of participants' acknowledged growth and development from experiencing the dual-enrollment college experience as eighth graders.

Theme 8: Challenges were experienced too. Challenges Were Experienced Too was the eighth and final theme that emerged from an analysis of participants' responses related to their perceptions of their college readiness while enrolled in college courses as eighth-grade students. The emergence of Theme 8 was comprised of three categories, as shown in Table 14. Theme 8 acknowledged four participants faced challenges during their eighth-grade dual-enrollment experience.

Table 14

Three Categories Comprising Theme 8 – *Challenges Were Experienced Too*

Theme 8	Categories comprising Theme 8
Challenges were experienced	Challenges with online instruction
too	
	Fragile content knowledge in engineering technology class
	Middle school administration's dual enrollment registration
	and implementation challenges

The Challenges With Online Instruction category emerged from an analysis of perspectives provided by two participants, who were the only two respondents enrolled in online college courses. In response to the interview question, "What did you like least about your college course or courses?", one student responded, "I didn't really like the general inaccessibility to my teacher because I was online." In addition, the student openly elaborated about what they liked least about their online college course by responding:

I did not like the inaccessibility to my teacher. The easiest thing if I had a question is just to ignore it, rather than email my teacher and ask, and then wait for a few days' response because at that point, it just wasn't really worth it, and I forgot I even asked. And just my least favorite part was the inaccessibility, the disconnect basically.

The second participant with online college course instruction also communicated challenges in their online college courses. In responding to the interview question, "How were your college classes different from your middle school classes?", the second student with an online course responded:

Well, for starters, online . . . was very new to me. They felt difficult because they used different platforms, which were harder to understand. The college used something called Blackboard, which it didn't give any instruction on how to use. And so, I didn't know how to use it, so it was very difficult.

For different reasons, both students enrolled in online college courses communicated facing challenges in their online college course. One student discussed the inaccessibility to their college instructor, and the second student spoke about being new to online classes and the difficulty in being able to satisfactorily use the college's Blackboard online platform.

Interestingly, though, neither of the two students who were enrolled in online college courses expressed the college course content was too hard or difficult—they noted only that the online instructional format posed various challenges. For example, in response to the two-part interview question "Do you believe that your college classes were too hard, too easy, or just the right academic challenge for you? Why do you feel that way?", the student enrolled in an online course who identified problems using Blackboard said:

I feel that they weren't hard, however it was hard for me to succeed in them because of the lack of help. I feel that if I had been given help from outside the college and the middle school, I would have succeeded and would have passed my classes, because I understood the material, I just wasn't getting help doing it. Perspectives shared by two of two students enrolled in online college classes offered evidence contributing to the development of the Challenges With Online Instruction category.

The second category comprising Theme 8 was Fragile Content Knowledge In Engineering Technology Class. Only 2 of the 9 participants were enrolled in a technically-oriented engineering technology course, and both respondents communicated they struggled in their single college class. For example, in response to the interview question, "Do you believe that your college classes were too hard, too easy, or just the right academic challenge for you?", one student replied:

Uhm, I feel that it was basically just amount, just right, but a little bit on the harder side. . . . The down side is, I was never the greatest at math and like I said before, most of the class, all of the class was math. So because of that, I didn't

really have the, it was really hard, basically, uh, I still got it. I still got my homework done. Still understood, at least, most of the lesson, but it was a little hard than most of the other students in class cause, I didn't, well I wasn't good in math, basically.

The student's response clearly reflects that the engineering technology college course was a struggle.

Lastly, though not indicative of participants' college readiness perceptions, two respondents expressed frustrations with similar elements related to their registration and entrance into their eighth-grade college dual-enrollment experience comprising the Middle School Administration's Dual Enrollment Registration and Implementation Challenges category. For example, when responding to the interview question, "What were your biggest accomplishments as an eighth-grade, college student?", one student discussed that although they earned an A in their first college class, it was difficult. They replied:

I was really scared at first, that the class would be too hard and that I would have to drop out or something. And, everyone in the middle school was telling me that it would be too hard and that I wouldn't be able to do it. And so, I was kind of nervous to do it.

After asking the student who they were referencing when they said "everyone" in the middle school was telling them that it would be too hard, the student added:

Well, the administration made it really, really hard for me to take the class. When I first mentioned that I wanted to do it, they tried very hard to not let me and they didn't really have a specific reason that I couldn't, they just were just like, every

time we went in to talk to gem about it they would just say, "Oh are you sure you want to do this? The middle school has a very good program and what benefit would you get out of doing this [college] class instead?" And so, it took several months for me to be able to finally take the class.

The student's response conveyed their frustrations with the middle school administration for not appearing supportive of their enrollment in college courses as an eighth-grade student. As a consequence of the perceived lack of support from the middle school's administration, the student acknowledged being "really scared at first that the class would be too hard" based on prior unsupportive statements from middle school administrators.

A second participant also identified middle school administration concerns when responding to the interview question, "What did you like least about your college course or courses?", the second student replied:

My least favorite part was that my middle school, that I was with, was very underprepared to help me in college. There was confusion at the beginning of whether I would be in-person or if I would be online. And, eventually, I ended up online and they didn't give me the resources to be able to focus when I was there at the school [middle school]. . . . They had me in a very loud and busy room with nowhere to focus.

The second student's response reflected their perception that the middle school administration contributed to their challenges as an eighth-grade college student. They cited registration confusion, inadequate support in the online college courses, and a challenging learning environment at the middle school to concentrate during their online college courses.

Both students communicated experiences contributed to the development of the third category, which comprised the eighth theme, Challenges Were Experienced Too.

Chapter Summary

Chapter 4 opened with an introduction, review of the research study's purpose, and identification of the research question. Chapter 4 also included a description of the study's participants; the data collection and data analyses; and the research-based rationale, processes, and procedures. The central focus of Chapter 4 was the presentation of results from the data collected and qualitatively analyzed to address the research question: What are eighth-grade, dually enrolled college students' perceptions of their own college readiness? The chapter reported the study's findings emanating from perspectives expressed by nine participants contributing to the development of 26 categories, in which eight themes emerged describing eighth-grade, dually enrolled college students' perceptions of their college readiness.

