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EXAMINING THE INFLUENCE OF SOCIAL CAPITAL ON EARLY COLLEGE
AND DUAL CREDIT TRADITIONAL HIGH SCHOOL UNDERREPRESENTED
STUDENTS ENROLLED IN COLLEGE COURSES

by

Selene Verhofstad, M.Ed.

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Dedication

For my parents, Javier and San Juanita Reyes, who sacrificed many times to help me achieve my best at all times.

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ABSTRACT

EXAMINING THE INFLUENCE OF SOCIAL CAPITAL ON EARLY COLLEGE AND DUAL CREDIT TRADITIONAL HIGH SCHOOL UNDERREPRESENTED STUDENTS ENROLLED IN COLLEGE COURSES

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University of Houston-Clear Lake, 2021

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There have been multiple studies discussing the success and perceptions of students in early colleges and dual credit, showing their views on how ECHS or dual credit has helped them in college readiness. Despite the success of these programs, various factors impact student success, such as early colleges struggling to adapt to the high rigor and expectations of college courses. Dual credit traditional high school underrepresented students are also faced with drawbacks such as issues with their credits and grades. This study examined the influence of social capital on early college and dual credit traditional high school underrepresented students enrolled in college courses. The purpose of this study is to examine the social capital of early college and dual credit traditional high school underrepresented students and their perceptions regarding college readiness and their high school experiences. This study examined student perceptions in the areas of attitude towards college, academic achievement, teacher expectations and interactions,

college preparation, school wide support, guidance and counseling, and parent engagement. Data were collected from a purposeful sample of seniors in early college and dual credit across five high schools. 154 students across five high schools responded to the survey and complete the open-ended questions. Of the 154 students, 20 completed interviews, which consisted of 10 early college and 10 dual credit students. The results of the study showed that there was a statistically significant difference between both early college and dual credit students in the areas of school wide support, teacher expectations and interactions, and guidance and counseling. The interview revealed differences between early college and dual credit students in support from AVID classes.

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CHAPTER I: INTRODUCTION

The tuition prices for public four-year universities per year have increased from \$7,560 in the 2008-2009 academic year to \$10,130 in the 2016-2017 academic year (The College Board, 2018). There has been a decline in students completing their college degrees because of tuition costs and low college preparedness (Saenz & Combs, 2015). Lack of social capital, such as their networks with parents, teachers, college program staff, could deter students from pursuing post-secondary education (Crawley, Cheuk, Mansoor, Perez & Park, 2019). Social capital is defined as the relationships that exist among people that facilitate productive activity for students. It is the intangible resources and self-advocacy skills, such as college knowledge and emotional support that are made available through interpersonal relationships or social institutions (Coleman, 1988; Altshuler & Schmautz, 2006). It is imperative to know whether high schools are adequately preparing students for completing their high school requirements and post-secondary education. This study examines the influences of social capital on early college and dual credit tradition high school underrepresented students enrolled in college courses. Additionally, this chapter describes the research problem, the significance of the study, the research purpose with questions, and definitions of key terms.

Research Problem

According to Santelises (2017), 47% of U.S. high school graduates do not complete a college-related course or study. High schools are focusing too much on the attainment of credits rather than mastery of the material. So, while it might seem that students are college-ready due to the number of credits obtained, colleges report that many students must take remedial courses. The state of Texas has identified the importance of students being college and career ready through the development and

implementation of the College and Career Readiness Standards (CCRS) (Texas Higher Education Coordinating Board, 2015). The Coordinating Board has also included their “60 by 30 Tex” plan to include four broad higher education goals. The overarching goal of the Coordinating Board by 2030 is to have a least 60% of Texans between the ages of 25-35 hold a certificate or degree to support the state's economic future. The goals set by the state require student completion of those degrees with marketable skills and with manageable debt or no debt. It is important to note how we can help underrepresented communities, such as African Americans and Hispanic Americans, to increase equitable opportunities. K-12 initiatives such as collaborations with higher education, college and career readiness standards, teacher preparation, and professional development could help achieve those goals, but some challenges arise for underrepresented students.

Underrepresented students, such as Hispanic, African American, and Asian/Pacific Islanders, are increasing in college enrollment in degree-granting postsecondary institutions. Hispanic student enrollment has grown from 4% to 19% from 1976 to 2017, while Asian/Pacific Islander students are growing from 2% to 7%, along with Black student enrollment increases from 10% to 14% (U.S. Department of Education, 2019). Despite their increasing presence in college, approximately 18% of African Americans and 10% of Hispanics complete their four-year college degree by the time they are 29, compared to 34% of White students (Hoffman, 2003). For this study, groups underrepresented in postsecondary education are first-generation college students, racial minority, students of color, and those whose first language is not English, along with low socio-economic status (SES) students (Contreras, 2011; Hoffman, 2003).

The modern economy continues to grow with the demand for highly skilled workers, with significant job growths going to people who have gone beyond high school education (Carnevale, Jayasundera, & Gulish, 2016). Opportunities in science,

technology, engineering, and mathematics (STEM) fields are also expected to grow by 12.5% between 2012 and 2022. The growth is projected to be higher than in non-STEM fields (Carpi et al., 2017). From 2000 to 2009, Asian/Pacific Islander, Hispanic, and Black communities have had the lowest distribution of STEM workers from 5% to 14%, while their white, non-Hispanic counterparts have had 72% to 78% (Beede et al., 2011). In terms of college completion for underrepresented students, over 50% fail to complete their degree where they first began, with first-generation college students being twice as likely to leave that same institution before their second year (Hoffman, 2003). Underrepresented populations only hold a small percentage of the STEM workforce, where a small percentage of associate and bachelor's degrees are awarded each year. The low level of matriculating students introduces the problem of equity facing the U.S. educational systems in retention in the STEM fields and college in general.

Programs and models such as dual credit enrollment and early college high schools have been designed to help underrepresented students. Students are eager and motivated to join such programs because they have the chance to save money, prove that they can do college level work, along with accelerating their career trajectory (Hoffman, 2003). The Early College High School (ECHS) Blueprint in Texas follows a set of requirements for the program, including targeting the enrollment of underrepresented students to be given the opportunity to earn an associate degree while enrolled in high school (Heinrich, 2018). There are variations in early college high schools across the nation, with some early colleges having completely free tuition to students taking college courses. In contrast, others need to pay for a portion of their college tuition at a two-year institution (Saenz & Combs, 2015). The success of ECHS is evident, showing 90% of students in early college graduate from high school compared with 78% of the national average (Webb & Gerwin, 2014). There is also more substantial college completion and

persistence from early college students as they go on to earn a degree within their first two years as opposed to their counterparts who did not attend early college (Berger, Turk-Bicakci, Garet, & Knudson, 2014). Dual credit enrollment for traditional high school students differs from ECHS in that students usually do not take college courses until their junior or senior year of high school, along with their high school courses. Dual credit programs have also changed to target and help underrepresented students since it previously only targeted students in high-level courses (Cowan & Goldhaber, 2015). Dual credit courses aim to increase the rigor of the high school curriculum, reduce college costs, increase college-going exposure, and come with independence, freedom, and learning of hidden curriculum (Cowan & Goldhaber, 2015; Kanny, 2015).

There have been multiple studies discussing the success and perceptions of students in early colleges and dual credit, showing their views on how ECHS or dual credit has helped them in college readiness (Ari, Fisher-Ari, Killackey, & Angel, 2017; Edmunds et al., 2010; Saenz & Combs, 2015; Schaefer & Rivera, 2016; Thompson & Ongaga, 2011). Despite the success of these programs, various factors impact student success, such as early colleges struggling to adapt to the high rigor and expectations of college courses, as well as students lacking the knowledge to know where to ask for help in their academic work, and lack of parental support (Alaie, 2011; Berger, Adelman & Cole, 2010). While many students are eager to take on the rigors of early college, there are still many who enrolled in the program and received some college credit but did not fulfill their requirements to earn a college degree (Kaniuka & Vickers, 2010). Dual credit traditional high school underrepresented students are also faced with drawbacks such as issues with their credits and grades. For example, they may do worse in college courses than they would have in their high school counterparts, negative interactions with others in the community college, and limited support systems (Kanny, 2015). There is also

uncertainty on the effectiveness of some dual credit programs in terms of post-secondary readiness; it was found that dual credit students were no more likely to attend college full-time than their counterparts and less likely to attend a four-year college (Cowan & Goldhaber, 2015). It is evident from both programs that there are problems and opportunities for students to increase their long-term success.

Student experiences in dual credit courses and college are an important indicator of whether the transition to college is successful and if they are meeting the demands for college (Conley, 2008; Lile, Ottusch, Jones, & Richards, 2018). Students would be provided with experiences that are similar to college, as well as having access and support from the knowledgeable staff at the high school and college level. It is important that students are aware of the resources available before entering dual credit programs. The dual credit programs should also be structured to ensure underrepresented students are making social connections with people who can provide information about college (Lile et al., 2018). Students' lack of social capital leads to decreased levels of college graduation in low-income communities. Building students' social capital in college preparedness and access could be a possibility to increase college enrollment and attainment.

According to Bourdieu (1986), social capital is not a naturally occurring phenomenon; rather, it is a creation in the institutions created from personal and group relations (Salloum, Goddard, & Larsen, 2017). As such, social capital has been a positive predictor of academic achievement. Thus, social capital should be an important programmatic component of schools that are intentional in creating opportunities for student growth and achievement.

There is a gap in the literature about dual credit and early college programs developing social capital to achieve equitable opportunities for all students' success,

especially those targeting underrepresented students. Social capital built from families and schools has been shown to have unique and positive effects on academic achievement (Crawley et al., 2019). The problem is the need to understand constructs in social capital between dual credit and early college students in order for them to be college ready. There is also a need to examine the influence of social capital in these programs since they are targeted to increase college success and academic achievement for underrepresented students.

Significance of Study

The societal impact of not being prepared for college has been well researched. There is a gap between high school and college in attaining the required skills to succeed. With the decline in high school graduation rates, there are also declines in higher education, with a third of students dropping out after their first year in college and 50% who never graduate (Blackboard Institute, 2011). There is a push in the nation to get students who are generally underrepresented to earn high school and college degrees (Webb & Gerwin, 2014). Students are going into higher education without being prepared for all facets, and many must take remedial courses. For students enrolled in college from 2007-2008, it was estimated that the U.S. spent \$5.6 billion in costs for tuition and courses (Boatman & Long, 2018). Based on an analysis by Boser and Burd (2009), the American College Test (ACT) noted the importance of academic preparation, stating that simply enrolling in college is not a sign of academic preparation.

In the current competitive economy, it is crucial that students are prepared and given equitable opportunities in areas of STEM, where underrepresented students have the lowest participation and achievement. Studies have shown that students who graduate with a bachelor's degree will earn about \$32,000 more per year than those who only hold a high school degree (Edelson, 2020). Additionally, one of the highest earning

majors is those in STEM fields with a \$43,000 median annual wage for entry-level positions. In contrast, a non-STEM field such as arts, humanities, and liberal arts only earn \$29,000 (Georgetown University, 2020). In order to provide students with opportunities to be successful in college and in the job market, there is a great need to identify how social capital influences underrepresented students in early college and dual credit traditional high school programs; it has been noted there are pitfalls in these programs that social capital could alleviate (Alaie, 2011; Calhoun, Rangel, & Coulson, 2019; Lile et al., 2018; Salloum et al., 2017).

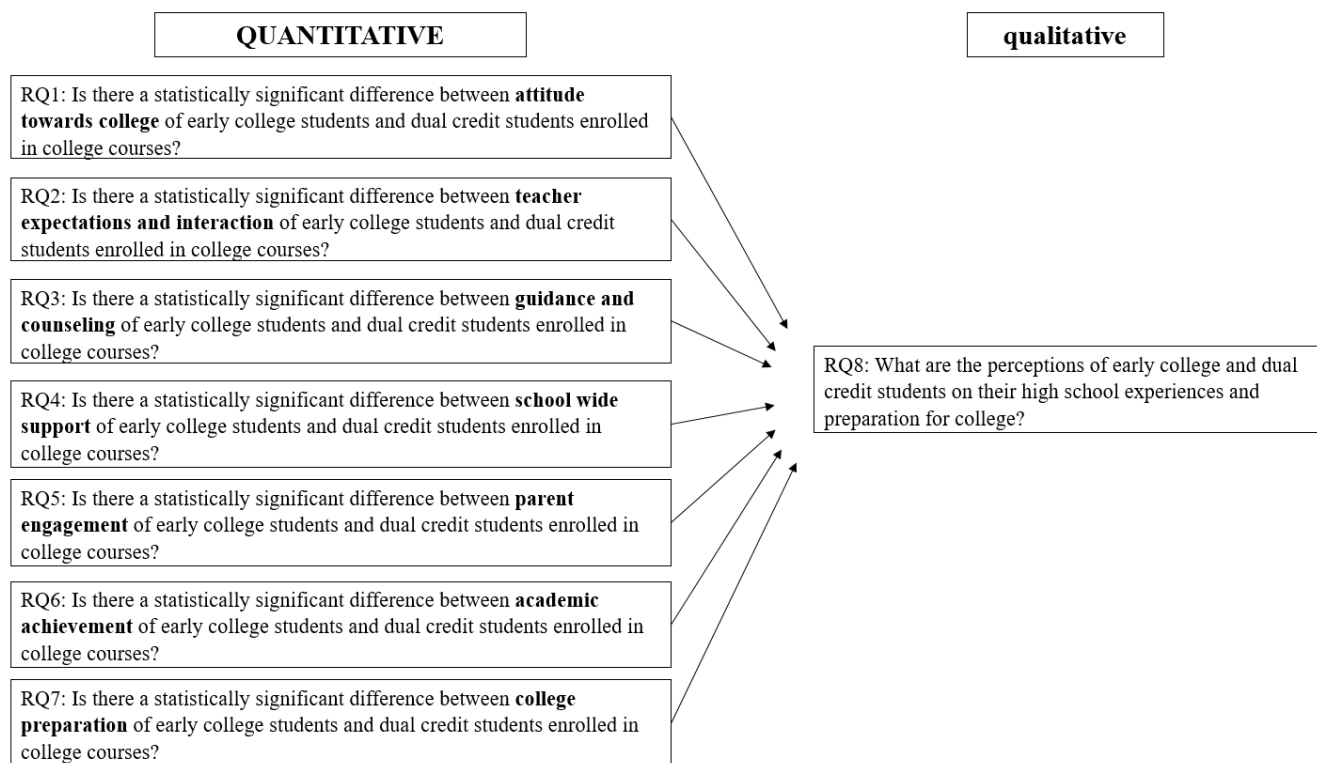
Research Purpose and Questions

The purpose of this study is to examine the social capital of early college and dual credit traditional high school underrepresented students and their perceptions regarding college readiness and their high school experiences. The following research questions guided this study:

1. Is there a statistically significant difference between attitude towards college of early college students and dual credit students enrolled in college courses?
2. Is there a statistically significant difference between teacher expectations and interaction of early college students and dual credit students enrolled in college courses?
3. Is there a statistically significant difference between guidance and counseling of early college students and dual credit students enrolled in college courses?
4. Is there a statistically significant difference between school wide support of early college students and dual credit students enrolled in college courses?
5. Is there a statistically significant difference between parent engagement of early college students and dual credit students enrolled in college courses?

6. Is there a statistically significant difference between the academic achievement for college of early college students and dual credit students enrolled in college courses?
7. Is there a statistically significant difference between college preparation of early college students and dual credit students enrolled in college courses?
8. What are the perceptions of dual credit and early college students on their high school experiences and preparation for college?

Figure 1.1 shows a visual representation of my study with a QUANT $\square$ qual methodology. The mixed methods approach will be used to examine the social capital of early college and dual credit traditional high school students and their perceptions regarding college preparation. The quantitative phase and qualitative phase will allow an in-depth examination of college preparation for early college and dual credit students.



*Figure 1.1:
Mixed methods methodology utilized in this study.*

Definitions of Key Terms

The following terms will be used throughout this dissertation and, as such, will be defined.

Advanced Placement (AP): Specialized courses offered by College Board that allow high school students to take college-level classes. Students who pass AP exams with a score of three, four, or five can receive college credit, and through the Advanced Placement Incentive Program (APIP), they can receive a cash incentive (Jackson, 2008).

College readiness: It is “students’ level of academic preparation measured by one or more test scores (Edmunds et al., 2017, p. 118).

Dual Credit: Traditional high school students who enroll in college-level work usually during their junior and/or senior year while they receive high school and college credit (Pretlow & Wathington, 2013).

Early College High Schools (ECHS): They are “small schools of choice that provide students with concurrent high school and college experiences, partially eliminating the transition between these two stages of education” (Edmunds et al., 2017, p. 120).

First-generation college student: Students who are the first in their family to attend college and have parents who did not graduate or attend college (McCallen & Johnson, 2019).

Pre-Advanced Placement (Pre-AP): Specialized courses that “offers schools instructional frameworks and resources, student practice, and formative assessments in motivating, engaging courses that give all students the chance to become AP and college ready” (The College Board, 2018).

Social capital: The relationships that exist among people that facilitate productive activity for students. It is the intangible resources and self-advocacy skills, such as college knowledge and emotional support that are made available through interpersonal relationships or social institutions (Coleman, 1988; Altshuler & Schmautz, 2006).

Traditional high school: A school where students attend face-to-face courses from grade nine through 12 for five days a week, from four to six hours a day (Zimmer et al., 2009).

Underrepresented Students: A student is who is a first-generation college student, racial minority in post-secondary education, student of color, or whose first language is not English (Contreras, 2011; Hoffman, 2003).

Conclusion

This chapter provides an overview of the importance of the study, the significance of the problem, research purpose and questions, and key terms and definitions relating to

this study. This study is important due to the need to understand constructs in social capital between dual credit students and early college students as they prepare for college. There is a significant amount of research on dual credit and early college students, but none on how their social capital can affect their preparation for college. While students in these programs are set on a college path, there are still challenges that are faced by these students. The research will include seven quantitative questions and one qualitative question to investigate the influence of social capital in early college and dual credit students and their perceptions regarding college readiness and their high school experiences. The present study will be a contribution to former research that have been seeking an answer for the question: What influence does social capital have on early college and dual credit traditional high schools underrepresented students in terms of attitude toward college, academic readiness, teacher interactions and expectations, college preparation, school-wide support, guidance and counseling, and parental engagement. The following chapter will be a literature review of the leading topics that encompass this study.

CHAPTER II: REVIEW OF LITERATURE

There is a push in the nation to ensure the matriculation of underrepresented students in high school and college settings (Webb & Gerwin, 2014). The success of early college high schools (ECHS) and dual credit or dual enrollment programs has already been seen with students having more likely graduated high school, earned college credit, enrolled in college immediately after high school, and returned to college for another year with a more significant percentage than traditional students (Webb & Gerwin, 2014). The early college and dual credit initiatives' mission is to bolster the likelihood of minorities attending college. The programs recognize that although achievement gaps are narrowing, the racial disparities in educational achievement remained. There is still a need to improve the college graduation rates of underrepresented students.

The purpose of this study is to examine the social capital of early college and dual credit traditional high school underrepresented students and their perceptions regarding college readiness and their high school experiences. This literature review will focus on items commonly associated with social capital and college preparation participation. In alignment with my seven quantitative research questions, the central themes of the study include: (a) attitude toward college, (b) teacher expectations and interactions, (c) guidance and counseling, (d) school wide support, (e) parent engagement, (f) academic achievement, and (g) college preparation. Bronfenbrenner's ecological system theory (1979) will guide how these themes interact concerning a student who is either in early college or dual credit. A student's attitude toward college may be influenced by parent engagement and school wide support, which encompasses teacher interactions, guidance,

and counseling. An analysis of these interactions and outside factors could indicate a student's academic achievement and college preparation level.

Theoretical Framework

Underrepresented students in early college and dual credit may encounter barriers in transitioning to college and degree attainment. A theoretical framework around social capital will be used to understand what students need to increase their success and create opportunities for college. The ecological system's theory of Bronfenbrenner (1979) and social capital theories from Coleman (1988) and Yosso (2005) will be used to explain how social capital influences early college and dual credit traditional high school students and their perceptions regarding college readiness and their high school experiences.

Bronfenbrenner's ecological system's theory relates to people, their environment, and the individual's development over time. There are five environmental systems: the macrosystem, exosystem, mesosystem, microsystem, and chronosystem (Bronfenbrenner, 1979). Through time in the chronosystem, an individual lies in direct contact with a microsystem, including school, peers, and family. The mesosystem could include family and school interaction, for example, parent-teacher interactions, student-counselor, or parent-teacher-counselor interactions (Chun & Devall, 2019). The exosystem is further away with interactions coming from friends of family or media. This is relevant to note in my study, as underrepresented students may often be faced with weak interactions that do not help them prepare for college, especially if the family does not hold any college degrees (Le, 2016; Owen, 2020; Robinson & Roksa, 2016). The macrosystem is composed of cultural ideologies and attitudes. This system can influence students if certain ideologies of an institution do not align with their culture leading to slower development or negative aspirations for college. The interacting system reiterates the need for a stream of networks to provide underrepresented students with the correct

college information and preparation (Bryan et al., 2017). The ecological system theory (1979) also places the individual in a position to be influenced by many systems and factors. Students in early college and dual credit will experience this as they interact with teachers, peers, schools, and parents in their journey toward academic achievement and become fully prepared for college.

According to Coleman (1988), social capital is the networks and connections built from parents and peers, creating trust and leading to more capital. This concept is important to underrepresented students since Coleman (1988) agrees that individuals can achieve good that might have been unattainable before. For example, underrepresented early college and dual credit students and parents might lack the information to finance college adequately but could attain this information through other networks such as the school or other people. Coleman (1988) addresses how these networks and relationships cannot occur without trust between individuals. Although this can apply to underrepresented students preparing for college, they also hold strengths that could help them.

Yosso (2005) addresses several forms of capital, such as familial, communal, navigational, linguistic, moral, and aspirational, as valuable sources to underrepresented students. Underrepresented students usually come from diverse cultural backgrounds and bring with them what Yosso (2005) calls community cultural wealth. Yosso's theory brings underrepresented students forth as people who are capable of being successful. Together, these frameworks build a foundation for understanding the influence of social capital on early college and dual credit underrepresented students as they prepare for college. The following sections include: (a) attitude toward college, (b) teacher expectations and interactions, (c) guidance and counseling, (d) school wide support, (e)

parent engagement, (f) academic achievement, and (g) college preparation in their role of how social capital can influence early college and dual credit students.

Attitude Toward College

A college-oriented culture in high school has been shown to be a good predictor of college enrollment among students due to the social ties obtained from staff at school (Bryan, Farmer-Hinton, Rawls, & Woods, 2017; Le, 2016). Students who were encouraged to enroll in college by staff and who were offered help in preparing for college and completing the college application felt like they mattered and had higher aspirations to enroll in college (Roderick, Coca, & Nagaoka, 2011). Roderick et al. (2011) in their quantitative study used archival data of the Consortium on Chicago School Research (CCSR) to explore which indicators of the college-going climate were associated with low-income students' application, enrollment, and college choice. The findings in this study showed that a college-going culture mattered for students from low-income and underrepresented backgrounds. It was shown that students who are seniors are most likely to be influenced by their teachers in their college choice and application process. The findings support the need to investigate high school effects in college-going climate as well as college enrollment. High schools need to focus on developing norms and institutional structures that allow students to move effectively through the college application process, especially for underrepresented students. In my study, senior early college and dual credit students will be asked about their experiences in high school in relation to the people and systems they felt supported them. Having a strong support system through their social networks at school and home shows that students can build more positive attitudes toward college.

In addition, Bryan et al. (2017) found that school counselors and coaches had an impact on the odds of students enrolling in college. College enrollment can only happen

if there are strong teacher expectations and support for attending college as well as participating in financial aid applications. Furthermore, Bryan et al. (2017) noted that students had low aspirations to attend college if their high schools did not foster college expectations. More importantly, the researchers showed that 70% of students attended college after high school due to several factors such as enrolling in AP courses, taking the SAT or ACT exams, and high perception of college expectations in their senior year. The school networks of teachers, coaches, and counselors show how they can positively impact their students' attitudes towards college and increase their college enrollment.

Unlike Bryan et al. (2017) and Roderick et al. (2011), Le, Mariano, and Faxon-Mills (2016) noted that another source of college aspiration and attitude is peer groups. In their quantitative study on the College Bound (CB) intervention program, researchers found there is a higher likelihood of enrolling in college if students also see their peers with the same college aspirations. These findings together are important in this study because the theme of attitude toward college includes aspirations for going to college and the importance of continuing their education after high school, including seeing their peers in the same trajectory. Similarly, Sikhwari, Ravhuhali, Lavhelani, and Pataka (2019) explain that students' career aspirations may be influenced by factors such as self-efficacy and environmental factors such as peers and school. Furthermore, researchers explain that students who have the ambition to complete their college careers do so according to their drive and determination (Sikhwari et al., 2019). In my study, it is crucial to understand what can drive college ambition and aspirations for underrepresented students participating in college preparation programs, especially with social capital components such as school staff that may affect their attitudes toward college.

Early college and dual credit enrollment programs have provided students with positive experiences and opportunities in achieving college degrees (Valadez, McDowell, Loveless, & DeLaGarza, 2012). Researchers explored the first early college cohort of a high school, implementing an early college model for the first time using a case study method. The data were collected through semi-structured interviews which were conducted with six students at the beginning of year in their high school experience from 2006 to 2010. Participant demographics showed four were Hispanic, one was African-American and one was White as well as showing five out of the six students were to be first-generation college students. The results of this qualitative study show that students who attended early college and dual enrollment programs reported benefits that included the achievement of personal goals, improved time management, and financial savings. Many of the students who reported a positive attitude regarded the programs as providing them a head start in attaining their academic goals, especially in post-secondary education. Students expressed their enrollment in the early college program was valuable because it could help them reduce the cost of college tuition, provide creditworthy of one or two years of college attendance, and ease the potential anxiety of seeking grants and scholarships.

