

CLOSING THE ADVANCED PLACEMENT OPPORTUNITY GAP FOR
TRADITIONALLY UNDERREPRESENTED STUDENTS

by

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Dedication

This student and the subsequent dissertation is dedicated to my students and staff:
past, present, and future who teach me more on a daily basis than I could ever teach them.

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ABSTRACT

CLOSING THE ADVANCED PLACEMENT ACHIEVEMENT GAP FOR
TRADITIONALLY UNDERREPRESENTED STUDENTS

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Exposure to rigorous curriculum is a significant predictor of college persistence and success. Traditionally underrepresented students, those who are African American, Hispanic, and identified as economically disadvantaged often do not engage in Advance Placement (AP) courses. There are several factors that lead to decreased participation of underrepresented students in AP courses including lack of information and education of the benefits of engaging in the AP curriculum. The purpose of this study was to examine the social capital of students and the students' perceptions of their high school experiences related to college readiness. This study examined student perspectives in the areas of attitude toward college, teacher expectations and interactions, college readiness, school-wide support, and parental engagement. Additionally, student perspective was examined related to their high school experiences in terms of preparation for college and support from school faculty. Data were collected from a purposeful sample of seniors enrolled in English IV. The participants were individually matched by enrollment or non-enrollment in AP courses, gender, and ethnicity. The matched sample consisted of 123 students in AP courses and 123 students not in AP courses. Nine students participated in a focus group to obtain a deeper understanding of their high school experiences. The findings in this study show overall students in AP courses and those not in AP courses have comparable perspectives of their high school experiences as it relates to attitude toward college, teacher expectations and interactions, school wide support, and parental engagement. Only in the area of college readiness do students not enrolled in AP courses perceive they are not as prepared as their counterparts enrolled in AP courses. The focus group data revealed students felt their teachers and the College and Career Advisor were instrumental in assisting them with college planning and course selection. The students

in the focus group spoke to the influence of their peers in selecting courses. The students also pointed to the importance of participating in extracurricular activities as a way to round out their high school experiences.

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CHAPTER I

INTRODUCTION

There is a growing trend in American public schools to increase enrollment of all students in Advanced Placement (AP) programs. According to the College Board's 10th Annual Report to the Nation, the graduating class of 2013 took a total of just over three million advanced placement exams (College Board, 2013). This is two and half times more than their counterparts in the class of 2003 (College Board, 2013). Further examination of the data reveals the participation of traditionally underrepresented students, those who are low-income, Hispanic, or African American has increased. Traditionally underrepresented students are often identified as at risk for not completing high school with their cohort (U. S. Department Education, 2013). Some indicators of students who are at risk are poor attendance or number of credits earned (U. S. Department Education, 2013). Other at-risk indicators include failure of a course, retention in a grade level, academic achievement as measured by state assessments, and family economic status (McKee & Calderella, 2016).

From 2003-2013, low income student participation on AP exams increased 3.7% nationwide. During that same time frame, African American participation increased 1.3% while Hispanic participation increased 4.4% (College Board, 2013). However, the success of underrepresented students continues to be significantly lower than their White counter parts and national percentages. Based on the College Board's 10th Annual Report to the Nation, 63% of White students taking AP exams scored a three or higher in 2013. This compared to 4.6% of African American students and 16.9% of Hispanic students scoring a three or higher.

There is minimal research examining factors that limit participation and success of underrepresented students in AP courses. Additionally, there is much less research on

the specific impact of students' attitudes toward college and college readiness, school connectedness, and the connection to student placement in AP courses. The College Board specifically examined AP science course participation and found 30% of African American students and 40% of Hispanic students did not have the opportunity to take AP classes even though they showed potential for success (College Board, 2013). Many schools use criteria such as grade point average (GPA) or grades in previous courses to determine placement in AP courses. Oftentimes, these criteria are coupled with teacher recommendations. Bernhardt (2014b) argues teacher bias and perspective creates subjectivity even in the presence of established criteria.

Research Problem

Ross et al. (2012) examined the demographics of American public schools for the 2010-2011 school year. The examination of enrollment data revealed nationwide Hispanic and African American students attend schools that predominately reflect their race or ethnicity. Specifically, the data shows 46.0% of African American students attend a school with a majority African American population. Similarly, 56.0% of Hispanic students attended a predominately Hispanic school (Ross et al., 2012).

The report from Ross et al. (2012) also examined the rates at which Black and Hispanic students attend high poverty schools. A school is classified as high poverty if more than 75.0% of the students are eligible for free or reduced lunch. The report shows 41.0% of Black students and 31.0% of Hispanic students attend high poverty schools compared to 6.0% of White students (Ross et al., 2012). One encouraging data point in this report shows in 2009, 96.0% of Hispanic students and 94.0% of Black students attended high schools that offered at least one Advanced Placement or International Baccalaureate course. The College Board's 10th Annual Report to the Nation (2013)

however, showed a greater disparity in the access students have to AP courses to the actual participation in the courses.

The College Board (2013) reported that in the 2013 graduating class, the percentage of Black/African American students who took an AP exam was 7.4%. For Hispanic students the percentage was 17.0% and for low-income students the percent of participation was 27.5%. This compares to 55.9% of White students who took an AP exam (College Board, 2013). Furthermore, the data shows 28.4% of the African American participants, 31.2% of Hispanic participants, and 63.6% of White participants scored a three or higher on AP exams. In many cases there is minimal to no growth compare to the graduating class of 2003 in the percentages of these student groups scoring a three, four, or five. In fact, the Hispanic student group declined from 15.4% scoring a five in 2003 to 8.4% in 2013. This lack of growth or decline is a prime opportunity to examine how and why these student groups have not experience increased as their participation augmented.

In the 2013 graduating class, 275,864 students identified as low income took at least one AP exam (College Board, 2013). Of those students, 47.8% scored a three, four, or five on an AP exam. This result shows great promise for closing the achievement gap for low-income students thereby showing that it is possible to find strategies and methods to engage other groups of traditionally underrepresented students in AP courses.

There are many factors contributing to decreased participation among low income, Hispanic and Black students in AP courses (Olszewski-Kubilius & Clarenbach, 2014). Chapman, Tatianam, Hartlep, Vang, and Lipsey (2014) examined factors such as course availability, extracurricular activities, and academic tracking as well as overall school connectedness in an effort to determine the influence these factors on underrepresented students' participation in AP courses. Chapman et al. (2014) found

teachers are often not aware or do not understand cultural implications affecting student performance and participation in rigorous courses. Additional research examined factors such as poverty, peer relationships, and lack of parental support as barriers to underrepresented students' enrollment in advanced placement courses (Kerr, 2014). The presence of barriers such as course availability, school connectedness, academic tracking, and parental engagement prompt schools to then consider ways to enroll and engage underrepresented students in AP courses.

One method presented by the College Board to identify students for AP courses is to use the AP Potential Report generated when students take the Preliminary Scholastic Aptitude Test (PSAT) (College Board, 2013). The AP Potential Report identifies students who have a propensity to excel in certain subject areas. Using this report can help school officials identify those students and provide them the opportunity to participate and potentially excel in AP courses. Increased awareness of teachers, counselors, and administrators to the disparity in enrollment is an important step toward a solution (Kerr, 2014).

Another consideration to identify students for AP courses is to use teacher recommendation. Bernhardt (2014b) found that even if criteria are outlined, teachers' beliefs and perspectives often supersede the criteria. The study acknowledges the importance of proper academic placement and the relationship to students' academic futures. Bernhardt maintains the proper academic placement is even more crucial for traditionally underrepresented students (Bernhardt, 2014b).

In addition to teacher perspectives and course recommendations, school policies tend to play a role in accessibility of AP courses (Olszewski-Kubilius & Clarenbach, 2014). Schools often have criteria for teachers to use in the recommendation process; however, there is not a clear vision or understanding of school policy to guide the

teachers. This leaves room for teachers to apply subjectivity to their recommendations and call on their perspectives and beliefs to interpret the criteria (Bernhardt, 2014a). Given that perspectives can impact teacher and counselor recommendations, there is a need to develop and implement policies and programs that provide for inclusive and equitable access and preparation for underrepresented students in AP courses and examinations (Cisneros, Gomez, Powers, Holloway-Libell, & Corely, 2014).

Access to AP courses and other rigorous curriculum is a significant predictor for college readiness. Students who face additional factors limiting their access to college preparatory curriculum can have their academic pathways drastically altered without exposure to these rigorous courses (Bernhardt, 2014a). The demographics of the school play a crucial role in underrepresented students' access to AP courses (Ross et al., 2012). Students of color in majority White suburban high schools often encounter additional challenges related to accessing AP courses. Teacher and counselor recommendations, parental involvement, and school connectedness can affect their enrollment. Furthermore, because students are often one of only a few students of color in the class, they may experience a sense of isolation (Champan et al., 2014). Kerr (2014) also found that poverty and peer pressure/relationships play a role in limiting access for students of color in majority White suburban high schools.

School connectedness plays a vital role in underrepresented students' success in advanced placement courses (Kerr, 2014). When underrepresented students have access to a rigorous curriculum it impacts the overall atmosphere of the school (Kerr, 2104). Chapman et al. (2014) examined the extracurricular activities of students in relation to their academic placement. The students interviewed in their study indicated they valued their opportunities beyond the classroom and understood the importance participation in extracurricular programs had on their academic futures.

An extension of clear policies dedicated to student placement is a bridge between middle schools and high schools (VanSciver, 2006). As part of her action research, Kerr (2014) created a vertical team of sixth through 12th grade social studies teachers to increase awareness and discuss curricular needs to prepare the students beginning in middle school for the rigors of advanced placement courses. Cisneros et al. (2014) promoted the middle school to high school connection by identifying students who have the capacity to be successful and enroll them in rigorous classes. The middle school to high school connection is crucial because it is difficult for students to move to advanced placement or other rigorous courses after their ninth grade year (Bernhardt, 2014a).

It is vital to examine the relationship between school policies, school connectedness, as well as teacher and student perspectives, in order to evaluate the influence they may have on the participation and success of underrepresented students in advanced placement courses (Kerr, 2014). Understanding this relationship may lead to the development of strategies to remove barriers for student participation, as well as providing a better understanding of educational approaches and methods to employ when trying to increase student achievement.

Significance of Study

The experiences of students in school play a critical role in their college choices and future aspirations (Jarsky, McDonough, & Nunez, 2009). Often times, the culture and practices of a school limit the future plans of underrepresented students by not encouraging them to enroll in AP courses (Jarsky, McDonough, & Nunez, 2009). Schools that create a culture of lost opportunities impact underrepresented students far beyond the high school walls. With college admissions becoming increasingly competitive, it is essential for all students to have opportunities to participate in AP courses. This opportunity provides them the chance to be competitive in college

admissions (Kerr, 2014). Additionally, successful participation on AP exams impacts the financial burden of underrepresented students by granting college credit; thereby decreasing the overall amount of tuition the students must pay (Clark, Moor, & Slate, 2012). Educational institutions and school officials who recognize the role they play in increasing a students' social capital can become powerful institutional agents for underrepresented students (Holland, 2015). These school officials understand that underrepresented students often come to school with less social capital than their more affluent peers. Therefore, schools must intentionally work to help students build a network of support to assist the students in navigating course selection as well as college admission processes (Holland, 2015).

Underrepresented students who take AP courses have college persistence rates that are competitive with traditionally high achieving, high-income students (Cisneros, Gomez, Powers, Holloway-Libell, & Corley, 2014). Exposure to the rigorous AP curriculum is one method to close the achievement gap and lead to more post-secondary success for underrepresented students (Cisneros et al., 2014). In a 2011 study, Hallett and Venegas found students with exposure to AP courses graduate from college on time and transfer from one post-secondary institution to another less often than peers who did not have AP courses in high school.

The societal implication that participation in AP courses has can alter a students' entire future. College graduates' lifetime earnings are 84.0% more than non-college graduates. Additionally, college graduates place more emphasis on family, job security, and community (Cisneros et al., 2014). Examining barriers and prohibiting factors to underrepresented students' enrollment and success in AP courses may lead to strategies to increase participation and positive academic and social outcomes for this group of students (Flores & Gomez, 2011).

Research Purpose and Questions

The purpose of this study was to examine the social capital of students and the students' perceptions of their high school experiences related to college readiness. The following research questions guided this study:

1. Is there a statistically significant mean difference between the attitude toward college of students enrolled in AP courses and that of students not enrolled in AP courses?
2. Is there a statistically significant mean difference between students' perceptions of teacher expectations and interaction of students enrolled in AP courses and that of students not enrolled in AP courses?
3. Is there a statistically significant mean difference between students' perceptions of college readiness of students enrolled in AP courses and that of students not enrolled in AP courses?
4. Is there a statistically significant mean difference between the students' perceptions of school-wide support of students enrolled in AP courses and that of students not enrolled in AP courses?
5. Is there a statistically significant mean difference between students' perceptions of parental engagement of students enrolled in AP courses and that of students not enrolled in AP courses?
6. How do students perceive their high school experiences related to course selection, college preparation and planning, and extracurricular activities?

Definitions of Key Terms

Achievement Gap: Refers to the gap in grades, standardized-test scores, course selection, dropout rates, and college-completion rates, among other success measures. This gap shows a disparity in performance and achievement between African-American and

Hispanic students, as well as economically disadvantaged students in relationship to their non-White more economically sound peers. (Education Research Center, 2011).

Advanced Placement Courses: The Advanced Placement (AP) program provides access for motivated and prepared students to rigorous college courses while in high school. Students in AP courses have increased exposure to critical thinking and therefore have more persistence and success in college (College Board, 2013).

At-risk Students: Traditionally underrepresented students can be identified as at risk for not completing high school with their cohort. Some indicators of students who are at risk are poor attendance or number of credits earned (U. S. Department Education, 2013).

College-going culture: A culture of high expectations where behaviors of staff are focused on student preparation for college as well as the college application process (Martinez & Everman, 2017).

College Readiness: The engagement in college coursework need specific skills to navigate the rigorous expectations of college courses. These skills include the ability to think independently and be self-reliant. Additionally, to be college ready, students should possess the ability to assimilate to college culture (Richardson, Gonzalez, Leal, Castillo, & Carman, 2016).

Detracking: Detracking refers to the process of eliminating barriers that sort students by ability. Those barriers can be instructional, organizational, or institutional (LaPrade, 2011).

Economically Disadvantaged: A family or individual that is eligible for family aid or food stamps. (U. S. Department Education, 2013).

Free and Reduced Lunch Program: A federal program designed to provide breakfast and lunch to students whose household income falls below a certain level as determined by the federal government (U.S. Department of Agriculture, 2012).

Go Center: Go centers are college and career centers in high schools that are a partnership between school districts and local colleges. The Go Centers provide resources and information on the college application process to student and parents (Stillisano, Brown, Alford, & Waxman, 2013).

High School Follow Up Survey: A survey developed to determine the relationship between students' perceptions of their high school experience and their preparedness for college (Leal, 2008).

Human Capital: The knowledge and skills individuals acquire through training to increase earning power and economic growth (Tan, 2014).

Opportunity Gap: The differences in access to resources that support and provide educational experiences for students (Darling-Hammond, 2010).

Parental involvement: The activities and time parents spend with their children in both home and school based settings to promote a positive impact on student achievement (Doetterer & Wehrspann, 2015).

Racial Opportunity Cost: The expense of lost opportunities students of color encounter when they pursue academic achievement (Venzant-Chambers & Huggins, 2014).

School Connectedness: A students' ability to access school resources and participate in extra-curricular activities in an effort to be involved in aspects of school other than academics (Chapman et al., 2014).

Social Capital: Student's interactions with school personnel who can share academic norms and expectations for academic success (Borg, 2010).

Teacher Beliefs: Created from experiences that shape behavior and action (Bernhardt, 2014b).

Teacher Perspectives: Reflect the interactions of beliefs about experiences and the interpretations of experiences, which drives teacher actions. It is perspectives that give meaning to beliefs (Bernhardt, 2014b).

Tracking: An instructional arrangement where students are grouped academically in high- or low-tracks based on student needs (Kelly & Price, 2011).

Underrepresented Students: Students who are potentially affected by achievement gaps. These students may be identified as a racial or ethnic minority, from a low- income family, or both. Students from minority groups or who are economically disadvantaged potentially have limited access to advanced placement courses. (National Education Agency, 2015).

Conclusion

This chapter provides an overview of the importance of the study, significance of the problem, research purpose and questions, and key definitions pertaining to this study. The present study will be a contribution to former research that have been seeking an answer for the question: What role does student social capital play in attitude toward college, teacher expectations and interactions, college readiness, school wide support, and parental in relation to underrepresented students' enrollment and engagement in AP courses. The next chapter will be a literature review of the major topics that will encapsulate this study.

CHAPTER II

REVIEW OF THE LITERATURE

Research shows participation in AP courses is an important predictor to college persistence and success for students (Bernhardt, 2014b; Cisneros et al., 2014; Hallett & Venegas, 2011; Kerr, 2014). The purpose of this study will be to examine the social capital of economically disadvantaged students and the students' perceptions of their high school experiences related to college readiness. To address these areas this literature review focused on: (a) attitude toward college, (b) teacher expectations and interactions, (c) college readiness, (d) school wide support, and (e) parental engagement.

Attitude Toward College

In order to cultivate positive attitudes toward college, schools must create a college-going culture. In a 2017 study, Martinez and Everman examined how the high school principal contributes to the school's college readiness efforts and a college-going culture. The authors used a data subset gleaned from a larger study previously conducted by one of the authors of this study. That subset of data focused on one high school and the principals' actions that created a college-going culture. The high school in the study had a total population of 2,578 students; of those students, 66.8% were Latino, 5.95% African American, 20.7% White, 4.1% Asian. Additionally, 50% of the students qualified for free and reduced lunch (Martinez & Everman, 2017).

The data were collected through semi structured interviews and focus groups with various stakeholders at the campus. The authors also used archived data and artifacts that spoke to a college-going culture. The data were analyzed by an inductive method

following Yin's five-phase cycle of analysis (Martinez & Everman, 2017). This five-phase cycle allowed the researchers to compile, disassemble and reassemble data through coding methods. Once the data were reassembled and themes were established, the data were interpreted and the authors drew conclusions on the data (Martinez & Everman, 2017).

The findings in this study showed how the principal laid the foundation of a college-going culture by supporting and empowering the staff as well as establishing high expectations for students and staff (Martinez & Everman, 2017). Through the support and empowerment of the staff, Professional Learning Communities (PLCs) worked together to ensure quality instruction. Additionally, the principal led the effort to establish a support system to assist students with academic needs. As a continuation of high expectations, conversations about college became the norm among staff and students. The campus also established college and career readiness strategies to implement in courses. The findings supported the need to create a college-going culture and engage students in college talk while maintaining high expectations of students and staff (Martinez & Everman, 2017).