In Chapter 4, the demographics of the nine participants who were dually enrolled in college classes as eighth-grade middle school students was presented (see Table 6). Data were collected from each of the nine participants through one-on-one interviews. The first six participant interviews were in-person, face-to-face, in a private location on the college campus. Due to precautions in response to the COVID-19 global pandemic, the final three participant interviews were completed through visual sessions using Cisco Webex technology. Each of the participants appeared comfortable, and were engaged, displaying eye-contact and answering each of the interview questions. There responses culminated into a thick, rich database. Emanating from the qualitative analysis of participants' perceptions of their college readiness as eighth-grade college students was the emergence of eight themes comprised of 26 categories and derived from an analysis of 107 coded responses. Three themes that emerged shared the primary intrapersonal dynamic referenced earlier by Pintrich (2003), motivation or self-directed movement: Possessed Aspiration and Motivation (Theme 1); Demonstrated Ownership of Learning (Theme 5); and Adaptation, Growth and Maturation, and Perseverance (Theme 7). Each of the nine participants offered perspectives describing elements of motivation as key factors contributing to their enrollment into their dual-enrollment experiences, and/or contributing to their persistence in completing their college courses.

Beyond the intrapersonal dynamic was the interpersonal dynamic element contributing to the emergence of two additional themes, Positive Instructor Rapport and Support Meaningful (Theme 4) and Socially Comfortable in Class (Theme 6). The interpersonal relationships described by participants between themselves and college instructors and classmates revealed interpersonal dynamics can influence perceived college readiness and dual enrollment experiences.

Two themes, Appeal of Cognitively Stimulating Environment (Theme 2) and Demonstrated Content Mastery and College Readiness (Theme 3), were connected through participants' cognitive stimulation and demonstrated content knowledge. These two themes were linked by respondents' expressed views of the appeal of the college academic rigor and of their college assignments requiring more critical thinking, analysis, diverse and varied forms of expression, and earned As in their college classes.

Lastly, the Challenges Were Experienced Too theme (Theme 8) emerged as an outlier theme and emanated from an analysis of the responses of four participants who experienced challenges during their dual enrollment eighth-grade college experiences.

The next chapter, Chapter 5, presents a discussion of the research study's results, particularly its eight themes, in relation to the theoretical framework selected for this study, Conley's (2007, 2010) college readiness theory. Chapter 5 concludes with a discussion of the implications of this research study's findings related to policy, practice, and recommendations for future research.

Chapter Five

Discussion

In Chapter 4, this study's data and analyses were presented. Chapter 5 consists of the following elements: (a) a summary of the study, (b) a discussion of the findings, (c) the implications for practice, and (d) a conclusion and recommendations for further research.

Summary of the Study

The practice of high school students earning college credit in the United States is a growing phenomenon as more colleges and high school partnerships provide students with an accelerated pathway to college (Taylor, 2015). This emerging national educational trend, commonly known as dual enrollment, has begun drawing more attention from educators and administrators at the secondary and postsecondary levels. In addition, educational organizations, advocates, and policymakers around the United States have expressed increased interest in promoting dual-enrollment opportunities for high school students, particularly for traditionally underrepresented students (Barnett & Stamm, 2010).

Dual-enrollment programs are collaborative efforts between high schools and colleges in which high school students are permitted to enroll in college courses and, in most cases, earn college credit that is placed on a college transcript (Allen, 2010). Dual enrollment refers to numerous policies and programs that allow high school students to earn college credit prior to high school graduation (An & Taylor, 2019). Dual enrollment is prevalent nationwide, and is widely supported by students, parents, and education policymakers and practitioners (Taylor et al., 2022). Primarily offered as a means for

high school students to earn college credit, few states have established a statewide policy pathway for middle school students—specifically, seventh- and eighth-grade students to have an opportunity to earn college credits through the completion of college classes as well.

Though research has increasingly emerged on the topic of dual enrollment, the overwhelming majority of the literature has focused on (a) the high school level and on high school students with descriptions of dual enrollment (Karp et al., 2007); (b) examinations of enrollment participation trends (Kleiner & Lewis, 2005; Thomas et al., 2013); (c) state policy adoption analysis (Mokher & McLendon, 2009); and (d) purported benefits, including improved academic performance, decreased time for students to earn a college degree, and increased degree completion (Geise, 2011; Swanson, 2008).

In response to the State of Ohio, which expanded dual-enrollment eligibility opportunities to more students by lowering the participation grade level to seventh- and eighth-grade middle school students in Ohio's College Credit Plus program, this qualitative study was designed and employed to explore the college readiness perceptions of students who were enrolled in college classes as eighth graders. The purpose of the study was to fill a dual-enrollment research gap by describing and analyzing perceptions of dually enrolled, eighth-grade college students' college readiness.

Although Ramsey-White (2012) found scant research examining currently dually enrolled high school students' perceptions of their dual enrollment experiences, I found no research on dually enrolled, eighth-grade college students' perceptions of their college readiness. Responding to this research gap, the argument to conduct this empirical investigation was three-fold. First, the literature review in Chapter 2 uncovered there has

been, and is expected to be, a continued increase in dual-enrollment participation by high school students throughout the nation, including Ohio, where this research was conducted. Second, empirical research was needed to help direct implementation efforts and inform policy given the current emphasis on education reform efforts that encourage early entrance to college for middle and high school students (Ramsey-White, 2012). Third, few studies on dual enrollment have relied on students' descriptions of their own experiences, and their voice is an important on to center (Williams, 2015). Therefore, this investigation was carried out to fill a dual-enrollment research gap and provide a voice for individuals not presently heard in the literature, a strong rationale to conduct a study (Creswell, 2007).

The research question for this qualitative study was: What are eighth-grade, dually enrolled college students' perceptions of their own college readiness? For this study, I collected data using one-on-one interviews among participants who were dually enrolled, eighth-grade college students to address the study's research question. Employing a basic qualitative inquiry research method, I used a purposeful sampling strategy to identify nine participants for this study. Each of the nine participants that volunteered to participate in the research study had been dually enrolled in one to three college classes as an eighth-grade student at one public, community college in Ohio.

Conley's (2007, 2010) college readiness theory was employed as the guiding theoretical framework to interpret the findings of the empirical research. Conley's (2007) college readiness model emphasized four main elements of college readiness necessary to increase the probability of college success: key cognitive strategies, content knowledge, academic behaviors, and contextual skills and awareness. Conley's (2010) college

readiness model later emphasized the four "keys" of college readiness: key cognitive strategies; key content knowledge, key learning skills and techniques, and key transition knowledge and skills.