Calhoun et al. (2019) show that while ECHS provides positive experiences, students face struggles in their relationships with their friends outside of ECHS that may impact their views on college and continuing rigorous coursework. Haxton et al. (2016) explain how early college participation helped underrepresented students attain their college degrees. Haxton et al. (2016) compared ECHS with a control group of students not accepted in early college and found that high school graduation rates did not differ for both groups. Students in early college had more positive experiences, a strong college-going culture, and instructor support than the control group (Haxton et al., 2016).

Much like Sikhwari et al. (2019), Valadez et al. (2012) contended that self-efficacy was vital to a positive attitude. Students with high self-efficacy were able to reassure their capabilities of handling the rigorous academic workload. Students displayed academic discourse through their adaptability, which is an essential skill that predicts a positive attitude among early college students. Students were required to adapt new learning, homework styles, and flexibility because of the need to balance high school and college classes. Thus, self-management and productivity skills become essential for these students to develop in navigating through their college courses. Students showed positive attitudes through their maturity in maneuvering through their experiences of their ‘worst’ semester, which refers to a semester where students are struggling, and everything seems to be going wrong in their individual and academic life. The worst-semester gave students the self-confidence to overcome obstacles. The study showed the need to analyze student perspectives about the college preparatory programs they are involved in to understand the challenges and address the needs of all students better to ensure their success and attitudes towards college. Similarly, Adams, Williams, & Lewis (2020) interviewed Black male students in an early college high school and found relationships between peers and teachers mattered greatly. Thus, I argue that a major factor that affects students’ attitude toward college is the strength of the teacher-student relationship. The following section presents teacher expectations and interactions in relation to motivating students and preparing students for college.

Teacher Expectations and Interactions

The foundational areas of dual enrollment models, including early college and dual credit high schools, are rigor, relationships, and relevance. Rigor relates to the provision of a challenging curriculum that sets a top bar for achievement for enrolled students (Athanases, Achinstein, Curry, & Ogawa, 2016; Duncheon & Munoz, 2019;

Kaniuka & Vickers, 2010; Newcomer, 2018). Teachers set a high expectation through rigor, which could acculturate students to college-level work through preparatory courses. Relevance as part of the early college and dual credit high school means that teachers strive to provide a connection between the content students are learning and areas where their future careers may arise. Part of the motivation that keeps students engaged and involved is the knowledge that the courses they are taking will lead them toward defined career paths (McDonald & Farell, 2012). Above rigor and relevance, researchers have repeatedly found that strong teacher-student relationships lead to students who are better prepared for college (Ari, Ari, Killackey, & Angel, 2017; Adams et al., 2020; Davidson, Clark, Ijames, Cahill, & Johnson; 2020; Newcomer, 2018; Perez-Felkner; 2015; Todd, 2018). Although many teachers can work on building strong relationships with their students, there are many other obstacles they face.

Understanding the needs and challenges of high schools serving underrepresented students for college and researching the teacher expectations and interactions for a college-going culture could indicate what these students really need for their success (Athanasios et al., 2016). In the 2016 case study, Athanasios et al. (2016) explore an Urban College Academy (UCA), a public charter school in California with a population of 81% on free and reduced lunch, 98% Latina/o and 35% English learners. The school is focused on enrolling students who have previously failed a course and who would be first-generation students and as such 80% of these students have that distinction. Researchers set out to find how the college-going culture supports Latino students in gaining access to college and the academic engagement enacted by the teachers to prepare students for college (Athanasios et al., 2016). The findings show the school produces many graduates that attend college, but many are not fully prepared, as was stated by teachers at the school. The school showed a clear school goal with teachers

maintaining the high expectations that students will attend college, and this occurs through their college talks. These talks consist of teachers sharing their experiences in college as well as the school's college gear days and college banners all around the school. Students agreed that they noticed they were talking about applying to college and scholarships were that might not have been normal in a regular school setting. Teachers and administration were keen on engaging the parents into the college-going atmosphere, and students felt at home and thus believed these college talks to be culturally relevant. Although this study is not based on early college or dual credit students, the researchers did acknowledge underrepresented first-generation students in high school who need support from teachers in college talks and interactions with rigorous coursework.

Students expressed their value for their teachers at the school but emphasized the impact of having a teacher of color because they felt they understood their experiences better, a sentiment that echoes in recent studies (Adams et al., 2020; Davidson et al., 2020). The school placed a culture before curriculum attitude that emphasized teachers relating to their students' experiences and struggles before their academics. Due to the strong college-going culture, teachers had a high degree of classroom interactions on positive climate, sensitivity, and behavior management. Classroom interactions were mostly content based but lacked a higher level of analysis, such as problem-solving, literacy development, and connections to students' lives. Furthermore, the classroom interactions consisted mostly of group work but not on the elaboration of student ideas or opportunities for students to construct knowledge themselves. The study revealed the need for underrepresented students to have the opportunity for academic discourse through active learning that is similar to college.

A qualitative study exploring student perceptions of factors influencing academic achievement by Sikhwari et al. (2019) agrees that teaching approaches should be active.

Although the study was conducted with university students in South Africa, one of the main attributes that students sought in lectures was engaging in tasks where they took control and demonstrated independence. Studies by Sikhwari et al. (2019) and Athanases et al. (2016) help us understand the challenges faced by ECHS or dual credit students and allow us to understand why and how a student might be affected by teacher interactions.

However, the perspectives of teachers preparing underrepresented students for college is crucial to understand what is needed to help students succeed. Duncheon and Munoz (2019) explore teachers' perceptions of college readiness and their support in preparing students for college. In their 2019 qualitative study, the researchers focus on the perceptions of 108 ECHS teachers from across 8 different ECHS in a border region of Texas. Due to the locations of the schools, the region's populations consists of 90% Latinx people. Teacher experiences in the high schools spanned from one to 10 years while 65% of teachers were Hispanic, 30% White and less than 5% for other while over 50% of teachers were first-generation students while attending college.

The teacher interviews focused on asking how they define college readiness, how they prepare students, how the school works to help students become college ready and evaluations of what their schools could do to improve. Data was analyzed utilizing inductive and deductive approaches based on sensemaking theory in college readiness literature. In developing themes, in vivo and open codes were generated while employing the constant-comparative method and member checking to ensure validity (Duncheon & Munoz, 2019).

The findings by Duncheon and Munoz (2019) presented three major themes on how teachers analyze and think about college readiness to prepare students: (a) professional roles, (b) personal experiences, and (c) context of early college. These reflections led to teachers arriving at conclusions such as valuing advanced academics,

the importance of mentoring, working in groups, and time management. Teachers drew on their knowledge of their content to incorporate specific skills they think students need, such as reading skills in English, making good arguments, and asking questions in History. These teacher reflections are relevant in my study as both early college and dual credit traditional high school students must take their core classes in English and History in college in order to graduate. Furthermore, teachers can also see strengths in students, such as being persistent and motivated to increase academic achievement and weaknesses like their lack of study, organizational, and logistical skills. In the early college context, teachers indicated maturity is a big component in college readiness. Teachers indicated that to ensure students' success, a support network was needed in which they provided rigorous coursework, tutoring, and student support (Duncheon & Munoz, 2019).

The study shows how much teachers draw on their own experience to make sense of college readiness. By observing their students, teachers identified students' strengths and weaknesses in their college preparation. Due to these observations, teachers were able to build a list of the best ways to help prepare students. Although the schools had similar college-going norms, teachers had similarly high expectations but varied classroom interactions. The study showed teachers' need to have school-level support on what college skills could be prioritized and have collective commitments to shared practices that would allow all students to succeed (Duncheon & Munoz, 2019). Although this study is on teacher perspectives, it is important to note what teachers are going through in helping students since, in my research, students will reflect on their high school experiences with their teachers.

In a previous ECHS study, researchers included both teacher and student perspectives on relationships and experiences relating to a care-based model. Teachers showed strong commitments to their students in their instruction. Similar to teachers in

the previous ECHS study, students were observed by their teachers for any emotional responses to their classwork. By doing this, teachers offered individualized support and thus had a strong commitment to students' academic and emotional well-being (Ari et al., 2017). Both of these ECHS studies are important in understanding both types of students in my study, ECHS and dual credit, due to their daily interactions with teachers. Of importance in the 2017 study is the inclusion of student perspectives of their teachers and experiences since my study will also focus on this area as students reflect on their high school and college experiences

Todd (2018) noticed a gap in student perspectives on teacher care, an essential factor to research due to its effects on student academics and development. Like Kaniuka and Vickers' (2010) study, Todd (2018) reported student perceptions of their teachers who possessed traits their traditional high school teachers did not demonstrate. Todd (2018) shows how teacher's care can be an important tool in the teaching and learning process. The study consisted of 11 high school seniors and two senior guidance counselors in Florida. The researcher attempted a diverse and purposeful selection of seniors selecting two Black females, four White females, one Black male, two white males, one Brazilian and one Hispanic female. The use of the phenomenological approach allowed the research to thoroughly account for the real experiences of the participants.

The data were collected through open-ended and in-depth interviews based with questions on Noddings' (1984) four components of teacher care; confirmation, practice, dialogue, and modeling. Once interviews were recorded and transcribed, an initial typological approach was taken to analyze the data. The researcher used triangulation to increase validity, while using member checking for accuracy in transcriptions as well as checking for transferability in applicability to other groups.

The findings in the study by Todd (2018) revealed that students benefited when teachers demonstrated caring ethics, which entails a desire and commitment to witness students perform well socially and academically. The interviews' developing themes showed characteristics teachers possessed that students felt allowed them to grow personally and academically. Teacher characteristics such as enthusiasm for their subject leads to creating positive student attitudes. Teacher's high expectations show students their teachers believe in them, which in turn increases their academic success. Teachers who showed a willingness to help students supported their learning of academic content. Maintaining flexibility and being adaptable was crucial in making adjustments to meet the diverse needs of students. Students also showed respect to teachers because teachers themselves showed that to students and developed caring student-teacher relationships, making students more receptive to information gained from teachers. The study showed the importance of viewing students' experiences on their interactions with teachers through the caring lens since ethics of caring from teachers helps students developmentally and academically (Ari et al., 2017).

Connecting to underrepresented minorities may be a significant obstacle for teachers who may not feel culturally linked. Newcomer (2018) investigated Latinx junior high students and their perspectives and interactions with teachers. The qualitative case study was conducted by Newcomer (2018) on junior high dual-language students and teachers. Approximately, 22 classroom observations, one interview with two teachers, and seven focus groups were conducted to gain perspectives on collective experiences throughout three months. While the study focuses on students who are in middle school, it highlights an important aspect of student-teacher relationships that are that of caring. As seen in previous studies, students are still keen on making these observations in high school. Newcomer (2018) notes that there is a connection that can be made between

social capital and the caring relationships of teachers. Through authentic caring pedagogy, teachers are making interaction that exchanges of trust with students. Latinx students, in particular, are keen on events that relate to their culture. Previously, Athanases et al. (2016) discussed how students embraced college talks because it gave students *ganas* or determination. Their college talks also created *Familismo*; a value students have in the community that deals with attachments, loyalty, and reciprocity to family.

Newcomer (2018) describes events such as college talks as being funds of care for students. In her research, teachers also provided emotional and academic resources that they felt contributed to student success, which has been noted in previous ECHS studies (Ari et al., 2017; Duncheon & Munoz, 2019; Kaniuka & Vickers, 2010). In contrast to these studies, Newcomer (2018) describes that culturally relevant pedagogy allowed teachers to connect with students by asking what they think on certain subjects as well as tapping into their social and emotional reactions to their learning. While teachers are faced with many challenges, they are not the only people students like to interact with to gain knowledge about college preparation. According to a recent study on senior student college information preferences, researchers found that teachers require more information about college options for underrepresented students (Owen, Poynton, & Moore, 2020). To fill this gap, Bryan et al. (2017) suggest counselor and teacher collaborations, as students need multiple areas to gain college information and preparation from adults at their schools.

Guidance and Counseling

School counselors are often the first person to contact in gathering information on college for many students regardless of background (Fitzpatrick, 2020; Robinson & Roksa, 2016; Rutter, Day, Gonzalez, Chlup, & Gonzales, 2020). In fact, Owen et al.

(2020) found that high school seniors prefer to receive college information from counselors first, followed by teachers, family, and friends. It is essential to understand the impact and effectiveness of counseling strategies in helping underrepresented students gain college access.

In a 2020 qualitative study, researchers interviewed secondary school counselors to gain a better understanding of how they share college information with Latinx students. The researchers used a sample of ten school counselors near a south Texas-Mexico border school district with experience averaging 12 years and ranging from 0 to 31 years. The school district population was 98% Hispanic, 96% economically disadvantaged, 66% at-risk, and 33% limited-English proficient (LEP). Data were collected with focus groups using semi-structured interviews with questions focused on how counselors support Latinx students in pursuing and attending college as well as what strategies they use to share college information (Rutter et al., 2020).

Researchers focused on how counselors support Latinx students in pursuing and attending college and what strategies they use to share college information (Rutter et al., 2020). The themes that emerged were colleges open job possibilities, repetition of information as a strategy, importance of parental involvement with college topics, and cultural barriers Latinx students face. This study's findings show counselors shared the same value that college is possible for everyone but that interventions need to start as early as elementary when parental involvement is highest. Although the study addresses counselor reflections, it is crucial to understand their views as students in my research are asked to reflect on their interactions with counselors.

The notion of early involvement by parents has been researched by Robinson and Roksa (2016) and reiterated in a more recent study by Fitzpatrick (2020) in the high school setting. According to counselors, if the college-going culture starts early, then

parents and students alike can learn about college and be more involved in the process instead of letting the counselors do all of the work. Rutter et al (2020) find that emailing and calling parents was the best way to get information to parents. In support of this study, Owen et al. (2020) also found that high school seniors preferred email as the primary method for receiving college and career information, followed by one on one contact and mail. Rutter et al. (2020) noticed counselors also struggled in motivating students when their Latinx family expectations were to work right after high school to help support families but found that students were more prepared when they had older siblings who attended college. As a possible solution, Bryan et al. (2017) suggested that counselors and teachers collaborate, so students have multiple information channels.

Ultimately, there is a current shift occurring with counselors as they move from a non-reciprocal role to being embedded into the information channels students needed access to as part of their gains in social capital (Rutter et al., 2020). Previously, Athanases et al. (2016) and Newcomer (2018) also discussed reciprocity being important to underrepresented communities, such as the idea of Familismo brought into college talks and reciprocal relationships between students and teachers. Students also notice when there are not enough counselors, and it is one point in my study that is being researched; thus, it is essential to know how advising activities impact students even when there are not enough counselors. Together, these studies bring the importance of counselors now entering this information system and being a significant social capital source in their college preparation.

Further, Fitzpatrick (2020) explored specific advising activities high school counselors use in helping students become college-ready and their effects on underrepresented students through a social capital lens. Fitzpatrick (2020) used data from the High School Longitudinal Study of 2009 (HSLs), selecting students who completed

the baseline survey in 2009 as 9th graders, the follow-up survey in 2012 as 12th graders, and the additional follow-up survey one after graduation in 2013. To analyze the data, the researcher identified students who submitted a college plan to their school. The findings showed that meeting with a counselor as early as 9th grade relates to the intent of submitting a FAFSA. Yearly meetings with counselors also increased the likelihood of students submitting a FAFSA through frequent contacts. Additionally, when transitioning to college, social capital measures of friends planning to go to college, talking to parents about college, and having a parent who has a bachelor's degree showed the strongest relationship in the college-going measure. The findings further revealed that an annual review of a student's education plan and submission of FAFSA indicated a higher percentage of students enrolling in college. Counselors have more effect on college readiness than college-going outcomes while showing that underrepresented students benefit most from advising. Fitzpatrick (2020) shows the importance of taking advantage of social capital resources since many underrepresented students are less likely to know the correct steps in college preparation, such as the FAFSA, an idea that has been supported by other researchers (Robinson & Roksa, 2016; Rutter et al., 2020). Counselors affect students' habits, academic preparation, information about college and financial aid, and act as crucial social and support networks for underrepresented students (Fitzpatrick, 2020).

Marciano (2017) conducted a qualitative study and utilized a social participatory youth co-researcher (SPYCR) methodology to better understand peers' role in the college-going process for Black and Latina/o youths. The researcher focused on 12 seniors in a New York City Public High School in a Title One school with 73% Black and 22% Latina/o students with approximately 80% of students on free and reduced lunch. Participants had to meet the criteria of being a first-generation college applicant,

encouraged other peers to attend college, and engage in media literacy practices. Data were analyzed to identify codes and themes drawing on ideals from culturally relevant pedagogy as an analytic tool. Categories such as social relations, academic achievement, sociopolitical consciousness, and ways of knowing were used. The findings highlighted student's feelings of wanting to see each other do well overall. Friendly peer groups often know each other's potential for success, have high expectations for peers' academic achievement, and feel that they help each other by helping their peers with college-going activities. Students exhibited reciprocal culturally relevant peer interactions in encouraging each other to talk to teachers when a failing grade would post so that their friends could do better academically. From this study, we can extend the ideas of reciprocal relationships from teachers and counselors, as addressed by Bryan et al. (2017) and Newcomer (2018). These studies further support Tierney and Venegas (2006) in their research on peer counseling.

Tierney and Venegas (2006) conducted a qualitative study utilizing interviews, observations, and focus groups from six high schools and 75 peer counselors. Researchers conducted interviews to gain information on student benefits from informational and socioemotional aspects of participating in peer counseling programs (Tierney & Venegas, 2006). Researchers found that peers can create reciprocal relationships with peers despite being in an urban setting where their social capital is low. Through fictive kinship, peer counseling helped create a college-going identity, which concerning this study, can affect student attitude towards college. The peer counseling groups also prepare students with knowledge about applying and paying for college, which researchers have noted is usually low in underrepresented communities (Fitzpatrick, 2020; Robinson & Roksa, 2016; Rutter et al., 2020). Marciano (2017) noted peers pushed each other even when their interactions were not with friends but with other

classmates and acquaintances, another sentiment that is supported by Tierney and Venegas (2006). Students distinguished between having and spending time with friends who also want to go to college. Students found they benefited more from peer interactions because it encouraged them to do more and go to college (Marciano, 2017). This study shows the need to engage youth in supporting their peers in their academic achievement and social networking to apply, prepare, and enroll in college.

Throughout this literature review, the connections between students, teachers, counselors, and peers have been seen as a source of social capital for underrepresented students. Student's attitudes towards college are connected to their relationships with people in school. Teachers, counselors, and peers are part of the school connection and school-wide support given to students. The next section discusses different aspects of social capital seen in schools through school wide support, such as a sense of belonging, trust, safety, and building networks that may influence college preparation and readiness.

School Wide Support

There are other ways that teachers, staff, and administration can help with school wide support by utilizing organizational college preparatory programs, such as AVID, building a sense of belonging on campus, and summer enrichment opportunities. Programs such as the Advancement Via Individual Determination (AVID) provide school support through multiple sources and in various forms to increase student college preparation (Llamas, Lopez, & Quirk, 2014). AVID is a school program that serves as academic support and closes achievement gaps to inspire students to graduate high school and enroll in college. As a school-wide support system for students, Llamas et al. (2014) were interested in examining the mechanisms contributing to program success, such as AVID. This study is worth noting as, in my research, early college students are required to enroll in AVID throughout their entire high school career, while dual credits have the

option to register. Researchers wanted to better understand student perceptions regarding the AVID programs and their effects on student experiences for college preparation.

Llamas et al. (2014) used a mixed methods approach for their study with 161 high school students enrolled in AVID. Approximately 71% of participants were Hispanic/Latino, 11% Caucasian/White, 6% Asian/Pacific Islander, and 12% with mixed race. Data were collected through a survey and two focus groups. The semistructured interviews addressed student's perceptions on the AVID program in regard to teacher support, experiences, and future aspirations.

The study's findings show how the AVID program supports a positive environment where students feel free to express themselves, become independent, and form bonds with their teachers. AVID also motivated students in different forms, such as peer motivation to do well in school and teachers inspiring students to achieve their personal academic goals. As previously stated, teachers and peers both serve as information channels for students and provide social capital. Specifically, peers have the power to form social capital, as discussed in the previous section regarding interactions with peers and college preparation (Kiyama & Luca, 2014, Marciano, 2017; Tierney & Venegas, 2006). The study outlined various AVID internal features such as student self-efficacy, problem solving, self-awareness, and empathy that students displayed. Examples of external supports are the school providing support and meaningful participation, all of which are essential assets as part of social capital. The program also highlighted the AVID program's ability to provide a sense of belonging within the school.

As shown in the previous study, school wide support for college readiness can occur at the organizational level with programs such as the AVID in high school, but it can also occur in higher education (Huerta & Watt, 2015; Kirk & Watt, 2018; Llamas, Lopez, & Quirk, 2014). Kirk and Watt (2018) examined students who were asked about

their experiences in their first year in college, their family and friends' role in their college experience, and their reflections in participating in AVID (Kirk & Watt, 2018). In their 2018 qualitative study utilizing a social capital framework, researchers examined seven Mexican American students at an Hispanic Serving Institution (SHI) community college. Data were collected using focus groups and interviews, and students must have been in a technical program, be first-generation, and enrolled in an AVID courses to participate in the study. The findings of the study showed the two major themes of college success and social/cultural capital. Student responses showed AVID enrollment allowed them to learn various college skills such as note-taking, reading, writing, and technology skills.

In a similar quantitative study, Huerta and Watt (2015) found that students who took AVID in high school were equipped with a stockpile of strategies to help them succeed in college regardless of enrollment in a university or community college. Researchers examined first year community college and university students who were once in AVID in high school. Data were collected from 329 AVID graduates with a 50% Hispanic, 24% African American, 12% White, 6% Asian American, and 4% of mixed-race population. Ultimately, it was found that students in community colleges used organization skills and skills related to specific courses, while university students used strategies that involve cooperation with other students (Huerta & Watt, 2015). Additionally, Kirk and Watt (2018) discussed how students felt they were more confident in succeeding in their college courses and completing their programs because they felt support through the program. Students explained the importance of tutoring and mentoring as part of college support programs that helped them succeed in their courses. In the social/cultural capital theme, students engaged in AVID activities in which they were allowed to explore their careers and salaries for future job applications. Obtaining

career knowledge is crucial to Mexican American students who might not otherwise know what resources are available, which is a well-known fact for other underrepresented students as well (Athanasios et al., 2016; Bryan et al., 2017; Rutter et al., 2020; Robinson & Roksa; 2016). Building social networks for careers allowed students to feel supported in addition to their familial support. Overall, Kirk and Watt (2018) showed the importance of having networks of success through AVID in helping underrepresented students overcome their challenges in their courses, finances, and negative messages on college completion.

To support student academic achievement and preparation, students must also have a strong sense of belonging on their campus and their programs (Ahn & Davis, 2020; Museus, Yi, & Saelua, 2018). To gain an understanding of what encompasses sense of belonging at the university level, Ahn and Davis (2020) collected data from 426 participants in Bangor University in the UK. It is important to note that although this study consisted of university students, the main ideas surrounding sense of belonging in this article are relevant to students who are part of early college and dual credit, within high school and out, as seen in the AVID study above (Llamas et al., 2014). Ahn and Davis (2020) collected data from a new technique called 10 Words Question, in which participants write down 10 words that come to mind when thinking about sense of belonging at the university. The data was analyzed using three stages of in vivo coding, systematic coding and clustering and thematic analysis. The findings in the study show the biggest domains from clustering and thematic analysis were Academic, Social, Surroundings, and Personal space. When dealing with the society domain, it was important to note that the positive associations and interactions with peers are what was needed for students, a sentiment that has been reiterated by previous studies in relation to the success and well being of high school students (Kiyama & Luca, 2014; Llamas et al.,

2014; Marciano, 2017; Tierney & Venegas, 2006). Students spoke to the perceived support from peers, faculty, caring, and college activities. This study shows the need to understand that students are affected by their attachment to the place they are in as some students consider the university their home while their personal self-identity, interests, satisfaction as a student are fundamental to their sense of belonging, much like it was for high school students in AVID (Ahn & Davis, 2020; Llamas et al., 2014).

Similarly, an increased sense of belonging has shown greater intent in attending college and persisting in degree attainment (Museus, Yi, & Saelua, 2017). Examination of culturally engaging campus environments (CECE) and a sense of belonging in college was researched in relation to students of color and white students (Museus, Yi, & Saelua, 2017). Having a culturally engaging campus is essential, especially in creating a college-going culture in the high school setting, as seen earlier with the research by Athanases et al. (2016) in college talks. In support of culturally relevant events, Newcomer (2018) also noted that culturally relevant pedagogy was important for underrepresented students as they felt a greater connection to their teacher and school, which allowed them to succeed academically. According to Museus et al. (2017) the CECE model utilizes nine elements of environments categorized into main domains: cultural relevance and cultural responsiveness. In response to cultural responsiveness, holistic support positively impacted students' sense of belonging regardless of color, indicating that support is crucial for all students (Museus et al., 2017). The data shown by Museus et al. (2017) indicates white students felt like they could give back to their communities and felt like they could communicate with others who understood them better. Students of color exhibited significant relationships to a sense of belonging in holistic support, cultural familiarity, and collectivist cultural orientations. While this study is conducted in the university setting, most of these sentiments are evident at the high school level for

underrepresented student populations. If students do not have essential social capital elements, such as a sense of belonging, feelings of trust and safety, or a network with meaningful relationships, they will not fully succeed or reach their full potential.