In a 2017 study, Bryan, Farmer-Hinton, Rawls, and Woods explored college going cultures in high schools across the United States and the impact the college-going culture had on students' postsecondary choices. The authors used data from the Educational Longitudinal Study (ELS) of 2002; culling out students who completed the baseline survey while in 10th grade, the follow up survey in 12th grade, and the additional follow up survey two years after graduation (Bryan et al., 2017). To analyze the data, they identified students with the intention to attend a post-secondary institution as the dependent variable with demographics and prior achievement as the control

variables. The independent variables were college expectations which represented the students' view of attending college and the exposure to college talk in their high schools (Bryan et al., 2017).

The authors analyzed the data using logistical regressions to establish patterns and make predictions about outcomes of the participants. The findings showed 70% of the participants in the sample attended college based on results of the second follow up survey. Additionally, approximately 28% of the student either took or planned to take AP courses in high school to prepare for their post-secondary goals (Bryan et al., 2017). The findings further revealed that when schools create an expectation of attending college coupled with college conversations from various staff members students have a positive attitude toward college. The study found however, even with schools that establish a college-going culture through high expectations and reinforcement from staff, there were no supports in place to assist students in the college application process (Bryan et al., 2017).

One method to provide support to students in the high school application process is to establish college access centers in high schools. These are referred to as GO Centers. In a 2013 study, Stillisano, Brown, Alford, and Waxman examined the GO Center model and the extent to which the enhanced GO Center model was effective in creating a college-going culture. The enhanced GO Center model used existing GO centers and partnered them with various institutions including higher education institutions, Communities in Schools, the Texas Counseling Association, and the school district (Stillisano et al., 2013).

The authors used high schools from a large school district in Texas as their participant sample. The district had a college going rate of 36.3% at the time of the study. The high schools selected as the intervention site to implement the enhanced GO

Center were selected based on level of need using demographic data, state testing data, and graduation data. These schools were matched to control sites based on the same data (Stillisano et al., 2013). Data were collected from a Teacher Survey which included 59 items to measure the teachers' attitudes toward their schools' college-going culture (Stillisano et al., 2013). A High School Student Survey was administered to students in 11th and 12th grades at the beginning and the end of the school year. The authors also collected qualitative data through in-depth, semi-structured interviews with school staff at both the treatment and comparison schools (Stillisano et al., 2013).

The data were analyzed using the principal axis factor analysis coupled with the varimax orthogonal rotation method. Additionally, the effect of treatment was measure using one-way analysis of covariance (ANCOVA). The authors also measured the degree of implementation using data from the GO Centers. This was measured by dividing the number of students who visited the GO Center by the total enrollment at the high school (Stillisano et al., 2013). The qualitative data were analyzed by coding and using cross-interview analysis. A constant comparison method was then employed to organize and make sense of the data (Stillisano et al., 2013).

The findings of the study showed in terms of college aspirations as measured by the survey, the students indicated a positive attitude about college with high hopes of attending college (Stillisano et al., 2013). Furthermore, the study concluded that when GO Centers are used with high levels of implementation and fidelity, the college-going culture in the school is increased along with students' positive attitudes about college. An important note in the findings revealed the need to create the physical space to encourage college readiness. This physical space included college banners and other artifacts coupled with conversation and encouragement from staff members about college (Stillisano et al., 2013).

Although creating a college-going culture is important, the socioeconomic status of students and the socioeconomic composition of their high schools play an important role in student achievement; including matriculation to post-secondary education opportunities (Coleman et al., 1966). In a 2015 study, Palardy examined the mediation effects of two forms of college choice organizational habitus (CCOH). The two forms were: normative structures such as school practices toward college preparation and collective postsecondary attitudes of peers, family, and schools staff (Palardy, 2015). The researcher used the Educational Longitudinal Study of 2002 (ELS) to examine nationwide data for 10th graders. In addition to the study data, Palardy administered two follow-up surveys during the students' 12th grade year and two years after graduation. The final sample for this study consisted of 10,151 students across 580 schools nationwide (Palardy, 2015).

Palardy analyzed the data using multilevel models (MLMs). This model allowed for estimation of the total, direct, and indirect association between socioeconomic composition of a high school and college choice of the students (Palardy, 2015). The study used descriptive and analytical statistics to share the findings. The findings showed 53% of the students in low socioeconomic schools enrolled in colleges versus 85% of the students in a high socioeconomic high school (Palardy, 2015). Based on the findings in this study, the make-up of the student body of a school impacts the peer influence and to a certain degree, school practices. These school practices often lead to diminished opportunities to engage in college preparation classes and activities; especially in schools with a larger make up of students on the low end of the socioeconomic scale (Palardy, 2015). Additionally, the study found the collective attitudes of students and staff are more directly related to students' opportunities for college choice than a school's

normative practices. This is due to the normative structures reflecting the academic abilities, expectations and backgrounds of the students (Palardy, 2015).

Along with creating a college-going culture, understanding students' social capital is an important step to mitigate potential socioeconomic differences. Students' social capital can impact their navigation of their educational experiences, preparedness for college, and their attitude toward college (Hill, Bregman, & Andrade, 2015). Social capital is the access to resources and information in students' social networks (Bourdieu, 1983). In a 2015 study, Hill et al. explored how social capital is associated with access to selective college and university choices. The study investigated how students rely on their networks and their connections to social capital for college selection (SCFC) (Hill et al., 2015).

The researchers surveyed a total of 311 sophomores and seniors from two high schools. Cumulatively, the participants were 74% African American or Latino, 20% white, 6% other race (Hill et al., 2015). They participated in a survey in groups of 25 to 30 in the second semester of the year. The survey focused on the participants' background, high school experience, and plans after high school (Hill et al., 2015). The researchers analyzed the data using multinomial logistic regressions and descriptive statistics looking for the connection of social capital and selective college choice base on student networks (Hill et al., 2015).

The findings of this study showed a significant number of participants, 64%, relied on their parental network for college admission choices and guidance. Fourteen percent listed school personnel as their primary social network, while 25% pointed to friends and individual choice to guide their college selection (Hill et al., 2015). The study found there is not a wide disparity in networks based on ethnicity. The difference in networks of various ethnic groups is not by type (i.e. parent, school, peer) rather than

the understanding of different resources and information the networks provide (Hill et al., 2015).

Parent social capital also plays a roll in students' level of engagement in preparing for college. In a 2017 study, Ryan examined whether group level differences in the operation of parent social capital help explain why parent income and education do not function the same way among Hispanic and White youth as related to four-year college enrollment. The data from this study was collected from the Educational Longitudinal Study (ELS) of 2002 conducted by the National Center for Educational Statistics. Using the archived data, the researchers employed three rounds of data collection to hone the final sample to 1,020 Hispanic students and 5,420 Non-Hispanic White students (Ryan, 2017). The authors also used data from the parent survey portion of the ELS to gain insight on parents' level of social capital. The data were analyzed using the Mplus "MODEL CONSTRAINT" command. This allowed to define the mediation of: 1) total effects, 2) indirect effects, and 3) direct effects between parent social capital and students' enrollment in a four-year college (Ryan, 2017).

The findings of this study revealed that at the time of the original survey, 82% of Hispanic students and 91% of White students indicated the goal of achieving a bachelor degree. However, White students were more likely to have enrolled in college preparatory classes and be enrolled in a four-year college during the follow-up study (Ryan, 2017). They study found parent social capital influences students' matriculation to college. In the case of Hispanic parents, they often have less access to social capital; therefore, Hispanic students tend to be less engaged in college preparatory activities such as AP courses and supports to help through the college application process (Ryan, 2017).

Teacher Expectations and Interactions

Understanding the needs, challenges, and existing social capital of underrepresented students can play a significant role in increased academic achievement and the attitude toward college for those students. In a 2014 qualitative case study, Tomlinson and Jarvis investigated effective practices for fostering academic success in ethnic minority and economically disadvantaged students across three markedly different schools. The schools in the study were diverse in the grade levels they served and in demographics of the student population. The data for this study was collected by observations, interviews, and focus groups over a four-year period and organized, classified, and coded into important themes (Tomlinson & Jarvis, 2014). Tomlinson and Jarvis found the schools and teachers in this study that created an atmosphere of caring, expressed high expectations for students, and sought to understand their students' backgrounds had higher academic success rates for underrepresented students (Tomlinson & Jarvis, 2014).

The knowledge of student motivators can help schools and teachers understand how to increase expectations and build solid relationships with students. In a 2014 study, Siegle, Rubenstein, and Mitchell examined what motivated high-achieving students during their high school experiences and the actions their teachers took to help make their classes more meaningful. The participants in this study were college freshman in a top-ranked public university. The students were in the honors program at the university and the majority of the sample were white with 71% of the sample being female (Siegle et al., 2014). The data were collected through focus groups. There were four different focus groups conducted during the fall semester. The data were analyzed using different coding methods based on each authors' preference. Once the data were coded separately,

the authors then developed common themes based on their individual coding (Siegle et al., 2014).

The study found the students credited their interactions and expectations from teachers to high levels of interest and motivation. The high levels of interest and motivation also resulted in high levels of academic success (Siegle et al., 2014). The students revealed they were more motivated by teachers who they knew truly cared about them and wanted to see them succeed (Siegle et al., 2014).

The dynamic of student and teacher relationships is a powerful motivator for student engagement and success (Roorda, Jak, Zee, Oort, & Koomen, 2017). In their study, Roorda et al. (2017) investigated whether students' engagement acts as a mediator in the association between affective teacher-student relationships and students' achievement. The researchers employed a previous meta-analysis by the lead researcher coupled with new literature review to identify current studies. The sample of the study was culled to 179 articles that met the exclusion criteria (Roorda et al., 2017).

The authors analyzed the data using a two-stage approach. The first stage included integrating correlation matrices into a pooled correlation matrix. The data were analyzed using the random effects approach to determine the correlation coefficients (Roorda et al., 2017). The second stage of the analysis required a structural model to be applied to the correlation matrix. Weighted least squares estimation was then used to fit the hypothesized structural model (Roorda et al., 2017). The findings of the study showed student engagement and achievement were connected to the affective student-teacher relationships. Furthermore, in looking at the longitudinal study the association between student engagement and achievement and relationships with teachers had a strong association throughout the longitudinal study (Roorda et al., 2017). The longitudinal study also provided a view into the power of negative relationships between

students and teachers. The study found that over the course of time, negative relationships and disengagement from students grew (Roorda et al., 2017).

Teacher expectations and interactions can be influenced by the teacher's assumptions and bias of certain race/ethnic groups (Cherng, 2017). In a 2017 study, Cherng examined whether teachers have similar perceptions of the academic abilities of students belonging to different racial/ethnic groups and whether teacher underestimations of students are associated with student expectations and GPA, and whether these relationships are more or less important for youth of color. The sample for this study was culled from the Educational Longitudinal Study (ELS) of 2002. To develop the sample, the author employed a two-stage sample selection process. Schools were first chosen based on probabilities proportional to student enrollment. From those schools, the list of sophomores who participated in the ELS were examined to select 26 students from each of the school (Cherng, 2017).

The data were analyzed using two-sample t-tests to establish differences in teacher and student perceptions on the difficulty of mathematics and English classes. The researcher then applied linear regression to determine if teachers' perceptions of students' academic ability are based on racial/ethnic differences (Cherng, 2017). The study found that teachers tend to perceive student of color have more difficulty in their classes compared to their White counterparts. Additionally, teacher underestimate academic expectations for students of color. Latino students are particularly held to lower academic expectations in both mathematics and English (Cherng, 2017).

The importance of teacher assumptions and bias lead to a discussion on intentional or unintentional academic tracking. Academic tracking is prevalent in schools across America. However, few studies examine how tracking impacts students' academic trajectories (Bernardt, 2014a). In a 2011 study, Kelly and Price examined

school to school differences in tracking policies and explored the compositional factors to explain why some schools have highly elaborate tracking systems while other schools track students to a lesser extent. The sample for this study included 192 North Carolina high schools. The authors used an adaptation of Sorenson's (1970) typology to measure school tracking policies related to selectivity, scope, and electivity (Kelly & Price, 2011). The findings in this study revealed school composition and students' need impacted tracking more than socioeconomic or racial factors. Additionally, many minority students were further impacted by tracking because they were not placed in or given the opportunity to access AP or other rigorous curriculum (Kelly & Price, 2011).

In a 2011 review, LaPrade examined the history of tracking and the de-tracking initiative that produce positive results. By definition, de-tracking is eliminating institutional, organizational, and instructional barriers that align student by ability (LaPrade, 2011). LaPrade found that de-tracking strategies provide all students access to college preparation courses, hold all students to high standards, and offer the supports necessary to help them succeed. Implementation of de-tracking leads schools and students toward strategies to help lessen the achievement gap many underrepresented students face (LaPrade, 2011).

Schools that employ de-tracking open opportunities for students to access AP curriculum thereby increasing the level of expectations for students (LaPrade, 2011). In order to successfully eliminate tracking, LaPrade recommended instructional and institutional best practices. Instructionally, using differentiated instruction allows teachers to meet the needs of all students while support those who may struggle. Institutionally, teachers need relevant and easy to implement professional development that speaks to the diverse needs of their students. Teachers also need collaboration and planning time to plan for high quality differentiated instruction (LaPrade, 2011).

College Readiness

Providing students access to rigorous courses positively influences their college readiness (Richardson et al., 2016). To understand the importance of ethnic disparity in AP courses Clark et al. (2012) analyzed demographic characteristics of students enrolled in AP courses in one urban school district in Texas (51% White, 23% Hispanic, 18% Black, and 8% Asian Pacific Islander). Secondly, the authors analyzed the demographics of students enrolled in specific AP courses. Lastly, the authors examined the extent to which students were enrolled in an AP course and successful on the AP exam. The authors used archived data on student demographics and enrollment in AP courses and AP exams from the 2005-2006 and 2006-2007 school years (Clark et al., 2012). The authors employed a SPSS database to analyze the data. The findings of this study showed White students enrolled in AP courses at a rate four times greater than their Hispanic peers and eight times greater than their African American peers (Clark et al., 2012). Additionally, the findings related to success on AP exams showed 65.9% of the students who took an AP exam in 2005-2006 scored a three or higher. For the 2006-2007 school year, 60% of the students who took an AP exam scored a three or higher. The implications of the authors' findings point to the importance of access for all students to AP curriculum in order to create opportunities for a more successful college experience (Clark et al., 2012).

Employing strategies to help close the opportunity gap for underrepresented students is vital to exposure to the AP curriculum. In a 2016 study, Richardson et al. examined the use and effectiveness of the PSAT tests in identifying students for AP class participation, thereby potentially increasing underrepresented student enrollment in AP courses. The authors used a purposeful sample of students in two districts in the Southeastern United States. The participants all took the PSAT as well as AP exams in

one or more of the courses: U. S. History, Biology, and Calculus. The sample included 1,502 students with 197 Hispanic students and 147 students identified as received free or reduced lunch (Richardson et al., 2016).

Archived PSAT data were analyzed using multiple regression analysis. The authors identified AP Exam scores as the dependent variable with predictor variables being PSAT scores and demographics (Richardson et al., 2016). The study found a strong correlation between PSAT scores and scores on the AP Biology, AP U. S. History, and AP Calculus exams. Furthermore, the mean scores on each of the tests were lower for Hispanic, African American, and low socioeconomic students (Richardson et al., 2016). The findings lead to recommendations for further research to increase the use of the AP Potential Report generated from the PSAT test. The AP Potential Report coupled with education and information on the benefits of the AP curriculum for students and parents could help increase enrollment of underrepresented students (Richardson et al., 2016).

Understanding how social capital influences students' academic achievement can help schools implement strategies to mitigate differences in students' school experiences. In a 2017 study, Salloum, Goddard, and Larsen examined the relationships between social capital, socio-demographics of schools, and academic achievement. The sample for this study included 149 high schools in a large midwestern state. The final sample of participants consisted of 96 of the high schools (Salloum et al., 2017). The data were collected from school staff using an 11-item instrument designed to measure social capital. The authors also used data on socioeconomic status of the school, school size and achievement on state accountability testing (Salloum et al., 2017).

The authors analyzed the data using a confirmatory factor analysis (CFA). The findings of the study showed a significant difference in social capital based on school

membership (Salloum et al., 2017). The finding of this study showed that differences in social capital exist between low socioeconomic schools and high socioeconomic schools. Regardless of the level of social capital at high schools, it is an important predictor of academic achievement. Therefore, schools with lower levels of social capital both institutionally and individually for students must develop strategies to increase social capital of students in hopes of increasing their academic achievement (Salloum et al., 2017). Furthermore, increased levels of social capital and academic achievement provide students with the opportunities to engage in experiences to be more college ready upon graduation (Salloum et al., 2017).

Along with increased access to AP curriculum, access to quality AP courses for is vital for underrepresented students to maintain competitiveness in college admissions. Hallet and Venegas (2011) analyzed the value and quality of AP courses and how experiences in the classroom translated to performance on the end of course AP exams. The sample for this study consisted of 48 college bound students from urban Los Angeles schools. The researchers used semi-structured interviews and informal observations to develop themes related to the students' experiences in AP courses (Hallet & Venegas, 2011). The findings of this study showed underrepresented students took AP courses and the AP exam when they were given the opportunity. However, passing rates on the exam were low. The findings showed a significant disparity between low scores on AP exams versus grades in the AP courses (Hallet & Venegas, 2011).

In order to give students the opportunity for success in AP courses and exams, exposure to rigorous curriculum beginning in middle school is essential. Huerta, Watt, and Butcher (2013) examined the impact Advancement Via Individual Determination (AVID) in middle school has on middle school course rigor and students' high school and college readiness. The authors used a mixed method study used the Rigorous Course

Work Questionnaire to survey 1,192 AVID coordinators. Additionally, a sample of 3,143 AVID seniors nationwide completed the Senior Data Collection Form. The authors used SPSS and NVivo software to analyze the data (Huerta et al., 2013). Findings of this study showed 93% of the participants who were in AVID in middle school and high school completed four-year college admission requirements. Students in AVID through middle school and high school have comparable SAT and ACT scores to those in AVID and high school only (Huerta et al., 2013). However, students who had AVID in middle and high school had significantly higher GPAs than the high school only AVID students. These findings reinforce the need for exposure to rigorous curriculum in middle school along with supports to scaffold toward success (Huerta et al., 2013).

To determine the influence peers have on course selection and college readiness, Shiu, Kettler, and Johnson (2009) examined the differences in social factors between Spanish speaking students enrolled in AP Spanish Language courses offered to native Spanish speakers in middle school. The 16 Hispanic male and 42 Hispanic female students enrolled in an AP Spanish Language class during their eighth grade year. A random sample of 18 Hispanic male and six Hispanic female students did not take the Spanish Language class. The researchers in this study adapted and administered a survey from the 2002 Student Questionnaire published by the U. S. Department of Education (Shiu et al., 2009).