Using Adu's (2019) systematic qualitative data analysis method and individualbased sorting strategy technique to analyze 107 codes, 26 categories were developed. Further analysis of the 26 categories led to the emergence of eight themes, which helped to describe eighth-grade college students' perceptions of their own college readiness. The following sections discuss and explain the findings of the research.

Discussion of the Findings

This qualitative research investigated participants' perceptions of their own college readiness after completing college classes as dually enrolled, eighth-grade college students. Based on the findings of this research, most participants (7 of 9 students) felt they were college ready and possessed and demonstrated the requisite knowledge and skills to complete college classes as eighth graders. Two of the 9 students in this study reported they did not feel college ready to complete college classes as eighth-grade students. In total, eight themes emerged as findings from this qualitative study. The eight themes are depicted in Table 15. The following section includes a discussion of the eight themes and applications of the findings in relation to prior research.

Table 15

	Eigl	ht En	ierging	Themes
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Theme #	Theme name
1	Possessed aspiration and motivation
2	Appeal of cognitively stimulating environment
3	Demonstrated content mastery and college readiness
4	Positive instructor rapport and meaningful support
5	Demonstrated ownership of learning
6	Socially comfortable in college class
7	Adaptation, growth and maturation, and perseverance
8	Challenges were experienced too

Theme 1: Possessed aspiration and motivation. The emergence of Possessed Aspiration and Motivation yielded perspectives communicated from all nine participants responding to an interview question seeking their reasons for enrolling in college classes as eighth-grade students. Each student conveyed an awareness of the importance and benefit of enrolling in college, and thus, appeared to possess key college readiness traits. Not one of the nine respondents indicated they felt pressure from a parent, teacher, school administrator, or classmate to enroll in college classes at such an early grade level. Possessing aspiration and motivation are traits associated with college readiness; postsecondary awareness is a primary element in Conley's (2010) key transitional knowledge and skills college readiness domain. Conley (2010) noted key transition knowledge and skills are necessary to navigate successfully the transition to life beyond high school.

The responses of each of the nine students contributed to the emergence of the Possessed Aspiration and Motivation theme, yet their reasons for enrolling in college classes as eighth graders varied. Three students conveyed sentiments that were analyzed and categorized as wanting more academic challenge. One student replied, "They [the college classes] were harder than the classes I was taking at my middle school, which was important cause those classes were really easy." Seeking more academic challenge was also identified in prior research by Troutman et al. (2018) as a reason some high school students choose to enroll in dual-credit programs. Based on this study's finding, seeking more academic challenge was also one reason eighth-grade middle school students were motivated to enroll in college classes through dual-enrollment programs.

In addition to students being motivated to enroll in college classes in pursuit of a more rigorous academic experience, students also conveyed their reasons to enroll in college classes as eighth graders that were coded, analyzed, and categorized as: (a) ready to earn college credits, (b) ready to experience college early, and (c) ready for better preparation opportunity. Students' responses on their early enrollment into college motivation ranged from enrolling in college classes to earn college credits to reflective forward-thinking reasons, through sentiments categorized as ready for early college matriculation. As evident from one student's response, "I figured out that at the end, I would have my associate's degree, which would help me when I go into college, so I'll be further ahead in my own college studies."

The emergence of the Possessed Aspiration and Motivation theme was based on evidence expressed by all nine participants. The most common reason participants shared—that they wanted more of an academic challenge than they were receiving in middle school—was also consistent with prior research asserted by Noble and Drummond (1992), who found the most common reason for deciding to enter college early is the desire for a stronger academic challenge than one could receive in their previous education institution. Each participant demonstrated possession of

postsecondary awareness, a college readiness element of Conley's (2010) key transition knowledge and skills domain; even as young middle school students, each student also possessed aspiration for more of their academic experience and the requisite motivation necessary to complete the steps to actually enroll in college classes as eighth graders.

Theme 2: Appeal of cognitively stimulating environment. The second theme that emerged from this study was Appeal of Cognitively Stimulating Environment. This theme encompassed perspectives from a majority of students in the study who enjoyed the more rigorous and challenging academic experience and the opportunity to engage in deeper and stimulating learning activities in their college classes. This finding was consistent with traits possessed by college-ready students and aligned with Conley's (2007) key cognitive strategies college readiness domain. According to Conley (2007), key cognitive strategies are patterns of intellectual behavior that lead to the development of cognitive strategies and capabilities necessary for college-level work, which include the following as the most important manifestations of this way of thinking: intellectual openness, inquisitiveness, analysis, reasoning, argumentation, proof, interpretation, precision and accuracy, and problem solving.

The emergence of the Appeal of Cognitively Stimulating Environment theme as a finding emanated from an analysis of the participants' perspectives. For example, in response to the interview question, "What did you like most about your college courses?", one student replied, "My favorite thing was that we went through things a lot faster . . . and we also learned a lot more and we learned about things in more detail than we did in my [middle school] classes." This student's response was representative of the perspectives expressed by six other participants, contributing to the emergence of the

Appeal of Cognitively Stimulating Environment theme. According to Conley (2010), key cognitive strategies is a core college readiness prerequisite. Student responses reflected a preference for an academic environment which fostered intellectual openness, which Conley (2007) asserted is evident when a student possesses curiosity and a thirst for deeper understanding. Furthermore, the preceding student response signaled a genuine interest and preference for reading original documents and liking that not everything they learned came from the textbook, reflective of Conley's (2007) research that college-ready students demonstrate inquisitiveness and analysis skills.

The emergence of the Appeal of Cognitively Stimulating Environment theme finding for this particular study uniquely contrasted with research conducted by Landis (2013) highlighting how the level of cognitive skills used in high school are relatively lower than the higher order thinking skills expected by professors for first-year students. Upon closer examination, however, both findings may not contradict, as Landis' study was based on assessed cognitive skills of 1st-year engineering students and this study's finding reflected students' preference for more cognitive stimulation than they experienced in middle school grades.

Interview question responses from 7 of 9 participants contributed to the Appeal of Cognitively Stimulating Environment theme. This finding, based on students' eighthgrade dual-enrollment experiences, contributed new empirical dual-enrollment research focused at the middle grade level and aligned with previous research that dual enrollment allows high school students to take challenging courses and further motivates them to engage more deeply in their learning (Medvide & Bluestein, 2010; Olszewski-Kubilius, 1995). This study's Appeal of Cognitively Stimulating Environment finding is also

consistent with Conley's (2010) assertion that college readiness requires utilization of key cognitive strategies to be college ready. Though this study focused on investigating participants' college readiness perceptions of their eighth-grade dual enrollment experience, the emergence of the Appeal of Cognitively Stimulating Environment theme was also consistent with prior research that high schools are not able to offer gifted students the kind of academic stimulations they need to thrive intellectually (Rinn & Plucker, 2004). Moreover, dual enrollees tend to enjoy the academic challenge of college courses (Johnson & Brophy, 2006), which further aligns with a common aim of various states' dual- enrollment program policies: to increase the rigor of the high school curriculum (Cowan and Goldhaber, 2015).