If educators and college preparation programs want to create environments that meet positively with underrepresented students, then the CECE model could be used to identify if the campus is employing enough support. Museus et al. (2017) showed an engaging campus environment is needed to have a positive sense of belonging. The findings show that white students and students of color share similarities in their experiences of culturally engaging campus environments. As such, it is a strong predictor for both groups of students. Regardless of backgrounds, to maximize the sense of belonging, environments that emphasize cultural familiarity, collectivist cultural orientations, and holistic supports are needed. Of importance to students of color are cultural familiarity and cultural validation because these students need to feel that their identities, communities, and backgrounds are valued on campus. Educators and administration revolving early college high schools and dual credit students should be providing physical spaces that are culturally relevant to connect with people of a different background while institutions clearly convey messages of validation of students' cultural backgrounds. Finally, educators should provide holistic support to ensure that students have a tight network with people who can help them find significant sources that will help them succeed (Museus et al., 2017).

School wide support also entails the provision of curriculum-based college planning resources such as summer enrichment programs, college tours, and courses for finding and applying to colleges. A social support community can help students access social services that they may lack or impede their college transition (Bryan et al., 2017). STEM job growth is on the rise in the next four years, and researchers in a 2020 study

wanted to see if campus visits could provide supports for students to aspire to STEM careers (Kitchen, Sonnert, & Sadler, 2020). The researchers collected data from a larger subset of data from the National Science Foundation (NSF) STEM Talent Expansion Program (STEP), which aims at supporting students in obtaining STEM degrees. In the survey administration, 47 college and university institutions participated yielding responses from 15,847 students. On the survey, 37 items focused on asking about career plans, middle school math and science experiences, high school background, STEM-related interests and family characteristics. The students STEM career aspirations were set as the dependent variable, while the primary independent variable was their campus visits (Kitchen, Sonnert, & Sadler, 2020). The results showed that 48.5% of students participated in campus visit, 27.6% participated in regular campus visits, 6.8% met with STEM students during visit, 7.9% met with both a STEM professor and student.

The findings of this study indicate that a simple college visit will not ensure that students aspire for a STEM career (Kitchen et al., 2020). Still, students who met with a STEM professor during their meeting were more likely to have a STEM career interest. This study is essential in understanding the roles that college professors can have in influencing students' choice in STEM careers as they are a valuable source for students in obtaining college knowledge that they could have missed. Campus faculty must show genuine interest in guiding students during campus visits and promoting college careers, especially those in STEM. This study also shows how high school staff can work with colleges to ensure that students are engaged with the faculty at the campus during their visit to get first-hand information about college careers (Kitchen et al., 2020).

Additionally, Kitchen, Sadler, and Sonnert (2018) found that STEM summer bridge programs for pre-college students positively influenced students deciding on a STEM career. Summer bridge programs have been found to affect social integration in

the college system and increase the sense of belonging to underrepresented students. Both of their studies show the importance of campus visits and summer college camps during high school. As students get closer to high school graduation, their desire to visit college campuses increases, and their summer college campus could inspire them to go to college and specialize in a STEM field. Another source of social capital for students is their parents and their involvement in their education, attitudes towards college, and college preparation.

Parental Engagement

Parental involvement and engagement are important to all students, especially to underrepresented students, as parents help develop aspirations and positive attitudes towards college for students (Hill & Wang, 2014). Le et al. (2016) found that parents who do not have a degree are less likely to discuss college matters with students, such as general college information, financial aid, and assistance in applying to college. Although parents might not have a degree, Robinson and Roksa (2016) add that parents could still involve themselves in school. When parents become involved, they activate social ties to the school, and thus students are more likely to attend college. Owen et al. (2020) describe families as the primary source of social capital for underrepresented students. In their quantitative study on senior high school college information, students preferred to receive help from their parents first, followed by their friends, counselors, siblings, and teachers when deciding on a college major. Students who are pursuing college will need to have conversations with their parents regarding college information. In my study, senior early college and dual credit students will be asked to reflect on their parent's school engagement.

Weintraub and Sax (2018) examined how the student-parent relationship in regards to communication affects first-year academic performance in college. The

purpose of the study was to understand student perspectives on their interactions with parents in terms of frequency and modes of communication. The student level of satisfaction with the amount of communication from their mothers and father's was analyzed by GPA. The sample included 995 first-year college students in a university in western U.S. with 43.8% Asian/Asian American, 32.5% White, 15.4% Latino/a, 4.2% international, 2% unknown, 1.5% African American, and 0.5% American Indian or Alaskan Native. Data were collected using three sources of surveys sent to students living in residential housing with questions asking about student backgrounds and academic performance as well as evaluating their interactions with parents through frequency, mode, and quality of interactions.

Research showed that students with higher GPA communicated more with parents through email while communicating more with mothers through video chat. Overall, students felt that they had a good amount of communication with their parents. The regression analysis showed that the strongest predictors of GPA were high school test scores and grades, while other factors such as living closer to campus and receiving financial resources from their family also affected GPA (Weintraub & Sax, 2018). In connection, Owen et al. (2020) noted that students prefer to receive college information by email over any other form. Perhaps with the Weintraub and Sax (2018) study on communication, students also prefer that format because it is familiar to them. While the university population is dissimilar to my study, this article's information is relevant as seniors who are in early college have a full community college schedule. Their interactions and communication modes are essential in understanding their perspectives on how their parents have helped them in their college planning.

The study by Weintraub and Sax (2018) highlighted the differences in communication between mothers and fathers, as most students wanted more

communication with their fathers. Davidson (2020) also noted how parents of underrepresented students may have different expectations for their daughters and sons regarding college completion. These expectations may not be directly related to communication, but parents also provide other forms of engagement through emotional support and valuing education. These forms of engagement are prevalent in underrepresented communities where parents have not obtained a college degree but can still provide school engagement in a behavioral, emotional, and cognitive way (Hill & Wang, 2014). In addition, other researchers found early parent engagement to be directly related to developing student aspirations, school engagement, and GPA as they matriculate to college. Of importance was the emotional support parents of underrepresented students provide, which was also cited for Latino parents with elementary and intermediate students (Araque, Wietstock, Cova, & Zepeda, 2017). In their study, African American students were mostly affected by their parent's emotional engagement, which allowed them to increase their sense of competence and increase attachments to people at school (Hill & Wang, 2014). Through these attachments, students can create better student-teacher and student-peer relationships that could increase their sense of belonging in the school. The school attachments are an essential factor to note in my study as the majority of students are underrepresented, and we might gain a better sense and reasoning of their perspectives on student engagement and their college preparation. Overall, these studies' findings could help guide teachers, staff, and administration in how parents communicate with their children as they move into the college setting while maintaining positive and supportive relationships (Weintraub & Sax, 2018).

Parental involvement and participation are associated with an increase in student academic achievement (Chun & Devall, 2019; Dotterer & Wehrspann, 2016; Weintraub

& Sax, 2018). Parent involvement for Latino youth could be more complex with the concepts of Familismo, which authors describe as a cultural value that includes commitments, dedication, and loyalty to family (Chun & Devall, 2019). While complex, the concept of Familismo, as discussed earlier, can have a positive effect if schools use it in their college talks. Bryan et al. (2017) found that teachers and administrators who used this concept were more successful in their college talks because students felt a sense of belonging to their campus and thus were more free to interact and gain college knowledge. Chun and Devall (2019) explored the effects of parental involvement, academic socialization, and cultural factors such as Familismo and school climate on Latino secondary school students' academic achievement. The primary purposes of their study were to examine how cultural factors and interactions between home and school engage with parental involvement and academic achievement (Chun & Devall, 2019).

Six different measures, Familismo, life-context barriers, welcoming school climate, parental involvement, academic achievement, and academic socialization, were used within their path model to examine any interrelationships (Chun & Devall, 2019). The findings in this study showed that students with parental involvement felt a positive effect on academic achievement through academic socialization. A school's welcoming environment indicated more parental involvement. A student's perception of a positive, welcoming school environment meant that the teacher and parent relationship was also positive, as supported by Bryan et al. (2017) in a previous study. Although this was true, it is important to note that it is not easy to interact with parents with differing and diverse cultural backgrounds. Rutter et al. (2020) also noted how counselors seek help in engaging a diverse student population with different cultural backgrounds. Teachers, counselors, and administrations need to have cross-cultural strategies to create positive

relationships both with students and parents. The idea of Familismo is complex and serves as a cultural asset in parent involvement (Chun & Devall, 2019).

Since parents of underrepresented students may not have gone to college, they would be more fearful of expectations of college. Araque et al. (2017) note how low-income Latino families are often detached from the school system due to negative perceptions they might gain from staff or administration. Nonetheless, early college and dual credit teachers, staff, and administrators need to understand how parent engagement can affect students' attitudes toward college. Together, parents and the school provide various channels and sources of social capital that students can utilize to increase academic achievement and college preparation.

Academic Achievement

Dual credit and early college programs were designed to help many at-risk and first-generation college students through increased high school graduation rates, college attendance, and academic achievement (Kaniuka & Vickers, 2010). The authors researched students' performance in Cross Creek ECHS (CCECHS) while examining their perspectives during their program experiences (Kaniuka & Vickers, 2010). The authors researched the performance of students in Cross Creek ECHS (CCECHS) during the 2008-2009 school year which contained a population of 268 students with students ranging from grades 9 to 12. In this mixed-method case study, the researchers used a two-way chi-square analysis to evaluate academic achievement of state tests and reported using descriptives statistics. The senior student online surveys asked them to discuss their high school experiences, identify factors that contributed to their success and offer advice to other principals who might want to adopt an ECHS model. The faculty was given a similar survey asking for their professional experiences at the school, their views of critical success factors and discussion on principal leadership.

The study shows that CCECHS students succeeded 58% greater than traditional high school students in their reading and math state tests (Kaniuka & Vickers, 2010). In all tests, underrepresented students in CCECHS had higher passing rates than traditional students. A dominant theme found in all student responses was the school's positive environments and expectations of success that provided students with the opportunity to excel and create an identity of success. Students articulated the notion of excellence in a myriad of ways, including academic attainment in their high school and college courses. A rigorous academic curriculum created self-confidence in students as they viewed the importance of benefits in academics from the program and feelings of being supported and cared for by teachers and principals. In all, the study readily showed that ECHS environments support the academic success of underrepresented students, while all stakeholders involved identified success factors such as having a rigorous curriculum, high expectations, and caring relationships.

Understanding the influence of social capital in the relationships between the student and institution shows its effects on academic achievement and student outcomes (Oranye, Ezeah, & Ahman, 2017; Salloum, Goddard, & Larsen, 2017). To elucidate the effects of social capital, Salloum et al. (2017) conducted a quantitative study to show the validity of social capital as an organizational construct, the extent of various social capital levels by socioeconomic status, and its relationship the academic achievement and social capital. The sample used consisted of a population of 96 high schools in a large Midwestern state that included a range of different developed environments and socioeconomic contexts. Data were collected using teacher surveys that consisted of an 11-item scale to measure social capital. The data were analyzed using confirmatory factor analysis (CFA) to show validity in using social capital at the organizational level. Hierarchical linear modeling and structural equation modeling were utilized to show

relationships between socioeconomic status, academic achievement and social capital in the high schools.

The findings suggest that social capital is a positive predictor of academic achievement, but it is not equitably distributed. Students with low-income and low academic achievements had low levels of social capital to use. Although in this study, socioeconomic status is not related to social capital, it shows the importance of having school interventions that foster social capital development as being equitable and helping underrepresented students.

Another quantitative study conducted in 2017 explained how some social capital elements, such as social support, trust, and perceived safety on campus, provide ways for understanding university students' life experiences and how it affects their academic performance (Oranye et al., 2017). The researchers examined social capital and the academic performance of Nigerian full-time-undergraduate students by utilizing a questionnaire and conducting a multiple regression analysis of the statistics. Although the study's demographic is not the same as my study, there is value in learning about perceptions on student sense of belonging. The results of the study indicated that academic performance had associations in trust in public institutions and trust for the university. Strong associations were seen between social capital elements, showing that students who felt safe on campus were most likely to also feel safe in their neighborhood; thus, having strong friend support and greater trust in the university. Overall, the findings of this study show that social capital elements such as trust and support from friends have strong associations with the academic performance of students.

Students who maintained a friendly peer network were more likely to perform better in academics and had a great sense of well-being due to familial support and trust in their institutions. This study shows the importance of building social capital embedded

with trust that can be fostered by the institution as well as friend and family support (Oranye et al., 2017). Although the study was conducted at the university level, the findings have implications for early college and dual credit programs in building social capital in terms of trust through relationships and connections with friends and family to increase academic achievement. Student relationships with faculty and staff have been shown to affect college attitudes and affect their college preparation.

College Preparation

Conley (2008) observed that high school courses did not effectively prepare students as most of their focus was on completing courses rather than mastering skills such as analytical and critical thinking, problem-solving, and writing skills, which could lead to success in college. Students who are ready and prepared for college are those who can succeed in entry-level college courses without remediation while understanding college expectations and possessing skills necessary for coping with content knowledge (Huerta & Watt, 2018; Lombardi, Conley, Seburn, & Downs, 2012). If not prepared adequately, Le et al. (2016) tragically describe students falling into a vicious cycle of taking remedial courses in college, taking longer to graduate, increasing school costs, and increasing their risk of dropping out.

To assess student perspectives on their college readiness, Whatleithner (2020) interviewed 18 first-generation college students from a California university in which over 60% are classified as first-generation with a majority of Latinx students. The researcher drew on a larger study and students were drawn for the university's First Year Experience (FYE) program indicating that they had low college placement scores and required help in reading and writing in college. In this data set, 16 out of 18 students were Latinx, one was white and one African American and all were from low-socioeconomic communities. Data were collected through two interviews, one in the fall

and one in the spring semester to understanding how students felt in their preparation for their courses. Wahleithner (2020) found that students need literacy preparation as 12 out of 18 felt unprepared for college expectations in writing. Students noted the lack of rigor in their reading expectations, which left them feeling not challenged or prepared to engage in disciplinary thinking. In college writing expectations, 14 out of 18 students wish that their high schools prepared them with a non-formulaic way of writing and instead focus on opportunities in which they could engage in original research. If students were prepared academically, 10 out of 18 students would not have indicated that they struggled to think analytically or needed skills in synthesizing ideas from various disciplines. This study outlined the need for rigorous and defined reading and writing skills in high schools to guide students' thinking in complex texts across disciplines. The researcher suggests skills such as formulating purposes, annotating text, multiple opportunities for conversations to occur before writing, and analyzing discipline-specific texts in preparing underrepresented first-generation college students (Wahleithner, 2020). Early college and dual credit students are exposed to rigorous college courses in their junior and senior years that require the suggested skills by Wahleithner (2020). Some of their basic and required courses are History and English, which require many reading and writing skills. Students must feel well equipped with strategies and prepared with study skills to engage in these courses in their last two years of high school. Wahleithner (2020) outlined skills that are extremely important to the population in my study as students reflect on their high school experience and their suggestions for improvements, as in this study.

Chingos (2018) demonstrates the importance of academic preparation as significant in predicting student success in college. The researcher identifies the use of high school grades, courses taken, including AP, college admission scores such as SAT

and ACT, and GPA as measures of academic college preparation. Similarly, researchers created a high school academic rigor (HSAR) index to predict first-year college GPA (FYGPA) based on grades and courses taken in high school (Allen, Mattern, & Ndum, 2019). Data were collected from a large data set of 109, 841 students who took ACT exams and completed their first year of college. The data were obtained from 449 4-year and 2-year colleges and universities while 89% of students were enrolled in public schools and 11% from nonpublic schools. Most of the high school coursework information was taken from the ACT questionnaire (Allen et al., 2019).

Data were analyzed using a hierarchical linear model allowing researchers to evaluate variables at different levels from high school to college attended. The findings of the study show that high school courses such as English 10 through 12, Calculus, Algebra 2, Spanish, and Chemistry relate the most to FYGPA. This study shows the need for constructive academic advising from administration and staff towards students who intend to go to college. Students needed to be encouraged and aware of taking rigorous courses and the importance behind them (Allen et al., 2019; Le et al., 2016).

Principals also have an instructional role that can influence the college-going culture and the direct implications of their student's college preparation (Athanases et al., 2016; Duncheon & DeMatthews, 2018). The role of principals in preparing underrepresented students were analyzed in a 2018 study utilizing early college data from 2015 to 2017. The data were collected from eight early college high schools near the U.S.-Mexico border with underrepresented populations of 90% Hispanic and students on free and reduced lunch ranged from 60 to 90%. In this qualitative study, observations, documents and interviews were used as sources of data from 10 administrators. Interviews were used to understand principal perspectives on preparing students for college and their views on the early college model (Duncheon & DeMatthews, 2018).

Although principals are not interviewed in my study, students have the opportunity to reflect on the staff that has helped them prepare for college. Early college deans and college coordinators for dual credit students often serve as the first administrator students speak to before the school's main principal.

The findings of this study show that principals support college preparation through prioritizing student enrichment, embedded supports, targeted interventions, and instructional rigor. In maintaining instructional rigor, principals chose teaching staff that would be able to adhere to the curriculum's high demands and who could also teach students the concept of working hard and having high expectations. Principals focused on Common Instructional Framework (CIF), which are six strategies to help build college readiness, including collaborative group work, enabling classroom talk, and literacy skills. Writing and questioning skills are also outlined with the help of scaffolding skills so that students can make sense of new information through prior knowledge (Duncheon & DeMatthews, 2018).

This study revealed the importance of dual credit classes and how principals and staff could support students by utilizing different strategies to give students the necessary skills to be successful (Duncheon & DeMatthews, 2018). Principals realized the importance of providing these extra supports since a lot of first-generation college students do not have the supports at home to guide them in preparation for college. Students in the early colleges must pass the Texas Skills Initiative (TSI), which is a college readiness exam consisting of math, reading, and writing. To maximize the number of qualified students for college courses, summer bridge, tutoring, and interventions was put in place to help prepare students. Examples of embedded supports that principals and staff can provide are extra preparatory courses such as building study

skills in student's freshmen year, SAT, and ACT preparation during their sophomore year, and financial aid planning in their senior year.

Summary of Literature Review

There is substantial evidence concerning social capital and its effects on post-secondary plans for underrepresented students. Many researchers have agreed on the need to have multiple channels in which underrepresented students can obtain college information (Athanases et al., 2016; Bryan et al., 2017; Le et al., 2017; Owen et al., 2020). Student outlooks and aspirations for college may remain positive with strong relationships with their teachers (Adams et al., 2020; Newcomer, 2018). By providing meaningful and culturally relevant instruction, teachers show they care about their students beyond the academic world (Perez-Felkner, 2015). Student perspectives of their teachers have shown how keen they are in recognizing these caring traits in their teachers (Ari et al., 2017; Newcomer, 2018; Todd, 2018). Through culturally relevant college talks by teachers, Athanases et al. (2016) found students felt more informed about college and also felt welcomed at their school. Besides teachers, counselors are the top choice for students who want to receive college information (Owen et al., 2020).

As part of the school system, counselors work closely with underrepresented minority students in obtaining college information that they might not otherwise have. When students are faced with limited resources because of family or community, the school counselor is their guide and serves as another source of social capital (Bryan et al., 2011). As a significant social capital source for these students, Rutter et al. (2020) explain how counselors' role has changed to become more reciprocal. In this context, counselors are now part of a system of channels that must work with teachers and administrations to provide the maximum support for underrepresented students (Fitzpatrick, 2020; Robinson & Roksa, 2016). Peers are another source of social capital

as students are often placed in similar AP classes together (Tierney & Venegas, 2006). The idea of the reciprocal relationship is integrated here again as peers work together towards their common goal of doing well in school and going to college (Marciano, 2017; Tierney & Venegas, 2006).

Together, teachers, counselors, staff, and administration provide a school wide support system for underrepresented students. One of the main ways that students are being prepared for college is through AVID integration in high school and in college (Huerta & Watt, 2015; Kirk & Watt, 2018). AVID students obtain positive attitudes towards college and become more engaged with the school through their involvement, connections, attachments, and commitments (Llamas et al., 2014).

Besides the school system, parents are the first source of social capital for students and are the first to be contacted when deciding on college majors (Owen et al., 2020). Parental involvement has been tied to students attending college, despite whether parents have college degrees (Le et al., 2016; Robinson & Roksa, 2016). Although many parents of underrepresented students may not have college degrees, researchers have noted that they provide emotional support, especially in Latin and African American communities. Through this parental engagement, students have been noted to increase their aspirations for college as well as their GPA.

In several ways, student connections with their school, family, and peers affect their attitudes towards college and, in turn, their academic achievement. Students who trust and feel a strong sense of belonging on their campus show strong academic performance (Salloum et al., 2017). These feelings of trust and sense of belonging are only possible through the connections of channels help between the student, family, and school (Oranye et al., 2017). If students have these positive assertions, it will only mean that they are in a place where they can successfully prepare for college. If teachers

academically prepare students, then they can transfer these skills through college (Chingos, 2018). Principals and staff that work with early college and dual credit underrepresented students can keep all of these connections in mind when building and advancing their programs. Student perceptions of all these sources of social capital could lend a view for us to see if there is any significant influence on their college preparation. To assist with understanding social capital and the influence on students preparing for college, a theoretical framework around this topic is proposed in the next section.

Conclusion

The need for college-ready underrepresented students is crucial to state and national future economic stability and growth. To meet the workforce's growing demands, students who reside in Texas need a school environment that includes high expectations, caring relationships, and informative social networks that help them understand the postsecondary decision-making process that will affect their futures. Using the ecological systems theory, social capital, and community cultural wealth model, could help explain how the networks and social systems students encounter could affect their college readiness.

The literature review presented in this chapter provides a framework for the ideas relating to the purpose of this study. The literature review seeks to bridge the gap between studies in early college and dual credit, only. While there are many studies on early college and its characteristics there are also a few dual credit studies on the same subject. With my study, I expect to fill the gap in recognizing that early college and dual credit are two different programs within the school and seek to analyze any similarities or differences in the programs. The interconnected stream of networks provided by family, teachers, counselors, school, and peers helps examine students' social capital in early college and dual credit traditional high schools and their perceptions regarding college

readiness and their high school experiences. Student attitudes towards college may be influenced by both their parent engagement and school wide support. Through the school, students are affected by their teacher expectations and interactions, as well as their guidance and counseling. If all these interactions are effective and positive, students' academic achievement and college preparation increases. The following chapter will describe the methodology to be used by the researcher. The chapter includes an overview of the research problem, operationalization of theoretical constructs, research purpose, questions, hypothesis, research design, population and sample, data collection procedures, data analysis, privacy and ethical considerations, and limitations.

CHAPTER III: METHODOLOGY

The purpose of this study was to examine the social capital of early college and dual credit traditional high school underrepresented students. A purposeful sample of 12th grade students enrolled in either early college or dual credit traditional high school from an urban high school located in southwest Texas were solicited to complete the *High School Follow Up Survey* and invited to participate in interviews. Quantitative data were analyzed using frequencies, percentages, and two-tailed independent t-tests. The qualitative data from the open-ended questions on the survey and interviews were analyzed using an inductive coding process. This chapter presents an overview of the research problem, operationalization of theoretical constructions, research purpose, research questions with the hypothesis, the research design, the sample and population, participant selection, instrumentations, the data procedures, and how the data were analyzed.

Overview of the Research Problem

The tuition prices for public four-year universities per year have increased from \$7,560 in the 2008-2009 academic year to \$10,130 in the 2016-2017 academic year (The College Board, 2018). There has been a decline in students completing their college degrees, with factors such as tuition cost and low college preparedness playing a significant role (Saenz & Combs, 2015). The modern economy continues to grow with the demand for highly skilled workers, with significant job growths going to people who have gone beyond high school education (Carnevale, Jayasundera, & Gulish, 2016). According to Santelises (2017), 47% of U.S. high school graduates do not complete a college related course or study. High schools are focusing too much on the attainment of credits rather than mastery of the material. So, while it might seem that students are

college-ready due to the number of credits obtained, colleges report that many students must take remedial courses (Lombardi et al., 2013). It is imperative to know whether high schools are adequately preparing students for high school requirements and post-secondary education since high schools are crucial in preparing to transition to college with enough support to complete college (Duncheon & DeMatthews, 2019).

Operationalization of Theoretical Constructs

This study consisted of the following constructs: (a) social capital and (b) college preparatory participation. Social capital, for the context of this study, refers to assets embedded in social relationships possessed by high school staff members. These assets include information, resources, and opportunities that might positively impact the college readiness of high school students (Farmer-Hinton, 2008). Data were collected using the *High School Follow-Up Survey* to analyze students' social capital as it relates to attitudes toward college, academic achievement, teacher expectations and interactions, college readiness, school-wide support, guidance and counseling, and parent engagement (Leal, 2008). College preparatory participation was defined by Pre-AP, AP, Dual Credit courses, or AVID courses taken by participants. Students who participate in these courses during high school makes them better prepared for challenges that arise in college (Royster, Gross, & Hochbein, 2015). Participation in college preparedness courses was measured using responses from the survey and interview.

Research Purpose, Questions, and Hypothesis

The purpose of this study is to examine the social capital of students in early college and dual credit traditional high school. The research questions addressed were:

1. Is there a statistically significant mean difference between attitude towards college of early college students and dual credit students enrolled in college courses?

H_a: There is a statistically significant mean difference between the attitude toward college of students enrolled in early college and that of dual credit students.

2. Is there a statistically significant mean difference between the academic readiness for college of early college students and dual credit students enrolled in college courses?

H_a: There is a statistically significant mean difference between the academic readiness of students enrolled in early college and that of dual credit students.

3. Is there a statistically significant mean difference between teacher expectations and interactions of early college students and dual credit students enrolled in college courses?

H_a: There is a statistically significant mean difference between the teacher expectations and interactions of students enrolled in early college and that of dual credit students.

4. Is there a statistically significant mean difference between college preparation of early college students and dual credit students enrolled in college courses?

H_a: There is a statistically significant mean difference between the college preparation of students enrolled in early college and that of dual credit students.

5. Is there a statistically significant mean difference between school wide support of early college students and dual credit students enrolled in college courses?