The authors collected and analyzed data by examining the principal components and conducting a two-way analysis of the variances of the AP group and gender (Shiu et al., 2009). The key findings of this study indicated peer group is a crucial influence for Hispanic students in their academic success and attitude. This influence is true for both the AP group and the non-AP group (Shiu et al., 2009). The findings in the study indicated that parental involvement is higher among females in the AP group and males

in the non-AP group. Additionally, the results of this study emphasized the importance of peer groups in middle school, which may impact the selection of rigorous courses (Shiu et al., 2009).

School Wide Support

Creating a caring and supportive culture helps under represented students feel welcome at school. One aspect of a caring and supportive school culture is school wide support and connectedness. Students who feel a connection with school have increased academic achievement rates. In a 2014 study, Venzant-Chambers and Huggins (2014) used a phenomenological paradigm to examine the ways, depending on school context, that racial opportunity costs can be alleviated or exacerbated and the role of school leaders in that effort. The sample for this study included 18 African American and Hispanic students from two highly selective private colleges. Eleven participants (six African American and five Hispanic) were enrolled in Northern College, a pseudonym for a college outside a midwestern city. Seven of the participants (five African American and two Hispanic) were enrolled at Southern College, a pseudonym for a college near a Southern city (Venzant-Chambers & Huggins, 2014).

The authors collected data through semi-structured interviews and focus groups. The focus groups were arranged to include participants of the same race/ethnicity (Venzant-Chambers & Huggins, 2014). The authors worked individually and as a team to code the data into emerging ideas regarding school connectedness. The findings revealed schools having a perceived unwelcoming environment excluded underrepresented students from AP courses at higher rates than schools that had a welcoming environment (Venzant-Chambers & Huggins, 2014). Without a sense of connection, students were less likely to enroll in AP courses where they are potentially the only student of color (Venzant-Chambers & Huggins, 2014).

School counselors also play a critical role in creating a caring and supportive environment for students. Dockery and McKelvey (2013) examined college students' experiences and expectations about school counselors' assistance with the college admissions process. The convenience sample in this study included 126 (75 White, 33 African American, 11 Asian American, four Hispanic, three biracial, two Native American, and one Other) pre-service teachers enrolled in college education courses. The participants completed a survey reflecting on their perceptions of what high school counselors did or what they could have done to help them with the college application process and encouraging them to attend college (Dockery & McKelvey, 2013).

The authors used a SPSS database to analyze the data. The findings in this study showed the participants believed counselors could have done more in all areas to assist students in college planning, college admissions, applying for financial aid, and general information about the transition from high school to college (Dockery & McKelvey, 2013). The research revealed the importance of students' perceptions of feeling supported and cared about by school personnel. Overall, this research supported previous research showing underrepresented students receive less support in college planning than White peers (Dockery & McKelvey, 2013).

Often times a school's inability to create a welcoming supportive environment is a reflection of school policy that creates an atmosphere where students are underserved. Klugman (2013) conducted a mixed methods study to explore the generation and maintenance of inequalities in schools' AP subject offerings and enrollment in California from 1997-2006. At the time, California implemented a policy to expand AP course offerings and enrollment. Klugman used a panel data set and semi-structured interviews with officials from 11 California school districts. The findings in this study confirmed racial and socioeconomic inequalities of AP course offerings based on demographics of

the student population. During the time of California's AP intervention policy, schools serving underrepresented students increased AP subject offerings and enrollment (Klugman, 2013). However, many schools serving underrepresented students did not take full advantage of the increased course offerings due to constraints from the school and lack of student and parent interest (Klugman, 2013).

Extracurricular activities can add to a student's sense of belonging in school. In a study focused on determining the optimal level of extracurricular participation, Knisfeld and Graham (2011) examined how adolescents' sense of belonging at school mediates the links between breadth of extracurricular participation and academic performance. The sample in this study consisted of 864 students in 11th grade from 140 high schools. The participants completed a questionnaire including elements from *Gottfredson's Effective School Battery* (1984) and the *Perceived Social Norms for Schoolwork and Achievement during Adolescence* (Witkow, 2006) survey. Participants' self-reported demographic information and researchers calculated the students' grade point averages (GPA) (Knisfeld & Graham, 2011).

The authors analyzed data using multiple regressions in the SAS Version 9.2 SURVEYREG program. Knisfeld and Graham's findings suggested students who participate in two activity domains (e.g., academic/leadership groups, arts, clubs, and sports) had a greater sense of belonging in school and experienced greater academic success. This study concluded maintaining a threshold of extracurricular opportunities is most effective in fostering a sense of belonging coupled with academic success (Knisfeld & Graham, 2011).

In addition to promoting high levels of academic success, participation in extracurricular activities helps students build peer and social networks that assist in the transition from high school to college. Gibbs, Erickson, Dufur, and Miles (2014)

examined the relationship between the characteristics of peers participating in extracurricular activities and college enrollment. The data for this study was collected from the 1994 National Longitudinal Study of Adolescent Health. The students participating in the study were in seventh through twelfth grades. Using criteria to such as students who were followed in the study through high school and those who participated in fewer than 10 extracurricular activities the sample was narrowed to 8,087 cases (Gibbs et al., 2014). The study included a student survey, administrator survey, and in home survey. The longitudinal study allowed to analyze data from post high school participation in college which was defined as the dependent variable (Gibbs et al., 2014).

The data were analyzed using Stata 13.1. The first analysis was a scatterplot to compare the mean grade point average (GPA) of the participants and percentage of respondents who enrolled in college. Further analysis and interpretation of results were performed as relative risk ratios, average marginal effect of covariants, and marginal effects of different values of the average GPA of participants (Gibbs et al., 2014). The findings of the study support the relationship of participation in extracurricular activities and increased student achievement. Specifically, the study found involvement in academic activities (i.e. debate) lead to higher rates of enrollment in four-year colleges. The persistent connection with high achieving peers led to increased academic achievement and confidence for students which led to increased post-secondary opportunities (Gibbs et al., 2014).

Parental Involvement

Parental involvement has often been linked to increased student achievement (Dotterer & Wehrspann, 2015). However, the definition parental involvement involvement is a more fluid definition when culture and ethnicity is considered (Reynolds, Crea, Medina, Degnan, & McRoy, 2015). In a 2012 study, Lawson and

Alameda-Lawson explored the impact of collective parental engagement on student achievement. The purpose of their study was to examine Latino parents' understanding of the practices and conditions that fostered their collective parental engagement (Lawson & Alameda-Lawson, 2012).

For this study, the authors employed a qualitative case study design to study 32 Latino families' experiences with a Community Action Network (CAN). A CAN is a parental engagement program run by parents for parents (Lawson & Alameda-Lawson, 2012). The researchers randomly selected the families from a culturally diverse community where 81% of the families were identified as economically disadvantaged. All of the participants were women who came to the United States following their husbands in hopes of better opportunities for their families. As a result, each of the women had significant barriers and traumas associated with establishing their families and their lives in the United States (Lawson & Alameda-Lawson, 2012).

Each family selected participated in an activity where they photographed items that made them feel good, represented what they wanted for their family, and represented their neighborhood as well as their community at large (Lawson & Alameda-Lawson, 2012). Following the photography activity, families participated in semi-structured interviews. After the semi-structured interviews, participants engaged in focus groups consisting of ten program participants (Lawson & Alameda-Lawson, 2012). The authors then analyzed the data using a grounded theory approach. The interviews were coded for both English and Spanish transcripts. Once the authors completed the coding, they used field notes to triangulate the data to find emerging themes and concepts (Lawson & Alameda-Lawson, 2012).

The experiences of the participants framed the findings of the study. The participants experienced fears and uncertainties of life in the United States. Therefore,

they did not initially engage in their social or community networks. However, with the existence of the CAN parent engagement program, they found ways to mitigate the barriers of parental involvement in schools (Lawson & Alamdea-Lawson, 2012). Ultimately, once the parents connected with the CAN program, they found ways to navigate resources to support their families on many fronts. The findings of this study showed an extended network for parents led to the ability to further engage in their community and their child's education. In this study, the authors found the significance of having parents with similar social capital who bond together, are able to further broker connections for each other as a way to eliminate the barriers that often exist between school and home (Lawson & Alamdea-Lawson, 2012).

The impact of various immigrant groups cannot be underestimated as a barrier to school involvement (Lawson & Alamdea-Lawson, 2012). A 2015 study by Reynolds et al. examined how differentiated access to cultural capital occurs in a majority-minority setting across Latino, African American, Haitian, Cape Verdean, and other immigrant cultures, and how this dynamic may in turn influence parental involvement. The participants in this study were parents and teachers from a Midwest high school in a small urban area (Reynolds, et al., 2015). The sample for the study consisted of 73 members of the school community (26.8% of the school population; 52.9% were parent surveys, and 35.6% were teacher surveys). The participants completed the Parent-Teacher Involvement Questionnaire-Parent (PTIQ-P) to explore their perspectives of parental involvement, teacher relationships, parent contact, and parents' support of the school. The participants also answered questions reflecting their perspectives of trust or perceived trust between the home and the school (Reynolds, et al., 2015). Thirteen of the teachers surveyed participated in semi-structured interviews while roughly 25 parents participated in a focus group (Reynolds, et al., 2015).

The researchers analyzed the quantitative data using zero order correlations and linear ordinary least square regressions. They analyzed qualitative data using a grounded theory approach to code the data from the focus groups and the semi-structured interviews (Reynolds, et al., 2015). The findings of this study highlighted the differences in perspectives of teachers and parents. Teachers primarily focus on communication with parents as a way to involve parents while parents focus on helping children with homework and making sure they get to school on time (Reynolds, et al., 2015). The data supported the importance of teachers reaching out to parents to build the home and school connection. The findings of the study showed a stronger correlation to the teachers' perspectives than the parents' perspectives (Reynolds, et al., 2015).

Parents who are involved in their child's education often see their child have more academic success (Wilder, 2014). In a 2014 study, Wilder examined the effects of parental involvement on student achievement. The purpose of the study was to synthesize the results of meta-analyses that examined the impact of parental involvement on student academic achievement and to identify any generalizable findings.

The researcher selected nine studies on parental engagement with four of the studies done by conducted by the same researcher. This was purposeful as it allowed Wilder to account for potential bias throughout the meta-analyses (Wilder, 2014). The researcher then employed the steps of meta-syntheses to examine the differences in how parental involvement, academic achievement, and student populations were defined in the studies. Following the meta-syntheses, the researched identified key concepts to compare and contrast between the various studies (Wilder, 2014).

The findings of the study confirmed the importance of parental involvement as it relates to student achievement (Wilder, 2014). The study found parental involvement has a positive impact on student achievement over multiple measures such as grade point

averages or standardized tests (Wilder, 2014). The findings showed parental involvement is higher and more impactful for some ethnic groups. However, those groups were not identified in this study (Wilder, 2014). Additionally, the study found there is not a positive relationship between parents help on homework and student achievement. This is contrary to the most widely defined element of parental involvement which is homework help (Wilder, 2014).

Dotterer and Wehrspann (2016) examined parental involvement from an adolescent perspective. Their study examined the links between parental involvement in education, school engagement, academic competence, and academic achievement among adolescents in an urban middle school (Dotterer & Wehrspann, 2016). The researchers selected 108 participants from an urban Title I middle school. Of the 108 participants, 60% were female, 52% African American, 20% Caucasian, 19% multiracial, 7% Latino, and 7% Asian. The participants were in grade six through eight with 33% in sixth grade, 43% in seventh grade, and 24% in eighth grade (Dotterer & Wehrspann, 2016).

The researchers collected data from participants from a survey in the fall semester of the school year. The data were then analyzed using path analysis to determine the links, both direct and indirect, between parental involvement, school engagement and academic outcomes (Dotterer & Wehrspann, 2016). The path analysis models used maximum likelihood to estimate the links. The researchers also used chi-squared analysis to evaluate model fit (Dotterer & Wehrspann, 2016).

The findings of the study supported the connection between parental involvement and student achievement. The researchers found students whose parents are more involved in school are less likely to experience behavior issues. In turn, when students have less behavioral issues, they experience more academic success (Dotterer & Wehrspann, 2016). Additionally, Dotterer and Wehrspann found parent involvement led

to greater feelings of relatedness for the students (2016). The feelings of relatedness provide higher levels of self-confidence which aides in academic success (Dotterer & Wehrspann, 2016).

Summary of Findings

Exposure to AP curriculum is a significant predictor of a student's college readiness and success (Bernhardt, 2014b; Cisneros et al., 2014; Hallett & Venegas, 2011; Kerr, 2014). Schools and teachers who understand the needs and challenges of underrepresented students, set high expectations, and have a shared vision for creating a supportive and caring environment assist underrepresented students in achieving increased academic success. (Tomlinson & Jarvis, 2014). One method to develop a supportive environment is to build a college-going culture. A college-going culture leads to a more positive attitude toward college and the potential to attend college, especially for underrepresented students (Bryan et al., 2017; Martinez & Everman, 2017). The implementation of Go Centers is a powerful strategy in creating a college-going culture (Stillisano et al., 2013). Go Centers provide students and their parents the information and resources needed to navigation he college application process (Stillisano et al., 2013). Providing these resources is vital to help mitigate barriers associated with limited social capital for students and parents (Hill et al., 2015; Ryan, 2017).

Students' perceptions of a welcoming and supportive environment impact their views on how school personnel assist them in preparing for colleges (Venzant-Chambers & Huggins, 2014). A key element of a supportive environment are positive student and teacher relationships (Siegle et al., 2014). Students are more motivated and interested when they know their teachers truly care; which leads to high levels of academic achievement (Roorda et al., 2017). Counselors also play a significant role in creating a supportive environment; however, they can negatively impact student perceptions if they

do not appear to provide the support needed for underrepresented students (Dockery & McKelvey, 2013).

Students who are involved in extracurricular activities tend to have a stronger sense of belonging and connectedness in their schools. The involvement in extracurricular activities allows students to build strong peer networks which positively influence their matriculation to college (Gibbes et al., 2014). Additionally, when students participate in a manageable level of extracurricular activities, they experience a higher level of academic achievement (Knifsend & Graham, 2011).

School policies related to course selection and academic tracking often limit the ability of schools to create a supportive environment for underrepresented students. Even in the presence of statewide policies, schools serving underrepresented students have barriers to implementing a greater number of AP courses and maintaining a high level of instruction in those courses (Klugman, 2013). Tracking is a common practice in America with many variants in how academic tracks are determined. Although academic tracking significantly impacts underrepresented students, tracking is determined more by structural elements in the schools than racial or socioeconomic factors (Kelly & Price, 2011). LaPrade (2014) recommended instructional and institutional best practices for de-tracking. Her review found implementing effective de-tracking strategies gives all students access to AP curriculum while providing them the needed supports (LaPrade, 2014).

It is important for school administrators and teachers to examine underrepresented students' access to AP courses as a way to mitigate the effects of intentional or unintentional tracking. While underrepresented students are enrolling in AP courses at increased levels, there is still a significant disparity in African American and Hispanic student enrollment relative to White student enrollment (Clark et al., 2012).

Additionally, underrepresented students' success is still markedly less than their white counterparts (Hallet & Venegas, 2011). One method to increase enrollment of underrepresented students in AP courses is the use of the AP Potential Report to identify students who have the potential to succeed in AP courses aligned to their strengths (Richardson et al., 2016). Understanding and addressing social capital of students allows schools to create opportunities that limit the barriers for students to engage in college readiness activities (Salloum et al., 2017).

The work of the school to eliminate barriers for underrepresented students' engagement in AP curriculum must extend to the parents. The home and school connection leads to increased levels of student achievement (Dotter & Wehrspann, 2016; Reynolds et al., 2015; Wilder, 2014). However, parents of underrepresented students often need assistance in accessing resources and information to help their students. Schools can help facilitate that assistance by creating opportunities for parents to build their own social network and social capital through activities at school (Lawson & Alameda-Lawson, 2012).

Theoretical Framework

The theoretical framework that provides a structure for this research is Schultz's (1971) human capital theory. Human capital theory recognizes and promotes the importance of education to create a productive society. At its essence, human capital is the acquisition of knowledge and skills through training and education (Tan, 2014). Education is an investment in individuals and thereby by society in terms of earnings and economic growth. Through education individuals to gain more social mobility and contribute to national economic growth are created. Education thereby increases individuals' opportunities for employment (Tan, 2014).

The transition of human capital theory from economics to education has prompted policy makers to use human capital theory as a basis for federal education policy (Holden & Biddle, 2017). The influence of human capital theory on education policy furthers the discussion on how policy maker can mitigate the cost of post-secondary education (i.e. tuition fees, books, and housing) to maximize the rate of return on education (Rouse, 2017). Rouse argues one method of this mitigation is furthering programs to subsidize student loans and/or grants like the Pell Grant.

Human capital and social capital work together in providing individuals more access to resources and information throughout their life (Aziz, 2015). However, individuals with limited amounts of human capital often meet institutional resistance when attempting to access resources that lead to better educational opportunities (Aziz, 2015). Human capital theorists maintain tracking students in academic pathways reflects greater social stratification. These theories provide insights about how academic opportunities and cultural responses differ among society and often benefit those with higher educational opportunities (Bernhardt, 2014a).

The idea of human capital theory acting as an educational equalizer can assist educational institutions in preparing students for their post-secondary goals (Choo, 2018). This preparation provides students with the knowledge, skills, and capital to be competitive in an increasingly global society (Choo, 2018). Bhuller, Mogstad, and Salvanes (2017) found higher levels of educational attainment lead to higher life time earnings. The return on investment of education leads to societal implications such as better access to health care, child care, and less reliance on government assistance (Rouse, 2017). For many parents, the recognition that a better education can lead to better job opportunities for their children also means the possibility of escaping poverty (Olaniyan & Okemakinde, 2008).

Conclusion

Providing underrepresented students the opportunity to participate in AP courses increases their ability to experience post-secondary success (Cisneros, et al., 2014). School that create an environment of high expectations where students feel connected helps many underrepresented students overcome barriers preventing them from engaging in rigorous curriculum. Using the framework of human capital theory related to education allows an understanding of how this exposure to AP courses potentially changes students' academic trajectory as well as future aspirations and opportunities.

This chapter presented a review of relevant literature relating to the purpose of this study, which was to examine the social capital of students and the students' perceptions of their high school experiences related to college readiness. In Chapter III, methodological aspects of this dissertation are detailed to include the operationalization of theoretical constructs, research purpose and questions, research design, population and sampling selection, data collection procedures, data analysis techniques, privacy and ethical considerations, and the research design limitations for this study.