Theme 3: Demonstrated content mastery and college readiness. Another theme that emerged from this study was Demonstrated Content Mastery and College Readiness. This third theme appeared to align directly with Conley's (2010) college readiness domain focused on key content knowledge. According to Conley (2012), key content knowledge refers to key foundational content and "big ideas" from core subjects that all students must know well, and an understanding of the structure of knowledge in core subject areas, which enables students to gain insight into and retain what they learn.

The Demonstrated Content Mastery and College Readiness theme finding not only affirmed the majority of students' perceived college readiness, but also offered evidence that most students in the study demonstrated college readiness. As noted in Chapter 4, more than half of the participants, 5 out of 9, earned an A grade in each of their college classes as eighth-grade students. The A grades earned in their college courses are measures demonstrating their college readiness, aligned with Conley's (2012)

college readiness key content knowledge domain. The five respondents earning all As expressed pride when reflecting upon their high academic achievement in their college courses. As an example, one student replied, "I mean, I did good on both the classes . . . 'As,' so that's kind of a victory. In the fall semester, I took inorganic chemistry, and then in the spring semester, I took introduction to organic chemistry and biochemistry."

The emergence of the Demonstrated Content Mastery and College Readiness theme finding appeared to contradict a dual enrollment-focused action research project's finding that students' lack of academic skills is a general type of college transition challenge (Hughes & Edwards, 2012). Hughes and Edwards (2012) found nearly all of their action research participants identified a lack of academic preparation as the primary barrier to student success in college coursework. In this current study of dually enrolled, eighth-grade students, more than half of participants earned all As, signaling mastery of the college coursework content. Furthermore, 7 of 9 respondents explicitly communicated they felt college ready. For instance, students were asked "Overall, how 'prepared' or 'college ready' do you feel you were to be successful in your college course(s)? Please explain," and one student confidently commented, "I felt that I was very ready. I had always been an honors student. I felt very prepared."

Interestingly, one student indicated they somewhat felt college ready, but they became more college ready through the process of completing the college classes. In response to the same inquiry assessing their feeling of being college ready to be successful in their college courses(s), one student explained, "I'm going to do out of 10. I would give around a 7 . . . I have the most basic form of a college class, like with taking notes, staying on top of my schedule."

Though 7 of 9 students responded they felt they were college ready, two students explicitly remarked they did not feel college ready. The two students who shared they did not feel they were college ready were both from the same middle school. The two students were also enrolled in the same college class with each other, along with several other classmates from their middle school who were not participants in this study. Finally, though other participants were enrolled in college classes such as English, history, and science college classes, these two students who said they did not feel college ready were the only study participants enrolled in a college-level engineering technology course. The college course enrollment distinction of the two students in the engineering technology class who both expressed they did not feel college ready appears significant. Both students not feeling college ready conveyed they were enrolled in the engineering technology college course with other middle school classmates as a pilot program between the middle school and the community college. Both respondents communicated they struggled in their college class; for example, in response to the interview question, "Do you believe that your college classes were too hard, too easy, or just the right academic challenge for you?", one student replied:

I feel that it was basically . . . just right, but a little bit on the harder side . . . the down side is, I was never the greatest at math and like I said before, most of the class, all of the class was math . . . it was really hard.

The student's response, representative of both students, clearly reflected that the engineering technology class was a struggle for them. Furthermore, when asked about whether or not this student felt college ready to be successful in the college class, the student responded, "I say I was like, it was if it was out of 10, I was like a 5 prepared."

The two students in the study who did not feel college ready acknowledged putting forth effort to successfully complete the course, but both indicated they lacked sufficient foundational content knowledge in the engineering technology discipline , which consisted of math principles, to perform well in their college class. This finding supported Conley's (2007) theory arguing that for students to be college ready, the key content knowledge domain must be met. In this case, evidence suggested the two students had fragile content knowledge in math and engineering technology. Though both students continued to work to understand the college course content and eventually passed the course with support from the instructor, neither felt college ready. The remaining seven students expressed they felt college ready.

One possible explanation for the difference between seven students reporting feeling college ready, but the other two students self-reporting they did not feel college ready, may have to do with the specific college courses in which students were enrolled. Again, only two students in this study were enrolled in the engineering technology course, but the other students were enrolled in English, history, science, and creative arts classes. It extended beyond the scope of this particular study to examine the method of college course selection of dually enrolled students, but the impact of this particular aspect of dually enrolled students is addressed in the Implications for Practice section of this chapter.

Theme 4: Positive instructor rapport and meaningful support. Another theme that emerged from this study, Positive Instructor Rapport and Meaningful Support, focused on students' assessed comfort level of interacting with their college instructors. Nearly all students in the study, 8 of 9, expressed they were or became comfortable

speaking with their college instructors and/or liked their college instructors. For instance, in response to an interview question asking about the most appealing aspect of the college courses, one student commented about how they liked the rigor and depth of the college class and enthusiastically noted, "And I also really liked my teacher. I liked both of the teachers that I had." This theme's finding was consistent with research from Strayhorn (2014a) that college ready students have contextual skills and knowledge that some might call sociocultural capital, enabling them to recognize the norms of college culture and how to interact with faculty, staff, and peers whose backgrounds may differ from one's culture of origin.

Associated with students conveying they had a positive rapport with instructors, students also indicated they felt instructor support was meaningful. For example, one student responded, "And the teachers, they always offered help to anybody that needed it. So, I felt like if I did have a problem with anything I could ask them about it." The majority of students in this investigation coupled their feeling of comfort in speaking with their college instructors with feeling that instructor support was meaningful. This theme was also consistent with Conley's (2010) key transition knowledge and skills college readiness theory domain. According to Conley (2007), success in college is enhanced for students who possess interpersonal and social skills that enable them to interact with a diverse cross-section of academicians and peers.