H_a: There is a statistically significant mean difference between the school wide support of students enrolled in early college and that of dual credit students.

6. Is there a statistically significant mean difference between guidance and counseling of early college students and dual credit students enrolled in college courses?

H_a: There is a statistically significant mean difference between the guidance and counseling of students enrolled in early college and that of dual credit students.

7. Is there a statistically significant mean difference between parent engagement of early college students and dual credit students enrolled in college courses?

H_a: There is a statistically significant mean difference between the parent engagement of students enrolled in early college and that of dual credit students.

8. What are the perceptions of dual credit and early college students on their experiences in high school and preparation for college?

Research Design

For this study, a mixed methods approach (QUAN→qual) was used to examine the social capital of early college and dual credit traditional high school students and their perceptions regarding college readiness and course selections. The design consisted of a quantitative and qualitative phase. Implementing a mixed methods design allowed for an in-depth examination of quantitative results with a qualitative phase follow up. A purposeful sample of 12th grade early college and dual credit students from five urban high schools in southeast Texas were solicited to take the *High School Follow-Up Survey*. Students who participated were enrolled in an AVID class or part of the dual credit

program. Students participated in interviews via Zoom or by phone to provide further insight into the quantitative data. The participant demographics and course information (i.e., Dual Credit Enrollment) were obtained through the school's information data system. Quantitative data were analyzed using descriptive statistics two-tailed independent t-tests, while qualitative data were analyzed using an inductive coding process.

Population and Sample

The population of the study consisted of a large urban school district in southeast Texas. The school district is comprised of 67 campuses (36 elementary schools, 11 middle schools, ten intermediate schools, six high schools, and four alternative program campuses), employs 199 principals/assistant principals and 3,822 teachers, and has a student population of 53,157 (Texas Education Agency, 2019). Table 3.1 provides the student district demographics by percentage utilizing the 2018-19 District Student Information from the Texas Academic Performance Report (Texas Education Agency, 2019). Of the district population, 83.4% were Hispanic, 5.6% White, 7.2% African American, 0.1% American Indian, 3.1% Asian-Pacific Islander, and 0.6% were Two or More Races. Of the total, 86.3% were economically disadvantaged, 60.2% were at-risk, 35.2% were English Learners (EL), and 5.6% were Section 504 students.

Table 3.1

District Student Demographic Data

	Students (n)	Percentage (%)
Hispanic	44,323	83.4
White	2,953	5.6
African American	3,842	7.2
American Indian	76	<1.0
Asian-Pacific Islander	1,625	3.1
Two or More Races	338	<1.0
Economically Disadvantaged	45,880	86.3
At-Risk	33,061	60.2
English Learners (EL)	15,379	35.2
Section 504 Students	2,960	5.6

A purposeful sample of 12th grade early college and dual credit traditional high school students from five high schools were solicited to complete a survey assessing their college experiences in high school and college courses. The five high schools within the study are large 5-A comprehensive campuses with student enrollment ranging from 2,248 to 3,888. Each campus has one main principal and one dean for each early college, while the number of assistant principals, teachers, and counselors is based on the number of students enrolled in each campus.

Table 3.2 presents the breakdown of student demographics for each high school. In the five high schools, the Hispanic population is the highest ranging from 65.7% to 94.6%, followed by African Americans ranging from 1.3% to 16.7%. The White

population ranged from 2.2% to 9.2%, while three high schools had less than 1% Asian-Pacific Islander. High school D had a 3.6% Asian-Pacific Islander while high school E has a 10.4% population.

Table 3.2

Student Demographics of the Five High Schools

	A	B	C	D	E
Student Total	(n = 2,325)	(n = 2,248)	(n = 2,715)	(n = 3,128)	(n = 3,888)
	(%)	(%)	(%)	(%)	(%)
Hispanic	94.6	86.7	91.3	81.6	65.7
White	3.5	2.2	5.1	9.2	5.7
African American	1.3	10.2	2.7	4.7	16.7
Native American	<1.0	<1.0	<1.0	<1.0	<1.0
Asian-Pacific Islander	<1.0	<1.0	<1.0	3.6	10.4
At-Risk	62.2	61.5	61.5	65.5	50.6
Economically Disadvantaged	88.3	88.9	89.2	75.7	74.7

Table 3.3 shows the breakdown of student demographics for 12th grade early college only. According to TEA (2020), the target populations for early colleges are at-risk, economically disadvantaged students, and historically underserved populations. The enrollment of the target population must represent the district's demographic data (Texas Education Agency, 2020).

Table 3.3

Student Demographics of 12th Grade Early Colleges Students of the Five High Schools

	A	B	C	D	E
Student Total	(n = 101)	(n = 101)	(n = 101)	(n = 101)	(n = 101)
	(%)	(%)	(%)	(%)	(%)
Hispanic	94.0	89.0	94.0	78.0	69.0
White	4.0	2.0	2.0	10.0	4.0
African American	1.0	6.0	2.0	5.0	15.0
Asian-Pacific Islander	1.0	2.0	1.0	7.0	11.0
At-Risk	23.0	24.0	25.0	22.0	26.0
Economically Disadvantaged	96.0	88.0	87.0	57.0	65.0

Table 3.4 shows the student demographics for 12th grade dual credit students only. From the data table, high schools A, B, and C have the lowest number of 12th grade students enrolled in dual credit courses ranging from eight students to 24. High schools A, B, and C also show 100% of the students are Hispanics. High schools D and E have a higher enrollment of 12th grade students in dual credit courses while also having a wider diversity, including White, African American, and Asian-Pacific Islander.

Table 3.4

Student Demographics of 12th Grade Dual Credit Traditional Students of the Five High Schools

	A	B	C	D	E
Student Total	(n = 24) (%)	(n = 9) (%)	(n = 8) (%)	(n = 71) (%)	(n = 52) (%)
Hispanic	100.0	100.0	100.0	78.0	56.0
White	0.0	0.0	0.0	8.0	4.0
African American	0.0	0.0	0.0	3.0	15.0
Asian-Pacific	0.0	0.0	0.0	11.0	25.0
Islander					
At-Risk	46.0	33.0	25.0	16.0	13.0
Economically Disadvantaged	88.0	89.0	50.0	64.0	56.0

Instrumentation

The researcher used a pre-existing instrument, the *High School Follow-Up Survey* (Leal, 2008), to measure students' perceptions of their high school experiences as they relate to their post-secondary preparation. The survey instrument was initially created by Leal (2008) to identify high school experiences associated with the college preparation of a unique population. Instrument reliability and validity were obtained through a series of six steps, which included identifying survey components, which led to a list of literature reviews that supported the development of the eight survey sections. In the next step, a rationale for the survey items was developed using a second literature review. To obtain validity, several teams of professionals reviewed the survey content. The teams of professionals consisted of doctoral level professionals who have researched socioeconomic and cultural environment issues. Another group of reviewers consisted of

high school counselors and administrators that were interested in improving the college preparation of low socioeconomic students in south Texas. The survey was administered to pre-test it with a group of fifteen students before full administration. This pre-test was done to ensure that students understand what is being asked of them and that the questions target what the researcher is trying to obtain information on. The reliability of the instrument was obtained by using a correlation coefficient of 0.70 or greater in the pilot group of pre-testing the survey.

The High School Follow-Up Surveys contains 64-items divided into nine sections: (a) family background information (14-items); (b) attitude toward college (6-items); (c) academic achievement (7-items); (d) teacher expectations and interaction (5-items); (e) college readiness (7-items); (f) school-wide support (9-items); (g) guidance and counseling (10-items); (h) parent engagement (5-items); and (i) open-ended questions (4-items). The first section contains basic background information such as family demographics, plans for college, and the number of siblings and their college plans. In sections two through eight, participants are asked to rate their high school experience using a 5-point Likert scale (1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Disagree). A composite score can be obtained, ranging from 5-45 depending on the number of items in each section. The higher the composite score, the higher the students' social capital.

The final section of the survey consists of four open-ended response items to better understand the experiences of high school students (e.g., What would you think high schools should do to improve college preparation for all students?). According to Litwin (1995), a reliability coefficient of 0.70 or greater would be used to determine consistency and reliability between sets of responses. Cronbach's alpha reliability coefficients were calculated for the scales and the coefficients were: (a) attitude toward

college was 0.78; (b) academic achievement was 0.80; (c) teacher expectations and interaction were 0.87; (d) college readiness was 0.78; (e) school-wide support was 0.76; (f) guidance and counseling was 0.75; and (g) parent engagement was 0.71 (Leal, 2008). In this study, the survey was given to high school students, so the wording remained so that students thought of their experiences. For example, “In high school, I was aware of the importance of the SAT and ACT exams.” Based on the knowledge of students taking the survey, the program “GEAR UP” is not available to students, so they were taken out.

Data Collection Procedures

Quantitative

The researcher obtained permission to conduct the study from the University of Houston-Clear Lake (UHCL) Committee for the Protection of Human Subjects (CPHS) and the participating school district’s Institutional Review Board (IRB) before collecting data. After permission was gathered, the researcher and principal discussed the purpose of the study and the process for collecting student survey data and conducting interviews. The researcher and principal met with students online to explain the survey and data collection process. Informed consent forms were sent to each student identified to participate in the study. There was space provided in the consent forms for parent signatures. The informed consent form included the purpose of the study, an explanation that participation in the study is voluntary, the survey administration procedures, interview procedures, an explanation that pseudonyms or codes will protect students’ identities, and an explanation that participation can stop at any time. Students of varying ages were given an informed consent form. Students who were under 18 years of age were required to provide a parent signature on the informed consent form.

The survey was administered through their high school senior AVID class for early college students. For students at the traditional or main campus, the surveys were

administered by the College Now coordinators during a Friday when students are not attending their college courses. The principal and teachers had access to the survey link to provide to the students. Students returned their consent forms to the teacher, who then provided access to the survey. Students were allowed to stop at any time if they did not want to complete the survey, and their data was not used. Data from survey responses were transferred to an Excel spreadsheet to be used in an SPSS database for further analysis.

Qualitative

Online interviews were conducted with dual credit students and early college students who completed the survey used in this study. A total of 20 participants were selected to participate for an interview: 10 early college and 10 dual credit students. Two students from each of the five high schools were chosen based on completion of interviews.

The interviews consisted of 13 questions, which produced data needed for analysis of participant's perceptions of their high school experiences and preparation for college. The interviews lasted approximately seven to 20 minutes and took place on Zoom or phone. The researcher used an established interview protocol and open-ended questions (see Appendix C) for the interview. The interviews had a diverse mixture of students based on race and had a balance of female and male students. The interviews were recorded, and the recordings were downloaded to a protected file. The researcher stored the interview data on the researcher's flash drive as well as the computer hard drive. The faculty sponsor will keep all data for five years before destroying the data. Once the deadline has passed, the researcher will destroy all data files.

Data Analysis

Quantitative

SPSS was used to analyze the survey data. To answer research questions one through five, two-tailed independent t-tests were conducted to determine if there was a statistically significant mean difference in the social capital of students in early college taking college courses at the community college and those students who are in traditional high school taking dual college courses. The independent variable was divided into two groups: (a) students enrolled in early college taking college courses and (b) students enrolled in traditional high school taking dual credit courses at the same community college as early college. The dependent variable, social capital, was measured by: (a) attitude toward college; (b) academic achievement; (c) teacher expectations and interaction; (d) college preparation and readiness; (e) school-wide support; (f) guidance and counseling; and (g) parent engagement. To determine effect size, Cohen's d and the coefficient of determination (r^2) will be used. A significance value of 0.05 will be used for this study.

Qualitative

To address the qualitative research question, the researcher used principles from grounded theory. Grounded theory analysis involves the researcher constructing themes based on data using a systematic and comparative analysis (Lichtman, 2010). Themes were derived from open-ended questions in the *High School Follow-Up Survey* and interviews. Through a constant-comparative method of coding, the raw data were analyzed, which allowed for the development of themes and categories. For the coding process, the researcher utilized three steps which included open coding, axial coding, and selective coding (Lichtman, 2010). In open coding, relevant topics related to study were determined as coding occurred. With the relevant topics, categories emerged as part of

axial coding. Lastly, with selective coding, the major themes were derived from categories identified in axial coding (Lichtman, 2010). The themes and categories led to theoretical explanations of students' perceptions of their high school experiences and preparation for college.

The researcher transcribed the recordings using Temi, audio to text automatic transcription service and application, for analysis. The researcher reviewed the transcriptions for accuracy, download the files as Word documents, and imported them into QSR International's NVivo 12 qualitative data analysis software. In reviewing transcripts on Temi, the researcher completed an initial read of all transcripts to get the general sense of responses before any coding was done. The open-ended survey data questions were downloaded from SPSS into an Excel file where the researcher hand coded each of the three open-ended questions, and then coded again once these questions were uploaded to NVivo. The two group responses, early college and dual credit, were classified as cases on NVivo so the researcher could run a matrix coding query to see values in codes between student answers.

Using the coding process, the researcher was able to identify and interpret the data. A constant-comparative method of coding was used following three steps: (a) open coding; (b) axial coding; and (c) selective coding. Open coding allowed for the comparison of data to identify topics relevant to the study and qualitative research question. In axial coding, the researcher constructed the data in new ways enabling connections between categories of themes. Selective coding was used to move themes into a theoretical explanation of the qualitative question (Lichtman, 2010).

Kolb (2012) discusses the importance of a systematic arrangement of information from interviews and other material to increase the understanding of new discoveries. In this study, the researcher used the data from the survey and interviews and applied the

constant-comparative method of coding to determine themes that arise regarding students' perceptions of their high school experiences and preparation for college. The data should provide a comprehensive outlook to answer research question eight.

Qualitative Validity

The qualitative analysis process included validation through peer review of the methodology and questions to ensure that the interview questions were in line with the research problems and questions. Validity was obtained with the acknowledgment of the potential bias of the researcher. The researcher has worked longer with early college students and has experienced what the students go through in their high school experiences as they relate to academics. The awareness of the potential bias prompts the researcher to be careful with the interpretations of the interview data. With this awareness, the researcher completed member checking with dual credit and early college students to validate responses that were unclear during the transcription process. Peer debriefing was used as a technique to allow a critical audit of the data to enhance the credibility and trustworthiness of the qualitative research data (Janesick, 2015). In establishing validity, the school chosen has a strong focus on academics, AP Programs, and Dual Credit. Students are involved in AVID, Dual Credit, Personalized Learning, and Early College programs. The principal is always seeking ways in which the school can improve and be innovative through teaching and learning. In this study, it was important that schools had students participating in various programs and given the same opportunities to engage in courses so responses can be more consistent in increasing the number of samples.

Privacy and Ethical Considerations

The researcher obtained permission to conduct the study from UHCL's CPHS and the participating school district's IRB before collecting data. The name of the school

district was not mentioned in the study, nor the individual names of the student participants. A survey cover letter was attached to the survey stating the purpose of the study, ensuring that participants will be aware that their participation is voluntary, and their identities will remain confidential. Parents of the students were also given a parental consent form before students are given access to the survey. For students participating in the interviews, the researcher reminded students the information discussed is confidential and content discussed in the interviews would not be shared outside of the interviews. The data will be kept safe in a locked office when the researcher is not working on the research, and the data collected will be kept on a hard drive. The hard drive and files will be password protected. Data obtained will be kept by the faculty sponsor for five years before they are destroyed.

Research Design Limitations

The study will have several limitations. First of the limitations is the focus of students in a single school district. It will be difficult to generalize the data to a bigger population. Second, the student's honesty in their responses may skew the representation of their perceptions of their high school experiences and college preparation. There is no method to ensure the validity of student answers. Third, there may be language barriers with both the interviews and surveys since they are available only in English. Participants who have limited English proficiency will find it challenging to participate since both the survey and interview questions are in English. Participation in the study required that students be in their senior year of high school enrolled in dual credit courses at the community college. There was a student during the interview that explained they had graduated earlier and thus their views were not used in this study.

Conclusion

The purpose of this study is to examine the social capital of students in early college and Dual Credit traditional high school and their perceptions regarding college readiness and course selections. This chapter provides an overview of the research problem, operationalization of theoretical constructions, research purpose, questions with hypotheses, the research design, the sample and population, participant selection, instrumentations, the data procedures, and how the data will be analyzed. For this study, a mixed methods research design will be used to examine the influence of social capital on college course taking and students' perceptions of their post-secondary preparation based on their high school experiences as it relates to early college and dual credit students. Chapter IV will discuss survey and interview data analysis in further detail.

CHAPTER IV:

RESULTS

This study examined the social capital of students in early college and dual credit in the areas of attitude towards college, academic achievement, teacher expectations and interactions, college preparation, school wide support, guidance and counseling, parent involvement and the students' perceptions of their high school experiences related to college readiness. The purpose of this chapter is to present the results of the quantitative and qualitative data analysis of this study. This chapter provides a detailed description of the participants' demographics, the instrument reliability, and the data analysis related to each of the eight research questions. The chapter concludes with a summary of the findings.

Demographic Characteristics of the Participants

During December 2020 and January 2021, data were collected from a total of 154 students in 12th grade who were enrolled either in early college ($n = 93$) or the dual credit ($n = 61$) program. Tables 4.1 and 4.2 display participant demographics. The majority of respondents were Hispanic, with 76.3% in the early college program and 59% in the dual credit program. The background demographics provide more information on the students' language, parental education level, and their plans to attend college. College-going mindset was at 93.5% for early college students and 95.1% for dual credit students. Approximately 62.4% of students in early college are bilingual, while 47.5% are bilingual in dual credit. Overall, the mother's and father's education level were similar in each group. A major difference occurred between parents obtaining their bachelor's degrees. For early college students, 4.3% of fathers received bachelor's degrees while 19.7% of dual credit student fathers obtained the same.

Table 4.1

Participant Demographics (%)

Demographic	Early College	Dual Credit
Male	29.0 (n = 27)	31.1 (n = 19)
Female	71.0 (n = 66)	68.9 (n = 42)
Hispanic	76.3 (n = 71)	59.0 (n = 6)
African American	5.4 (n = 5)	11.5 (n = 7)
Asian	11.8 (n = 11)	18.0 (n = 11)
White	6.5 (n = 6)	11.5 (n = 7)

Table 4.2

Participant Background Demographics

Demographic	Early College	Dual Credit
1. Plan to attend college	93.5 (n = 87)	95.1 (n = 58)
2. Bilingual	62.4 (n = 58)	47.5 (n = 29)
3. Primary Language		
English	37.6 (n = 35)	55.7 (n = 34)
Spanish	54.8 (n = 51)	36.1 (n = 22)
Other (not specified)	7.5 (n = 7)	8.2 (n = 5)
4. Mother's education level		
Less than 6 th grade	9.7 (n = 9)	6.6 (n = 4)
Did not finish high school	21.5 (n = 20)	16.4 (n = 10)
High school graduate	29.0 (n = 27)	23.0 (n = 14)
Some college	21.5 (n = 20)	11.5 (n = 7)
Associate Degree	8.6 (n = 8)	13.1 (n = 8)
Bachelor Degree	7.5 (n = 7)	23.0 (n = 14)
Master's Degree	2.2 (n = 2)	4.9 (n = 3)
Professional Degree	0.0 (n = 0)	1.6 (n = 1)
5. Father's education level		
Less than 6 th grade	19.4 (n = 18)	4.9 (n = 3)
Did not finish high school	31.2 (n = 29)	24.6 (n = 15)
High school graduate	23.7 (n = 22)	21.3 (n = 13)
Some college	10.8 (n = 10)	16.4 (n = 10)
Associate Degree	6.5 (n = 6)	8.2 (n = 5)
Bachelor's Degree	4.3	19.7

	(n = 4)	(n = 12)
Master's Degree	3.2	3.3
	(n = 3)	(n = 2)
Professional Degree	1.1	1.6
	(n = 1)	(n = 1)

The high schools chosen for this study were diverse with strong family traditions and focus on academic achievement through AP programs, dual credit and new innovative programs such as Personalized Learning. Dual credit students have the option to enroll in the Advancement Via Individual Determination (AVID) course, while early college students are required to enroll.

The participants for the qualitative portion of the study were selected from participants who completed the High School Follow-Up Survey. A total of 20 participants were selected to participate in an interview: 10 early college and 10 dual credit students. In the early college group, male participants comprise 60.0% (n = 6), while female participants comprise 40.0% (n = 4) of the sample. The race/ethnicity of the qualitative portion was White 10.0% (n = 10), Asian 20.0% (n = 2), African American 20% (n = 2) and Hispanic 50.0% (n = 5). In the dual credit group, male participants comprise 40% (n = 4), while female participants comprise 60% (n = 6) of the sample. The race/ethnicity of the qualitative portion was White 10% (n = 1), Asian 20% (n = 2), African American 10% (n = 1) and Hispanic 60% (n = 6).

Quantitative

The following section is a quantitative result analysis of research questions one through seven. Results from 61 dual credit (DC) students and 93 early college (EC) students were used from the High School Follow-Up Survey. Descriptive statistics and two-tailed independent t-tests were used to determine statistically significant relationships.

Research Question One: Differences between Attitudes

Research question one, *is there a statistically significant mean difference between attitude towards college of early college students and dual credit students enrolled in college courses?*, was answered using descriptive statistics and a two-tailed independent t-test. Results of the independent t-test indicate that enrollment in either program does not influence student attitude towards college, $t(152) = -0.736, p = 0.463$. Whether one is enrolled in dual credit or early college does not influence their perceptions on attitudes toward college. The mean scores indicate that both groups have related outlooks on their attitudes towards college (dual credit $M = 22.68$; early college $M = 22.37$). Table 4.3 shows the results of the two-tailed independent t-test.

Table 4.3

Attitude Toward College

Class Enrollment	<i>N</i>	<i>M</i>	<i>SD</i>	<i>t</i> -value	df	<i>p</i> -value
1. Dual Credit	61	22.68	2.33	-0.736	152	0.463
2. Early College	93	22.37	2.85			

*Statistically significant ($p < .05$).

The descriptive statistics examined the frequencies and percentages regarding student's perceptions of their attitude toward college. Tables 4.4 and 4.5 show the percentage and frequency data for students' responses to the survey section, Attitude Toward College. Dual credit students responded *Agree/Strongly Agree* at a rate of 98.4% to the item "I expect to go to college (Item 1)," and early college students responded at a rate of 94.7% to the same item. Additionally, there was a 9.8 % higher response of *Agree/Strongly Agree* for dual credit students on the survey item five, "Most of my friends in high school think it is important to go to college," than students in early

college. Both groups responded highly to item six, “I think continuing my education after high school is important,” with dual credit students responding at a rate of 91.8% and early college students at 94.7%.

Table 4.4

Students’ Perceptions of Attitude Toward College (%)

Survey Item		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. I believe college is important to get a good job.	DC	0.0 (n = 0)	6.6 (n = 4)	14.8 (n = 9)	68.9 (n = 42)	9.8 (n = 6)
	EC	0.0 (n = 0)	5.4 (n = 5)	23.7 (n = 22)	59.1 (n = 55)	11.8 (n = 11)
2. I expect to go to college.	DC	0.0 (n = 0)	0.0 (n = 0)	1.6 (n = 1)	86.9 (n = 53)	11.5 (n = 7)
	EC	1.1 (n = 1)	1.1 (n = 1)	3.2 (n = 3)	79.6 (n = 74)	15.1 (n = 14)
3. I think everyone has the opportunity to go to college.	DC	8.2 (n = 5)	4.9 (n = 3)	18.0 (n = 11)	39.3 (n = 24)	13.1 (n = 8)
	EC	11.8 (n = 11)	24.7 (n = 23)	30.1 (n = 28)	20.4 (n = 19)	12.9 (n = 12)
4. Most of my friends in high school plan to go to college.	DC	1.6 (n = 1)	1.6 (n = 1)	19.7 (n = 12)	72.1 (n = 44)	4.9 (n = 3)
	EC	1.1 (n = 1)	7.5 (n = 7)	15.1 (n = 14)	61.3 (n = 57)	15.1 (n = 14)
5. Most of my friends in high school think it is important to go to college.	DC	3.3 (n = 2)	9.8 (n = 6)	14.8 (n = 9)	60.7 (n = 37)	11.5 (n = 7)
	EC	1.1 (n = 1)	9.7 (n = 9)	26.9 (n = 25)	47.3 (n = 44)	15.1 (n = 14)
6. I think continuing my education after high school is important	DC	0.0 (n = 0)	0.0 (n = 0)	8.2 (n = 5)	78.7 (n = 48)	13.1 (n = 8)
	EC	1.1 (n = 1)	0.0 (n = 0)	4.3 (n = 4)	79.6 (n = 74)	15.1 (n = 14)

Table 4.5

Students' Perceptions of Attitude Toward College-Collapsed (%)

Survey Item		Strongly Disagree/ Disagree	Neutral	Agree/Strongly Agree
1. I believe college is important to get a good job.	DC	6.6 (<i>n</i> = 4)	14.8 (<i>n</i> = 9)	78.7 (<i>n</i> = 48)
	EC	5.4 (<i>n</i> = 5)	23.7 (<i>n</i> = 22)	70.9 (<i>n</i> = 66)
2. I expect to go to college.	DC	0.0 (<i>n</i> = 0)	1.6 (<i>n</i> = 1)	98.4 (<i>n</i> = 60)
	EC	2.2 (<i>n</i> = 2)	3.2 (<i>n</i> = 3)	94.7 (<i>n</i> = 88)
3. I think everyone has the opportunity to go to college.	DC	13.1 (<i>n</i> = 8)	18.0 (<i>n</i> = 11)	52.4 (<i>n</i> = 32)
	EC	36.5 (<i>n</i> = 34)	30.1 (<i>n</i> = 28)	33.3 (<i>n</i> = 104)
4. Most of my friends in high school plan to go to college.	DC	3.2 (<i>n</i> = 2)	19.7 (<i>n</i> = 12)	77.0 (<i>n</i> = 47)
	EC	8.6 (<i>n</i> = 8)	15.1 (<i>n</i> = 14)	76.4 (<i>n</i> = 71)
5. Most of my friends in high school think it is important to go to	DC	13.1 (<i>n</i> = 8)	14.8 (<i>n</i> = 9)	72.2 (<i>n</i> = 44)
	EC	10.8 (<i>n</i> = 10)	26.9 (<i>n</i> = 25)	62.4 (<i>n</i> = 58)
6. I think continuing my education after high school is important	DC	0.0 (<i>n</i> = 0)	8.2 (<i>n</i> = 5)	91.8 (<i>n</i> = 56)
	EC	1.1 (<i>n</i> = 1)	4.3 (<i>n</i> = 4)	94.7 (<i>n</i> = 88)

Research Question Two: Differences between Academic Readiness

Research question two, *is there a statistically significant mean difference between the academic readiness for college of early college students and dual credit students enrolled in college courses?*, was answered using descriptive statistics and a two-tailed independent t-test. Results of the independent t-test indicate that enrollment in either program does not influence their academic achievement, $t(152) = 0.857, p = 0.393$.