CHAPTER III

METHODOLOGY

The purpose of this mixed methods study was to examine the social capital of students and the students' perceptions of their high school experiences related to college readiness. Survey data were collected from an individual matched sample of high school seniors enrolled in English IV at a high school in a large suburban school district in southeast Texas. Quantitative data were analyzed using two-tailed independent t-tests, frequencies, and percentages. The qualitative data were analyzed by an inductive coding method using data collected from a student focus group. This chapter presents an overview of the research problem, operationalization of theoretical constructs, research purpose and questions, hypothesis, research design, population and sampling selection, data collection procedures, data analysis, privacy and ethical considerations, and the research design limitations for this study.

Overview of the Research Problem

There is a growing trend in American public schools to increase enrollment of all students in Advanced Placement (AP) programs. According to the College Board's 10th Annual Report to the Nation, the participation of traditionally underrepresented students, those who are low-income, Hispanic, or African American has increased (College Board, 2013). These students are also often classified as at-risk of not graduating from high school on time. However, the participation and success of underrepresented students continues to be significantly lower than their white counterparts and national percentages (College Board, 2013).

Chapman et al. (2014) examined factors such as course availability, extracurricular activities, and academic tracking as well as overall school connectedness and found teachers are often not aware or do not understand cultural implications affecting underrepresented student performance in AP courses. Factors such as poverty, peer relationships, and lack of parental support also serve as barriers to underrepresented students' enrollment in advanced placement courses (Kerr, 2014). Participation in AP courses can alter student's entire futures. Exposure to rigorous curriculum is the single most important predictor of college readiness. Students who participate in AP courses are more likely to persist through post-secondary education (Bernhardt, 2014a). Additionally, college graduates' lifetime earnings are 84% more than non-college graduates. College graduates also tend to place more emphasis on family, job security, and community involvement (Cisneros et al., 2014).

Operationalization of Theoretical Constructs

This study consists of the following constructs: (a) social capital and (b) college preparatory participation. Social capital refers to a framework of relationships between students and schools in terms of college readiness. Data were collected using the *High School Follow-Up Survey* focusing on students' social capital in the areas of attitude toward college, teacher expectations and interactions, college readiness, school wide support, and parent engagement (Leal, 2008). To examine college preparatory participation, information on participants' enrollment in AP courses was collected from the students' academic transcripts.

Research Purpose, Questions, and Hypothesis

The purpose of this study was to examine the social capital of students and the students' perceptions of their high school experiences related to college readiness. The following research questions will guide this study:

1. Is there a statistically significant mean difference between the attitude toward college of students enrolled in AP courses and that of students not enrolled in AP courses?

Ha: There is a statistically significant mean difference between the attitude toward college of students enrolled in college AP courses and that of students not enrolled in AP courses.

2. Is there a statistically significant mean difference between students' perceptions of teacher expectations and interaction of students enrolled in AP courses and that of students not enrolled in AP courses?

Ha: There is a statistically significant mean difference between students' perception of teacher expectations and interactions of students enrolled in college AP courses and that of students not enrolled in AP courses.

3. Is there a statistically significant mean difference between students' perceptions of college readiness of students enrolled in AP courses and that of students not enrolled in AP courses?

Ha: There is a statistically significant mean difference between students' perception of college readiness of students enrolled in college AP courses and that of students not enrolled in AP courses.

4. Is there a statistically significant mean difference between the students' perceptions of school-wide support of at risk students enrolled in AP courses and that of students not enrolled in AP courses?

Ha: There is a statistically significant mean difference between the students' perceptions of school-wide support of students enrolled in college AP courses and that of students not enrolled in AP courses.

5. Is there a statistically significant mean difference between students' perceptions of parental engagement of students enrolled in AP courses and that of students not enrolled in AP courses?

Ha: There is a statistically significant mean difference between the students' perceptions of parental engagement of students enrolled in college AP courses and that of students not enrolled in AP courses.

6. How do students perceive their high school experiences related to course selection, college preparation and planning, and extracurricular activities?

Research Design

For the purposes of this study, a mixed methods research design was used to examine the social capital of students the students' perceptions of their high school experiences related to college readiness. This study consisted of two phases: a quantitative phase and a qualitative one. A mixed methods study was appropriate for this study as it allowed the researcher to thoroughly examine the problem by adding a narrative context to the quantitative data. The qualitative data provided clarity and a deeper understanding of the quantitative data. A purposeful sample of seniors enrolled in English IV were solicited to take the *High School Follow-Up Survey*. The participants' demographic and course information (i.e. AP enrollment) were obtained through the schools' information data system. Quantitative data were analyzed using descriptive statistics and two-tailed independent t-tests, while qualitative data were analyzed using an established inductive coding process.

Population and Sample

The population of this study consisted of a single high school in a large suburban school district in southeast Texas. The high school was chosen because of the relatively diverse population (African American 26.8%, Hispanic 22.3%, White 24.6%, and Asian

22.9%). Table 3.1 provides the student race/ethnicity and gender demographics for the high school. At the time of this study, the high school had a total enrollment of 2,608 students with 26% of the population identified as economically disadvantaged, 3.5% of population identified as English Language Learners (ELL), and 5.8% of the population identified as students receiving special education services. Additionally, the campus has an AP participation rate of 28.4%. The school employs six administrators including a principal, associate principal, and four assistant principals. The average years of experience of assistant principals is 18 years combined between the associate principal and assistant principals, while the principal has 30 years of experience. The campus employs six counselors along with one college and career advisory to serve the student population. There are a total of 149 teachers and 19 educational aides employed at the high school. Table 3.2 shows the teacher race/ethnicity and gender demographic data. The average years of experience for teachers is 10.8 years. Table 3.3 provides a detailed view of teachers' years of experience. The campus offers 35 different AP courses which are outlined in Table 3.4. The average student enrollment percentages for AP courses are outlined in Table 3.5. An individually matched sample technique was used to compare those enrolled in either AP English IV or non-AP English IV. The students were individually matched by AP or non-AP enrollment, gender, and race/ethnicity.

Table 3.1

High School Demographic Data

	9th Grade	10th Grade	11th Grade	12th Grade	Total
Male	49.9 (n = 354)	45.5 (n = 295)	49.2 (n = 287)	47.8 (n = 322)	48.2 (n = 1,258)
Female	50.0 (n = 355)	54.0 (n = 353)	50.8 (n = 296)	52.2 (n = 351)	52.0 (n = 1,355)
African American	24.8 (n = 176)	26.9 (n = 174)	23.5 (n = 138)	31.4 (n = 211)	26.8 (n = 699)
Hispanic	21.0 (n = 149)	19.8 (n = 128)	24.2 (n = 141)	24.2 (n = 163)	22.3 (n = 581)
White	26.0 (n = 185)	25.0 (n = 162)	25.0 (n = 146)	22.1 (n = 149)	24.6 (n = 642)
Asian	23.7 (n = 168)	24.8 (n = 161)	23.5 (n = 138)	19.3 (n = 130)	22.9 (n = 597)
2 or more races	4.2 (n = 30)	2.8 (n = 18)	3.6 (n = 21)	3.0 (n = 20)	3.4 (n = 89)

Table 3.2

Campus Teacher Demographics

	Students (n)	Percentage (%)
Male	65	43.5
Female	84	56.5
African American	38	25.7
Hispanic	21	13.9
White	82	54.8
Asian	6	4.2
2 or More Races	2	1.4

Table 3.3

Teacher Years of Experience

	Teacher (n)	Percentage (%)
Beginning Teachers	11	7.3
1-5 Years Experience	43	28.7
6-10 Years Experience	34	23.1
11-20 Years Experience	44	29.6
Over 20 Years Experience	17	11.4

Table 3.4

Overview of AP Courses

Content Area	AP Course Offering
1. English	English III English IV
2. Mathematics	Calculus AB Calculus BC Statistics
3. Science	AP Biology AP Chemistry AP Physics AP Physics I AP Physics II Environmental Science
4. History	World History U. S. History Human Geography U. S Government Economics Micro Economics European History

Content Area	AP Course Offering
5. Foreign Language	Spanish IV Spanish V French IV German IV Latin IV Chinese IV
6. Fine Arts	Two-Dimensional Art Drawing Portfolio Art History Music Theory
7. Elective Choices	Civil Engineering and Architecture Psychology Principals of Computer Science Computer Science II

Table 3.5

Average AP Participation Demographics

	Average Enrollment (n)	Average Percentage (%)
Male	34	59.6
Female	41	71.9
African American	15	26.3
Hispanic	12	21.1
White	16	28.1
Asian	31	54.4
2 or More Races	3	5.3
Economically Disadvantaged	19	33.3

Participant Selection

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 a focus group. The students for the focus group were selected to balance AP enrollment and non-AP enrollment, race/ethnicity, and gender. Table 3.6 shows the demographics of gender and race/ethnicity for students selected to participate in the focus group.

Nine students who completed the survey participated in the qualitative portion of the study. Male participants comprise 55.6% (n = 5), while female participants comprised 44.6% (n = 4) of the sample. The race/ethnicity of the focus group was African American 33.3% (n = 3), Asian 33.3% (n = 3), and Hispanic 33.3% (n = 3). Of the students in the focus group 33.3% (n = 3) were not in AP courses, while 66.7% (n = 6) were in AP courses.

Table 3.6

Demographic Data of Participants Selected for Focus Group (%)

	AP Participants	Non-AP Participants
Male	50 (n = 5)	50 (n = 5)
Female	50 (n = 5)	50 (n = 5)
African American	20 (n = 2)	20 (n = 2)
Hispanic	20 (n = 2)	20 (n = 2)
White	20 (n = 2)	20 (n = 2)
Asian	20 (n = 2)	20 (n = 2)
2 or more races	20 (n = 2)	20 (n = 2)

Instrumentation

The High School Follow-Up Survey was created by Leal (2008) as part of a doctoral dissertation to determine the relationship between students' perception of their high school experience and their preparedness for college (see Appendix C). The purpose of the survey was to examine unique student populations' school experiences related to college preparation (Leal, 2008). A panel of experts used their experience and knowledge with the socioeconomic and cultural environment of the issues associated with the study to validate the instrument. The panel included doctorate level professionals as well as high school administrators and counselors who worked with low socioeconomic students and sought to improve the level of college readiness for these students. Leal conducted a pre-test to aid in assessing reliability. The final section of open-ended response items allows for a better understanding of the students' high school experiences. A group of 15 students were given the survey as a pilot group on two separate occasions.

A correlation coefficient of 0.70 or greater was used to determine reliability among the two administrations of the pilot group (Leal, 2008).

The completed version of the *High School Follow-Up Survey* consists of 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). Section one provides background information about the participants. This information consists of family demographics, college plans, and home language. In sections two through eight participants are asked to rate their high school experience on a 5-point Likert scale (1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Disagree) on a total of 49 items. The subscales can be collapsed and scored using a composite scale ranging from 5-45 depending on the number of items in the subscale. The higher the composite scale, the higher a students' social capital. The final section of the survey consists of four open ended questions for students to better describe their high school experiences (e.g., What do you think your school could have done better to prepare you for college?). Cronbach's alpha reliability coefficients were calculated for the subscales pertinent to this study: 0.79 for attitude toward college, 0.91 for teacher expectations and interactions, 0.83 for college readiness, 0.77 for school wide supports, and 0.80 for parental engagement. Cronbach's alpha reliability coefficients of 0.70 or greater are accepted as having good reliability (Litwin, 1995). For this study, the survey was given to high school students rather than college students; therefore, the wording of questions was modified to reflect students' current school status. For example, "In high school, I worked hard to learn as much as I could in class" was changed to "I work hard to learn as much as I can in class."

Data Collection Procedures

The researcher gained approval from the school district in which the study took place and the University of Houston Clear Lake (UHCL) Committee for Protection of Human Subjects (CPHS) before any data were collected. Following CPHS approval, the high school principal of the selected school was contacted to discuss the purpose of the study, the process for collecting the student survey data, and conducting the focus groups. The researcher and principal met with the students to explain the survey and the data collection process. Informed consent forms with space for a parent signature explaining the survey were provided to each student identified to participate in the study. The informed consent forms included the purpose of the study, that participation in the study is strictly voluntary, the survey administration procedures, focus group procedures, that students' identities would be protected by codes or pseudonyms, and participation can stop at any time. Students of all ages were given an informed consent form. Students under 18 years of age required a parent signature on the informed consent form. Appendix B contains the informed consent form with parent signature line.

The survey was administered through the students English IV classes. 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 were removed from the study. The data from the survey responses was transferred to an Excel spreadsheet and then to a SPSS database for further analysis. Upon completion and analysis of survey results, a focus group comprised of nine students was created at the high school participating in the study.

In December 2017, a focus group was conducted with nine students who completed the survey used in this study. The focus group consisted of 12 questions,

which provided the data source for the qualitative research portion of this study. The focus group lasted approximately 56 minutes and took place in a conference room of the school. The focus group participants provided data about their perceptions of their high school experiences related to college preparation including course selection and extracurricular activities. The researcher used an established interview protocol and open-ended questions (see Appendix D) for the focus group. The focus group had a diverse mixture of students based on race/ethnicity as well as a balance of male and female students. The focus group lasted approximately one hour and was held at the high school campus. The focus group session was recorded and the recording was downloaded to a protected file. The researcher transcribed the recordings for the purpose of analysis. The researcher stored the focus group data in two locations: the researcher's computer hard drive and a flash 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 quantitative data survey collected to answer research questions 1-5. To determine if there was a statistically significant mean difference between students' social capital and perceptions of high school experiences related to college readiness, a two-tailed independent t-tests was conducted. The independent variable was divided into two groups: (a) students enrolled AP courses and (b) students not enrolled in AP courses. The dependent variable, social capital, was measured by: (a) attitude toward college; (b) teacher expectations and interactions; (c) college readiness; (d) school wide support; and (e) parental engagement. To determine effect size, Cohen's d and the coefficient of determination (r^2) were used. A significant

value of 0.05 was used to determine the statistically mean difference. Additionally, descriptive statistics were used to examine the frequencies and percentages of the students' perceptions.

Qualitative

To address question six, the researcher used an inductive coding process. This process allowed for themes and concepts to emerge from the field and the data (Lichtman, 2010). To generate themes in this study, the data from the focus group was examined. The data were analyzed through a constant-comparative method of coding which allowed for the emergence of certain themes and concepts. These themes and concepts led to theoretical explanations of students' perceptions on college readiness.

Using the coding process, the researcher was able to identify and interpret the data. There are three steps in the constant-comparative method of coding: (a) open coding; (b) axial coding; and (c) selective coding (Lichtman, 2010). Open coding allowed for specific topics relevant to the study to be identified. During axial coding, the researcher then grouped the topics in themes or categories. Selective coding was used when a central category emerged and was related to other categories (Lichtman, 2010). The coding process is outlined in Figure 3.1. In this study, the researcher used the data from the survey and focus groups and applied the constant-comparative method of coding to determine emerging themes regarding students' perceptions college readiness. This data provided insight to answer research question six.

Figure 3.1. Coding Process

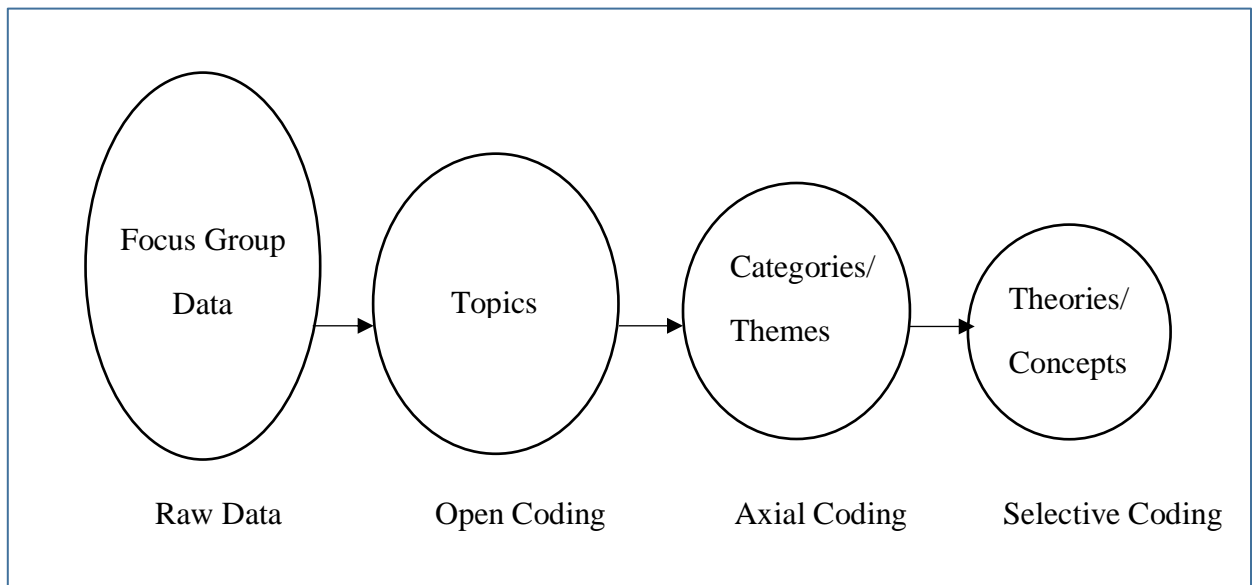


Figure 3.1. Process used to take raw data through the coding process to the concept phase.

Qualitative Validity

Validity was established through peer review of the questions and the methodology to ensure the interview questions were in line with the research problem and questions. A second method to establish internal validity was the acknowledgement of the potential bias of the researcher. The AP opportunity gap for underrepresented students is something the researcher has experienced as a school administrator in diverse schools. The awareness of the potential bias prompted the researcher to be less interpretive with the results of the interview data. Lastly, the contextual information of the school aided in establishing validity. The high school chosen for this study is a diverse high school with a tradition of a strong focus on academics. In addition to the strong academic focus, the school houses two different academies and has students involved in the AVID program. The principal is an experienced principal who constantly

seeks to improve teaching and learning for her campus through professional learning and innovative programming.

Privacy and Ethical Considerations

The researcher gained approval from the UHCL's CPHS and the school district in which the study took place before any data were collected. Informed consent forms explaining the study, the data collection procedures, and the survey and focus group procedures were given to each student identified to participate in the study. The informed consent forms outlined that participation in the study is voluntary, student identities are confidential, and they can stop participating at any time. Students of all ages at the time of data collection were given informed consent forms that required parental consent. For students participating in the focus group the researcher reminded students the information discussed was confidential and they should not discuss outside of the focus group. However, there is no method to ensure no further conversation. The data will be kept secure in the researcher's home office. The faculty sponsor will keep all data for five years before destroying the data.