Theme 5: Demonstrated ownership of learning. Of particular interest in this study was learning what students did to help them pass their college classes and their approaches to solving difficult class assignments. Student responses to these questions formed the basis of the Demonstrated Ownership of Learning theme. Students indicated

using noncognitive skills as strategies they employed to persist through the completion of their college classes, which students found essential during their enrollment in their college classes.

The noncognitive skills students identified they used to help them pass the college classes are situated in what Conley (2007) described as college readiness skills in the key learning skills and techniques domain, such as academic behaviors which encompass specific actions or beliefs that learners use to excel in academic settings. These noncognitive skills range from attending class regularly to self-awareness, from study skills to time management, and even more recently "grit" or the ability to persevere with passion toward achieving one's short- and long-term goals (Strayhorn, 2014b). For example, when students were asked what are some things they did to help them pass their college classes, one student responded, "Basically, studying or just doing research . . . they kind of told you, okay, you need to study this, you need to study that. It was pretty straight-forward." The student's response identified the application of study skills, research practices, and active listening techniques enabling their success as a dually enrolled, eighth-grade student in college.

Implementing time management skills and organizational practices was also noted by participants as essential to success in their college classes. Each nonacademic behavioral practice was situated in Conley's (2007) key learning skills and techniques domain. However, based on research focused on high school students (Lane et al., 2020), self-management (e.g. time management) and study skills are areas with which many high school students have limited experience prior to attending a higher education institution. Lane et al.'s (2020) research was consistent with one participant's response

indicating that developing effective use of nonacademic skills was a process which took some time before effectively being employed. The student remarked:

The second class I definitely stayed more organized than in my first class, which made everything a lot easier. And, I think, overall, even with my middle school classes, the college classes helped me stay more organized and keep better track of time.

The student's response discussed the benefit of being more organized in the second college class, which was taken in the second semester of the eighth-grade school year, and acknowledged being able to better manage time, which was also applicable to their middle school environment.

The Demonstrated Ownership of Learning finding theme was rooted in participants' deployment of noncognitive behaviors and skills while enrolled in college classes as eighth-grade students. This finding supported prior research by Ramsey-White (2012), who collected data from college students completing their 1st years of postsecondary enrollment after they had graduated from high school having completed college courses as ECHS students. Ramsey-White (2012) found that their perceived benefits from their ECHS experience included increased confidence and more effective time management skills. This finding was also consistent with prior research from Strayhorn (2014a), that the use of academic behaviors (e.g., time management, note taking, and study skills) have been consistently associated with high performance in college.

Theme 6: Socially comfortable in college class. The comfort level students experienced interacting with college instructors, as referenced earlier, was similar to the

comfort level 7 of 9 students stated they experienced while interacting with their college class peers. This trend contributed to the emergence of the sixth theme, Socially Comfortable in College Class. This finding was also situated in Conley's (2007) college readiness theoretical framework key transition knowledge and skills. Success in college is enhanced for students whose skills include the ability to collaborate and work in a team, understanding the norms of the academic culture, and how one interacts with professors and others in that environment.

The reasons why participants stated they felt comfortable interacting with their college classmates varied. Two students believed their comfort level was associated with the fact that they had an older sibling in college. For example, when asked "How comfortable are you speaking with your college classmates?", one student replied:

Okay, I was actually very comfortable talking with my classmates. Although they were older than me, a lot of them were young still, and my [older] brother actually went to the same class as me. We were in class together, so very comfortable with them.

Meanwhile, three students responded they were very comfortable speaking with their college classmates and acknowledged their college classmates were mostly the same age as the participants themselves because they were enrolled in a dual-enrollment model, enabling middle school and high school students to take college classes with their middle and high school peers. One student's response was, "I mean most of them, most of the college classmates were from my school. I felt pretty comfortable with them. Chatting on, ask for assistance. Them asking me for help. Us getting homework done." Regardless of the age of their college classmates, the Socially Comfortable in College

Class theme that emanated from this study is consistent with previous research that academic peer interactions, such as discussing course content with other students, study groups, and tutoring other students, tend to promote learning (Kuh et al., 2007).

A notable aspect related to this particular finding was the speed at which students expressed becoming comfortable with their college classmates was not the same. Two participants who were enrolled in college classes with traditional-age college students indicated they became comfortable speaking with their college classmates more gradually, over a period time. For instance, in response to the interview question probing comfort-level speaking with college classmates, one student replied, "With the first class I took, I didn't really talk to my classmates that much, and in my second class, I got to know people more." This student's delayed comfort level interacting with college classmates may have been because other students in the college class were older, as most were traditional age college students. This particular student's response of getting to know more classmates in the second college class reflected the student's ability to adjust and adapt to the new collegiate environment, which was also a college readiness trait that Conley (2012) situated in the key transition knowledge and skills domain. Specifically, it is key to possess a postsecondary awareness and better understand the norms, thereby becoming more comfortable and sociable in the college class culture.

Interestingly, the two students who became comfortable speaking with their college classmates both earned all As in their college classes. The single participant that did not feel comfortable speaking with their college classmates at any time also earned an A grade in their college courses. Thus, it appears their academic achievement in college

was not hindered by minimal or emerging comfort-level related to their classmate interaction.

The Socially Comfortable in College Class theme also encompassed student views describing the appeal of the broader college social environment. Students expressed they enjoyed seeing and interacting with new people. For instance, in response to the interview question "What did you like most about your college course or courses?", and then, "What did you like least about your college course(s)?", one student replied, "I liked the environment of the college courses . . . I did enjoy, like more mature people mostly. And then, I don't even know if I have a least favorite thing . . . there wasn't really anything that I disliked."

Apart from the one participant who was enrolled in an independent-study course, all of the participants, with one exception, expressed they were or became comfortable speaking or interacting with their college classmates.

Theme 7: Adaptation, growth and maturation, and perseverance. An overarching theme that emerged during the analysis of this qualitative investigation focused on examining students' college readiness perceptions and how they dealt with the college class experience as eighth-grade middle school students was Adaptation, Growth and Maturation, and Perseverance. The emergence of this finding illuminates students' demonstrated ability to adapt to and grow from their new college class environment and experience. For instance, in response to the interview question "What were your biggest challenges as an eighth-grade college student?", the single homeschooled student replied:

I thought I wouldn't really be able to talk to anybody, or I'd be really nervous. That wasn't so bad . . . that wasn't really much of a challenge. That was fine. I thought it would be a challenge, it turned out to be pretty good.

The homeschooled student's response and experience was representative of perspectives shared by several students when discussing and responding to perceived dual enrollment challenges.