Whether one is enrolled in dual credit or early college does not influence their

perceptions on academic achievement. The mean scores indicate that both groups have similar outlooks on their academic achievement (dual credit $M = 28.21$; early college $M = 28.69$). Table 4.6. shows the results of the two-tailed independent t-test.

Table 4.6

Academic Achievement

Class Enrollment	<i>N</i>	<i>M</i>	<i>SD</i>	<i>t</i> -value	df	<i>p</i> -value
1. Dual Credit	61	28.21	2.98	0.857	152	0.393
2. Early College	93	28.69	3.59			

*Statistically significant ($p < .05$).

The descriptive statistics examined the frequencies and percentages regarding student's perceptions of their academic achievement. Table 4.7 shows the percentage and frequency data for students' responses to the survey section, Academic Achievement. Table 4.8 shows the collapsed results of the survey to examine the frequency and percentages. In terms of student's academic achievement, Item two stood out in high percentage of *Agree/Strongly Agree* for both groups showing that "In high school, I had the skills and ability to complete my assignments", with dual credit students agreeing at a rate of 90.2% while early college agreed at a rate of 88.2%. Dual credit and early college students also had low percentage *Agree/Strongly Agree* on Item 6 which shows "In high school, I was aware of various graduation plans", where dual credit students rated 54.1% and early college students rated 45.5%.

Table 4.7

Students' Perceptions of Academic Achievement (%)

Survey Item		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. In high school, I worked hard to learn as much as I could in class.	DC	0.0 (n = 0)	0.0 (n = 0)	8.2 (n = 5)	65.6 (n = 40)	26.2 (n = 16)
	EC	0.0 (n = 0)	3.2 (n = 3)	14.0 (n = 13)	48.4 (n = 45)	34.4 (n = 32)
2. In high school, I did my best to complete assignments and homework.	DC	0.0 (n = 0)	0.0 (n = 0)	11.5 (n = 7)	60.7 (n = 37)	27.9 (n = 17)
	EC	1.1 (n = 1)	4.3 (n = 4)	4.3 (n = 4)	54.8 (n = 51)	35.5 (n = 33)
3. In high school, I was aware of tutoring and other ways to improve my grades.	DC	0.0 (n = 0)	3.3 (n = 2)	8.2 (n = 5)	60.7 (n = 37)	27.9 (n = 17)
	EC	1.1 (n = 1)	0.0 (n = 0)	6.5 (n = 6)	55.9 (n = 52)	36.6 (n = 34)
4. In high school, it was important to be to get good grades.	DC	0.0 (n = 0)	1.6 (n = 1)	1.6 (n = 1)	50.8 (n = 31)	45.9 (n = 28)
	EC	1.1 (n = 1)	1.1 (n = 1)	9.7 (n = 9)	39.8 (n = 37)	48.4 (n = 45)
5. In high school, I had the skills and ability to complete my assignments.	DC	0.0 (n = 0)	0.0 (n = 0)	9.8 (n = 6)	68.9 (n = 42)	21.3 (n = 13)
	EC	0.0 (n = 0)	1.1 (n = 1)	10.8 (n = 10)	49.5 (n = 46)	38.7 (n = 36)
6. In high school, I was aware of various graduation plans.	DC	1.6 (n = 1)	9.8 (n = 6)	34.4 (n = 21)	34.4 (n = 21)	19.7 (n = 12)
	EC	1.1 (n = 1)	22.7 (n = 10)	31.8 (n = 20)	36.4 (n = 37)	9.1 (n = 25)
7. My high school courses prepared me for college level work.	DC	3.3 (n = 2)	8.2 (n = 5)	27.9 (n = 17)	45.9 (n = 28)	14.8 (n = 9)
	EC	2.2 (n = 2)	8.6 (n = 8)	29.0 (n = 27)	38.7 (n = 36)	21.5 (n = 20)

Table 4.8

Students' Perceptions of Academic Achievement-Collapsed (%)

Survey Item		Strongly Disagree/ Disagree	Neutral	Agree/Strongly Agree
1. In high school, I worked hard to learn as much as I could in class.	DC	0.0 (n = 0)	8.2 (n = 5)	91.8 (n = 56)
	EC	3.2 (n = 3)	14.0 (n = 13)	82.8 (n = 77)
2. In high school, I did my best to complete assignments and homework.	DC	0.0 (n = 0)	11.5 (n = 7)	88.6 (n = 54)
	EC	5.4 (n = 5)	4.3 (n = 4)	90.3 (n = 84)
3. In high school, I was aware of tutoring and other ways to improve my grades.	DC	3.3 (n = 2)	8.2 (n = 5)	88.6 (n = 54)
	EC	1.1 (n = 1)	6.5 (n = 6)	92.5 (n = 86)
4. In high school, it was important to be to get good grades.	DC	1.6 (n = 1)	1.6 (n = 1)	96.7 (n = 59)
	EC	2.2 (n = 2)	9.7 (n = 9)	88.2 (n = 82)
5. In high school, I had the skills and ability to complete my assignments.	DC	0.0 (n = 8)	9.8 (n = 6)	90.2 (n = 55)
	EC	1.1 (n = 1)	10.8 (n = 10)	88.2 (n = 82)
6. In high school, I was aware of various graduation plans.	DC	11.4 (n = 7)	34.4 (n = 21)	54.1 (n = 33)
	EC	23.8 (n = 11)	31.8 (n = 20)	45.5 (n = 62)
7. My high school courses prepared me for college level work.	DC	11.5 (n = 7)	27.9 (n = 17)	60.7 (n = 37)
	EC	10.8 (n = 10)	29.0 (n = 27)	60.2 (n = 56)

Research Question Three: Differences in Teacher Expectations and Interactions

Research question three, *is there a statistically significant mean difference between teacher expectations and interactions of early college students and dual credit*

students enrolled in college courses?, was answered using descriptive statistics and a two-tailed independent t-test. Results of the independent t-test indicate that enrollment in either program does influence student perceptions of teacher expectations and interactions, $t(152) = 2.703, p = 0.008, d = 0.445$ (medium effect), $r^2 = 0.046$. Whether one is enrolled in dual credit or early college does influence their perceptions on teacher expectations and interaction. The mean of students in dual credit ($M = 18.89$) was slightly lower than early college students ($M = 20.25$), indicating that early college students have a significantly different number of perceptions of their teacher expectations and interactions. Approximately 4.6% of the variance in teacher expectations and interactions can be attributed to enrollment in early college or dual credit traditional high school. Table 4.9 shows the results of the two-tailed independent t-test.

Table 4.9

Teacher Expectations and Interaction

Class Enrollment	<i>N</i>	<i>M</i>	<i>SD</i>	<i>t</i> -value	df	<i>p</i> -value	Cohen's <i>d</i>	r^2
1. Dual Credit	61	18.89	3.04	2.703	152	0.008*	0.445	0.046
2. Early College	93	20.25	3.07					

*Statistically significant ($p < .05$).

The descriptive statistics examined the frequencies and percentages regarding student's perceptions of their Teacher Expectations and Interactions. Table 4.10 shows the percentage and frequency data for students' responses to the survey section, Teacher Expectations and Interaction. Table 4.11 shows the collapsed table for survey items to analyze frequencies and percentages. Two of the survey items stood out in terms of student's perceptions of teacher expectations and Interaction. Dual credit students responded *Agree/Strongly Agree* at a rate of 67.2% to item one, "In high school, my

teachers cared about me,” whereas early college students responded at a rate of 81.7% to the same item. In item five, “My high school teachers did as much as they could to help me prepare for college level work”, dual credit students responded *Agree/Strongly Agree* at a rate of 57.4% while early college students responded at a rate of 74.2% to the same item.

Table 4.10

Students’ Perceptions of Teacher Expectations and Interaction (%)

Survey Item		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. In high school, my teachers cared about me.	DC	0.0 (n = 0)	0.0 (n = 0)	32.8 (n = 20)	54.1 (n = 33)	13.1 (n = 8)
	EC	0.0 (n = 0)	2.2 (n = 2)	16.1 (n = 15)	47.3 (n = 44)	34.4 (n = 32)
2. In high school, my teachers inspired me and motivated me to do my best.	DC	0.0 (n = 0)	6.6 (n = 4)	32.8 (n = 20)	44.3 (n = 27)	16.4 (n = 10)
	EC	0.0 (n = 0)	4.3 (n = 4)	26.9 (n = 25)	41.9 (n = 39)	26.9 (n = 25)
3. My high school teachers had high expectations of me.	DC	0.0 (n = 0)	3.3 (n = 2)	21.3 (n = 13)	50.8 (n = 31)	24.6 (n = 15)
	EC	0.0 (n = 0)	2.2 (n = 2)	19.4 (n = 18)	40.9 (n = 38)	37.6 (n = 35)
4. My high school teachers did as much as they could to help me learn.	DC	0.0 (n = 0)	8.2 (n = 5)	23.0 (n = 14)	50.8 (n = 31)	18.0 (n = 11)
	EC	0.0 (n = 0)	2.2 (n = 2)	21.5 (n = 20)	44.1 (n = 41)	32.3 (n = 30)
5. My high school teacher did as much as they could to prepare me for college level work.	DC	0.0 (n = 0)	8.2 (n = 5)	34.4 (n = 21)	44.3 (n = 27)	13.12 (n = 8)
	EC	0.0 (n = 0)	1.1 (n = 1)	24.7 (n = 23)	48.4 (n = 45)	25.8 (n = 24)

Table 4.11

Students' Perceptions of Teacher Expectations and Interactions-Collapsed (%)

Survey Item		Strongly Disagree/ Disagree	Neutral	Agree/Strongly Agree
1. In high school, my teachers cared about me.	DC	0.0 (<i>n</i> = 0)	32.8 (<i>n</i> = 20)	67.2 (<i>n</i> = 41)
	EC	2.2 (<i>n</i> = 2)	16.1 (<i>n</i> = 15)	81.7 (<i>n</i> = 76)
2. In high school, my teachers inspired me and motivated me to do my best.	DC	6.6 (<i>n</i> = 4)	32.8 (<i>n</i> = 20)	60.7 (<i>n</i> = 37)
	EC	4.3 (<i>n</i> = 4)	26.9 (<i>n</i> = 25)	68.8 (<i>n</i> = 64)
3. My high school teachers had high expectations of me.	DC	3.3 (<i>n</i> = 2)	21.3 (<i>n</i> = 13)	75.4 (<i>n</i> = 46)
	EC	2.2 (<i>n</i> = 2)	19.4 (<i>n</i> = 18)	78.5 (<i>n</i> = 73)
4. My high school teachers did as much as they could to help me learn.	DC	8.2 (<i>n</i> = 5)	23.0 (<i>n</i> = 14)	68.8 (<i>n</i> = 42)
	EC	2.2 (<i>n</i> = 2)	21.5 (<i>n</i> = 20)	76.4 (<i>n</i> = 71)
5. My high school teacher did as much as they could to prepare me for college level work.	DC	8.2 (<i>n</i> = 5)	34.4 (<i>n</i> = 21)	57.4 (<i>n</i> = 35)
	EC	1.1 (<i>n</i> = 1)	24.7 (<i>n</i> = 23)	74.2 (<i>n</i> = 69)

Research Question Four: Differences between College Preparation

Research question four, *is there a statistically significant mean difference between college preparation of early college students and dual credit students enrolled in college courses?*, was answered using descriptive statistics and a two-tailed independent t-test. Results of the independent t-test indicate that enrollment in either program does not influence students' perceptions of college preparation, $t(152) = 0.275, p = 0.784$.

Whether one is enrolled in dual credit or early college does not influence their perceptions on college preparation. The mean scores indicate that both groups have similar outlooks on their college preparation (dual credit $M = 19.34$; early college $M = 19.49$). Table 4.12 shows the results of the two-tailed independent t-test.

Table 4.12

College Preparation

Class Enrollment	<i>N</i>	<i>M</i>	<i>SD</i>	<i>t</i> -value	df	<i>p</i> -value
1. Dual Credit	61	19.34	3.57	0.275	152	0.784
2. Early College	93	19.49	3.14			

*Statistically significant ($p < .05$).

The descriptive statistics examined the frequencies and percentages regarding student's perceptions of their college preparation. Table 4.13 shows the percentage and frequency data for students' responses to the survey section, College Preparation. Table 4.14 shows the collapsed data table for the endpoint items on the survey to examine the percentages and frequencies. In terms of student's perceptions of college preparation, two of the survey items stood out. Dual credit and early college students responded *Agree/Strongly Agree* at a 77.0% and 75.5% rate, respectively, to the item "In high school, I was aware of the importance of taking courses such as AP (Item 3)". In the item, "Teachers helped me plan or select the right high school courses for college (Item 4)," there was a gap where dual credit students responded *Agree/Strongly Agree* at a rate of 57.4% and early college students responded at a rate of 71.0% with a total percent difference of 13.6%.

Table 4.13

Students' Perceptions of College Preparation (%)

Survey Item		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. In high school, I was aware of the importance of taking courses such as AP.	DC	1.6 (n = 1)	6.6 (n = 4)	14.8 (n = 9)	47.5 (n = 29)	29.5 (n = 18)
	EC	2.2 (n = 2)	4.3 (n = 4)	18.3 (n = 17)	54.8 (n = 51)	20.4 (n = 19)
2. In high school, I was encouraged to take high-level classes that could prepare me for college.	DC	1.6 (n = 1)	3.3 (n = 2)	13.1 (n = 8)	52.5 (n = 32)	29.5 (n = 18)
	EC	1.1 (n = 1)	4.3 (n = 4)	18.3 (n = 17)	44.1 (n = 41)	32.3 (n = 30)
3. In high school, I was aware of the courses I needed to prepare for college.	DC	1.6 (n = 1)	4.9 (n = 3)	18.0 (n = 11)	49.2 (n = 30)	26.2 (n = 16)
	EC	1.1 (n = 1)	11.8 (n = 11)	19.4 (n = 18)	43.0 (n = 40)	24.7 (n = 23)
4. Teachers helped me plan or select the right high school courses for college.	DC	4.9 (n = 3)	21.3 (n = 13)	16.4 (n = 10)	45.9 (n = 28)	11.5 (n = 7)
	EC	2.2 (n = 2)	8.6 (n = 8)	18.3 (n = 17)	45.2 (n = 42)	25.8 (n = 24)
5. In high school, Pre-AP and AP courses were available to everyone.	DC	3.3 (n = 2)	4.9 (n = 3)	8.2 (n = 5)	54.1 (n = 33)	29.5 (n = 18)
	EC	1.1 (n = 1)	3.2 (n = 3)	20.4 (n = 19)	47.3 (n = 44)	28.0 (n = 26)

Table 4.14

Students' Perceptions of College Preparation-Collapsed (%)

Survey Item		Strongly Disagree/ Disagree	Neutral	Agree/Strongly Agree
1. In high school, I was aware of the importance of taking courses such as AP.	DC	8.2 (n = 5)	14.8 (n = 9)	77.0 (n = 47)
	EC	6.5 (n = 6)	18.3 (n = 17)	75.2 (n = 70)
2. In high school, I was encouraged to take high-level classes that could prepare me for college.	DC	4.9 (n = 4)	13.1 (n = 8)	82.0 (n = 50)
	EC	5.4 (n = 4)	18.3 (n = 17)	76.4 (n = 71)
3. In high school, I was aware of the courses I needed to prepare for college.	DC	6.5 (n = 4)	18.0 (n = 11)	75.4 (n = 46)
	EC	12.9 (n = 12)	19.4 (n = 18)	67.7 (n = 63)
4. Teachers helped me plan or select the right high school courses for college.	DC	26.2 (n = 5)	16.4 (n = 10)	57.4 (n = 35)
	EC	10.8 (n = 2)	18.3 (n = 17)	71.0 (n = 66)
5. In high school, Pre-AP and AP courses were available to everyone.	DC	8.2 (n = 5)	8.2 (n = 5)	83.6 (n = 51)
	EC	4.3 (n = 4)	20.4 (n = 19)	75.3 (n = 70)

Research Question Five: Differences between School Wide Support

Research question five states, *is there a statistically significant mean difference between school wide support of early college students and dual credit students enrolled in college courses?* The question was answered by using descriptive statistics and a two-tailed independent t-test. The descriptive statistics examined the frequencies and

percentages regarding student's perceptions of their School Wide Support. Results of the independent t-test indicate that enrollment in either program does influence students' perceptions of school wide support, $t(152) = 7.929, p < 0.001, d = 1.31$ (large effect size), $r^2 = 0.292$. Whether one is enrolled in dual credit or early college does influence his or her perception toward school wide support. The mean of students in dual credit ($M = 26.46$) was lower than early college students ($M = 32.22$) indicating that students in early college feel they have more school wide support than students in dual credit. Approximately 29.2% of the variance in school wide support can be attributed to enrollment in early college or dual credit traditional high school. Table 4.15 shows the results of the two-tailed independent t-test displaying a statistically mean difference between students enrolled in dual credit and those enrolled in early college.

Table 4.15

School Wide Support

Class Enrollment	<i>N</i>	<i>M</i>	<i>SD</i>	<i>t</i> -value	df	<i>p</i> -value	Cohen's <i>d</i>	<i>r</i> ²
1. Dual Credit	61	26.46	4.31	7.929	152	<0.001*	1.31	0.292
2. Early College	93	32.22	4.47					

*Statistically significant ($p < .05$).

Table 4.16 shows the percentage and frequency data for students' responses to the survey section, School Wide Support. Table 4.17 shows the collapsed table for the endpoint survey items on school wide support to analyze frequency and percentages. In terms of student's perceptions of school wide support, three of the survey items stood out. Both Dual credit and early college students responded *Strongly Disagree/Disagree* at a rate of 57.3% and 57%, respectively, to item six, "In high school, I often felt ignored ". The biggest shift in response with a rate of 82.5% in differences between the groups was

in item seven, “In high school, I participated in programs such as Upward Bound or AVID,” where dual credit students responded at a rate of 16.4% and early college students responded at a rate of 98.9%. Students in dual credit responded 27.9% *Agree/Strongly Agree* to item five, “My high school provided me with a student planner to help me learn organizational skills and time management,” while early college students responded 86.1%. Major percentage differences were seen in item eight, “I visited various college campuses while in high school”, and in item nine, “I participated in summer college campus during high school”, in which early college consistently rated higher in percentage for both items.

Table 4.16

Students' Perceptions of School Wide Support (%)

Survey Item		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. My high school created a campus culture that emphasized going to college was important.	DC	1.6 (n = 1)	1.6 (n = 1)	13.1 (n = 8)	67.2 (n = 41)	16.4 (n = 10)
	EC	2.2 (n = 2)	4.3 (n = 4)	14.0 (n = 13)	50.5 (n = 47)	29.0 (n = 27)
2. I felt welcomed and supported at my high school	DC	1.6 (n = 1)	4.9 (n = 3)	21.3 (n = 13)	55.7 (n = 34)	16.4 (n = 10)
	EC	2.2 (n = 2)	9.7 (n = 9)	26.9 (n = 25)	46.2 (n = 43)	15.1 (n = 14)
3. All students at the school had the same opportunities to prepare for college	DC	4.9 (n = 3)	13.1 (n = 8)	18.0 (n = 11)	37.7 (n = 23)	26.2 (n = 16)
	EC	4.3 (n = 4)	16.1 (n = 15)	21.5 (n = 20)	39.8 (n = 37)	18.3 (n = 17)
4. My high school helped me improve my ability to study through student workshops or advisory classes.	DC	3.3 (n = 2)	16.4 (n = 10)	32.8 (n = 20)	36.1 (n = 22)	11.5 (n = 7)
	EC	5.4 (n = 5)	12.9 (n = 12)	24.7 (n = 23)	40.9 (n = 38)	26.1 (n = 15)
5. My high school provided me with a student planner to help me learn organizational skills and time management.	DC	19.7 (n = 12)	32.8 (n = 20)	19.7 (n = 12)	23.0 (n = 14)	4.9 (n = 3)
	EC	3.2 (n = 3)	4.3 (n = 4)	6.5 (n = 6)	49.5 (n = 46)	36.6 (n = 34)
6. In high school, I often felt ignored	DC	9.8 (n = 6)	47.5 (n = 29)	26.2 (n = 16)	14.8 (n = 9)	1.6 (n = 1)
	EC	15.1 (n = 14)	41.9 (n = 39)	25.8 (n = 24)	11.8 (n = 11)	5.4 (n = 5)

7. In high school, I participated in programs such as Upward Bound or AVID.	DC	39.3 (<i>n</i> = 24)	41.0 (<i>n</i> = 25)	3.3 (<i>n</i> = 2)	8.2 (<i>n</i> = 5)	8.2 (<i>n</i> = 5)
	EC	0.0 (<i>n</i> = 0)	1.1 (<i>n</i> = 1)	0.0 (<i>n</i> = 0)	35.5 (<i>n</i> = 33)	63.4 (<i>n</i> = 59)
8. I visited various college campuses while in high school.	DC	21.3 (<i>n</i> = 13)	45.9 (<i>n</i> = 28)	11.5 (<i>n</i> = 7)	14.8 (<i>n</i> = 9)	6.6 (<i>n</i> = 4)
	EC	5.4 (<i>n</i> = 5)	15.1 (<i>n</i> = 14)	8.6 (<i>n</i> = 8)	47.3 (<i>n</i> = 44)	23.7 (<i>n</i> = 22)
9. I participated in summer college camps during high school	DC	26.2 (<i>n</i> = 16)	52.5 (<i>n</i> = 32)	8.2 (<i>n</i> = 5)	9.8 (<i>n</i> = 6)	3.3 (<i>n</i> = 2)
	EC	23.7 (<i>n</i> = 22)	31.2 (<i>n</i> = 29)	14.0 (<i>n</i> = 13)	18.3 (<i>n</i> = 17)	12.9 (<i>n</i> = 12)

Table 4.17

Students' Perceptions of School Wide Support-Collapsed (%)

Survey Item		Strongly Disagree/ Disagree	Neutral	Agree/Strongly Agree
1. My high school created a campus culture that emphasized going to college was important.	DC	3.2 (n = 2)	13.1 (n = 8)	83.6 (n = 51)
	EC	6.5 (n = 6)	14.0 (n = 13)	79.5 (n = 74)
2. I felt welcomed and supported at my high school	DC	6.5 (n = 4)	21.3 (n = 13)	72.1 (n = 44)
	EC	11.9 (n = 11)	26.9 (n = 25)	61.3 (n = 57)
3. All students at the school had the same opportunities to prepare for college	DC	18.0 (n = 11)	18.0 (n = 11)	63.9 (n = 39)
	EC	20.4 (n = 19)	21.5 (n = 20)	58.1 (n = 54)
4. My high school helped me improve my ability to study through student workshops or advisory classes.	DC	19.7 (n = 12)	32.8 (n = 20)	47.6 (n = 29)
	EC	18.3 (n = 17)	24.7 (n = 23)	67.0 (n = 53)
5. My high school provided me with a student planner to help me learn organizational skills and time management.	DC	52.5 (n = 32)	19.7 (n = 12)	27.9 (n = 17)
	EC	7.5 (n = 7)	6.5 (n = 6)	86.1 (n = 80)
6. In high school, I often felt ignored	DC	57.3 (n = 35)	26.2 (n = 16)	16.4 (n = 10)
	EC	57.0 (n = 53)	25.8 (n = 24)	17.2 (n = 16)

7. In high school, I participated in programs such as Upward Bound or AVID.	DC	80.3 (<i>n</i> = 49)	3.3 (<i>n</i> = 2)	16.4 (<i>n</i> = 10)
	EC	1.1 (<i>n</i> = 1)	0 (<i>n</i> = 0)	98.9 (<i>n</i> = 92)
8. I visited various college campuses while in high school.	DC	67.2 (<i>n</i> = 41)	11.5 (<i>n</i> = 7)	21.4 (<i>n</i> = 12)
	EC	20.5 (<i>n</i> = 19)	8.6 (<i>n</i> = 8)	71.0 (<i>n</i> = 66)
9. I participated in summer college camps during high school	DC	78.7 (<i>n</i> = 48)	8.2 (<i>n</i> = 5)	13.1 (<i>n</i> = 8)
	EC	54.9 (<i>n</i> = 51)	14.0 (<i>n</i> = 13)	31.2 (<i>n</i> = 29)

Research Question Six: Differences between Guidance and Counseling

Research question six, *is there a statistically significant mean difference between guidance and counseling of early college students and dual credit students enrolled in college courses?*, was answered using descriptive statistics and a two-tailed independent t-test. Results of the independent t-test indicate that enrollment in either program does influence students' perceptions of guidance and counseling, $t(152) = 2.174$, $p = 0.031$, $d = 0.36$ (small effect size), $r^2 = 0.030$. Whether one is enrolled in dual credit or early college does influence their perceptions on guidance and counseling. The mean of students in dual credit ($M = 32.05$) was slightly higher than early college students ($M = 33.95$), indicating that students in early college feel they have more guidance and counseling than students in dual credit. Approximately 3.0% of the guidance and counseling variance can be attributed to enrollment in early college or dual credit traditional high school. Table 4.18 shows the results of the two-tailed independent t-test.