Research Design Limitations

This study had a few limitations. First, the students' ability to self-report is only as accurate as the students' honesty. This limitation affects the study in that students' answers may not be honest and will not give a true representation of their perception of their high school experience. There is not a method to ensure validity of their answers so findings could be skewed. Second, given the study was conducted in only one high school with only seniors, the generalizability of the results could be limited. Third, language may be a factor for both survey and focus groups. The survey is available only in English; therefore, if any participants have limited English proficiency, participation in either the survey or focus group may be difficult.

Conclusion

The purpose of this study was to examine the social capital of students and the students' perceptions of their high school experiences related to college readiness. This chapter provided an overview of the research problem, operationalization of the theoretical constructs, research purpose, questions, hypotheses, research design, population and sampling selection, instrumentation to be used, data collection procedures, data analysis, privacy and ethical considerations, and the research design limitations of the study. For this study a mixed methods research design was used to examine the influence of social capital on AP participation and students' perceptions of college readiness based on their high school experiences. Chapter IV discusses survey and focus group data and analysis in further detail.

CHAPTER IV

RESULTS

This study examined the social capital of students in the areas of attitude toward college, teacher expectations and interactions, college readiness, and school wide support 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 five research questions. The chapter concludes with a summary of the quantitative and qualitative findings.

Demographic Characteristics of the Participants

During November 2017, data were collected from 342 senior students enrolled in an English IV class. The participants in AP courses were individually matched by gender and race/ethnicity to create a group of students not enrolled in AP courses. The final sample consisted of 123 students enrolled in AP courses and 123 students not enrolled in AP courses. Table 4.1 shows the participant's gender and race/ethnicity demographics for the matched data used for data analysis. Table 4.2 shows background demographics on the participants in the matched groups. The background demographics provide more information on the students' families, parental education level, and the participants' post high school plans. The participants overwhelmingly indicated they plan to attend college after high school with 99.2% of students enrolled in AP classes and 93.5% of students not enrolled in AP courses stating they plan to attend college. The participants in the study are primarily monolingual with 81.3% of the students indicating they speak English as their first language. Of the students who are bilingual, 85.8% indicated they speak Spanish. The education level of the participants' fathers is similar in each group. The

education level of the participants' mothers is similar in all categories except for high school degree and bachelor degree where 41.0% of students in AP classes indicated their mothers earned a bachelor degree compared to 29.5% of students not in AP classes when asked about their mothers' level of education. Additionally, 11.5% of students in AP classes selected high school degree for mother's level of education whereas 19.7% of students not in AP classes selected the same level for their mothers' education.

The high school chosen for this study is a diverse high school with a strong tradition and focus on academic achievement. The high school had recent changes in population based on district boundary and zoning changes. The school also houses an academy program that allows students from across the district to apply for the academy and attend the school. Additionally, the school has students in the Advancement Via Individual Determination (AVID) program. The AVID program identifies students in the academic middle, typically those who are underrepresented and provides support for those students in AP courses (Bernhardt, 2013). The principal of the high school has experience as an elementary and middle school principal and is within the first four years of the tenure at the campus.

Table 4.1

Participant Demographics (%)

Demographic	AP	Non-AP
Male	51.2 (<i>n</i> = 63)	51.2 (<i>n</i> = 63)
Female	48.8 (<i>n</i> = 60)	48.8 (<i>n</i> = 60)
African American	36.6 (<i>n</i> = 45)	36.6 (<i>n</i> = 45)
Hispanic	30.1 (<i>n</i> = 37)	30.1 (<i>n</i> = 37)
White	17.9 (<i>n</i> = 22)	17.9 (<i>n</i> = 22)
Asian	8.1 (<i>n</i> = 10)	8.1 (<i>n</i> = 10)
2 or more Races	7.3 (<i>n</i> = 9)	7.3 (<i>n</i> = 9)

Table 4.2

Participant Background Demographics (%)

Demographic	AP	Non-AP
1. Plan to attend college	99.2 (<i>n</i> = 122)	93.5 (<i>n</i> = 115)
2. Bilingual	35.0 (<i>n</i> = 43)	32.5 (<i>n</i> = 40)
3. Primary language		
English	81.3 (<i>n</i> = 100)	81.3 (<i>n</i> = 100)
Spanish	16.3 (<i>n</i> = 20)	15.4 (<i>n</i> = 19)
Other (not specified)	2.4 (<i>n</i> = 3)	3.3 (<i>n</i> = 4)
4. Mother's education level		
Less than high school degree	12.3 (<i>n</i> = 15)	14.8 (<i>n</i> = 18)

High school degree or GED	11.5 (<i>n</i> = 14)	19.7 (<i>n</i> = 24)
Some college	12.3 (<i>n</i> = 15)	12.3 (<i>n</i> = 15)
Associate degree	9.2 (<i>n</i> = 12)	11.5 (<i>n</i> = 14)
Bachelor degree	41.0 (<i>n</i> = 50)	29.5 (<i>n</i> = 36)
Graduate degree	13.1 (<i>n</i> = 16)	12.3 (<i>n</i> = 15)
5. Father's education level		
Less than high school degree	10.1 (<i>n</i> = 12)	14.9 (<i>n</i> = 18)
High school degree or GED	16.0 (<i>n</i> = 19)	21.5 (<i>n</i> = 16)
Some college	15.1 (<i>n</i> = 18)	14.9 (<i>n</i> = 17)
Associate degree	7.6 (<i>n</i> = 9)	8.4 (<i>n</i> = 10)
Bachelor degree	35.5 (<i>n</i> = 42)	32.2 (<i>n</i> = 39)
Graduate degree	16.0 (<i>n</i> = 19)	8.3 (<i>n</i> = 16)

Research Question One

Research question one, *Is there a statistically significant mean difference between the attitude toward college of students enrolled in AP courses and that of students not enrolled in AP courses?*, was answered by using descriptive statistics and a two-tailed independent *t*-test. The descriptive statistics examined the frequencies and percentages regarding students' perceptions of their attitude toward college. Table 4.3 shows the frequency and percentage data for the students' responses to the section of the survey, Attitude Toward College. Table 4.4 shows the collapsed results of the endpoints of the survey to examine the frequency percentages.

In terms of students' perceptions of their attitude toward college, three of the survey items stood out. Approximately 2.0% of students in AP courses *Strongly*

Disagree/Disagree compared to 11.4% of students not in AP courses who answered *Strongly Disagree/Disagree* to the item, “I expect to go to college.” Additionally, 92.7% of students in AP courses *Strongly Agree/Agree* compared to 85.6% of students not in AP courses answering *Strongly Agree/Agree* to the item, “I think everyone has the opportunity to go to college.” Similarly, 91.9% of students in AP courses responded *Strongly Agree/Agree* to the item, “I think continuing my education after high school is important.” This compares to 85.4% of students not in AP courses answering *Strongly Agree/Agree* to the same item.

Table 4.3

Students' Perceptions of Attitude Toward College (%)

Survey Item		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. I think continuing my education after high school is important.	AP	4.1 (n = 5)	0.8 (n = 1)	3.3 (n = 4)	14.6 (n = 18)	77.2 (n = 95)
	Non-AP	4.9 (n = 6)	1.6 (n = 2)	8.1 (n = 10)	19.5 (n = 24)	65.9 (n = 81)
2. I expect to go to college.	AP	4.9 (n = 6)	17.1 (n = 21)	23.6 (n = 29)	31.7 (n = 39)	22.8 (n = 28)
	Non-AP	3.3 (n = 4)	8.1 (n = 10)	22.8 (n = 28)	38.2 (n = 47)	27.6 (n = 34)
3. I think everyone has the opportunity to go to college.	AP	1.6 (n = 2)	0.0 (n = 0)	5.7 (n = 7)	35.8 (n = 44)	56.9 (n = 6)
	Non-AP	1.6 (n = 2)	2.4 (n = 3)	11.4 (n = 14)	46.3 (n = 57)	38.2 (n = 47)
4. Most of my friends in high school plan to go to college.	AP	0.8 (n = 1)	0.8 (n = 1)	9.8 (n = 12)	34.1 (n = 42)	54.5 (n = 12)
	Non-AP	1.6 (n = 2)	2.4 (n = 3)	17.9 (n = 22)	39.0 (n = 48)	39.0 (n = 48)
5. Most of my friends in high school think it is important to go to college.	AP	0.8 (n = 1)	0.0 (n = 0)	4.9 (n = 6)	29.3 (n = 36)	65.0 (n = 80)
	Non-AP	0.0 (n = 0)	2.4 (n = 3)	8.1 (n = 10)	29.3 (n = 36)	60.2 (n = 74)
6. I believe college is important to get a good job.	AP	2.4 (n = 3)	5.7 (n = 3)	11.4 (n = 14)	26.0 (n = 32)	54.5 (n = 67)
	Non-AP	4.9 (n = 36)	6.5 (n = 8)	21.1 (n = 26)	19.5 (n = 24)	48.0 (n = 59)

Table 4.4

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

Survey Item		Strongly Disagree/ Disagree	Neutral	Agree/Strongly Agree
1. I think continuing my education after high school is important.	AP	4.9 (<i>n</i> = 6)	3.3 (<i>n</i> = 4)	91.9 (<i>n</i> = 113)
	Non-AP	6.5 (<i>n</i> = 8)	8.1 (<i>n</i> = 10)	85.4 (<i>n</i> = 105)
2. I expect to go to college.	AP	2.4 (<i>n</i> = 3)	23.6 (<i>n</i> = 29)	54.5 (<i>n</i> = 67)
	Non-AP	11.4 (<i>n</i> = 14)	22.8 (<i>n</i> = 28)	65.9 (<i>n</i> = 81)
3. I think everyone has the opportunity to go to college.	AP	1.6 (<i>n</i> = 2)	5.7 (<i>n</i> = 7)	92.7 (<i>n</i> = 114)
	Non-AP	4.1 (<i>n</i> = 5)	11.4 (<i>n</i> = 14)	85.6 (<i>n</i> = 104)
4. Most of my friends in high school plan to go to college.	AP	1.6 (<i>n</i> = 2)	9.8 (<i>n</i> = 12)	88.6 (<i>n</i> = 109)
	Non-AP	4.1 (<i>n</i> = 5)	17.9 (<i>n</i> = 22)	78.0 (<i>n</i> = 96)
5. Most of my friends in high school think it is important to go to	AP	0.8 (<i>n</i> = 1)	4.9 (<i>n</i> = 6)	94.3 (<i>n</i> = 116)
	Non-AP	2.4 (<i>n</i> = 3)	8.1 (<i>n</i> = 10)	89.4 (<i>n</i> = 110)
6. I believe college is important to get a good job.	AP	8.1 (<i>n</i> = 10)	11.4 (<i>n</i> = 14)	80.5 (<i>n</i> = 99)
	Non-AP	11.4 (<i>n</i> = 14)	21.1 (<i>n</i> = 26)	67.5 (<i>n</i> = 83)

The findings of the two-tailed independent *t*-test suggested class enrollment does not influence students' attitude toward college, $t(244) = 1.726$, $p = .086$. Whether one is enrolled in AP courses or not does not necessarily influence his or her attitude toward college. The mean score of students enrolled in AP courses ($M = 25.78$) was slightly higher than the mean score of students not enrolled in AP courses ($M = 24.94$). These findings indicate that students enrolled in AP courses perceive themselves to better

understand the importance of continuing their education in college more so than those not enrolled in AP courses. Table 4.5 shows the results of the two-tailed independent *t*-test.

Table 4.5

Attitude Toward College

Class Enrollment	N	M	SD	t-value	df	p-value
1. AP Students	123	25.78	3.68	1.726	244	.086
2. Non-AP Students	123	24.94	4.0			

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

Research Question Two

Research question two, *Is there a statistically significant mean difference between students' perceptions of teacher expectations and interaction of students enrolled in AP courses and that of students not enrolled in AP courses?*, was answered by using descriptive statistics and a two-tailed independent *t*-test. The descriptive statistics examined the frequencies and percentages regarding students' perceptions of teacher expectations and interactions. Table 4.6 shows the frequencies and percentages for students' responses to the Teacher Expectations and Interactions portion of the survey. Table 4.7 shows the collapsed results of the endpoints of the Teacher Expectations and Interactions portion of the survey to examine the frequencies and percentages.

In terms of students' perception of teacher expectations and interactions, three of the items stood out. Students in AP courses responded *Strongly Agree/Agree* at a rate of 65.9% to the item, "My high school teachers have high expectations of me." This compared to 71.5% of students not in AP courses responding *Strongly Agree/Agree* to the same item. Additionally, 12.2% students enrolled in AP courses, responded *Strongly*

Disagree/Disagree to the item, “In high school, my teachers inspire me and motivate me to do my best” while 5.7% of students not enrolled in AP classes answered *Strongly Disagree/Disagree* to the same to the item. Conversely, 66.57% of students not in AP courses answered *Strongly Agree/Agree* to the item, “My high school teachers did as much as they could to help me learn.” This compares to 56.1% of students in AP courses answering *Strongly Agree/Agree* to the same item.

Table 4.6

Students' Perceptions of Teacher Expectations and Interactions (%)

Survey Item		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. In high school, my teachers care about me.	AP	4.1 (n = 5)	4.1 (n = 5)	35.8 (n = 44)	43.9 (n = 54)	12.2 (n = 15)
	Non-AP	3.3 (n = 4)	4.1 (n = 5)	34.1 (n = 42)	38.2 (n = 47)	20.3 (n = 25)
2. In high school, my teachers inspire me and motivate me to do my best.	AP	4.1 (n = 5)	8.1 (n = 10)	42.3 (n = 52)	38.2 (n = 47)	7.3 (n = 9)
	Non-AP	3.3 (n = 4)	2.4 (n = 3)	39.0 (n = 48)	40.7 (n = 50)	14.6 (n = 18)
3. My high school teachers have high expectations of me.	AP	2.4 (n = 3)	2.4 (n = 3)	29.3 (n = 36)	40.7 (n = 50)	25.2 (n = 31)
	Non-AP	3.3 (n = 4)	3.3 (n = 4)	22.0 (n = 27)	52.0 (n = 64)	19.5 (n = 27)
4. My high school teachers did as much as they could to help me learn.	AP	4.9 (n = 6)	6.5 (n = 8)	32.5 (n = 40)	43.9 (n = 54)	12.2 (n = 15)
	Non-AP	3.3 (n = 4)	3.3 (n = 4)	26.8 (n = 33)	48.8 (n = 60)	17.9 (n = 22)
5. My high school teachers did as much as they could to prepare me for college level work.	AP	4.1 (n = 5)	6.5 (n = 8)	38.2 (n = 47)	35.8 (n = 44)	15.4 (n = 19)
	Non-AP	6.5 (n = 8)	7.3 (n = 9)	31.7 (n = 39)	39.8 (n = 49)	14.6 (n = 18)

Table 4.7

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

Survey Item		Strongly Disagree/ Disagree	Neutral	Agree/Strongly Agree
1. In high school, my teachers care about me.	AP	8.1 (<i>n</i> = 10)	35.8 (<i>n</i> = 44)	56.1 (<i>n</i> = 69)
	Non-AP	7.3 (<i>n</i> = 9)	34.1 (<i>n</i> = 42)	58.5 (<i>n</i> = 72)
2. In high school, my teachers inspire me and motivate me to do my best.	AP	12.2 (<i>n</i> = 15)	42.3 (<i>n</i> = 52)	45.5 (<i>n</i> = 56)
	Non-AP	5.7 (<i>n</i> = 7)	39.0 (<i>n</i> = 48)	55.3 (<i>n</i> = 68)
3. My high school teachers have high expectations of me.	AP	4.9 (<i>n</i> = 6)	29.3 (<i>n</i> = 36)	65.9 (<i>n</i> = 81)
	Non-AP	6.5 (<i>n</i> = 8)	22.0 (<i>n</i> = 27)	71.5 (<i>n</i> = 88)
4. My high school teachers did as much as they could to help me learn.	AP	11.4 (<i>n</i> = 14)	32.5 (<i>n</i> = 40)	56.1 (<i>n</i> = 69)
	Non-AP	6.5 (<i>n</i> = 8)	26.8 (<i>n</i> = 33)	66.7 (<i>n</i> = 22)
5. My high school teachers did as much as they could to prepare me for college level work.	AP	10.6 (<i>n</i> = 13)	38.2 (<i>n</i> = 47)	51.2 (<i>n</i> = 63)
	Non-AP	13.8 (<i>n</i> = 17)	31.7 (<i>n</i> = 39)	54.5 (<i>n</i> = 67)

The findings of the two-tailed independent *t*-test showed class enrollment does not influence students' perceptions of teacher expectations and interactions, $t(244) = -1.212$, $p = .227$. Whether a student is enrolled in AP courses or not does not necessarily influence his or her perception of teacher expectations and interactions. The mean score of students enrolled in AP courses ($M = 17.69$) was slightly lower than the mean score of

students not enrolled in AP courses ($M = 18.33$) meaning students not enrolled in AP classes perceive their teachers want to see them succeed and encourage them to succeed. Conversely, AP students may not perceive their teachers as influential as much to their success. Table 4.8 shows the results of the two-tailed independent t -test.

Table 4.8

Teacher Expectations and Interactions

Class Enrollment	N	M	SD	t-value	df	p-value
1. AP Students	123	17.7	4.21	-1.212	244	.227
2. Non-AP Students	123	18.3	4.10			

*Statistically significant ($p < .05$)

Research Question Three

Research question three, *Is there a statistically significant mean difference between students' perceptions of college readiness of students enrolled in AP courses and that of students not enrolled in AP courses?*, was answered by descriptive statistics and a two-tailed independent t -test. The descriptive statistics examined frequencies percentages related to students' perceptions of their college readiness. Table 4.9 shows the frequency and percentage data for the College Preparation portion of the survey. Table 4.10 presents the collapsed results of the endpoints of the College Preparation portions of the survey to examine the frequency and percentage results.

In terms of students' perceptions of their preparation for college, two of the survey items stood out. Students enrolled in AP courses answered *Strongly Agree/Agree* at a rate of 70.7% to the item, "I am aware of the importance of taking AP courses in high school." This compares with 44.7% of students not enrolled in AP courses answering *Strongly Agree/Agree* to the same item. Additionally, 26.0% of students not in AP

courses answered *Strongly Disagree/Disagree* compared to 7.3 % of students in AP courses who answered *Strongly Disagree/Disagree* to the item, “In high school, I have been encouraged to take high-level classes that could prepare me for college.”