The concepts of growth and maturation were also discussed by participants when responding to interview questions related to their college experience and college readiness perceptions. Students described their college classes as more mature environments and expressed an appreciation for the more mature environment compared to their middle school experience. In addition, students appeared aware that the dual enrollment experience as an eighth-grade student helped them be more responsible and matured them in the process as well. For instance, after responding that earning A grades in both college classes was their biggest accomplishment as an eighth-grade college student, one student immediately added:

I feel like it definitely helped me be more responsible with the due dates, because, like, the classes I have at my normal school, it was like they were way more lenient with, like deadlines. And, like having more strict guidelines definitely helped keep my grades up.

As a second example, related to the maturation affect, one student offered the following response when describing their eighth-grade college experience:

It was pretty interesting just to see how I grew up from a little kid who really didn't want to do no college class. . . . And then, my horizons were broadened, in terms of knowing different things, different skills sets I could build upon.

This student's introspective response acknowledged growth and maturation that occurred during the eighth-grade dual-enrollment experience.

Another noncognitive factor demonstrated by participants that emerged from this study was perseverance. Kern et al. (2016) defined *perseverance* as the capacity to carry out plans and goals to completion, or in layman's terms, being a "hard worker" (p. 31). Even though the eighth-grade college students in this study were experiencing a new academic setting and more challenging experience, each appeared to demonstrate a level of academic perseverance, in which Farrington et al. (2012) referred to exhibiting qualities such as tenacity, delayed gratification, self-discipline, and self-control.

For example, after communicating that the engineering foundation and applied math course was too hard, one of two participants who reported they did not feel college ready added, "that still didn't deter me from trying my hardest." Even though the engineering foundation and applied math class was perceived to be too hard, this student expressed determination to complete the college course. This academic perseverance also enabled participants to earn A grades. For instance, a student that earned an A grade in two college classes identified working on college essays was a challenge because they had not yet learned the skill in a high school English class. The student commented, "I had to figure that out myself." The emergence of perseverance as a notable finding in this study of college readiness perceptions is supported by prior research by Wolters and

Hussain (2015) who found perseverance to be a stronger predictor of college grades than high school grade point average or standardized college entrance exams.

The Adaptation, Growth and Maturation, and Perseverance theme finding in this study is consistent with research by Farrington et al. (2012) that college and career readiness means that youth need to demonstrate both academic and noncognitive skills or soft skills such as communication, adaptability, problem solving, and persistence. Furthermore, the finding is also supported by Conley's (2010) college readiness theory, specifically as it relates to Conley's key learning skills and techniques and key transition knowledge and skills domains.

Theme 8: Challenges were experienced too. The eighth and final theme that emerged from this study was Challenges Were Experienced Too. Though the sentiments of this theme were not conveyed by all or even half of the students, the experiences were expressed by a few students and is therefore being reported. The first challenge described by two students was categorized as challenges with online instruction. This finding is notable as the growth in online course-taking at community colleges has risen in the midst of growing internet connectivity and technological sophistication (Huntington-Klein et al., 2017). Nearly all public community colleges now offer online courses (Allen & Seaman, 2015).

Enrolled in an online independent-study college class, one student described a challenge as not being able to establish desired contact with the college instructor. The second student facing online instruction challenges described their challenge as not receiving adequate training on how to use the college's online platform, causing difficulties early on in the class which could not be overcome. This finding among
eighth-grade, dually enrolled college students is consistent with prior research associated with traditional age college students that online instruction presents some barriers to student success, including access to instructor feedback and technical problems with online learning tools (Berge & Cho, 2002; McManus et al., 2018; Muilenburg & Berge, 2005; Regmi & Jones, 2020). Interestingly, only 2 of the 9 participants had online college classes, and both students described negative experiences in their online college courses.

Secondly, though not indicative of participants' college readiness perceptions, two respondents expressed frustrations with similar elements related to their registration and enrollment into their eighth-grade college dual enrollment experience comprising the Middle School Administration's Dual Enrollment Registration and Implementation Challenges category. For example, when responding to the interview question "What were your biggest accomplishments as an eighth-grade, college student?", one student reflected that although they earned an A in their first college class, they added:

I was really scared at first, that the class would be too hard and that I would have to drop out or something. And, everyone in the middle school was telling me that it would be too hard and that I wouldn't be able to do it. And so, I was kind of nervous to do it.

After asking the student who they were referring to when saying "everyone in the middle school was expressing that it would be too hard," the student said:

Well, the administration made it really, really hard for me to take the class. When I first mentioned that I wanted to do it, they tried very hard to not let me and they didn't really have a specific reason that I couldn't, they just were just like, every time we went in to talk to them about it they would just say, "Oh are you sure you want to do this? The middle school has a very good program and what benefit would you get out of doing this [college] class instead? And so, it took several months for me to be able to finally take the class.

This student conveyed frustrations with the middle school administration when seeking to enroll in the dual enrollment program as an eighth grader. The student explained that the middle school administration was not supportive of their aspiration to enroll in college courses as an eighth-grade student, and as a consequence of the perceived lack of support from the middle school's administration, the student acknowledged being "really scared at first, that the class would be too hard," based on prior unsupportive statements from middle school administrators.

A second participant also identified middle school administration concerns. When responding to the interview question, "What did you like least about your college course or courses?", the student replied:

My least favorite part was that my middle school, that I was with, was very underprepared to help me in college. There was confusion at the beginning of whether I would be in-person or if I would be online. And, eventually, I ended up online and they didn't give me the resources to be able to focus when I was there at the school [middle school]... They had me in a very loud and busy room with nowhere to focus.

The student's response reflected their perception that the middle school administration contributed to student's challenges as an eighth-grade college student citing registration confusion, inadequate support in the online college courses, and a challenging learning

environment at the middle school to be able to concentrate during her online college courses.

The sentiments of both students suggest that even before dual enrollment college classes began, a dually enrolled student's college class experience could be adversely impacted by the program enrollment and registration process, which highlights that a school's administration may impact dually enrolled students' perceived college readiness.

Limitations

As with any research, there are limitations to the qualitative methodology that was used. There were only nine participants, which limited the amount of data provided and its transferability. However, the number of participants in this research exceeds the suggested minimum number for phenomenological studies (Polkinghorne, 1989). It is recommended that future studies involve more participants. Also, due to the impact of the COVID-19 global pandemic and subsequent restrictions related to having face-to-face contact with subjects, not all participants were conducted in-person. Six interviews were in-person and three interviews occurred through a webcam virtual platform. The use of a semistructured interview protocol enhanced data collection consistency.