Table 4.18

Guidance and Counseling

Class Enrollment	<i>N</i>	<i>M</i>	<i>SD</i>	<i>t</i> -value	df	<i>p</i> -value	Cohen's <i>d</i>	<i>r</i> ²
1. Dual Credit	61	32.05	5.68	2.174	152	0.031*	0.36	0.030
2. Early College	93	33.95	5.03					

*Statistically significant ($p < .05$).

The descriptive statistics examined the frequencies and percentages regarding student's perceptions of their Guidance and Counseling. Table 4.19 shows the percentage and frequency data for students' responses to the survey section, Guidance and Counseling. Table 4.20 shows the collapsed data points for the endpoints in the survey to examine frequency and percentages. In terms of student's guidance and counseling, two of the survey items stood out. Dual credit students responded *Agree/Strongly Agree* at a rate of 62.3% to item five, "Counselors helped with information I needed to apply to college, such as college applications, SAT Exams, financial aid, and scholarships," whereas early college students responded at a rate of 80.7% to the same item, showing an 18.5% difference. In item six, "Counselors helped me plan my goals for the future", dual credit students responded at a rate of 45.9% while early college students responded 63.4% in terms of *Agree/Strongly Agree*, showing a 17.5% difference in response rate between the groups.

Table 4.19

Students' Perceptions of Guidance and Counseling (%)

Survey Item		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. In high school, I was aware of the importance of the SAT and ACT exams.	DC	0.0 (n = 0)	4.9 (n = 3)	6.6 (n = 4)	41.0 (n = 25)	47.5 (n = 29)
	EC	0.0 (n = 0)	3.2 (n = 3)	3.2 (n = 3)	52.7 (n = 49)	40.9 (n = 38)
2. There were enough counselors to meet with all students.	DC	4.9 (n = 3)	8.2 (n = 5)	18.0 (n = 11)	49.2 (n = 30)	19.7 (n = 12)
	EC	3.2 (n = 3)	11.8 (n = 11)	28.0 (n = 26)	39.8 (n = 37)	17.2 (n = 16)
3. Counselors mostly helped the students that were in pre-AP and AP classes.	DC	11.5 (n = 7)	29.5 (n = 18)	39.3 (n = 24)	14.8 (n = 9)	4.9 (n = 3)
	EC	9.7 (n = 9)	21.5 (n = 20)	40.9 (n = 38)	19.4 (n = 18)	8.6 (n = 8)
4. My high school counselors helped me to plan which high school courses to take and prepare for college.	DC	8.2 (n = 5)	13.1 (n = 8)	23.0 (n = 14)	29.5 (n = 18)	26.2 (n = 16)
	EC	5.4 (n = 5)	6.5 (n = 6)	17.2 (n = 16)	43.0 (n = 40)	28.0 (n = 26)
5. Counselors helped me with information I needed to apply to college, such as college applications, SAT Exams, financial aid, and scholarships.	DC	8.2 (n = 5)	13.1 (n = 8)	16.4 (n = 10)	36.1 (n = 22)	26.2 (n = 16)
	EC	3.2 (n = 3)	3.2 (n = 3)	12.9 (n = 12)	49.5 (n = 46)	31.2 (n = 29)
6. Counselors helped me plan my goals for the future.	DC	13.1 (n = 8)	13.1 (n = 8)	27.9 (n = 17)	27.9 (n = 17)	18.0 (n = 11)
	EC	3.2 (n = 3)	10.8 (n = 10)	22.6 (n = 21)	37.6 (n = 35)	25.8 (n = 24)

7. I would have been better prepared for college if I had more information in high school.	DC	3.3 (<i>n</i> = 2)	18.0 (<i>n</i> = 11)	27.9 (<i>n</i> = 17)	39.3 (<i>n</i> = 24)	11.5 (<i>n</i> = 7)
	EC	1.1 (<i>n</i> = 1)	17.2 (<i>n</i> = 16)	36.6 (<i>n</i> = 34)	20.4 (<i>n</i> = 19)	24.7 (<i>n</i> = 23)
8. Counselors encouraged me to go to college.	DC	0.0 (<i>n</i> = 0)	9.8 (<i>n</i> = 6)	16.4 (<i>n</i> = 10)	49.2 (<i>n</i> = 30)	24.6 (<i>n</i> = 15)
	EC	1.1 (<i>n</i> = 1)	6.5 (<i>n</i> = 6)	10.8 (<i>n</i> = 10)	45.2 (<i>n</i> = 42)	36.6 (<i>n</i> = 34)
9. I could approach my high school counselors anytime I needed	DC	6.6 (<i>n</i> = 4)	8.2 (<i>n</i> = 5)	19.7 (<i>n</i> = 12)	41.0 (<i>n</i> = 25)	24.6 (<i>n</i> = 15)
	EC	4.3 (<i>n</i> = 4)	7.5 (<i>n</i> = 7)	15.1 (<i>n</i> = 14)	34.4 (<i>n</i> = 32)	38.7 (<i>n</i> = 36)

Table 4.20

Students' Perceptions of Guidance and Counseling-Collapsed (%)

Survey Item		Strongly Disagree/ Disagree	Neutral	Agree/Strongly Agree
1. In high school, I was aware of the importance of the SAT and ACT exams.	DC	4.9 (n = 3)	6.6 (n = 4)	88.5 (n = 54)
	EC	3.2 (n = 3)	3.2 (n = 3)	93.6 (n = 57)
2. There were enough counselors to meet with all students.	DC	13.1 (n = 8)	18.0 (n = 11)	68.9 (n = 42)
	EC	15.0 (n = 14)	28.0 (n = 26)	57.0 (n = 53)
3. Counselors mostly helped the students that were in pre-AP and AP classes.	DC	41 (n = 25)	39.3 (n = 24)	19.7 (n = 12)
	EC	31.2 (n = 29)	40.9 (n = 38)	28.0 (n = 26)
4. My high school counselors helped me to plan which high school courses to take and prepare for college.	DC	21.3 (n = 13)	23.0 (n = 14)	55.7 (n = 34)
	EC	11.9 (n = 11)	17.2 (n = 16)	71.0 (n = 66)
5. Counselors helped me with information I needed to apply to college, such as college applications, SAT Exams, financial aid, and scholarships.	DC	21.3 (n = 13)	16.4 (n = 10)	62.3 (n = 38)
	EC	6.4 (n = 6)	12.9 (n = 12)	80.7 (n = 75)
6. Counselors helped me plan my goals for the future.	DC	26.2 (n = 16)	27.9 (n = 17)	45.9 (n = 28)
	EC	14 (n = 13)	22.6 (n = 21)	63.4 (n = 59)

7. I would have been better prepared for college if I had more information in high school.	DC	21.3 (<i>n</i> = 13)	27.9 (<i>n</i> = 17)	50.8 (<i>n</i> = 31)
	EC	18.3 (<i>n</i> = 17)	36.6 (<i>n</i> = 34)	45.1 (<i>n</i> = 42)
8. Counselors encouraged me to go to college.	DC	9.8 (<i>n</i> = 6)	16.4 (<i>n</i> = 10)	73.8 (<i>n</i> = 45)
	EC	7.6 (<i>n</i> = 7)	10.8 (<i>n</i> = 10)	81.8 (<i>n</i> = 76)
9. I could approach my high school counselors anytime I needed	DC	14.8 (<i>n</i> = 9)	19.7 (<i>n</i> = 12)	65.6 (<i>n</i> = 40)
	EC	11.8 (<i>n</i> = 11)	15.1 (<i>n</i> = 14)	73.1 (<i>n</i> = 68)

Research Question Seven: Differences between Parent Engagement

Research question seven, *is there a statistically significant mean difference between parent engagement of early college students and dual credit students enrolled in college courses?*, was answered using descriptive statistics and a two-tailed independent t-test. Results of the independent t-test indicate that enrollment in either program does not influence students' perceptions of parent engagement, $t(152) = 1.004, p = 0.317$. Whether one is enrolled in dual credit or early college does not influence their perceptions on parent engagement. The mean scores indicate that both groups have related outlooks on parent engagement (dual credit $M = 18.48$; early college $M = 19.13$) Table 4.21 shows the results of the two-tailed independent t-test.

Table 4.21

Parent Engagement

Class Enrollment	<i>N</i>	<i>M</i>	<i>SD</i>	<i>t</i> -value	df	<i>p</i> -value
3. Dual Credit	61	18.48	3.68	1.004	152	0.317
4. Early College	93	19.13	4.12			

*Statistically significant ($p < .05$).

The descriptive statistics examined the frequencies and percentages regarding student's perceptions of their Parent Engagement. Table 4.22 shows the percentage and frequency data for students' responses to the survey section, Parent Engagement. Table 4.23 shows the collapsed data table for the endpoint survey items in parent engagement to analyze percentage and frequencies. In terms of student's parent engagement, two of the survey items stood out because they had the exact same response rate for each point. Dual credit students responded *Agree/Strongly Agree* at a rate of 88.6% to item three, "When I was in high school, my parents encouraged me to go to college", while early college students responded at a rate of 92.5% to the same item. In item four, "When I was in high school, my parents were aware of ways to help me get to college", dual credit students responded at a rate of 88.6% while early college students responded 92.5% in terms of *Agree/Strongly Agree*.

Table 4.22

Students' Perceptions of Parent Engagement (%)

Survey Item		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. When I was in high school, my parents encouraged me to do well in school.	DC	0.0 (n = 0)	1.6 (n = 1)	6.6 (n = 4)	42.6 (n = 26)	49.2 (n = 30)
	EC	0.0 (n = 0)	2.2 (n = 2)	2.2 (n = 2)	25.8 (n = 24)	69.9 (n = 65)
2. My parents were aware of ways to help me get better grades in school.	DC	8.2 (n = 5)	9.8 (n = 6)	24.6 (n = 15)	36.1 (n = 22)	21.3 (n = 13)
	EC	7.5 (n = 7)	16.1 (n = 15)	24.7 (n = 23)	25.8 (n = 24)	25.8 (n = 24)
3. When I was in high school, my parents encouraged me to go to college.	DC	1.6 (n = 1)	1.6 (n = 1)	8.2 (n = 5)	36.1 (n = 22)	52.5 (n = 32)
	EC	4.3 (n = 4)	1.1 (n = 1)	2.2 (n = 2)	26.9 (n = 25)	65.6 (n = 61)
4. When I was in high school, my parents were aware of ways to help me get to college.	DC	1.6 (n = 1)	1.6 (n = 1)	8.2 (n = 5)	36.1 (n = 22)	52.5 (n = 32)
	EC	4.3 (n = 4)	1.1 (n = 1)	2.2 (n = 2)	26.9 (n = 25)	65.6 (n = 61)
5. Teachers and counselors at my high school communicated often with my parents.	DC	8.2 (n = 5)	13.1 (n = 8)	18.0 (n = 11)	31.1 (n = 19)	29.5 (n = 18)
	EC	8.6 (n = 8)	22.6 (n = 21)	15.1 (n = 14)	28.0 (n = 26)	25.8 (n = 24)

Table 4.23

Students' Perceptions of Parent Engagement-Collapsed (%)

Survey Item		Strongly Disagree/ Disagree	Neutral	Agree/Strongly Agree
1. When I was in high school, my parents encouraged me to do well in school.	DC	1.6 (n = 1)	6.6 (n = 4)	91.8 (n = 56)
	EC	2.2 (n = 2)	2.2 (n = 2)	95.7 (n = 89)
2. My parents were aware of ways to help me get better grades in school.	DC	18.0 (n = 11)	24.6 (n = 15)	57.4 (n = 35)
	EC	23.6 (n = 22)	24.7 (n = 23)	51.6 (n = 48)
3. When I was in high school, my parents encouraged me to go to college.	DC	3.2 (n = 2)	8.2 (n = 5)	88.6 (n = 54)
	EC	5.4 (n = 5)	2.2 (n = 2)	92.5 (n = 86)
4. When I was in high school, my parents were aware of ways to help me get to college.	DC	3.2 (n = 2)	8.2 (n = 5)	88.6 (n = 54)
	EC	5.4 (n = 5)	2.2 (n = 2)	92.5 (n = 86)
5. Teachers and counselors at my high school communicated often with my parents.	DC	21.3 (n = 13)	18.0 (n = 11)	60.6 (n = 37)
	EC	31.2 (n = 29)	15.1 (n = 14)	53.8 (n = 50)

Qualitative

Responses from the three open-ended questions on the survey were used from the 154 students who responded to the *High School Follow-Up Survey*. A total of 20 participants were selected to participate for an interview: 10 early college and 10 dual credit students. The interview data is presented using the themes revealed during

analysis. Pseudonyms were used when participants spoke about people they knew. Excerpts from the interview data provide an insightful understanding of participants' perceptions and experiences in early college and those that are part of dual credit.

Research Question Eight: Perceptions of High School Experiences and College Preparation

Research question eight states, *what are the perceptions of dual credit and early college students on their experiences in high school and preparation for college?* This question was addressed by performing inductive coding on 20 interview transcripts with ten dual credit and ten early college students well as the 154 open-ended question responses on the *High School Follow-Up Survey*. The interview data focused on participants' perceptions on their high school experiences and preparation for college. Various patterns emerged from coding which led to meaningful organization of categories and themes (Lichtman, 2010). The analysis identified five themes common to all students: (a) College preparation from high school (b) Suggestions for high school improvement in college preparation, (c) People who have influenced college preparation or plans, (d) how high school did not prepare for college, (e) What students would have done differently.

The theme for suggestions for high school improvements in college preparation was prevalent in student responses as they were eager to participate and share their thoughts. The themes of college preparation from high school allowed students to reflect on how their high school courses helped them prepare for college. Through the reflection, other themes such as the people who have helped with post high school plans and college experiences arose. All participants had plans to attend university or continue to community college to receive further training or degree. Participants also mostly felt prepared for college with 16 out of 20 indicating they are “fully” to “kind of” prepared

for college. Fourteen out of 20 participants also indicated they will work while attending college indicating their need to balance life, school, and work. In the 20 interviews, 11 students indicated they were first-generation college students, meaning they will be the first in their family to attend college. Four participants explained how their parents went to college of the country and thus still felt that they were first-generation colleges students in America. While participants had plans, some felt they were not completely prepared for college.

College Preparation from High School

Students reflected on their high school experiences from 9th to 11th grade and how it prepared them for college. Both groups of students shared similar preparation methods and strategies. Early college students discussed their AVID assignments as a factor in their preparation of high school. It is important to note that all early college students are required to take AVID as part of their schedule and continues to be a course they take for their entire four-year high school career. On the other hand, enrollment in an AVID course is optional for dual credit students.

Similar college assignments and workload. Both early college and dual credit students discussed how having similar college assignments in their AP classes helped them prepare for college by the rigor and amount of workload completed in their courses. One student in dual credit shared:

The Pre-AP and AP courses in high school prepared me for college by making me experience the workload and the intensity of college courses. It prevented me from being overwhelmed by the college-level education and helped me adjust smoothly to classes that are more advanced. For instance, taking AP English improved my basic writing skills, which prepared me for my college English research papers.

Students in early college were required to take more Pre-AP courses as part of their curriculum in early college while both groups had the opportunity to take any AP course(s). Participants who chose to take AP classes did so because they wanted a challenge, a teacher or friend recommended it, or they wanted to increase their GPA.

Support system. Both early college and dual credit students also acknowledged how being able to take dual credit courses really helped them prepare for college. During the interview, one early college student even explained that “I feel like my dual credit classes were more helpful than AP classes”. In the open-ended survey responses, both groups felt that the dual credit courses allowed them to see the college environment. One dual credit student stated:

It allowed me the opportunity to go outside my comfort zone and do things that I dared [not] to do. It was an amazing opportunity; the environment, the environment was everything. No more unserious high school kids, this where were we come to excel in life; to advance our future.

Only early college students reported having had an easier transition to college because of their participation in early college. The student discussed that the “gradual increasing amount of college classes every year helped me succeed and not feel so overwhelmed.” It is important to note that early college students take one college class each semester in their freshman and sophomore year in high school and transition to a full college schedule their junior year. In contrast, dual credit students in this study do not start any dual credit courses until their junior or senior year of high school.

Early college students also discussed teachers emulating the college setting in their classrooms and having high expectations was as key in preparing for college. One student discussed:

My teachers also tried to adapt their lessons and expectations to give students better opportunities to succeed in college courses. If they heard we were especially busy with college or that a big project was due soon, they would be more flexible with our assignments and allowed us adequate time to complete all of our work.

Dual credit students did discuss how teachers had college representation in their classrooms that allowed them to ask questions about college as well as some counselors giving information about college.

Skills needed. Both groups shared how high schools helped them with “organizational skills” as well as how high school helped reinforce “at a young age to take time management and independence more seriously”, as one dual credit student explained. The top two skills besides increase in general study habits was time managements and workload. A dual credit student responded that high school showed them “that only I can help myself to go to college”, while an early college student also responded that “no one is going to keep giving me reminders, I have to take on the responsibility to track my own progress.” A few students from both groups also noted that they had gained some communication skills in high school needed to be able to ask professors questions about their classes. As one early college student noted, “I learned that communication is the main key to success as a student because it ensures that I know how to ask for assistance on educational problems.” A few students from both groups showed that becoming independent and communicating was key but it seemed that a lot did not see these as the main skills they obtained since there were a few who found that writing essays was also key.

AVID college preparation. Only three out of 61 dual credit students who were surveyed answered that they were taking an AVID course. Of those three students, they

all explained how AVID really helped them prepare for college and had similar outlooks to early college students who are required to take the course. Students in early college, who are all required to take AVID, discussed their experiences in AVID and specifically on how it helped them prepare for college. One student noted:

My AVID classes prepared me by teaching me different ways to stay organized and prepared, like by using my planner, how to correctly [take notes], and study for exams, and by giving me assignments about college research in order to help us decide what college we wanted to attend in order to be prepared for it.

During the interviews, three early college students also noted how they felt AVID made a difference in their college planning as one student explained that “As a senior, I had already done most of the things that I needed to do for my application”. Another early college student at another high school also shared a similar view in that “For example, in the first semester of my senior year, our teacher made us make an Apply Texas account so that if we’re planning to attend college, then we already have the account set up.” This is very advantageous to students as all they need to do is apply and have a better understanding of the college application process since it is an assignment given in class.

Positives of participating in Extracurricular Activities. Both groups of students shared their positive experiences with extracurricular activities and how it might have affected their high school and college experiences. During the interview, one dual credit student noted how being involved in extracurricular activities helped them “meet new people and try to get more comfortable being surrounded by others....” One early college student listed various extracurricular activities they were involved in but ultimately explained that his involvement forced him “to learn vital key management skills.” I was able to get together a team and focus their efforts towards a singular goal.”

Both groups agreed that extracurricular activities also helped in balancing their schedules whether they were in an academic or sports related activity. They also noted how their participation helped them be more social. Several early college students did note how they had to let go of some of their extracurricular activities to focus on their studies. During the interviews, one dual credit and one early college student also explained how their extracurricular activities helped them manage their stress which is definitely a positive experience.

Suggestions for High School Improvements in College Preparation

Students shared various improvements that they felt their high school could work on to help them better prepare for college. Many responses came from the need of high schools to better inform students about college expectations and plans. Students were also specific about certain skills needed such as time management, study habits, and having similar college assignments in their high school courses and experiences. Although these skills are similar to the previous theme, several students wished their high school could improve in helping them. The category of overall school support includes more college preparatory classes needed as well as structures of classes to be more college like in the teacher support category. Other college activities that students were highly interested to share about was the need for course selections and knowledge about financial aid and college trips.

College activities. In both open-ended responses to the survey and interviews, both groups of students agreed that they need more information about financial aid, college applications and its process, college workshops, and college visits. A student in early college was concerned about “being able to read my financial aid package, like what the different loans means and what’s the best offer from each school.” Dual credit

students also shared some confusion when it came to the college applications process as one student noted:

I think my school could have done better to prepare me for college by making a step-by-step process on how to apply for college and scholarships, so that I won't miss any important steps in succeeding in college as well as any opportunity of saving money through financial aid.

During the interview, a dual credit student even suggested that there should be a practice application assignment where the teacher helps you decide whether that application was correct or could help you with any missing components. On needing workshops and college visits, one early college student suggested:

I believe some things that my school could have done better to prepare me for college would be to enforce college days into the school days. I can only imagine how difficult that must be but I believe it would be beneficial. For instance, there should be a senior assembly that would allow the colleges to come to the incoming college freshman in one room. It could be just a workstation with pamphlets or an area with advisors that are ready to help any interested incoming freshman. With this being said, I believe if this was inputted into our school day or even a couple of hours or so, it would help students who are not able to go on college road trips. I believe this could also help students become motivated into wanting to perform well in order to impress their future college.

Dual credit students also agreed that they would like "college representatives" come talk to them to gather more college information and expand their choices in attending college. Both groups of students were also eager to take more college visits to gain more information about college experiences and expectations.

Teacher support. Approximately 36 students in both groups indicated that they would like their teachers to teach in a more college-style format. During the interviews, one dual credit student explained:

Whenever I was a junior, I had to take regular English due to my schedule. I feel like the regular classes are a lot played down and I feel like that is not going to prepare anyone. I think it more prepares them for failure, if anything, because they are not—It felt like I was in elementary school again. I know some kids might need that but the kids in my class at least, I could tell that they were just bored the whole time. I guess if teachers just cared more.

An early college student also noted how they were treated differently when they were back at the high school campus for SAT testing stating that she “was reminded of how small the high school faculty” made her feel. In college, students are given more freedoms and the treatments of high school teachers and college professors might be different. Another early college student also suggested showing the importance of a syllabus and calendar during high school. The student explains that a syllabus and calendar are not shared with students or are important to be referred through the entire year in high school and wished the opposite were true, so he’d have that skill going into college.

During the interviews and open-ended responses, early college and dual credit students agreed that their teachers really made college seems like something scary and would have liked them to move away from this notion. During the interview, one dual credit student explained that “I feel like when they’re talking about college, it’s a lot of statistics that scares people” while another in an open-ended response noted “stop making it seem like college is so much harder and there’s more work involved. There’s less work in college and it’s nicely spread for us.” During the interview, an early college student

also noted that there is balance at the college level with some professors being strict but others who “are just really nice and understand that you do have a life, you do have other classes that you’re taking.” Participants also described that to lessen this fear of college, teachers should also focus on quality and not quantity. For example, one dual credit student noted that “I believe high school should focus more [on] their lessons instead of assigning many worksheets.” An early college student also noted that “instead of taking 10 grades per week, they can lower the grades to 4. The assignments will weigh more, just like how it works in college.” Teachers can show support of students by emulating the college grading system or style so students are aware of college expectations.

Overall school support. Overall, early college and dual credit students were interested in programs other than AP, dual credit or early college. In the open-ended responses, one dual credit student noted how “I hope the school system realize that the College board is a monopolistic entity of education, determining what makes us or breaks us in terms of if we’ll go to the school of our dreams.” Other dual credit students noted that their high schools focused on careers such as nursing and mechanics but not on careers such as psychology or communications while another dual credit student wished they have known about early college sooner that that they could have applied and saved money in the long run. One early college student noted, “I believe the one thing missing was clubs and various outside projects to engage us and teach us about different career options, majors, and interests.” Students in my study were part of the five high schools in which other career and technical programs have been removed to make a separate career and technical high school. Due to this change, both sets of students are realizing they need more options than what they have at their school without needing to enroll in another high school.

Besides programs, dual credit students described the need for AVID classes where they could have received some more college preparation. Early college students even suggested it for students outside of early college because they saw the importance of it during their high school career. In both interviews and open-ended responses, early college students discussed the need to help minority students. During the interview, one student discussed:

I feel like they need to be a little bit more encouraging because I see a lot of people, especially minorities, they don't think they have an option. They don't think they can go to college. A lot of them really can't, but I think if the main campus gave high school students more options the way early college does—I get emails, almost every second for a scholarship, financial aid, and reminders, and encouragement, almost every second. I feel like if they did that more with the main campus people, it will be a lot more encouraging and a lot better for them.

Another early college student noted how universities such as Baylor or Ivy League universities might not be an option for minorities due to cost but they also deserve to be informed about scholarships as they might “have less opportunities and it will be on equal field.”

Skills needed. One of the most common aspects between both groups of students, early college and dual credit was their desire and suggestions for high schools to help them handle their time management as well as creating better study habits. One dual credit student shared their suggestion with their personal experience:

High schools should teach students proper time management/self-regulation, since when you're in high school everything is planned for you. So, when I was participating in college courses it was quite stressful managing schoolwork from both high school and college on my own without any sort of discipline or guide.

Early college students also shared this sentiment and were even stressed about how to balance college and work in the future since they plan to work while attending college or university. During the interview, another student also noted how difficult virtual learning at the college level has been difficult due to many distractions at home. Learning crucial study habits was important for both groups with dual credit students noting that they would have liked a class like AVID that prepares them for various college aspects of studying. One early college student suggested they could benefit from having other students who have gone through the program come and tell them ways of studying that helped them get through college. Students ultimately also wanted more information on how to build communication skills between themselves and with older adults such as their professors or other students at the community colleges.

The need for college preparation earlier in high school. Overall, both early college and dual credit students would have liked to receive college information earlier so that their college planning could have also started sooner. Both groups also specifically stated that starting talk about college in 9th grade would have been helpful. One dual credit student noted how she had wished someone told her that her academic resume started as soon as she stepped into campus her freshman year. Another dual credit student also discussed:

I believe my school could have been more upfront about going to college, applying for FAFSA, etc. My school kind of just tucked all that information away for us to go out and search for it. I'm aware that it's our responsibility as students to go out and search for this kind of information, but I still do think that our school should have been more upfront about applying for college and such.