Table 4.9

Students’ Perceptions of College Preparation (%)

Survey Item		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. I am aware of the importance of taking AP courses in high school.	AP	1.6 (n = 2)	4.1 (n = 5)	23.6 (n = 29)	35.0 (n = 43)	35.8 (n = 44)
	Non-AP	5.7 (n = 7)	8.9 (n = 11)	40.7 (n = 50)	34.1 (n = 42)	10.6 (n = 13)
2. In high school, I have been encouraged to take high-level classes that could prepare me for college.	AP	1.6 (n = 2)	5.7 (n = 7)	19.5 (n = 24)	36.6 (n = 45)	36.6 (n = 45)
	Non-AP	4.9 (n = 6)	21.1 (n = 26)	36.6 (n = 45)	23.6 (n = 29)	13.8 (n = 17)
3. I am aware of the courses I need to prepare for college.	AP	1.6 (n = 2)	4.1 (n = 5)	14.6 (n = 18)	40.7 (n = 50)	39.0 (n = 48)
	Non-AP	1.6 (n = 2)	11.4 (n = 14)	24.4 (n = 30)	44.7 (n = 55)	17.9 (n = 22)
4. Teachers help me plan or select the right high school courses needed for college.	AP	4.9 (n = 6)	22.0 (n = 27)	29.3 (n = 36)	29.3 (n = 36)	14.6 (n = 18)
	Non-AP	6.5 (n = 8)	16.3 (n = 20)	30.9 (n = 38)	33.3 (n = 41)	13.0 (n = 16)
5. In high school, pre-AP or AP courses are available to everyone.	AP	2.4 (n = 3)	1.6 (n = 2)	17.1 (n = 21)	35.8 (n = 44)	43.1 (n = 53)
	Non-AP	4.9 (n = 6)	5.7 (n = 7)	21.1 (n = 26)	43.1 (n = 53)	25.2 (n = 31)

Table 4.10

Students' Perceptions of College Preparation - Collapsed (%)

Survey Item		Strongly Disagree/ Disagree	Neutral	Agree/Strongly Agree
1. I am aware of the importance of taking AP courses in high school.	AP	5.7 (<i>n</i> = 7)	23.6 (<i>n</i> = 29)	70.7 (<i>n</i> = 87)
	Non-AP	14.6 (<i>n</i> = 18)	40.7 (<i>n</i> = 50)	44.7 (<i>n</i> = 55)
2. In high school, I have been encouraged to take high-level classes that could prepare me for college.	AP	7.3 (<i>n</i> = 9)	19.5 (<i>n</i> = 24)	73.2 (<i>n</i> = 90)
	Non-AP	26.0 (<i>n</i> = 32)	36.6 (<i>n</i> = 45)	37.5 (<i>n</i> = 46)
3. I am aware of the courses I need to prepare for college.	AP	5.7 (<i>n</i> = 7)	14.6 (<i>n</i> = 18)	79.7 (<i>n</i> = 98)
	Non-AP	13.0 (<i>n</i> = 16)	24.4 (<i>n</i> = 30)	62.6 (<i>n</i> = 77)
4. Teachers help me plan or select the right high school courses needed for college.	AP	26.8 (<i>n</i> = 33)	29.3 (<i>n</i> = 36)	43.9 (<i>n</i> = 54)
	Non-AP	22.8 (<i>n</i> = 28)	30.9 (<i>n</i> = 38)	46.3 (<i>n</i> = 57)
5. In high school, pre-AP or AP courses are available to everyone.	AP	4.1 (<i>n</i> = 5)	17.1 (<i>n</i> = 21)	78.9 (<i>n</i> = 97)
	Non-AP	10.6 (<i>n</i> = 13)	21.1 (<i>n</i> = 26)	68.3 (<i>n</i> = 84)

The findings of the two-tailed independent *t*-test suggest class enrollment, does affect students' perceptions of their college preparation, $t(244) = 3.782$, $p < .001$, $d = .48$ (medium effect size), $r^2 = .484$. Whether one is enrolled in AP courses or not does influence his or her perception toward college preparation. The mean score for students in AP courses ($M = 19.23$) was higher than the mean score for students not in AP courses

(M = 17.19) which shows that students in AP courses feel they are more prepared for college whereas students not in AP courses do not perceive the same level of preparation. Statistical analysis shown Table 4.11 displays a statistically significant mean difference between students enrolled in AP courses and those not enrolled in AP courses.

Table 4.11

College Preparation

Class Enrollment	N	M	SD	t-value	df	p-value	d
1. AP Students	123	19.2	4.43	3.782	241.3	<.001*	.48
2. Non-AP Students	123	17.2	3.98				

*Statistically significant ($p < .05$)

Research Question Four

Research question four, *Is there a statistically significant mean difference between the students' perceptions of school-wide support of students enrolled in AP courses and that of students not enrolled in AP courses?*, was answered using descriptive statistics and two-tailed independent *t*-tests. The descriptive statistics examined the frequencies and percentages regarding students' perceptions of school-wide support. Table 4.12 shows the frequency and percentage data on the section of the survey, School Wide Support. Table 4.13 shows the collapsed results of the endpoints of the survey to examine the frequencies and percentages.

In terms of students' perceptions of school wide support, three of the survey items stood out. Of students in AP courses, 80.5% *Strongly Agree/Agree* compared to 71.5% of students not in AP courses answering *Strongly Agree/Agree* to the same to the item, "My high school creates a campus culture that emphasizes going to college." In answer to the item, "All students at the school have the same opportunities to prepare for college,"

17.5% of students enrolled in AP courses answered *Strongly Disagree/Disagree*. This is slightly less than two times as many students not enrolled in AP courses who answered *Strongly Disagree/Disagree*, at a rate of 10.6% to the same item. However, students in both groups answered similarly to the item, “I feel welcomed and supported at my school,” with 63.4% of students enrolled in AP courses answering *Strongly Agree/Agree* and 62.6% of students not enrolled in AP courses answering *Strongly Agree/Agree*.

Table 4.12

Students’ Perception of School Wide Support (%)

Survey Item		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. My high school creates a campus culture that emphasizes going to college.	AP	2.4 (n = 3)	2.4 (n = 3)	14.6 (n = 3)	45.5 (n = 56)	35.0 (n = 43)
	Non-AP	0.0 (n = 0)	4.9 (n = 3)	23.6 (n = 29)	43.9 (n = 54)	27.6 (n = 34)
2. I feel welcome and supported at my high school.	AP	4.1 (n = 5)	3.3 (n = 4)	29.3 (n = 36)	43.9 (n = 54)	19.5 (n = 24)
	Non-AP	5.7 (n = 7)	6.5 (n = 8)	25.2 (n = 31)	41.5 (n = 51)	21.1 (n = 26)
3. All students at the school have the same opportunities to prepare for college.	AP	5.7 (n = 7)	12.2 (n = 15)	22.0 (n = 27)	34.1 (n = 42)	26.0 (n = 32)
	Non-AP	4.1 (n = 5)	6.5 (n = 8)	25.2 (n = 31)	39.8 (n = 49)	24.4 (n = 30)
4. My high school has helped me improve my ability to study through student workshops or advisory classes.	AP	8.9 (n = 11)	17.1 (n = 21)	32.5 (n = 40)	25.2 (n = 31)	16.3 (n = 20)
	Non-AP	5.7 (n = 7)	11.4 (n = 14)	30.9 (n = 38)	30.9 (n = 38)	21.1 (n = 26)

5. My high school provides me with a student planner to help me learn organizational skills and time management.	AP	21.1 (<i>n</i> = 26)	26.8 (<i>n</i> = 33)	24.4 (<i>n</i> = 30)	17.1 (<i>n</i> = 21)	10.6 (<i>n</i> = 13)
	Non-AP	13.8 (<i>n</i> = 17)	24.4 (<i>n</i> = 30)	26.0 (<i>n</i> = 32)	17.9 (<i>n</i> = 22)	17.9 (<i>n</i> = 22)
6. In high school, I often feel ignored (read carefully).	AP	8.1 (<i>n</i> = 10)	35.8 (<i>n</i> = 44)	36.6 (<i>n</i> = 45)	12.2 (<i>n</i> = 15)	6.5 (<i>n</i> = 8)
	Non-AP	7.3 (<i>n</i> = 9)	36.6 (<i>n</i> = 45)	29.3 (<i>n</i> = 36)	16.3 (<i>n</i> = 20)	10.6 (<i>n</i> = 13)
7. In high school, I have participated in programs such as Upward Bound or AVID.	AP	42.3 (<i>n</i> = 52)	32.5 (<i>n</i> = 40)	13.8 (<i>n</i> = 17)	6.5 (<i>n</i> = 8)	4.9 (<i>n</i> = 6)
	Non-AP	29.3 (<i>n</i> = 36)	41.5 (<i>n</i> = 51)	13.0 (<i>n</i> = 16)	10.3 (<i>n</i> = 13)	5.7 (<i>n</i> = 7)
8. I have visited various college campuses while in high school.	AP	14.6 (<i>n</i> = 18)	26.8 (<i>n</i> = 33)	19.5 (<i>n</i> = 24)	24.4 (<i>n</i> = 30)	14.6 (<i>n</i> = 52)
	Non-AP	20.3 (<i>n</i> = 25)	27.6 (<i>n</i> = 34)	21.1 (<i>n</i> = 26)	22.0 (<i>n</i> = 27)	8.9 (<i>n</i> = 11)
9. I participated in summer college campus during high school.	AP	27.6 (<i>n</i> = 34)	48.0 (<i>n</i> = 59)	9.8 (<i>n</i> = 12)	8.1 (<i>n</i> = 10)	6.5 (<i>n</i> = 8)
	Non-AP	26.8 (<i>n</i> = 33)	44.7 (<i>n</i> = 55)	8.1 (<i>n</i> = 10)	13.8 (<i>n</i> = 17)	6.5 (<i>n</i> = 8)

Table 4.13

Students' Perception of School Wide Support – Collapsed (%)

Survey Item		Strongly Disagree/ Disagree	Neutral	Agree/Strongly Agree
1. My high school creates a campus culture that emphasizes going to college.	AP	4.9 (n = 6)	14.6 (n = 18)	80.5 (n = 99)
	Non-AP	4.9 (n = 6)	23.6 (n = 29)	71.5 (n = 88)
2. I feel welcome and supported at my high school.	AP	7.3 (n = 9)	29.3 (n = 36)	63.4 (n = 78)
	Non-AP	12.2 (n = 15)	25.2 (n = 31)	62.6 (n = 77)
3. All students at the school have the same opportunities to prepare for college.	AP	17.9 (n = 22)	22.0 (n = 27)	60.2 (n = 74)
	Non-AP	10.6 (n = 13)	25.2 (n = 31)	64.2 (n = 79)
4. My high school has helped me improve my ability to study through student workshops or advisory classes.	AP	26.0 (n = 32)	32.5 (n = 40)	41.5 (n = 51)
	Non-AP	17.1 (n = 21)	30.9 (n = 38)	52.0 (n = 64)
5. My high school provides me with a student planner to help me learn organizational skills and time management.	AP	48.0 (n = 59)	24.4 (n = 30)	27.6 (n = 34)
	Non-AP	38.2 (n = 47)	26.0 (n = 32)	35.8 (n = 44)
6. In high school, I often feel ignored (read carefully).	AP	43.9 (n = 54)	36.6 (n = 45)	18.7 (n = 23)
	Non-AP	43.9 (n = 54)	29.3 (n = 36)	26.8 (n = 33)
7. In high school, I have participated in programs such as Upward Bound or AVID.	AP	74.8 (n = 92)	13.8 (n = 17)	11.4 (n = 14)
	Non-AP	70.7 (n = 87)	13.0 (n = 16)	16.3 (n = 20)

8. I have visited various college campuses while in high school.	AP	41.5 (n = 51)	19.5 (n = 24)	39.0 (n = 48)
	Non-AP	48.0 (n = 59)	21.1 (n = 26)	38.9 (n = 38)
9. I participated in summer college campus during high school.	AP	75.6 (n = 93)	9.8 (n = 12)	14.6 (n = 18)
	Non-AP	71.5 (n = 88)	8.1 (n = 10)	20.3 (n = 25)

The findings of the two-tailed independent *t*-test suggested class enrollment does not influence students' perceptions of school wide support, $t(244) = -1.255$, $p = .211$. Whether one is enrolled in AP courses or not does not necessarily influence his or her perception of school wide supports. School wide supports included feeling welcomed and supported at school, equitable opportunities to prepare for college, and workshops that teacher study skills, time management and organization. The mean score of students in AP courses ($M = 26.9$) was slightly lower compared to students not in AP courses ($M = 27.9$) which means the students not in AP courses perceive they receive more support and encouragement from various school staff than those students in AP classes. Table 4.14 shows the results of the two-tailed independent *t*-test.

Table 4.14

School Wide Support

Class Enrollment	N	M	SD	t-value	df	p-value
1. AP Students	123	26.9	6.13	-1.255	244	.211
2. Non-AP Students	123	27.9	6.37			

*Statistically significant ($p < .05$)

Research Question Five

Research question five, *Is there a statistically significant mean difference between students' perceptions of parental engagement of students enrolled in AP courses and that of students not enrolled in AP courses?*, was answered by descriptive statistics and a two-tailed independent *t*-test. The descriptive statistics examined the frequencies and percentages regarding students' perceptions of parental engagement. Table 4.15 shows the frequency and percentage data for the students' responses to the section of the survey, Parental Engagement. Table 4.16 shows the collapsed results of the endpoints of the survey to examine the frequencies and percentages.

Table 4.15

Students' Perceptions of Parental Engagement (%)

Survey Item		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. My parents encourage me to do well in school	AP	0.8 (n = 1)	0.8 (n = 1)	4.1 (n = 5)	20.3 (n = 25)	74.0 (n = 91)
	Non-AP	0.0 (n = 0)	0.8 (n = 1)	7.3 (n = 9)	26.8 (n = 33)	65.0 (n = 80)
2. My parents are aware of ways to help me get better grades in school.	AP	1.6 (n = 2)	4.9 (n = 6)	19.5 (n = 24)	27.6 (n = 34)	46.3 (n = 57)
	Non-AP	1.6 (n = 2)	3.3 (n = 4)	13.8 (n = 17)	34.1 (n = 42)	47.2 (n = 58)
3. My parents encourage me to go to college.	AP	0.8 (n = 1)	0.0 (n = 0)	3.3 (n = 4)	18.7 (n = 23)	77.2 (n = 95)
	Non-AP	0.8 (n = 1)	1.6 (n = 2)	8.1 (n = 10)	26.8 (n = 33)	62.6 (n = 77)
4. My parents are aware of ways to help me get to college.	AP	2.4 (n = 3)	7.3 (n = 9)	11.4 (n = 14)	32.5 (n = 40)	46.3 (n = 57)
	Non-AP	2.4 (n = 3)	4.1 (n = 5)	11.4 (n = 14)	37.4 (n = 46)	37.4 (n = 46)
5. Teachers and counselors at my high school communicate often with my parents.	AP	9.8 (n = 12)	22.8 (n = 28)	31.7 (n = 39)	17.9 (n = 22)	17.1 (n = 21)
	Non-AP	8.9 (n = 11)	17.1 (n = 21)	36.6 (n = 45)	25.2 (n = 31)	12.2 (n = 15)

Table 4.16

Students' Perceptions of Parent Engagement-Collapsed (%)

Survey Item		Strongly Disagree/ Disagree	Neutral	Agree/Strongly Agree
1. My parents encourage me to do well in school	AP	1.6 (<i>n</i> = 2)	4.1 (<i>n</i> = 5)	94.3 (<i>n</i> = 116)
	Non-AP	0.8 (<i>n</i> = 1)	7.3 (<i>n</i> = 9)	91.9 (<i>n</i> = 113)
2. My parents are aware of ways to help me get better grades in school.	AP	6.5 (<i>n</i> = 8)	19.5 (<i>n</i> = 24)	74.0 (<i>n</i> = 91)
	Non-AP	4.9 (<i>n</i> = 6)	13.8 (<i>n</i> = 17)	81.3 (<i>n</i> = 100)
3. My parents encourage me to go to college.	AP	0.8 (<i>n</i> = 1)	3.3 (<i>n</i> = 4)	95.9 (<i>n</i> = 118)
	Non-AP	2.4 (<i>n</i> = 3)	8.1 (<i>n</i> = 10)	89.4 (<i>n</i> = 110)
4. My parents are aware of ways to help me get to college.	AP	9.8 (<i>n</i> = 12)	11.4 (<i>n</i> = 14)	78.9 (<i>n</i> = 97)
	Non-AP	6.5 (<i>n</i> = 8)	11.4 (<i>n</i> = 14)	82.1 (<i>n</i> = 101)
5. Teachers and counselors at my high school communicate often with my parents.	AP	32.5 (<i>n</i> = 40)	31.7 (<i>n</i> = 39)	35.0 (<i>n</i> = 43)
	Non-AP	26.0 (<i>n</i> = 32)	36.6 (<i>n</i> = 45)	37.4 (<i>n</i> = 46)

In terms of the students' perceptions of parental engagement, two of the survey items stood out. For survey item number two, "My parents are aware of ways to help me get better grades in school," 74.0% of students in AP courses responded *Strongly Agree/Agree* compared to 81.3% of students not in AP courses responding *Strongly Agree/Agree* to the same item. Conversely, 95.9% of students in AP courses responded *Strongly Agree/Agree* to the item, "My parents encourage me to go to college." This compares to a slightly lower rate of response from students not in AP courses who responded 89.4% *Strongly Agree/Agree* to the same item.

The findings of the two-tailed independent *t*-test suggested class enrollment does not influence students' perceptions of parental engagement, $t(244) = .036$, $p = .972$. Whether one is enrolled in AP courses or not does not necessarily influence his or her perception of parental engagement. The mean score of students enrolled in AP courses ($M = 20.57$) was the same as that of the students not enrolled in AP courses ($M = 20.56$) meaning both students in AP courses and those not in AP courses perceive their parents as supporting their high school experience and post-secondary goals. Table 4.17 shows the findings of the two-tailed independent *t*-test for students' perceptions for the section, Parental Engagement.

Table 4.17

Parental Engagement

Class Enrollment	N	M	SD	t-value	df	p-value
1. AP Students	123	20.6	3.79	.036	244	.972
2. Non-AP Students	123	20.6	3.35			

*Statistically significant ($p < .05$)

Research Question Six

Research question six, *How do students perceive their high school experiences related to course selection, college preparation and planning, and extracurricular activities?*, was answered by performing coding on the data from the participant focus group. Using constant-comparative coding techniques, the codes were organized into meaningful categories and themes (Lichtman, 2010). According to Lichtman, the review of data into codes allows for themes in the data to emerge. The focus group data centered on participants' perspectives on their high school experiences related to course selection, preparation for college and extracurricular activities and the analysis identified three

themes common to all students: (a) course selection and planning, (b) college planning, (c) participation in extracurricular activities.

The themes of college preparation and planning and guidance in course selection explored the relationships students have with teachers, counselors, and other school staff as well as the assistance those staff members provide to the students. The theme of participation in extracurricular activities examined participants' connectedness to the school and the influence that had on their high school careers. The focus group data is presented using the common themes revealed during analysis. Verbatim excerpts from the focus group data provide a deeper understanding of the experiences and perceptions of participants who are enrolled in AP courses and those who are not enrolled in AP courses.