Furthermore, related to limitations of the study, data were collected from participants that were dually enrolled, eighth-grade college students from only one public community college in Ohio. Though the nine students attended their college classes on different campuses throughout the multicampus community college, findings from this study are not generalizable to all 2- and 4-year, public and private colleges and universities, as middle school grade students attending other colleges may have different college readiness perception perspectives based on varied experiences.

Implications for Policy and Practice

As noted earlier in the literature, pressures have mounted to raise K-12 academic standards and move more students into and through college; consequently, high schools have provided a growing array of programs that offer college-level content (Klopfenstein & Lively, 2012). Based on the findings of this empirical research focused on a relatively new segment of the dual enrollment student population, middle school eighth-grade students enrolled in college classes, this empirical research appears to have policy implications for state policy-makers and practice implications for various agents in the higher education system. Such agents include college and university administrators and faculty, and K–12 teachers and administrators, particularly at the middle school and high school level related to dual enrollment and college readiness preparation for middle and high school students. First, related to policymakers, it seems Ohio's College Credit Plus program features a robust, comprehensive reporting system that features data collection and reporting on participation and performance of dual enrollment participants throughout the state. Jointly, the Ohio Department of Higher Education and Ohio Department of Education produce and distributes Annual Reports for College Credit Plus, which provides detailed participation and performance data on aggregate student enrollment by grade, gender, race/ethnicity, socioeconomic status, matriculation to postsecondary after high school graduation, and more. The robust College Credit Plus Annual Report also provides participation and performance data related to college and university performance. However, findings from this study offer evidence to education policymakers interested in better preparing K-12 students for postsecondary success that noncognitive skill acquisition is critical to success in school and at the college level.

Thus, just as education policymakers prioritize the teaching of academic standards for disciplines such as English, reading, math, and science, there appears to be a need for education policymakers to prioritize the development and teaching deployment focused on noncognitive skill acquisition for K–12 students. Though this study focused on eighth graders, the implementation of noncognitive skill acquisition learning standards should begin as early as possible so students can benefit from learning the standards at the earliest of grades, positioning them to become stronger students throughout their education pipeline.

The findings from this study also have practice implications. First, for higher education administrators, based on the findings of this study and driven by middle school students' aspiration and motivation and a desire for more rigor in the middle school experience, there appears to be a demand for and an opportunity to increase college and university enrollment through offering dual enrollment to high school students and middle school students as well. Thomas et al. (2013) examined increasing enrollment participation trends among high school students nationwide. This study's examination of students that began their college class enrollment as eighth graders while in middle school offers empirical evidence that dual enrollment has appeal for a segment of students even prior to their high school enrollment. The Possessed Aspiration and Motivation theme finding offers a possible solution to higher education officials and K-12 policy to address postsecondary education issues such as a decrease in college enrollment, an increase in tuition costs, a need for enrollment of a more diverse student population, and undergraduate students enrolled 5 or more years to earn a college degree (Karp et al., 2007; Smith, 2007). Though most dual enrollment participants begin at the

high school level, the Possessed Aspiration and Motivation finding from this study affirms Noble and Drummond's (1992) assertion that radical educational acceleration into college may be the best option for those middle and junior high school students who need and want more from their education than is typically available in a public or private high school program.

Secondly, this study has practice implications for college faculty. In light of an increasing number of high school students enrolling in college classes through dual enrollment, Ferguson et al. (2015) reported some college faculty members' expressed concerns of teaching younger students. Specifically, Ferguson et al. (2015) noted faculty members worried that high school students, even when academically prepared, will lack the socio-emotional maturity that is required in a college classroom. However, this study found there are middle school students even younger than high school students who preferred the more mature collegiate classroom environment and fared quite well academically, enabling 5 of the 9 eighth-grade college students participating in this study to earn A grades in their college classes. Thus, this finding offers evidence that a higher education institution's mature classroom environment and academic rigor-level can be maintained and met by dually enrolled students, as early as the eighth grade. However, related to a third practice implication, though most students in this particular study demonstrated content mastery by earning A grades, another finding in this research is that attention by higher education administrators is needed to ensure that dual enrollment students are registering in college courses appropriate for their prior knowledge and aptitude to alleviate instances where students are placed in classes unprepared; in this study, the only two students who were enrolled in the engineering technology college

class explicitly stated they struggled to pass the class and did not feel college ready. Higher education administrators may need to establish a preregistration assessment to gauge students' knowledge in a particular technical discipline, like engineering technology, even as a pilot program, prior to dually enrolled students being placed into the college course.

A fourth practice implication based on the results of this empirical research is the need for intentional and regular communication between higher education administrators responsible for managing dual-enrollment programming and the school administrators, school counselors, parents, and guardians of prospective students interested in enrolling in college classes through dual enrollment and the prospective students themselves. Enhanced communication between the referenced stakeholder groups should improve the enrollment and registration process for new students by enabling each audience to become more knowledgeable about dual-enrollment programming, its processes and procedures, and associated benefits and risks. Another benefit of improved communication between these parties is an opportunity for relationship building, particularly for higher education administrators and middle and high school administrators and counselors, which may result in improved understanding about dual enrollment and an improved registration and enrollment process experience for new dual enrollment entrants.

Finally, as a fifth practice implication, particularly for middle school administrators, counselors, and teachers, this study illuminated the benefit of middle school students developing noncognitive skills. Helping students develop and apply effective noncognitive skills such as time management, the ability to get and stay

organized, active listening skills, study skills, and more were deemed helpful to students in this study to be successful at the college-level. This finding is consistent with prior research from Ramsey-White (2012) on 1st-year college students graduating from an early college high school (ECHS) dual-enrollment model, who reported benefits from their early college experience as first year full-time college students. Benefits included increased confidence, more time management skills, and a developed appreciation and ability to benefit from meaningful relationships and social networks.