Many students both in early college and dual credit, felt rushed in their senior year of high school as they were "expected to apply to multiple colleges without knowing

anything except for bits and pieces we have learned over our high school years,” as explained by an early college student.

Counselor support. Early college and dual credit students agreed that they would have liked more time with their counselors to discuss which college courses are necessary for their preferred career path before attending their dual credit courses. One early college student noted:

High schools can do a better job in assisting students on choosing classes for college and reading their career paths. I think many students go in not knowing what classes are necessary to take and or which classes assist them in the long run.

Only a few early college students discussed how they would have liked their counselors support in their mental health. Some students were broad in explaining mental health, but others described it as, “counselors should improve the way that they teach time management, stress related help, and provide more help regarding health importance.” Another early college student shared a similar view in that “Burnout is also a serious issue that students are susceptible to and it would help a lot to learn how to prevent it or at least in recovering from it.” Overall, students would have liked more availability from their counselors and more time discussing career paths and differences in courses before attending the community college for dual credit courses. Early college students are required to choose a career path for their associates in their 10th grade year in high schools which can overwhelm students who are not aware of which classes to take for their career path.

People who have influenced college preparation or plans

Students were asked whether family, teachers, counselors, administration or peers have had any influence in their post-secondary college preparation or plans during the

interviews to understand their networks of relationships. Only one student during the interview discussed how their therapist influenced them by helping them choose their college major. All other responses are shared below as categories in this theme of people who have influenced students' college preparation or plans.

Family. As part of the family unit, parents were the most influential for both groups. Most students named their parents as the people who helped them prepare for plans to continue their college education after high school while some siblings and other family members such as aunts and uncles were influential in specific possible majors. One dual credit student discussed how her parents knew the importance of college even though they did not attend college themselves:

Well, ever since we started high school, they would tell us, me and my brother, they would tell us about how they wanted us to be more than them. That we would have to do even more and not just stay in one place. We would have to advance in our career and advance our generation to come.

Other students explained how their parents encouraged them to move beyond high school and some were even ready to help with applications and scholarship outlooks. One early college student mentioned how her mom also enrolled in college as soon as she joined the early college program. Like many other early college and dual credit students, she felt the constant support of her mother and influences in choosing their college major. Since most of the students are first-generation college students, a common occurrence in their responses was how supportive parents were despite their knowledge of how to apply to college or get financial aid. As one dual credit student described,

My parents were immigrants, and they came over here and started a whole new life. They would say something like "Go to college," but they won't force me, but they're just telling me, "Oh, that's really good." When I was going to do full

credit, they helped me out. They had to pay for me. I didn't have a job back then.

They were working for me to help support me, and I appreciate them for that.”

Dual credit students who are not in early college must pay for their courses, and this is what this student was referencing when explaining that her parents helped pay. Other family members who influenced students were their cousins, aunts, and siblings, who they felt gave general support. When students discussed their college-going cousins as a source of influence, it was due to the conversations they were able to have about their experience in college. When students spoke about their older siblings as influences in their college preparation and plans, they had similar college-going conversations. Older siblings were able to help in college applications because they were older and could guide them directly.

Teacher. Many students noted their teachers in general as having influence over them and their decisions for their college career. In general, when asked if teachers in either early college or dual credit had any influence in their college preparation and plans, students responded as “yes”, but without much detail, unless asked to further explain their reason why they thought teachers were influential. Students discussed the overall feelings that teachers were influential because of the relationship they built with them. One early college student named several of their early college teachers stating at the end that “They’re all early college teachers and they all helped me out mostly. The other teachers, they do help me too but I just don’t have more of a relationship with them.” Another early college student, noted how their physics teacher, Ms. Faulkner was a great influence even though they don’t talk as often stating that “even though I really don’t talk to her a lot but every time I can, she’s always giving me advice just about struggling and worrying too much about college.” One early college student noted how their English teacher, Mr. Bailey took steps to say:

Hey, this is the kind of thing you're going to be doing in college and he gave us interesting text to interact with, so I think that helped with college and his warm-ups that involved news, culture, and being updated with the things that are happening around you. I think that's prepared me well for college.

Students were appreciative of teachers like Mr. Bailey, who emulated the college setting or helped prepare them for college. Only early college students spoke about the great influence of their AVID teachers in their college preparation. One early college student reflects on his experiences with 10th grade AVID and 11th-12th grade AVID at the community college by describing the following:

I think both Mr. Raymond and Mrs. Johnson, when Mrs. Johnson was helping us with asking us to make a resume and with mock interviews, I think that definitely helped. Like Mr. Raymond helped us check off which credits we've done and financing. She did a project called the role of a lifetime which is basically a mock life scenario, and you have to figure out what is your budget, what's your career. Both Mr. Raymond and Mrs. Johnson really helped. Mrs. Johnson also helped just because she was a nice teacher and a good person, so just that is going to help me out in life.

Across other early college campuses, students shared similar views noting that their AVID teachers helped them keep on track of their assignments and especially their college applications and scholarships once they were in their senior year.

Counselor. Approximately seven out of ten early college students believed that their counselor had really made an influence in their college preparation stating that their counselors helped them study, plan, organize and check on them throughout the school year. Several other early college students were appreciative of the fact that their counselors kept a positive attitude when meeting with them because it eased any stresses,

they had walking into their meeting. Early college counselors were also helpful in college preparation by helping students apply for scholarships and completing their student college admission applications. In contrast, only three dual credit students discussed their counselors in their interviews. Two dual credit students described at least one counselor that they felt was effective in giving them scholarship opportunities as well as meeting with them on Zoom. One dual credit student noted that one of her counselors only pushed students toward taking AP courses but did not offer any support to help outside of that. This student also described her counselor as a ghost since she didn't see or talk to the counselor enough to develop any type of relationship.

Administration. Although only three out of 10 dual credit students mentioned their counselors as being influential, seven out of 10 discuss the influence of their dual credit coordinator in their college preparation. Each high school is equipped with one dual credit coordinator which can help all students including early college students but is housed on the main high school campus. Overall, dual credit students felt that their dual credit coordinators helped them graduate earlier with college credit by giving information early and explaining different career paths. One dual credit student discussed:

Mrs. Raymond, she pushes us a lot. If you're in doubt, she'll help you not be. She inspires you. I really like her. I think I wouldn't have done dual credit if she wasn't our counselor because I think she's really nice, she pushes all of us.

Additionally, this dual credit student went on to explain how Mrs. Raymond makes dual credit interesting. The dual credit coordinator uses emails and plans fun activities for students such as giveaways for applying for college or financial aid. As students moved to mostly online teaching due to the pandemic, Mrs. Raymond was still able to send a lot of opportunities to students.

On the other hand, early college students described their college deans as administration which helped them prepare for college. Each set of high schools has a college Dean who oversees two or three high schools. Students described one of their deans, Mrs. Smith, as someone who was very supportive while maintaining relationships with students by checking up on them even when students were all online due to the pandemic. In another early college high school, Ms. Anderson encouraged students to take physics, as one student discussed:

The physics [class] is part of my high school curriculum, but it's not mandatory that I get it. She encouraged me to take physics because she observed that in higher ranking institutions would need a course like that, a recent introduction to physics. She encouraged me and so far, it's good.

Other students noted how they appreciated that their Deans created a college-going culture by having college spirit days to emphasize different aspects of college. Overall, students in early college felt more support from their deans than dual credit coordinators since they had more immediate contact with them and received many college recommendations from them.

Peers. Both groups of students discussed how their peers influenced them in their college preparation but mostly being supportive of their choices. The influence of peers had to do with having a collective goal, motivation and the fact that they were taking similar courses for their desired major. Both groups of students felt that no one in their program was negative towards their experiences in college. Students noted that because they were taking the same classes, they shared common goals such as understanding a concept or homework problem. Students often felt that they were more comfortable and had immediate responses when talking to peers about college. Students will often ask

each other questions about the college process so it's important to have those peer connections.

How High School did not prepare for college

A few students felt that they were not completely prepared to go to college. Although a few did name administrators or dual credit coordinators as being influential in their college preparation, eleven out of twenty total dual credit and early college students interviewed agreed that they did not feel any direct influence from administration. Furthermore, only four dual credit and one early college student explained that they had no direct influence from their counselor. In discussion about their counselors, students discussed that they had not really discussed their graduation plan in length as well as some counselors only meeting with certain students. Overall, students had major discussions about how they felt their AP courses didn't help them as much in college preparation as well as dual credit students being aware of AVID but not enrolling in it.

AP courses. A common discussion amongst both early college and dual credit students was their participation in their AP courses and how it was different than their community college experience. One dual credit student noted that they are "against AP classes because they are just as stressful as college classes, yet they don't even count as one so it's not worth it." Another early college student discussed the multitude of AP courses taken and reflected on the following:

I feel like they're [AP courses] just more difficult than college classes, at least the ones that I've taken. College really isn't that hard. You have to know how to process that and I feel like as a high school student you don't really have that capability to read a syllabus, get a calendar, plan the whole semester out, homework plan, study plan, look at lectures. When you're in a high school AP

class or regular class, it's like an everyday basis, they day before was different and every night you have homework to do but college is not like that.

Other dual credit students have also discussed similar sentiments to the early college student above, noting that AP courses did help in the amount of workload and time management but did not require the deeper analysis needed in some of her dual credit courses. In discussing their experiences in AP courses, students felt that they had different treatment from teachers in high school than in college. Several dual credit students explained:

High school classes project a type of environment where you feel afraid or intimidated by your teachers because of the way they talk down to students, whereas my college professors treat every student like an adult and in a professional manner.

Several early college students also described how AP classes do try to emulate the college setting but found that some of their professors in their college classes were actually more lenient.

Lack of AVID enrollment. Eight out of the ten dual credit students interviewed explained that they were aware of AVID but were not enrolled in the course. It is important to note that dual credit students are not required to take AVID which has been shown to help early college students feel prepared for college. On several responses, dual credit students thought that AVID was only offered to early college students and thus it wasn't a course they were allowed to take. Another student who had previously attended another high school explained that she also knew early college students took AVID but guessed that regular students do not take it. "You need to ask for them, so they can give you the course. If a teacher tells you, "come on, take this class," it's really rare that somebody is going to say that to you." In the open-ended responses to the surveys, dual

credit students described the need for AVID classes because “implementing some of the curriculum in classes will change the view of college to students. It will allow them to be informed and on track to prepare for college.” Early college students also responded that all students should take AVID in order to take classes at the community college.

What students would have done differently

While reflecting on their high school experiences and preparation for college, both groups of students wish they had participated in more extracurricular activities. For one dual credit student they wished they had been involved in clubs that they were personally interested in instead of what her family wanted her to do. Another early college student described feeling isolated because his high school had a separate early college building during high school and separated again when going to the community college full time. This early college student struggled to attend meetings at the high school after being at the community college campus and would then arrive too late to the meeting time. Two dual credit students described that they wish they had known about early college sooner so that they could have taken that path instead and save money in the long run. One dual credit student explained that she already had 26 hours of college credit accumulated but was kind of upset that she wouldn’t be earning an associate’s even though she feels she was capable of it. Only early college students agreed that they would have taken junior year more seriously. For this group of students, their junior year, 11th grade, is when they are taking most if not all of their class at the community college. For some of these students, the transition from high school to community college is abrupt because they are used to taking one semester course each semester and then are required to take at least three college classes per semester their Junior year at the community college.

Skills needed to improve in college courses. Students were also thoughtful and conscious about what they needed to do to improve in their college courses. The main skills that students were planning to work on is time management. Students would like to improve on being more responsible, while also learning from their sibling's mistakes and working on study habits. One student mentioned that they would like to take an SAT prep class earlier in high school while another would like to know more about their career path for university. Dual credit students also reflected on their time management, their study habits, and what their AP classes have taught them. Through this, they had the revelations that as a student you cannot simply memorize the material and expect to do great all the time. If you spend the time to understand the material, then there will be a lower time necessary to review for college exams. The following is a summary of findings and conclusion of quantitative results and qualitative findings.

Summary of Findings

The purpose of this study is to examine the social capital of students in early college and dual credit traditional high school and their perceptions regarding college readiness and their high school experiences. *The High School Follow Up Survey* was completed by 154 students enrolled in early college high school or dual credit traditional high school in their senior year. For quantitative analysis, research questions one through eight were answered using descriptive statistics to determine if there was a statistical mean difference between early college and dual credit students in areas of students' attitudes toward college, academic achievement, teacher expectations and interactions, college preparation, school wide support, guidance and counseling, and parent engagement.

Quantitative analysis showed a statistically significant mean difference between early college and dual credit traditional students in terms of three research questions:

research question three (*teacher expectations and interactions*); research question five (*school wide support*); and research question six (*guidance counseling*). In terms of *attitudes toward college, academic achievement, college preparation, and parent engagement*, there was no statistically significant mean difference between early college and dual credit traditional high school students. Both groups of students had strong attitudes to continue their college education after high school due to their perception of having academic achievement, college preparation, and parental support and engagement.

Qualitative analysis was used to answer research question eight. The qualitative data consisted of the responses of 154 on the open-ended questions on the High School Follow-Up Survey as well as the 20 students that participated in the interviews. The social capital of students in terms of their relationships with teachers and counselors, as well as school support influenced their perceptions regarding college readiness. Qualitative findings showed that they were able to reflect on how and what ways their high schools have helped them prepare for college considering their current enrollment at the community college. One of the major differences between the groups was through their exposure to AVID. Early college students stated how taking AVID throughout high school has helped them gain college skills while many dual credit traditional high school students were unaware or were aware of AVID but didn't think the course was available to them or didn't see any reason to take the course. Students also reflected on suggestions for high school improvement in college preparation and both groups agreed they would like to receive college information earlier regarding college applications, financial aid, and career path planning and courses. Both groups were strongly influenced by their family and teachers in their college preparation and plans. Many students agreed their AP courses provided some college skills necessary to succeed but overall, they preferred their dual credit courses over AP courses in preparation for

college. Students believed AP courses have high workloads and it's not always a guarantee to get college credit. Overall, both students would have liked to improve on various college skills such as time management as well as participate in more extracurricular activities that would allow them to expand their high school and college experiences.

Conclusion

In conclusion, the study examined students' social capital in early college and dual credit traditional high school and their perceptions regarding college readiness and their high school experiences. The data presented in this study supports the conclusion that social capital, in terms of teacher expectations and interactions, school wide support, and guidance and counseling, does influence students in early college and dual credit in their perceptions of college readiness. Data from the open-ended responses and interviews supports the conclusion that both early college and dual credit students are able to discern how their high schools have prepared them for college and how they have not prepared. Students included suggestions on how their high schools could improve on college preparation for all students.

The data supports the need to examine the role that classes such as AVID, AP, and dual credit have in supporting students in their college preparation and plans. The school wide support from classes such as AVID have given students in early college the opportunity to gain various college skills such as planning, study habits, college application time. Dual credit students could also benefit from more time in an AVID class to gain or improve on the same skills. Students in early college also felt they had support from their high school counselors while dual credit students were supported by their dual credit coordinators. It will be important for high schools to determine how students in the dual credit program can benefit from more dual credit coordinators or

counselors that can specifically help with college preparation activities such as financial aid and the college application process. Chapter V discusses the findings of chapter four, in alignment with the literature review, implications, and recommendations for future research.

CHAPTER V: DISCUSSION, IMPLICATIONS, AND FUTURE RESEARCH RECOMMENDATIONS

This chapter presents the summary, implications, and future research recommendations regarding social capital of early college and dual credit traditional high school students enrolled in college courses. Quantitative data were collected in December 2020 and January 2021 utilizing the *High School Follow-Up Survey* results. The sample included 154 students, of which 61 were dual credit, and 93 were early college students. Qualitative data were obtained by utilizing all participant responses to the three open-ended questions in the survey and interviews. Two students from each high school were chosen to participate in interviews upon completion of their surveys and wished to continue in the study. Ten students in early college and ten students in dual credit were interviewed through Zoom or phone with interviews lasting between 20 to 30 minutes. The following section summarizes the research questions and gives further discussion with literature.

Summary of Research Questions with Discussion

The first seven quantitative research questions addressed student social capital and the students' perceptions of their college readiness and high school experiences concerning: attitude towards college, academic achievement, teacher expectations and interaction, college preparation, school wide support, guidance and counseling, and parent engagement. The quantitative results showed no significant mean differences in students' perceptions in four of the seven research questions. A statistically mean difference was seen in teacher expectations and interaction, school wide support, and guidance and counseling. Qualitative research question eight utilized responses from the three open-ended questions in the *High School Follow-Up Survey*. Interviews were

conducted to develop an in-depth analysis of their perceptions of their high school experiences and preparation for college.

Research Question One: Differences in Attitudes Toward College

Upon considering research question one, whether there was a difference between the attitude toward college between early college and dual credit students enrolled in college courses, the researcher learned there was no significant difference between the groups. Descriptive statistics showed that overall, both groups of students believe that continuing their education after high school is essential and expected to go to college. These results agree with Yosso (2005), which explains that underrepresented students already have several forms of social capital, such as familial and aspirational capital, that builds their community cultural wealth. Additionally, researchers also agree that underrepresented students have assets that can make them successful school rather than being seen as people who cannot achieve success (Nieto & Bode, 2018; Valenzuela, 2020). Hill and Wang (2014) previously explained that parents help develop aspirations and positive attitudes toward college, and my study showed how strong that source of capital was for students in early college and dual credit. Furthermore, this study clearly showed how a college-oriented culture is a good predictor of college enrollment due to school staff relationships (Bryan et al., 2017; Le, 2016, Roderick et al., 2011).

Research Question Two: Differences in Academic Achievement

When considering whether there was a difference between academic achievement between early college and dual credit students enrolled in college courses, the researcher found no significant difference between groups. Descriptive statistics showed both groups believe it was important to get good grades. Students were also aware of services at the school, such as tutoring to improve their grades. Collectively, students perceived they did their best to complete assignments and had the ability and skills to complete

their assignments. Students in this study demonstrated high self-efficacy while also supporting their previous positive attitudes about college. These results are consistent with previous studies that show students with high self-efficacy can handle a rigorous academic workload (Sikhwari et al., 2019; Valadez et al., 2012).

In the previous research question, we learned that both groups of students believed college was important and expected to go to college. Sikhwari et al. (2019) also noted similar views in students who achieved academic excellence. Although the qualitative study was conducted at the university level, students perceived that they did well in school because of their self-motivation, determined, disciplined attitudes, and having friends who share similar views in college. In another qualitative study, Valadez et al. (2012) found that students in an early college also identified themselves as being confident in their abilities to succeed and were capable of handling rigorous academic workloads. Overall, Valadez et al. (2012) show that students could adapt of situations at the college level which lead to their success. Although, my study did not ask students about the adaptation to situations in college, students responded similarly to statements in the survey that related to doing their best to complete assignments and having the skills necessary to be successful.

Research Question Three: Differences in Teacher Expectations and Interactions

Research question three asked whether there was a difference in teacher expectations and interactions between early college and dual credit students enrolled in college courses. Quantitative analysis showed there was a significant difference between the two groups. Descriptive statistics showed both groups agreed their teachers had high expectations, but there were differences in teacher care. Students in early college perceived that their teachers cared about them, while dual credit students did not perceive the same. The connections between teacher expectations and interactions can be related

back to Bronfenbrenner's ecological systems theory in which family and school interactions are in the mesosystem which influences the individual (Bronfenbrenner, 1979; Chun & Duvall, 2019).

This study supports Todd (2018) in his study on teacher care and student perceptions, who noted that students in early college reported their teachers possessed traits uncommon to their traditional high school teachers. For example, teachers at the early college showed more enthusiasm for teaching, were more willing to help students, maintained adaptability and flexibility while also establishing personal relationships with students (Todd, 2018). In addition, a teacher care-based model has been shown to help early college students create a strong student-teacher relationship that can lead to greater academic achievement (Ari et al., 2017). Both of these studies by Ari et al. (2017) and Todd (2018) show how teacher care can create a positive impact on students.

Additionally, students in dual credit did not believe their high school teachers did all they could to prepare them for college. On the other hand, early college students felt their teachers prepared them for college-level work. This study supports previous researchers in the need for teachers to use active teaching approaches to engage students (Sikhwari et al., 2019). In my study, early college teachers provide authentic caring pedagogy and make positive interactions with their students (Newcomer, 2018). In return, early college students could build trusting relationships and thus perceived that their teachers did their best to prepare them for college.

Research Question Four: Differences in College Preparation

This study relies on the definition of college preparation as courses taken in high school such as Pre-AP and AP. Research question four asked whether there was a difference in college preparation between early college and dual credit students enrolled in college courses. Quantitative analysis showed no significant difference between

groups. Descriptive statistics showed that both groups were in close agreement to being aware of the importance of taking AP courses. Additionally, both groups felt that they were encouraged to take rigorous classes in preparation for college. Students in my study were asked whether teachers helped them select the correct courses needed for college and whether they encouraged them to take high-level classes. My study supports previous research showing the need to encourage participation in rigorous courses such as AP, Pre-AP, or dual credit (Allen et al., 2019; Le et al., 2016). Teachers must keep encouraging underrepresented students in high-level courses so that they are prepared for the rigor in college level classes. Although there was no significant difference in the college preparation construct, a higher percentage of early college students believed that their teachers helped them plan or select the correct courses needed for college.

Research Question Five: Differences in School Wide Support

In this study, school wide support encompasses a college going culture, resources provided by the high school including college preparatory items, workshops, programs such as AVID, and access to visiting college campuses. Research question five asked whether there was a difference in school wide support between early college and dual credit students enrolled in college courses. Quantitative analysis showed there was a significant difference between the two groups. Descriptive statistics showed early college students enrolled in AVID while dual credit students were not enrolled. In a previous study by Llamas et al. (2014), AVID was shown to provide multiple sources and opportunities for students to prepare for college. In agreement, Huerta and Watt (2015) also showed how AVID equips students with a stockpile of strategies to help them succeed in college regardless of enrollment in a university or community college further showing that AVID can continue to help beyond high school.

Although both groups agreed that their high school created a college-going culture, dual credit students did not feel like their high school provided them with student planners that could help with time management and organization. Dual credit students perceived that they did not receive the school support needed to increase their organizational and time management skills. AVID courses often provide planners for students and require student planner checks as part of their grade and assignments in the course. Early college students were exposed to more planners that led to stronger organization and time management skills as a result of their enrollment in AVID. The results of my study agree with previous research that explains how AVID can equip all students with academic and social strategies to succeed in college (Huerta & Watt, 2015; Kirk & Watt, 2018).

Research Question Six: Differences in Guidance and Counseling

Research question six asked whether there was a difference in guidance and counseling between early college and dual credit students enrolled in college courses. Quantitative analysis showed there was a significant difference between the two groups. Descriptive statistics showed that counselors encouraged both groups of students to attend college at a similar rate. The results of this study are consistent with the ideas of previous research that explain that students prefer to talk to their counselors first to gain information about college and thus build a relationship in which they can gain a new source of social capital (Fitzpatrick, 2020; Robinson & Roksa, 2016; Rutter et al., 2020).

Although both groups agreed that their high school counselors encouraged them to attend college, early college students believed their counselors helped them plan their future goals while dual credit students did not. Furthermore, early college students felt that their counselors gave them enough information to apply to college and provided information about SAT exams, scholarships, and financial aid. Researchers have

emphasized the importance of reciprocal relationships in which compassion and concern are expressed in student lives to increase student success (Divoll, 2010; Newcomer, 2018; Noddings, 2005; Valenzuela, 1999). This study further supports ideas found by Rutter et al. (2020), showing a shift where counselors must now move into a reciprocal role with students. In this new reciprocal role, counselors are embedding themselves into students' lives while providing crucial information and becoming a major source of social capital instead of just disseminating information (Rutter et al., 2020). Furthermore, counselors affect students' habits in preparation for college in their applications for financial aid and equip students with knowledge about these systems that they might not otherwise have due to lack of social capital (Fitzpatrick, 2020; Robinson & Roksa, 2016; Rutter et al., 2020).

Research Question Seven: Differences between Parent Engagement

In this study, students perceived parent engagement by whether they encouraged them to do well in school, going to college, and whether they were aware of ways to help them do well in school. Research question seven asked whether there was a difference in parent engagement between early college and dual credit students enrolled in college courses. Quantitative analysis showed no significant difference between groups. Descriptive statistics showed that both groups were in high agreement with their parents encouraging them to do well in school and encouraging them to attend college. This study supports Hill and Wang (2014), which describe parents as a positive source in building strong aspirations for college. Additionally, this study supports previous researchers who show that Latino parents provide emotional support for students and provide behavioral and cognitive supports even if parents did not attend college (Araque et al., 2017; Hill & Wang, 2014). Interestingly, early college and dual credit students also indicated that their parents were aware of ways to help them get to college. The

result of this item supports previous studies that show how parents of underrepresented students can have emphasis in family bonds that support students by providing educational support (Araque et al., 2017; Nieto & Bode, 2018; Valenzuela; 2016).

Research Question Eight: Perceptions of High School Experiences and College Preparation

School districts should be aware of the importance of social capital in helping underrepresented students in college preparation that leads to college persistence. Responses from high school student participants show some insights into their perceptions of their high school experiences and college preparation. Research question eight asked about students' perceptions of their high school experiences and preparation for college. Through qualitative data in the open-ended questions and interviews, five themes emerged. College preparation from high school, suggestions for high school improvement in college preparation, people who influenced college preparation or plans, how high school did not prepare for college, and what students would have done differently in their high school experiences are the five themes that arose in the analysis. Overall, dual credits were not enrolled in AVID and many failed to realize that this course was available to them. The findings showed dual credit students suggested they need more college activities, teacher, counselor, and school supports in terms of activities completed through AVID. The findings further agree with previous research by Haxton et al. (2016) which show that students in early college had strong college-going culture and instructor support when compared to a control group of non-early college students.