Course Selection and Planning

When discussing college preparation and planning, three categories emerged: (a) assistance with course selection; (b) AP course participation; and (c) peer input. The theme of college preparation and planning explores the guidance the participants received in choosing the correct classes they needed to prepare for their post-secondary goals. Assistance in planning for college includes how staff members provide support and guidance to students in the process of applying for college, financial aid and scholarships.

Assistance with course selection. All nine participants referred to their teachers as a major influence in their course selection. Participant 4, a student enrolled in AP courses stated, "I'd say the teachers are pretty influential in my decisions to take classes." Other participants agreed with this experience stating their teachers encourage them to push themselves and want to see them succeed. Another participant enrolled in AP courses, speaking of selecting courses, said:

I feel like most of my teachers have done this, which is whenever for like science classes almost everything ties in with each other, so whenever there was a unit I was really good at, and interested they'd be like, "Oh, you should take Chemistry, because this is what mainly Chemistry is, and I feel like you'd be good at it. And that's kinda like what I think that really helped me pick my classes." (Participant 3).

Students in AP course as well as those not in AP courses saw their teachers as a positive influence on their success in class. Participant 2, a student in AP courses, added, "The teachers look at your work, look at grading wise, and how if you're struggling in there, like if they think you can handle it (AP coursework). I feel like they really do encourage you to move upwards (to AP courses)." Participant 5, a student not in AP courses, shared, "I agree with the others that they (teachers) want us to push ourselves to become better than we already were when we entered in school, and they just want to see us be successful." Another student echoed the perspective of supportive teachers. Participant 6, a student enrolled in AP courses, reflected, "Like if you are doing really good in an AP class the teachers will tell you that you probably shouldn't level down to another class. She teaches us to keep doing your AP classes."

Although students in AP courses and those not in AP courses seek guidance from their teachers on selecting courses, they do not seek out the same guidance from their counselors. They perceive the counselors as technicians of creating their schedules. Participant 1, a student enrolled in AP courses, reflected, "Counselors usually don't tell you which courses to take, they don't really help I guess. They just kind of put your schedule together." Seven of the participants agreed with this sentiment. Participant 5, a student not enrolled in AP courses, echoed the idea saying, "I have to agree that they (counselors) don't really help you with your courses, they just put it together." One

student enrolled in AP courses shared her perspective on the counselor's role in course selection saying:

When I was signing up for courses my senior year, I put AP Calculus AB on my sheet, but the counselor put me in AP Calculus BC. So I feel like they...I don't think they really talk to you about it or anything (Participant 8).

Four of the students also spoke to the lack of relationships with counselors.

Participant 3, a student enrolled in AP courses, shared, "...I feel like every year that I've been at this school I've had a different counselor. So I've never really gotten to get a better relationship with mine." Participant 6, also in AP courses, reiterated the perspective of not having a relationship with the counselor saying, "For me, during the 10th grade year, I personally didn't even remember who my counselor was, I rarely go there. So they don't really help me that much during my course selection." One participant, a student not enrolled in AP courses, provided a glimpse into a positive relationship with her counselor. The participant shared:

I have a close relationship with my counselor, so then I'll personally go into her if I'm being put into a class, because she does know how I am in class, and how I struggle. So mainly my teachers, they'll help me figure that out, then I go to my counselor and she kind of knows the teachers, and know who emotional, and my attitude, focusing wise how I am. She (counselor) will try to connect me with the teacher (Participant 2).

As evidenced by student comments, they counted on teachers' guidance to help them select courses as they matriculated through high school. The students perceived their teachers as an encouraging and motivating factor and felt the teachers want to see them succeed academically. The belief that teachers want to see them succeed is true for students in AP courses as well as those not enrolled in AP courses. Conversely, the

students did not rely on counselors for course selection assistance. The students generally felt they did not have relationships with the counselors; therefore, the counselors were more technicians helping students when there were issues in their schedules.

AP course participation. Another sub category that emerged from the discussion on course selection is AP course participation. This theme refers to the factors that lead students to select particular courses throughout their high school careers. While students credit their teachers for playing a key role in helping to in general choose the correct courses to help them prepare for their post-secondary goals, other factors helped guide students in choosing courses throughout their high school career. Those factors included the potential to earn college credit and the challenge AP curriculum provides.

The students discussed the opportunities to enroll in AP courses and the factors that influenced their decisions to enroll or not enroll in those courses. All nine participants stated the course selection process at their high school is clear and straightforward. The students agreed in their belief that all students have the opportunity to enroll in AP courses if they choose. Said Participant 1, a student in AP courses, “And yeah, everyone can take an AP class if they wanted, it’s not like, “Oh you can’t take it.” Participant 7, a student not in AP courses, added, “I do feel that everyone has the opportunity to take AP classes...you just get your paper and sign up for it, and kind of what you’re getting into is going be a little more advanced than a regular class.” Participant 9, a student not in AP courses, added, “Yes, everyone has the opportunity. I personally choose not to because I’m not used to that. I’m not used to too much work.”

Participants enrolled in AP courses discussed the factors leading to their decisions to enroll in AP courses versus not enrolling in AP courses; there were no commonalities across the group. However six participants who took AP courses while in high school,

three stated receiving college credit while in high school was a primary part of their reasoning to enroll in class. Participant 1 shared:

I've taken AP courses throughout my whole high school years. AP courses are good for college; you can use that for college credit. You should take them if you can. I guess that's why I just kept taking AP classes, even though they might be challenging sometimes.

Participant 6 shared his opinion of choosing AP courses:

I've taken AP classes, mostly because I already took Pre-AP the majority of my middle school years, and in 9th grade so I was like I might as well go to AP.

Also, I can get college credit so I can pretty much get out of college faster.

Participant 8, who took AP courses throughout her high school career, lamented the fact that she did not receive credit based on her scores on the AP exams, saying, "So I took AP classes all my high school career. I don't even think I passed any exams that I've taken, like the grade to get the credit in college. I don't think I've gotten them." The perspective of this student speaks to the fact that even though students take AP courses, there is not a guarantee they will receive college credit based on their performance on the AP exams.

Participants who elected to enroll in AP classes spoke to the challenge of the AP courses as well as how the AP courses have potentially helped them prepare for the rigors college work. Said participant 6:

I feel like all my AP courses have helped me, because even though I get swamped with a bunch of homework and stuff like that, I manage my time so I was able to do well when I wanted.

Participant 3 reiterated this sentiment saying, "I have taken AP classes, and I feel like I have because always getting in credit for college is a good idea. I also like the

challenge.” Another participant added her perspective on the benefits of taking AP courses. Participant 1 shared:

I’ve taken AP courses throughout my whole high school years, because I think the main reason is since I already started off by taking Pre-AP courses, that was just what I continued to do. And usually, by asking my older cousins, or siblings, or whatever, they would just say, “Oh, AP courses are good for college, like you can use that for college credit. You should take them if you can.” I guess that’s why I just kept taking AP classes, even though they might be challenging sometimes.

Overall, students in AP courses perceived their high school experience prepared them for college by providing high-level work and challenges. Added Participant 4, “If I took regular classes I wouldn’t be pushing myself to where I can be.”

Participants not enrolled in AP classes shared their reasons for not electing to take the college level classes. Participant 7 remarked, “Me, myself, I have never taken an AP class, and I just have a busy life of practice, work, and school already itself, so adding onto that wouldn’t be a good idea.” Participant 5 shared, “I’ve never really taken an AP class, because I usually think too much, and I think it would overwhelm me.”

One participant referred to their own strengths and weaknesses when making the decision not to enroll in AP courses. Participant 2 stated:

I personally have only taken one (AP class), but I dropped that class. Because I feel like some people, when it comes to school, are stronger than others, and some people really aren’t that strong to be able to handle an AP class. Me personally, I think I know I can physically and mentally do it, but the way I am I would rather not take an AP course...right now I’m doing perfectly fine.

Participant 9, who did not take AP courses, shared her perspective on her high school experience. She discussed some of the struggles she had in courses, in fact stating

that she had to regain credit she lost in her junior year. Despite those struggles, she remarked, “High school has helped me prepare mentally, has helped me grow as a person in many ways, emotionally and just physically and everything honestly.” This participant went on to share how some of her teachers have suggest that she take AP courses. When asked why she did not take AP courses, she replied, “I chose not to because I don’t want to stress myself out.” This student represents many students who, based on their high school experiences and their post-secondary goals, do not feel the need to pursue AP curriculum, but feel they are ready for college.

Participant 2 discussed her decision to enroll in a dual enrollment class to earn college credit rather than an AP course:

I’ve never really taken an AP class or anything so this was kind of my challenge at taking a college Algebra class. I was also told that this was a credit we would have to take in college. I was like, “let me get this out of the way right now.” No other participants indicated they took a dual enrollment class. This prompted the question about why students might take AP courses over dual enrollment. The perspectives and reasons varied. Two of participants mentioned dual enrollment classes were fairly new to the school and they were not sure about it. Participant 3, a student who has taken AP courses, said, “I feel like it (dual enrollment classes) was fairly new at our school, I didn’t know much about it, and counselors didn’t really talk much about it.” Other participants discussed various barriers that prevented them from pursuing dual enrollment. Participant 4 discussed the cost associated with dual enrollment saying:

I prefer to take AP over dual credit because of financial reasons. I have free and reduced lunch so I get the AP test for \$7.00, and I feel like I can pass an AP test. So learning over a course, it’d be better financially for me.

Participant 7 added to the discussion of barriers to enrolling in dual enrollment by sharing his experience of not being able to enroll because of application deadlines:

I tried to get into it, I didn't realize that there's a paper and stuff you had to fill out. So when I signed up for it, they said I couldn't be in it, but I wanted to be in it so I can just get that college base.

Participant 8 shared her views on the opportunity to register for dual enrollment by reflecting on her experiences in AP courses and the desire to have different options:

I didn't get into dual credit because I chose AP over dual credit. But now that I look back, I wish I would have taken dual credit classes. Because the AP test thing, I don't know, wasn't really working for me.

Participant 8's perspective of AP tests not working for her speaks to how AP courses may not be the best option if the students are not able to earn the college credit from the AP test.

Participants who enrolled in AP courses spoke to the benefits of a rigorous curriculum in terms of preparation for college. The benefits of the courses along with the potential to earn college credit are strong motivators for students to enroll. Participants not enrolled in AP classes indicated they perceived the courses as more work than they are used to. Although, the students know they can enroll in AP courses if they wish, they elect not to as the potential challenge outweighs the benefits for them. For many students, dual enrollment may serve as an option for college credit. However, at this particular campus, the students need more information on the benefits of dual enrollment such as taking a college level class associated with a local junior college on campus and that there is no test as in the AP curriculum that determines the college credit; rather the students get credit based on the grade in the course. If provided this information, the students can make informed decisions about dual enrollment or enrolling on AP courses.

The relationships with teachers and the feeling of encouragement is important as it gives students a connection to their teachers and school which in turn can improved their academic success.

Peer input. Whether students elect to enroll in AP courses or not, they indicated they rely on their peers' experiences and perspectives when seeking guidance for selecting courses. In speaking of choosing a specific course, Participant 1, a student in AP courses, said, "Before I take a class I always ask people who have already taken it or upperclassmen like, "Oh, was the class hard? Was it easy? Did you learn anything? Before I actually take the class itself." When reflecting on peer influence, another participant not enrolled in AP courses shared:

My peers have truly helped me, throughout high school, since freshmen year to now. They always help me. I always ask about classes that the next grade's going be about. Ask them about the teachers. How they are? Do they teach well or not? I just ask about the class itself, and what they did in that class that help them (Participant 7).

Participant 8 reiterated her perspective on the importance of peer input:

I'm in AP classes, and mostly there's one specific teacher who teaches an AP class. Like for example, Physics is only Mr. X for Physics II. So for people who already had him last year, they would also talk to me like, "Oh, don't take that class". Of for example, for Mr. Y everybody was like, "Oh, you should get him instead of the other teachers." So that would help me chose what classes I should take.

Three participants reflected on an alternative view of peer input. Said Participant 4, a student enrolled in AP courses, "My peers aren't really much of a help at all because they're more STEM based students. They're all Math and Science, and personally, I try

to take more Liberal Arts classes.” Participant 5, who is not enrolled in AP courses, echoed this saying, “I somewhat ask my peers or upperclassmen what they chose, but I don’t really do that often. I just try to see what I’m good at, and I just go for it. Additionally, Participant 9, who is not enrolled in AP courses, discussed her experience with peer guidance, saying, “My best friend, she helps me a lot because she takes AP classes. And so she tells me what’s best or she tells me “Don’t take this class because it’s going to be really hard for you.”

One participant, a student in AP courses, reflected on how the teachers provide information about their classes by having students visit classes and share what the class is like:

In the past years we’ve had students that have taken the class that year come and talk to us about her experience and if they liked it or didn’t like it. And why they would recommend or not recommend you take it. I feel like that really helped me decide if I should take those classes (Participant 3).

Peer input is important to students both enrolled in AP courses and for those not enrolled in AP courses. The students’ statements indicate a reliance on upperclassmen and peers to learn more about a particular class or teacher. The students tend to use the information from their peers to make decisions about specific courses or teachers. What is not evident from the students’ statements is whether or not their peers encourage to take AP courses if they have not before.

College Planning

In terms of assistance in planning for college, the students unanimously agreed the college and career advisor, Ms. Howard (pseudonym), was instrumental in guiding them through the process of applying for college, navigating financial aid, and applying for scholarships. When speaking of the college and career advisor’s importance to the

college application process, Participant 4 shared, “The counselors have been sort of helpful, but it’s Ms. Howard who’s been on it. Honestly, I don’t know what I’d do with her, her and college.” Other participants echoed the help Ms. Howard provided. Participant 7 shared, “...Ms. Howard has been holding my hand the whole way through. She’s helped me with getting accepted, scholarships, getting my name out there, everything. It was all her.” Another participant added their perspective related to the support of the college and career advisor:

...It’s mainly Ms. Howard, she called me in...gave me a deadline thing, that I should have my applications done by Thanksgiving. She gave me a checklist, and I did everything. She’s always sending me emails about scholarships to apply to. (Participant 8).

Two participants, one in AP courses and one not in AP courses, shared their experiences of starting the college application process late, wishing now they were made aware of certain things earlier. Participant 4, a student in AP courses, reflected:

I feel like the college application process is...It was in complete disarray for me. But then Ms. Howard kind of lined everything up and just made it a simple step-by-step process. But I just wish I was kind of introduced to all of it, a little before senior year.

Participant 5, a student not in AP courses, agreed, saying, “I agree with Student 4 that if I was introduced to this a little bit before senior year, like junior/sophomore year, I would have at least gotten used to what was going on.” Based on the student comments, the college and career advisor plays a vital role in helping students navigate the college application process. This is true for both students enrolled in AP courses and those not enrolled in AP courses.

The students spoke to the importance of the college and career advisor in planning for college. They emphasized how she made the process simple and manageable for them to navigate. The college and career advisor also assisted students in finding and securing scholarships, which for some students is essential in helping financially plan for college. The students did discuss the importance of understanding the process and how in some cases, they wished they would have known more about the college application process earlier in their high school career.

Extracurricular Activities

A key element to a student's high school experience is involvement in extracurricular activities (Knisfeld & Graham, 2011). The participants discussed the various activities they participated in throughout their high school careers. The involvement in extracurricular activities provides students with opportunities to build more social capital and a larger social network by interacting with different groups of students. This is important for many students as they will need these social skills to engage in college coursework and social life. Four of the participants discussed how their various activities allowed them the opportunity to meet new people. Participant 9 said, "Participating in clubs made me interact with a lot of people from different cultures, different everything." Participant 1 added, "One of the clubs I've done was Health Occupations Students of America (HOSA)...I've met a lot of people and we've gotten really close." The skills these students have learned through their participation in clubs may be beneficial to them when they get to college.

Additionally, the involvement in extracurricular activities gave the participants a sense of being part of something bigger than themselves. Reflecting on this, participant 4 shared, "I'm happy because I am part of something now, it's something bigger than myself, and I can just go here to meet...I met so many new people. It's exciting."

Participant 6 added, “Those (clubs) impacted me, because I was able to meet new people, and stuff like that. And learn, and socialize, meet people who have the same interest that I do.” Discussing her extracurricular involvement, participant 8 reflected, “I feel like joining clubs it is like I belong to some group. It has opened me up throughout my high school experience.” The students not only benefit from the involvement in a club or organization that is bigger than them, it provides them the opportunity to be more connected to their school. Students experience this connectedness through school by building stronger relationships with peers and teachers. It can increase their social capital and network thereby giving them more tools to use as they matriculate to their post-secondary experiences.

Two participants also discussed the ability to perform community service as part of their extracurricular experience. Participant 7 reflected, “We do community service about three times throughout the season. We do Special Olympics, help out that (Special Olympics) a lot, something big we do.” Participant 6 added, “And also...we do volunteer hours, stuff like that. Those showed me to give back to my community for all the things that they’ve done for me.” The participation in community service through extra curricular activities benefits students in that it helps them maintain a competitive edge in the college application process. The idea of the competitiveness of college application process is not always connected to students’ level of college readiness; however, with participation in extracurricular events and community service, students are more able to speak to these experiences in essays and application processes.

Involvement in sports as an extracurricular activity was mentioned as a key reason participant 7 is going to college. He stated, “I’m the sports guy here so obviously cross-country and track are a big impact on my life. I enjoy those and I plan on continuing doing those in college.” Two other participants related their extracurricular experiences

to their career goals. Participant 1 reiterated, “One of the clubs I’ve done was HOSA, because I want to be in health care when I graduate from college. That is one reason why I took that club.” Participant 3 added:

I’ve been in HOSA and that has been a really good experience for me because I’ve got a lot to learn. We actually went on clinical rotations for a year and I really have got to learn a lot and get the necessary skills I need, so that’s been good.

Several of the students spoke to the positive experiences they had participating in extracurricular activities. The experience of participating in extracurricular activities can have a negative effect for some students. Participant 2 shared an alternative perspective on extracurricular involvement. She stated:

I’ve been doing cheer since freshmen year. This is the year that I’m not doing any activities, but the three years that I did do it here, it was very stressful on me with school. There was a lot of drama so that really affected it. My school world went down. It really wasn’t that good, but now that I’m not on the cheer team, it’s been one of the best years.

Participation in extracurricular activities provides students with a deeper connectedness to school. They have the opportunities to develop relationships and social networks with teachers and students with whom they may not normally interact. The ability to build their social network while participating in an extracurricular activity helps to prepare students for college by giving them the skills to navigate new situations. Additionally, by performing community service and being part of a group that is bigger than themselves, they develop a sense of empathy for others. These interpersonal skills are an important element in preparing students for college.