The practice implications offered by this study provide empirical research to higher education administrators and faculty that are interested in expanded prospective college student pipelines positioned to increase college enrollment, cautionary evidence related to assessing skill-level of prospective dual enrollment students for appropriate course placement, and affirmation for faculty that there are middle school students who seek and academically thrive in mature, academic college classroom environments. The study also offers evidence for middle school and high school administrators and teachers of the benefit for middle school students to learn, develop, and apply noncognitive skills which can help students be more successful in middle school, high school, and college. Finally, although the comprehensive structure of Ohio's College Credit Plus program features guidelines to help inform prospective students and their parents about dualenrollment opportunities, this research highlighted challenges associated with gaps in communication between higher education administrators, middle school administrators, counselors, and prospective students and their parents regarding dual-enrollment application, registration, and enrollment processes. This research also emphasized the benefit of establishing intentional and effective communication systems between all

parties to enable improved onboarding experiences for new dual-enrollment students and, perhaps, improved outcomes.

Recommendations for Future Research

Future research is warranted based on the findings of this exploratory study. Though most of the students in this study perceived and demonstrated they were collegeready, evidenced by earning As on end-of-college course grades as eighth graders, future studies could examine more middle school students' college readiness perceptions while also comparing student participants' readiness based on the different types of participating feeder schools where the eighth-grade students attend, which could provide useful research to inform middle school and high school-based college readiness programming. Future research could also include analyzing student responses based on their individual college courses taken, such as English, math, and science. These types of proposed future research may be useful, as Hughes and Edwards (2012) action research project findings noted two general types of college transition challenges: students' lack of academic skills and the issue of students' affective adjustment to the college environment. The earlier in the K-12 school pipeline issues of college readiness are addressed, the more students should receive support to address academic and noncognitive skill development.

In addition, based on steady nationwide increases in dual enrollment participation, related to higher education institutions' readiness to teach younger students, future research is recommended to examine how college instructors are prepared to work with dual enrollment students. The research could possibly examine college instructors' graduate school training and/or the professional development they receive from their

employing higher education institutions. This is similar to recommendations from Brookover et al. (2021) related to future research associated with high school counselors, teachers, and administrators in their work preparing first-generation students to be college ready.

In states that enact dual-enrollment policies enabling students to begin enrolling in college courses during their middle school grade years, future research is recommended to assess what are the high school and college outcomes and what are the risks and benefits of participating students having an opportunity to be dually enrolled college students for 5–6 years, prior to high school graduation. Are students more successful in high school because they were in college in middle school? Related to possible risks, is there a possibility that students who begin college classes in middle school will be "burned-out" from college even before they graduate from high school? For consideration, it is also suggested that future research on dual enrollment among middle school students be grounded in the existing research of adolescent cognition and developmental readiness. Finally, related to the increasing number of students enrolling in college classes prior to high school graduation, it may be beneficial for future research to examine topics related to the financial savings afforded to students and their families as a result of students enrolling in college classes through dual-enrollment programs. Based on the relative newness of the opportunity for seventh- and eighth-grade students to attend college classes, recommendations or opportunities for future research related to the growing dual-enrollment phenomenon appears vast.

Conclusion and Contributions

The number of high school students taking community college courses has grown dramatically since the early 2000s. Students and their families have seized the potential of dual enrollment to give students a jump-start on college and save money by finishing college faster (Fink et al., 2017). During the 2010–2011 school year, 82% of high schools reported their students were enrolled in dual-credit courses, and high schools reported approximately 2 million enrollments in dual-credit courses, though course enrollments may include duplicated counts of students (Marken et al., 2013). Recently, a few states have established policies enabling middle school students, seventh and eighth graders, to also enroll in college classes. Thus, dual-enrollment programs can now involve middle school and high school students enrolled in college classes, which traditionally were only accessed by high school graduates.

Considering the growing popularity of dual enrollment, as evidenced by increasing student participation, colleges offering dual enrollment to a broader range of students (Loveland, 2017; Zinth & Taylor, 2019), and more states creating policies to allow middle-school students to enroll in college classes through dual enrollment programs—this particular study provided a unique contribution to dual-enrollment research through its focused investigation of college readiness perceptions of students who were enrolled in college classes at one Ohio public community college as eighth graders.

Why investigate dual-enrollment students' college readiness perceptions? College readiness is a critical topic and matter impacting the higher education and K–12 education sectors, their educators and administrators, and the students in both education

systems. As noted by Adelman (2006), understanding the link between secondary education preparation and success in postsecondary education requires communication and outreach between postsecondary educational institutions and high schools. Middle school students, teachers, and administrators should be included in understanding the link between education preparation and success in college. As noted by Williams (2015), too few studies on dual enrollment rely on students' descriptions of their own experiences, and their voice is an important one to bring forth. Moreover, Taylor et. al. (2022) identified deepening qualitative research on the dual-enrollment student experience as a priority for advancing equitable dual-enrollment policy and practice. The results of this research appeared to support Conley's (2007, 2010) college readiness theory, which emphasized that students who are college ready possess the four "keys" of college readiness: key cognitive strategies, key content knowledge, key learning skills and techniques, and key transition knowledge and skills. As a discovery, the results of this study also appeared to affirm and extend Conley's (2007, 2010) college readiness theory based on students' self-reported perceptions of college readiness and increased confidence based on their successful eighth-grade dual-enrollment college experiences, which were enabled by the requisite skills students already possessed and further developed throughout their dual-enrollment experiences. Presenting a new avenue of research, this qualitative study contributes to dual-enrollment scholarship by bringing forth the authentic voices and self-perceptions of dual-enrollment students on how prepared and college ready they felt to succeed in college classes as eighth-grade students.

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Appendix A

Interview Guide

Interview Questions: Perceptions of Dually Enrolled, Eighth Grade, College Students'

College Readiness: A Qualitative Study

- 1. What was the reason (or reasons) you chose to enroll in college classes?
- 2. What did you like most about your college course(s)? What did you like least about your college course(s)?
- 3. What were your biggest accomplishments as an eighth-grade college student?
- 4. What were your biggest challenges as an eighth-grade college student?
- 5. How were your college classes different from your middle school classes? Did your college classes feel different from your middle school classes?
- 6. Do you believe that your college classes were too hard, too easy, or just the right academic challenge for you? Why do you feel that way?
- 7. How did you solve hard or difficult college class assignments? How did you feel working to solve difficult college class assignments?
- 8. What are some things that you did to help you pass your college classes?
- 9. How comfortable were you speaking with your college classmates? How did you feel speaking with your college classmates? How comfortable were you speaking with your college instructor(s)? How did you feel speaking with your college instructor(s)?
- 10. Overall, how would you describe your experience as an eighth-grade college student?
- 11. Overall, how "prepared" or "college ready" do you feel you were to be successful in your college course(s)? Please explain.

Thank you very much.