Additionally, both groups of students shared that they wish they had received college information earlier in high school. These results are consistent with recent studies on college information and counselors (Fitzpatrick, 2020; Owen et al., 2020; Rutter et al., 2020). As Owen et al. (2020) describe, students prefer to receive their

college information from their counselors first. Several students in both groups suggested starting discussions about college as early as 9th grade would be beneficial, which has also been suggested by Fitzpatrick (2020), stating that by meeting with counselors this early, students have a higher intent on submitting their FAFSA and enrolling in college. Furthermore, both groups were strongly influenced by their family and teachers in their college preparations and plans. Yosso (2005) describes underrepresented students as having familial capital and it was shown in this study. In the theme of people who have influenced college preparation and plans, family was the most common response among participants. Most participants named their parents as the people who helped them prepare for plans to continue their college education after high school. Other participants discussed how their parents encouraged them to move beyond high school and were even ready to help with applications and scholarships.

Strong and supportive family connection has shown to provide high aspirations for success in schools (Araque et al., 2017; Nieto & Bode, 2018; Valenzuela, 2016). Both groups of students describe how the majority of their parents did not attend college but constantly reassured them to do well in school and helped pay for resources while attending their dual credit courses. Overall, students appreciated teachers who shared their college experiences and their adaptability to different students, which match earlier studies on college talks and teacher care on affecting student success in schools (Athanasios et al., 2016; Todd, 2018). For example, many students noted their teachers in general having influence over them and their decisions for their college career. Participants described the influence of teachers due to the relationships they had built with them. One student in early college noted how they were appreciative of one of their teachers because they emulated the college setting or helped them prepare for college. Only early college students spoke about the influence of their AVID teachers in their

college preparation whereas dual credit did not discuss any influence from their AVID teacher in open-responses or in the interviews.

Alternatively, students felt they had their support from their teachers both groups realized how much teachers overemphasize the difficulty of college. Students who were enrolled in AP classes believed they did gain some college skills necessary to succeed but overall preferred their dual credit courses over AP. The findings on AP and dual credit courses are in agreement with vast research on the benefits of each program in preparation and persistence in college (Adelman, 2006; Ari et al., 2017; Bailey & Karp, 2003; Haxton et al., 2016; Speroni, 2011; Valadez et al., 2012). Although previous research has shown benefits, the qualitative findings in this study show student perceptions of their courses were not always positive for AP courses since they preferred dual credit courses.

Implications

The results of this study have important implications for teachers, schools, and administration. School districts should be aware of the importance of social capital in helping underrepresented students in college preparation that leads to college persistence. As stated previously, the modern economy grows and is rapidly changing with the need for college education in the job market (Carnevale et al., 2016; Jobs for the Future, 2019). Early college and dual credit programs aim to help low-income underrepresented students in their pursuit of an affordable college education (Berger et al., 2014; Cowan & Goldhaber, 2015; Hoffman, 2003; Saenz & Combs, 2015; Webb & Gerwin, 2014). While this seems like a simple solution, there remain equitable gaps in college courses and course offerings that school districts and policymakers must be aware of (Jobs for the Future, 2019). Equity is important when designing and improving high school college programs to ensure that all students regardless of background are afforded resources

needed to succeed. The results and findings of this study showed significant differences in early college and dual credit students in terms of social capital constructs of school wide support, teacher expectations and interactions, and guidance and counseling.

School Wide Support

As discovered in this study, there was a significant difference in early college and dual credit students in terms of school wide support. In this study, school wide support includes having a college going culture and providing resources such as, college workshops, AVID, and access to visiting college campuses. The qualitative findings further supported the quantitative result showing an immense gap between early college and dual credit students in their enrollment in AVID. The findings have important implications for developing and/or requiring AVID courses for dual credit traditional high school students. As stated before, early college students are required to take an AVID course through all four years of high school while dual credit students have the option to enroll. In the qualitative findings, several dual credit students noted that they were not aware that AVID was available to them and even stated they believed the course was only for early college students. Several dual credit students continued to discuss their belief that a course like AVID could have been beneficial in preparing them for college. Requiring or including AVID for all students interested in college preparation courses such as those in early college, dual credit, and AP courses would be beneficial due to the vast research explaining the benefits of AVID in college preparation (Barnhardt, 2013; Huerta & Watt, 2015; Kirk & Watt, 2018; Llamas et al., 2014). Promoting the AVID course to dual credit students would be beneficial and would raise their perception of school wide support and increase their social capital as they would increase conversations about college with teachers and peers.

There were several occasions where early college students accredited their college preparation to the simple fact that they were part of early college. Previous researchers studying early colleges also found that students are highly aware of the importance of early college and its effect in helping them prepare for college including saving them money (Bryan et al., 2017; Haxton et al., 2016, Valadez et al., 2012). In this study, the disparity in school wide support is shown between early college and dual credit students. Early college students are placed in a cohort style group where they have the same teachers most of their time in high school before attending community college full-time. On the other hand, dual credit students are spread out traditionally around campus based on their course titles and interests. This study outlines a need for dual credit students to have better school wide support in terms of building a community such as one that early college has built. Previous researchers have discussed how participation in peer groups creates a greater likelihood of enrolling in college due to sharing similar views in going to college (Adams et al., 2020; Le, 2016; Sikhwari et al., 2019). A few dual credit students credited their peers for learning about the program and their decision to join. Peer groups would also help schools like High Schools A, B, and C in this study which has the lowest enrollment in the dual credit program with 100% of the students being Hispanic. Students who are first-generation and underrepresented often lack the basic knowledge of college-going supports, career pathway courses, completing college applications, and financial aid which could be alleviated by having a peer group who share some emotional and academic support (Moschetti, Plunkett, Efrat, & Yomtov, 2018).

Teacher Expectation and Interactions

Quantitative results showed that early college students felt their teachers cared about them and did as much as they could to help them prepare for college while dual

credit students did not perceive the same. Qualitative findings show that both groups were strongly influenced by teachers more than their counselors or peers. Nieto and Bode (2018) describe the power of teachers affirming the identities of students who can be viewed as critical thinkers and people who can enact positive change in society. It is important to find ways to ensure that all students are in contact with strong relationships with their teachers. Teachers who have high expectations and strong relationships with students can influence student outcomes (Ari et al., 2017; Newcomer, 2018, Todd, 2018). Therefore, teachers in the district could benefit from professional development on the ethics of care, culturally responsive teaching, and asset-based pedagogy in helping build strong student-teacher relationships with students. The problem of school-based relationships has been seen in research by Valenzuela (1999) which accounted for underachievement of students. In Valenzuela's study, there were some teachers who showed care through close relationships with students and high expectations.

In addition, Garza (2009) discovered culturally responsive teaching strategies that Latino students appreciated such as scaffolding, kind dispositions, flexible and available, showing personal interest in students, and providing academic support. Students could benefit from this as the majority of the population is Hispanic. Teachers could also consider an asset-based pedagogy where students are not seen as "at risk" but rather "at promise" for strong student contributions (Rios, 2017). Teachers can help build the social capital students need by enacting asset-based pedagogy where student assets such as their aspirations and cultural background can contribute to strong-teacher relationships and school culture.

Furthermore, all students could benefit from student-teacher mentor relationships which have shown to increase student success, affirm student identity, and create positive outlooks on school (Pizarro, 2005). Zeichner (2003) found that effective characteristics

of teachers in urban schools were beliefs that students are capable of high-level content and communicating that belief to students. Teachers must enact a reciprocal role and create a shift to become part of students' social capital system. In this new shift, underrepresented students are not the only people to blame for failure as teachers change their own biases to increase student achievement (Nieto & Bode, 2018).

Guidance and Counseling

The results of this study showed how counselors equally encouraged college to both early college and dual credit students. However, dual credit students did not believe counselors helped them plan for future goals or provide the information necessary to apply for college in comparison to early college students who felt more prepared in both of those items. Counselors, like teachers, can provide a great source of capital for students. Owen et al. (2020) describes how high school seniors prefer to engage with counselors when obtaining college information. My study outlines the importance of starting early in the process of helping students in their college planning with the help of counselors. Recent research has shown college-going culture must start early so that both students and parents are aware of the college process and application (Belasco, 2013; Robinson & Roksa, 2016, Fitzpatrick, 2020). Several dual credit students credited their dual credit coordinator as a person who helped them more than counselors. This outlines the importance of making sure that all counselors are trained in or aware of how they utilize their time to discuss college with students as they act as key people in building student social capital networks (Poynton & Lapan, 2017). Additionally, during interviews students often discussed how they did not meet with their counselors as much but rather spent more time with their dual credit counselors or counselors who happened to discuss college beyond what courses were needed for high school. Thus, it is important that school districts hire or train for high quality college and career counseling

services that enact reciprocal roles that improve student success and social capital. College and career counseling should not just be a dissemination of information but rather an embedded relationship with students to learn what is needed to help each and every student succeed.

Limitations

The use of a mixed methods research design was appropriate for this study. Qualitative findings often strengthened quantitative results that led to in-depth analysis of social capital constructs affecting early college and dual credit students (Creswell & Creswell, 2013). However, this study had limitations.

The survey was administered online and some responses to open-ended questions were incomplete; in some instances, the researcher had to contact respondents for clarification. To increase response rates, the survey was also shared with all dual credit coordinators, AVID teachers, and early college deans with incentives used for participation. Second, the accuracy of student responses was only as honest as participants could be. There is no method to ensure the validity of student answers. Third, there was a focus on students enrolled in a single district. Districts with other demographics may not be able to generalize the results to their population.

Another limitation occurs in the administration of the survey at the end of their first semester of senior year for dual credit students and at the beginning of spring 2021 semester for early college students. Administration of the survey at the end of their senior year around April or May could have given students greater opportunity to reflect on more experiences in high school and college. There were also interview limitations to be considered. I chose to interview two early college and two dual credit students from each high school. By interviewing more students at the high schools, there could have been more examples or experiences that could have added to qualitative findings. Only

students were interviewed for the study, interviewing other staff at the school could have added other perspectives to themes (or categories): school wide support, teacher expectations and interactions, and guidance and counseling.

Recommendations for Future Research

The first recommendations for future research would be to conduct this study on a large scale across multiple districts with both early college and dual credit traditional programs. The results from this study could establish a better understanding of the effects of social capital of underrepresented students in early college and dual credit programs with similar or differing demographics. This study could help districts share information on how to best prepare underrepresented students.

A mixed methods study could also be performed on gathering teacher perceptions of student college preparation and planning. The study could focus on how teachers perceive their students' college readiness and preparedness in addition to their role in helping all students. Gathering teacher perceptions would add an in depth-analysis with student responses on how they perceive their teacher interactions.

Obtaining teacher perceptions could be paired with also gathering insights from counselors, administrators, parents, and peers that are interviewed or placed in focus groups about college preparation and planning. This study could address the social capital they bring to underrepresented students during their high school career. Furthermore, information can be gathered on strengths and weaknesses they may perceive in providing college preparation to underrepresented students.

Students in my study ultimately preferred dual credit courses over AP classes even though they did acknowledge AP courses did teach them some college skills. This study could be further researched in terms of differences in AP and dual credit courses. An in-depth analysis of philosophies of AP courses and dual credit courses could be

compared and contrasted. The question of why students preferred dual credit courses could be further answered by interviews where specific perceptions on AP and dual credit courses are taken every semester as students' progress in their college courses.

Finally, this study could be further expanded to follow students as they graduate from high school and attend a college or university. A study could be conducted to determine if their overall experience in high school is affecting their first-year experience at the university setting. Information about student experiences could be gathered in interviews to give an in-depth analysis of specific activities at the university that are affected because of their high school college preparation.

This study and research provided a better understanding of the relationships between social capital of early college and dual credit traditional students enrolled in college courses. Early college and dual credit students shared similar views in their attitudes towards college due to strong parent support, which in turn showed similar academic achievement in both groups. The research shows that early college and dual credit students differ in school wide support, teacher expectations and interactions, and guidance and counseling. Thus, school and district leaders must develop a systematic approach to provide underrepresented students and parents with the resources and information regarding college preparation and planning. Leaders must work together to realize that students bring the school community cultural wealth that leads to success regardless of cultural background.

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APPENDIX A:
INFORMED CONSENT TO PARTICIPATE IN RESEARCH

Adolescent Participant Assent Form to Participate in Education Research

You are asked to help us in the project described below. Your parents or guardian have given their okay, but you get to decide if you want to be in this study or not. You may stop or quit the study at any time by telling one of us and it is okay. If you want to know more about the study, it is okay to ask questions.

Title of Study: Examining the Influence of Social Capital of Early College and Traditional High School Underrepresented Students Enrolled in College Courses

Principal Investigator: Selene Verhofstad, Email: sverhofstad@pasadenaisd.org

Principal Co-Investigator(s): Omah Williams-Duncan, Ph.D., COE

Researcher: Selene Verhofstad, UHCL Graduate Student,
sverhofstad@pasadenaisd.org

Purpose: The purpose of this study is to examine the social capital of traditionally underrepresented students in early college and traditional high school and their perceptions regarding college readiness and course selections.

Procedures: You will be asked to complete an online survey called the “High School Follow-Up Survey” about your perceptions of your high school experiences related to college readiness. Of those who complete the survey, some will be asked to

participate in an interview with the researcher. It will take about 30 minutes to complete the online survey and 30 minutes if you are chosen for the interview.

There are no anticipated risks associated with participation in this project. The researcher conducting the study will take steps to minimize the potential for harm to any participants. Should a participant experience any discomfort during the study, the participant should discontinue his or her participation and contact the researcher. The researcher has taken appropriate steps to keep information and participation in this study confidential. Students will receive a money incentive to complete both the survey and interview (if chosen for this part)

If you understand what you are being asked to do and you decide to help, you are asked to sign your name below.

☐ Yes, If this is checked please fill out all information below

☐ No, if you choose no, please place student name so I can take student off the list for the study

Printed Name and Signature of Assenting Adolescent	Date
Printed Name and Signature of Parent or Guardian	Date
<i>Selene Verhofstad</i>	<i>10/20/2020</i>
Signature of Investigator	Date

THE UNIVERSITY OF HOUSTON-CLEAR LAKE (UHCL) COMMITTEE FOR PROTECTION OF HUMAN SUBJECTS HAS REVIEWED AND APPROVED THIS PROJECT. ANY QUESTIONS REGARDING

YOUR RIGHTS AS A RESEARCH SUBJECT MAY BE ADDRESSED TO THE UHCL COMMITTEE FOR THE PROTECTION OF HUMAN SUBJECTS (281-283-3015). ALL RESEARCH PROJECTS THAT ARE CARRIED OUT BY INVESTIGATORS AT UHCL ARE GOVERNED BY REQUIREMENTS OF THE UNIVERSITY AND THE FEDERAL GOVERNMENT. (FEDERALWIDE ASSURANCE # FWA00004068)

Formulario de Consentimiento del Participante Adolescente para Participar en la Investigación Educativa

Se le pide que nos ayude en el proyecto descrito a continuación. Tus padres o tutores han dado su consentimiento, pero puedes decidir si quieres estar en este estudio o no. Puede detener o dejar el estudio en cualquier momento diciéndole a uno de nosotros y está bien. Si quieres saber más sobre el estudio, está bien hacer preguntas.

Título de Estudio: Examinar la influencia de la capital social de la universidad temprana y los estudiantes subrepresentados de la escuela secundaria tradicional inscritos en los cursos universitarios

Investigadora Principal: Selene Verhofstad, Correo electrónico:
sverhofstad@pasadenaisd.org

Co-investigador(es) principal(es): Omah Williams-Duncan, Ph.D, COE

Investigadora: Selene Verhofstad, Estudiante graduado de UHCL

Propósito: El propósito de este estudio es examinar el capital social de los estudiantes tradicionalmente subrepresentados en la universidad temprana y la escuela secundaria tradicional y sus percepciones con respecto a la preparación de la universidad y las selecciones de cursos.

Procedimientos: Se le pedirá que complete una encuesta en línea llamada la "Encuesta de Seguimiento de la Escuela Secundaria" sobre sus percepciones de sus experiencias de escuela secundaria relacionadas con la preparación para la universidad. De los que completan la encuesta, a algunos se les pedirá que participen en una entrevista con el investigador. Tomará unos 30 minutos completar la encuesta en línea y 30 minutos si usted es elegido para la entrevista.

No hay riesgos previstos asociados con la participación en este proyecto. El investigador que lleva a cabo el estudio tomará medidas para minimizar el potencial de daño a cualquier participante. Si un participante experimenta alguna molestia durante el estudio, el participante debe interrumpir su participación y ponerse en contacto con el investigador. El investigador ha tomado las medidas apropiadas para mantener la confidencialidad de la información y la participación en este estudio. Los estudiantes recibirán un incentivo monetario para completar tanto la encuesta como la entrevista (si es elegido para esta parte)

Si entiende lo que se te pide que hagas y decides ayudar, se te pedirá que firmes tu nombre a continuación.

☐ Si, Si se marca esto, por favor llene toda la información a continuación

___ No, si elige no, por favor coloque el nombre del estudiante para que pueda sacar al estudiante de la lista para el estudio

Nombre impreso y firma del adolescente informante	Fecha
Nombre impreso y firma del padre o tutor <i>Selene Verhofstad</i>	Fecha <i>10/20/2020</i>

Firma del investigador	Fecha
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EL COMITÉ DE PROTECCIÓN DE SUJETOS HUMANOS DE LA UNIVERSIDAD DE HOUSTON-CLEAR LAKE (UHCL) HA REVISADO Y APROBADO ESTE PROYECTO. CUALQUIER PREGUNTA SOBRE SUS DERECHOS COMO SUJETO DE INVESTIGACIÓN PUEDE SER DIRIGIDA AL COMITÉ DE UHCL PARA LA PROTECCIÓN DE LOS SUJETOS HUMANOS (281-283-3015). TODOS LOS PROYECTOS DE INVESTIGACIÓN QUE SON LLEVADOS A CABO POR INVESTIGADORES EN UHCL SE RIGEN POR LOS REQUISITOS DE LA UNIVERSIDAD Y EL GOBIERNO FEDERAL. (ASEGURAMIENTO DE LA SEGURIDAD DE LA ZONA FEDERAL : FWA00004068)

APPENDIX B:

HIGH SCHOOL FOLLOW-UP SURVEY

The aim of this survey is to learn more about how your high school helped you prepare for college. Your responses will help us understand the type of support needed to help more students prepare for college.

Directions Section I: the following questions will let us know some basic information about you and help us understand your answers. Please circle your answers or fill in the blank as appropriate. All information will remain confidential.

I – Background Information

- | | | | | |
|----|---|--|---------|-----------|
| 1 | Name (optional) | | | |
| 2 | ID | | | |
| 3 | Do you plan on attending college? | Yes | No | Undecided |
| 4 | Are you bilingual? | English | Spanish | Other |
| 5 | Which language did you learn to speak first? | English | Spanish | Other |
| 6 | Which language do you believe you are more proficient in? | English | Spanish | Other |
| 7 | Which language do you mostly speak at home? | English | Spanish | Other |
| 8 | Besides you, how many people live in your home? | | | |
| 9 | What is the highest level of education your mother completed? | Less than 6th grade
More than 6th grade but did not finish high school
High school graduate
Some college-no degree
Associate Degree
Bachelor Degree
Master's Degree
Professional Degree (doctor, lawyer, etc.)
Doctorate | | |
| 10 | What is the highest level of education your father completed? | Less than 6th grade
More than 6th grade but did not finish high school
High school graduate
Some college-no degree
Associate Degree
Bachelor Degree
Master's Degree | | |

Professional Degree (doctor, lawyer,
etc.)
Doctorate

- 11 How many brothers or sisters do you have?
- 12 How many brothers or sisters are older than you?
- 13 How many of your older brothers or sisters attended college?
- 14 How many of your older brothers or sisters graduated from college?

Directions Sections II – VIII: Please take a few minutes to answer the following questions about your high school experiences.

Select the number that best reflects your response using the following rating scale:

Strongly Disagree	Disagree	Neutral	Agree	Strongly Disagree
1	2	3	4	5



II – Attitude Toward College

- | | | |
|---|---|-----------|
| 1 | I believe college is important to get a good job. | 1 2 3 4 5 |
| | | ←→ |
| 2 | I expect to go to college. | 1 2 3 4 5 |
| | | ←→ |
| 3 | I think everyone has the opportunity to attend college. | 1 2 3 4 5 |
| | | ←→ |
| 4 | Most of my friends in high school plan to go to college. | 1 2 3 4 5 |
| | | ←→ |
| 5 | Most of my friends in high school think it is important to go to college. | 1 2 3 4 5 |
| | | ←→ |
| 6 | I think continuing my education after high school is important | 1 2 3 4 5 |
| | | ←→ |

III – Academic Achievement

- | | | |
|----|--|-----------|
| 7 | In high school, I worked hard to learn as much as I could in class. | 1 2 3 4 5 |
| | | ←→ |
| 8 | In high school, I did my best to complete assignments and homework. | 1 2 3 4 5 |
| | | ←→ |
| 9 | In high school, I was aware of tutoring and other ways to get help to improve my grades. | 1 2 3 4 5 |
| | | ←→ |
| 10 | In high school, it was important to me to get good grades. | 1 2 3 4 5 |
| | | ←→ |

11	In high school, I had the skills and ability to complete my assignments.	1 2 3 4 5 ←————→
12	In high school, I was aware of various graduation plans.	1 2 3 4 5 ←————→
13	My high school courses prepared me for college level work.	1 2 3 4 5 ←————→
IV – Teacher Expectations and Interaction		
14	In high school, my teachers cared about me.	1 2 3 4 5 ←————→
15	In high school, my teachers inspired me and motivated me to do my best.	1 2 3 4 5 ←————→
16	My high school teachers had high expectations of me.	1 2 3 4 5 ←————→
17	My high school teachers did as much as they could to help me learn.	1 2 3 4 5 ←————→
18	My high school teacher did as much as they could to prepare me for college level work.	1 2 3 4 5 ←————→
V – College Preparation		
19	In high school I was aware of the importance of taking courses such as AP courses.	1 2 3 4 5 ←————→
20	In high school I was encouraged to take high-level classes that could prepare me for college.	1 2 3 4 5 ←————→
21	In high school, I was aware of the courses I needed to prepare for college.	1 2 3 4 5 ←————→
22	Teachers helped me plan or select the right high school courses needed for college.	1 2 3 4 5 ←————→
23	In high school, Pre-AP and AP courses were available to everyone.	1 2 3 4 5 ←————→
VI – School Wide Support		
24	My high school created a campus culture that emphasized going to college was important	1 2 3 4 5 ←————→
25	I felt welcomed and supported at my high school.	1 2 3 4 5 ←————→
26	All students at the school had the same opportunities to prepare for college.	1 2 3 4 5 ←————→
27	My high school helped me improve my ability to study through student workshops or advisory classes.	1 2 3 4 5 ←————→
28	My high school provided me with a student planner to help me learn organizational skills and time management.	1 2 3 4 5 ←————→
29	In high school, I often felt ignored (read carefully).	1 2 3 4 5 ←————→
30	In high school, I participated in programs such as Upward Bound or AVID.	1 2 3 4 5 ←————→
31	I visited various college campuses while in high school.	1 2 3 4 5 ←————→

- 32 I participated in summer college camps during high school. 1 2 3 4 5
 VII – Guidance and Counseling
 33 In high school, I was aware of the importance of the SAT and ACT exams. 1 2 3 4 5
 34 There were enough counselors to meet with all students. 1 2 3 4 5
 35 Counselors mostly helped the students that were in pre-AP and AP classes. 1 2 3 4 5
 36 My high school counselors helped me to plan which high school courses to take and prepare for college. 1 2 3 4 5
 37 Counselors helped me with information I needed to apply to college, such as college applications, SAT exams, financial aid, and scholarships. 1 2 3 4 5
 38 Counselors helped me plan my goals for the future. 1 2 3 4 5
 39 I would have been better prepared for college if I had more information in high school. 1 2 3 4 5
 40 Counselors encouraged me to go to college. 1 2 3 4 5
 41 I could approach my high school counselors anytime I needed. 1 2 3 4 5
 VIII – Parent Engagement
 42 When I was in high school, my parents encouraged me to do well in school. 1 2 3 4 5
 43 My parents were aware of ways to help me get better grades in school. 1 2 3 4 5
 44 When I was in high school, my parents encouraged me to go to college. 1 2 3 4 5
 45 When I was in high school, my parents were aware of ways to help me get to college. 1 2 3 4 5
 46 Teacher and counselors at my high school communicated often with my parents. 1 2 3 4 5
 IX – Open Ended Response Questions
 47 Explain how your high school helped you prepare for college. Please be specific.
 48 Looking back on your high school years (9th – 12th grades), what do you think your school could have done better to prepare you for college?
 49 Based on what you know now about college, what would you think high schools should do to improve college preparation for all students?
 50 Please share anything that you think would help us understand how to improve college preparation at the high school level.

APPENDIX C:
INTERVIEW QUESTIONS

1. What are you planning to do after you graduate high school?
2. Who helped you prepare for those plans?
3. How have teachers influenced you in your post-secondary plans?
4. How have counselors influenced you in your post-secondary plans?
5. How have your peers influenced you in your post-secondary plans?
6. How have your counselors influence you in your post-secondary plans?
 - a. Did counselors discuss a graduation plan with you?
7. Why or why have you not taken pre-AP or AP courses?
8. In which courses did you decide to take pre-AP or AP courses?
9. Why did you decide to take these college prep courses in high school?
10. Were you aware of the importance of the college prep courses?
 - a. How did you become aware?
11. In which areas of your planning do you still have questions in order to be better prepared for your post-secondary plans.
12. What are you planning to do in order to improve in your college courses?
13. Which extracurricular activities were you involved in high school?
 - a. How has your involvement in extracurricular activities impacted your experience in college?