Summary of Findings

The purpose of this study was to examine the social capital of students and the students' perceptions of their high school experiences related to college readiness. *The High School Follow Up Survey* was completed by 246 students enrolled in both AP courses and non-AP courses. Quantitative analysis was completed for data on the survey for research questions one through five.

Research questions one through five were answered using descriptive statistics of frequencies and percentages as well as independent t-tests to examine students' perceptions of in the areas of: (a) attitude toward college, (b) teacher expectations and interactions, (c) college readiness, (d) school wide support, and (e) parent engagement. Based on the frequencies and percentages from the descriptive statistics, whether students are enrolled in AP courses or not, they feel strongly that they will go to college. Students agree they believe that everyone has a chance to go to college.

The majority of students, regardless of their enrollment in AP or not, feel the teachers have high expectations for them. However, students not enrolled in AP courses feel their teachers did more to help them through their high school experience. In terms of college readiness, a significant discrepancy exists between students in AP courses and those not in AP courses about the importance of taking the college level curriculum. Students not in AP courses also perceive they are not always encouraged to enroll in AP courses. College readiness is the only category where there is a significant mean difference based on the independent t-tests. The independent t-tests showed there is a significant mean difference between students in AP courses and those not in AP courses in terms of college readiness.

The students reported they feel supported at their school and agree their high school creates a culture that encourages college as a post-secondary goal. However, there

is some difference in perception between the students in AP course and those not in AP courses in the opportunities to prepare for college. In terms of parental engagement, the participants all reported their parents were supportive and encourage them to do well in school. There is a slight discrepancy in the perception of students not enrolled in AP courses when it comes to their parents' level of encouragement to attend college. Their responses showed their perspective is parents provide less encouragement compared to the responses of their counterparts enrolled in AP courses.

Qualitative analysis was used to address the last research question. The qualitative data consisted of focus group data from nine students who completed the High School Follow Up Survey. The qualitative data showed students, regardless of their enrollment in AP courses have a positive view of their high school experience. The students consider their teachers as a major influence in their high school career when it comes to choosing classes. They also feel their teachers encourage them to do their best and want to see them succeed. Peer input is also a major influence on the students when selecting classes. The students count on their peers' firsthand knowledge of a class or teacher before selecting particular courses.

The students unanimously credit the college and career advisory for information and preparation on applying for colleges, financial aid, and scholarship. They recognize this staff member has helped them immensely in making sense of the college application process. Counselors however are not seen as helpful in either course selection or college planning. The students acknowledge that very few of them have close relationships with their counselor, therefore, they do not seek out guidance from them.

As students plan for their post-secondary goals, course selection is a key element. The students recognized that all students have the opportunity to enroll in AP courses if they choose. They spoke to various reasons for enrolling in AP courses or not enrolling

in AP courses. The idea of receiving college credit in the AP class and challenging themselves, are the main factors for choosing AP classes. For students who do not elect to take AP classes, they spoke to their own strengths and weaknesses as a reason not to take the college level classes. Extracurricular activities added to students' school experience by providing them an opportunity to increase their peer and social networks. Additionally, students are often able to take advantage of extracurricular activities that align to their postsecondary goals. This provides them a platform to launch in to college with interpersonal and time management skills.

Conclusion

In conclusion, this study examined the social capital of students and the students' perceptions of their high school experiences related to college readiness. The student data presented in this study does provides evidence that students perspectives of their attitude toward college, of teacher expectations and interactions, school wide support, and parental engagement vary depending on whether or not one is enrolled in AP courses or not. Only in the area of college readiness to students enrolled in AP courses feel as though their opportunities are more than those of students not enrolled in AP courses. Data from the student focus group supports the conclusion students' do not perceive their high school experiences differently based on their enrollment or non-enrollment in AP courses. The data supports the need to consider and use strategies to identify underrepresented students who have potential to take and be successful in AP and encourage them to register for the course. The data also supports providing various supports for the students to be successful in AP courses. Chapter V discusses the findings of this chapter as they align with literature from Chapter II, along with the implications of these findings and recommendations for future research.

CHAPTER V

SUMMARY, IMPLICATIONS, AND FUTURE RESEARCH RECOMMENDATIONS

The exposure to Advanced Placement curriculum or other rigorous college preparatory curriculum is the strongest predictor of students' post-secondary success. Often times however, traditionally underrepresented students do not take advantage of the AP curriculum (Bernhardt, 2013). It is vital for schools to take initiative to increase underrepresented students' enrollment in AP courses to extend an equitable level of access to AP curriculum for all students (James, Butterfield, Jones, & Mokuria, 2017). One of the important aspects in providing the opportunity for students to take AP courses is information and education for both students and their parents on the benefits of participation in AP curriculum (Richardson et al., 2016). The benefits of taking AP curriculum include the exposure to rigorous curriculum and the opportunity to earn college credit. Earning college credit provides added financial benefits for families as it can decrease the time students spend in college (Cisneros, et al., 2014). Information and education about the AP program allows students and parents to make informed decisions that meet their post-secondary goals. High schools that work to intentionally create a college going culture assist traditionally underrepresented students to understand and explore the options beyond high school (Bryan et al., 2017). Creating a college-going culture provides the opportunity for students to expand their social capital and networks that in turn allow them to navigate college preparation and the college application process (Stillisano et al., 2013).

This chapter presents the summary, implications, and recommendations for future research of this topic. During November 2017, data were collected for the quantitative portion of the study from matched sample 246 students in the high school participating in this research study. The sample included 123 students enrolled in AP courses and 123

students who were not enrolled in AP courses. Additionally, during December 2017, a focus group was conducted with nine students who completed the survey used in this study. The focus group consisted of 12 questions, which provided the data source for the qualitative research portion of this study. The focus group lasted approximately 56 minutes and took place in a conference room of the school. Nine students who completed the survey participated in the qualitative portion of the study. Male participants comprise 55.6% ($n = 5$), while female participants comprised 44.6% ($n = 4$) of the sample. The race/ethnicity of the focus group was African American 33.3% ($n = 3$), Asian 33.3% ($n = 3$), and Hispanic 33.3% ($n = 3$). Of the students in the focus group 33.3% ($n = 3$) were not in AP courses, while 66.7% ($n = 6$) were in AP courses.

Summary

The first five research questions addressed student social capital and the students' perceptions of their high school experience in the areas of: attitude toward college, teacher expectations and interactions, college readiness, school wide support, and parental engagement. The results of the quantitative data analysis found there was not a statistically significant mean difference in students' perceptions in four of the five research questions. Only in the area of college readiness did a statistically significant mean difference exist. Question number six utilized student focus group data to develop insight to the students' perceptions of their high school experience related to course selection, college planning, and extracurricular activities.

Research question one asked how students perceived their attitude toward college. The quantitative analysis showed there is not a significant difference between the AP student group and the non-AP student group. Descriptive statistics showed overall the students in both the AP group and the non-AP group indicated they expect to go to college. The students agreed in the belief everyone has the opportunity to go to college.

These results support research regarding building a college-going culture in high schools. Bryan et al. (2017) and Stillisano et al. (2013) found that schools who create a culture of high expectations of students to attend college and have staff members who engaged in college based conversations with students positively impacted all students' attitude toward college. This is congruent with research from Martinez and Everman (2017) who expanded the discussion to include the importance of the role of the principal in creating a college-going culture through empowering staff to teach at high levels as well as creating an atmosphere of high expectations for students and staff.

The findings of this study support research by Palardy (2015) who examined the socioeconomic status of schools. Palardy's research found school practices often limit students' access and ability to engage in college preparation activities. This is especially true for schools with high levels of students identified as economically disadvantaged. Additionally, Hill, Bregman, & Andrade, 2015 found students' access to social capital influences their attitudes toward college.

Research question two asked how students perceived their teachers' expectations and interactions. Quantitative analysis demonstrated there is not a significant difference between the two student groups. Based on descriptive statistics, the students in both the AP group and the non-AP group perceived their teachers care about them and have high expectations for them. The students indicated that regardless of whether they enrolled in AP courses or not, their teachers wanted to see them succeed. This dynamic emphasizes the importance that teacher expectations play in creating an environment supporting underrepresented students in their academic preparation for college (Tomlinson & Jarvis, 2014). The findings in this study expand the research from Siegle et al. (2014) that supported the concept students are more motivated by teachers who they knew genuinely cared about them. This motivation and care from the teachers translated to increased

success for students. This finding is consistent with that of Rooda et al. (2017) that found student engagement and achievement are directly related to positive student teacher relationships.

Research question three asked students' perceptions of their college readiness. Quantitative data analysis demonstrated there is a significant difference between the two student groups. Descriptive statistics showed students not enrolled in AP classes indicated they are not aware of the importance of taking AP classes. Conversely, students in AP classes understand the benefits of participating in AP classes while in high school. Furthermore, students not in AP classes feel they have not been encouraged to take AP classes. This confirms research by Clark et al. (2012) which stated helping students understand how to maximize their academic potential will help bridging the opportunity gap in underrepresented students' participation in AP courses. Richardson et al. (2016) examined the use of the AP Potential Report coupled with educational components for students and parents as a way to increase opportunities for underrepresented students to engaged in AP courses. The findings in this study emphasize research which found when schools intentionally build more social capital for students, the students experience increased levels of academic achievement and college readiness for students (Salloum et al., 2017). The findings in this study support Hallett and Venagas (2011) research that found underrepresented students will participate in AP courses when they have the opportunity.

Research question four asked students' perceptions of school wide support. Quantitative data analysis determined there is not a significant difference between the two student groups. Based on descriptive statistics, the students indicated they feel welcome and supported at their school. This feel being welcomed and supported is true for both the AP student group and the non-AP student group. However, the students not

enrolled in AP classes do perceive a difference in opportunities to participate in AP classes. The students in AP classes indicated they understood the benefits and opportunities AP classes provide. This reality contradicts findings from Venzant-Chambers and Huggins (2014) which stated schools with a welcoming environment tend to have higher rates of underrepresented students enrolled in AP courses. Dockery and McKelvey (2013) found that students not enrolled in AP courses, especially traditionally underrepresented students, do not feel they get the same level of support in course selection and college planning as their peers in AP courses which supports the findings in this study. Connectedness and support in school extends to participation in extracurricular activities. The finding in this study align to research which found when students participate in extracurricular activities, they are more connected to their peers and experience more academic success (Gibbs et al., 2014; Knisfeld & Graham, 2011).

Research question five asked how students perceive parental engagement. The quantitative data analysis determined there is not a significant difference between the two student groups. Additionally, according to descriptive statistics, all students feel their parents are aware of how to help them in school. Students not enrolled in AP classes perceive the same levels of encouragement from their parents to attend college as their counterparts in AP classes. These findings are supported by Wilder (2014) stating that parental involvement has a positive impact on student achievement. Reynolds et al. (2015) and Dotterer and Wehrspann (2016) also found the connection between parent involvement and student achievement. Additionally, parents who are involved in their child's create a stronger feeling of relatedness in their child and which builds their level of self-confidence. All of which lead to higher levels of achievement. (Dotterer & Wehrspann, 2016).

Research question six asked about students' perceptions of their high school experience related to course selection, college planning, and extracurricular activities. Overall students perceive a positive high school experience regardless of whether they are enrolled in AP classes or not. The students in this study overwhelmingly credit their teachers and the college and career advisory for guiding them through course selection decisions and the college application process. According to the students when they feel a connectedness to their teachers and have positive working relationships with them, they inherently want to succeed in those teachers' classes. This aligns to research from Siegle et al. (2014) that found students were motivated to succeed by teachers who they knew truly cared for them and wanted to see them succeed. Student focus group data indicated students did not feel their counselors helped them plan for courses to prepare for college; nor did they have enough information on how to apply for college. These results are supported by research indicating the significance counselors play in supporting underrepresented students. Dockery and McKelvy (2013) found that the perceived lack of support from counselors can negatively impact student perceptions about preparation and information for college. Students also credit participation in extracurricular activities for helping to create a positive high school experience. This statement is supported by research from Knisfeld and Graham (2011) that found when students participate in extracurricular activities, they feel a greater sense of connectedness to their school.

Implications

Despite the limitations of this study, the findings have important implications for school administrators and teachers. Schools must be cognizant of the disparity in participation of underrepresented students in AP courses or other college preparatory curriculum and implement strategies to help bridge the opportunity gap (Kerr, 2014). Exposure to AP curriculum is a significant predictor of a students' college readiness and

success (James et al., 2017). Chapman et al. (2014) found many factors contributing to decreased participation of underrepresented students in AP courses. Those factors included: course availability, lack of involvement in extracurricular activities, academic tracking, and an overall connectedness to school. Additionally, school officials are often not aware or do not understand cultural implications affecting student performance and their involvement in AP courses (Chapman et al., 2014).

To mitigate these factors schools must seek strategies to engage and encourage underrepresented students to participate in AP courses. One strategy to encourage underrepresented students to participate in AP courses is to implement an open enrollment policy for AP courses. An open enrollment policy allows students to enroll in AP courses based on their interests and goals. An open enrollment policy lessens the ability for teachers and staff to implement arbitrary barriers for students based on their own biases, experiences or other criterion based systems (Barnhardt, 2013a). Schools must review data to develop a strategic plan to identify, recruitment, and education student and parents on the benefits of participating in AP courses. This strategic plan allows for school staff to build a comprehensive profile of students who are not taking advantage of the AP curriculum and subsequently develop structures and supports to encourage underrepresented students to participate in AP courses.

One data point for schools to consider in concert with open enrollment is the AP Potential Report based on the PSAT test. The AP Potential Report helps identify students who have the potential to excel in AP curriculum, but have not taken advantage of the opportunity to participate in AP curriculum. The use of the AP Potential Report coupled with student interests and academic planning provides the platform for students new to the AP curriculum to focus on an area of strength. A third layer to the open enrollment policy is the educational component for students and parents about the opportunities and

benefits of AP curriculum. Oftentimes, traditionally underrepresented students and their parents do not have the social capital or network and have not been exposed to the benefits of AP curriculum. Therefore, they are not aware of the opportunities provided their students to participate in the courses, the benefits related to college readiness, and the potential for the student to earn college credit.

It is important however, that when identifying and engaging more students in AP curriculum, the fidelity and rigor of the curriculum remain at the expected levels of the College Board. One strategy to support students and staff in maintaining high levels of rigor is to implement a well-developed systemic program such as Advancement Via Individual Determination (AVID). The AVID program identifies traditionally underrepresented students and provides supports for them through study skills, organization skills, as well as teaching critical reading and writing skills through an AVID elective class (Barnhardt, 2013). Additionally, the AVID program aids schools in creating a college going culture by expanding the study skills, organization skill, and critical reading and writing skills to all classes throughout the campus. Through AVID, teachers are trained on critical reading and writing skills that allow them to increase the rigor in all classes. This provides for students to receive the high level of instruction in each class.

Students new to AP curriculum often struggle and find the curriculum difficult to navigate. With a growing population of diverse learners in AP curriculum, teachers need the skills and strategies to differentiate and scaffold the curriculum for some students. Therefore, schools must provide training for teachers to differentiate the learning and scaffold the learning experiences for students. Schools must prioritize funding to train teacher in meeting the needs of diverse learners in AP courses. However, in order for

students to reap the benefits of exposure to the AP curriculum, the rigor must remain high.

To support a high quality AP program, schools must adequately fund for appropriate staffing and training of teachers. The funding for staffing assists in ensuring the AP course offerings are diverse and meet the needs, interests, and goals of the students. Teacher training in AP curriculum through College Board is another important support for staff in preparing them to meet the needs of a diverse group of students. This high level training provides teachers with the skills and strategies to extend the level of rigor in the courses. Through the College Board training, teachers also gain strategies to help students prepare for the AP Exams.

Strategic curriculum planning and vertical alignment through work in professional learning communities is a vital part of creating the atmosphere of high expectations and teacher support required to build a college-going culture. The process of participating in collective inquiry through analysis of current realities of the strengths, weaknesses, opportunities, and threats that exist at the campus allows stakeholders to engage in the strategic planning process to build systems and structures that support all students in succeeding in AP courses. Data from the AP Potential Report, teacher created assessments, and other data points provides staff the necessary tools to examine the needs of the students as well as the needs of the AP program as a whole. Engaging in collective inquiry and strategic planning allows the campus to create a vision of college readiness for students. This vision gives schools the path to develop and implement a strategic plan internal systems and structures to support students in obtaining high levels of college readiness.

Internal systems and structures that support students must include a structured tutorial program and a mentor programs to assist students. Structured tutorials and

mentors are an invaluable asset for all students, but particularly those who are new to AP courses. The tutorials or mentors help to mitigate some of the unintentional barriers that exist for students who are new to the AP curriculum by teaching them study skills and helping to narrow any gaps in knowledge that might prevent students from attaining maximum achievement. Additionally, structure supports and mentors aid in create a welcoming and supportive environment for all students which is important to establishing a feeling of school connectedness for underrepresented students. This connectedness gives creates an environment where students are more likely to enroll in AP courses (Venzant-Chamber & Huggins, 2014).

The strategic planning process extends beyond the high school to include elementary and middle school curriculum and programming. Identifying students in elementary school who have the potential to navigate rigorous curriculum allows students to build critical thinking skills from a young age. Those critical thinking skills provide students with the tools necessary to matriculate through rigorous curriculum throughout their school career. Elementary schools must also consider programs to expose students to rigorous curriculum and critical thinking. These programs may take the form of implementing magnet schools or academies for elementary schools that allow for implementation of elements of AP curriculum and critical thinking experiences. One critical piece for decision makers to consider for underrepresented students in a focus on early literacy programs. Providing underrepresented students access to strong early literacy programs allows the students a platform for success throughout their school experience.

Building vertical teams to align middle school and high school curriculum provides a powerful curricular base to ensure the content is relevant and is rigorous throughout a students' matriculation through their secondary school experience.

Additionally, it is important schools to extend their data collection and review to college persistence data. This allows a longitudinal view of how graduates progress in their post-secondary options. It helps to answer questions of students' success in post-secondary paths, their resiliency, and to identify students who did not successfully navigate their post-secondary experience. The awareness of the students' college or career experiences after high school helps direct the continuous improvement process of the strategic planning so that schools or districts constantly improve their vertical alignment and curricular base leading to a strong college readiness program. It can also be argued that preparation for underrepresented students to participate in rigorous curriculum should begin in early elementary school with early literacy programs. Schools that prioritize early literacy for underrepresented students set the stage for students to engage in rigorous curriculum throughout their school career.

Perhaps the most powerful element of a strategic plan to increase and improve AP numbers is to build a college-going culture. A college-going culture establishes the tone on a campus of high expectations and supports for college and career readiness. Campuses that establish a strong college-going culture increase the awareness of options available to students after graduation. When schools create a college-going culture, they provide the platform to educate students of the various options available to them after high school.

Guidance counselors or a dedicated college and career advisor are critical stakeholders in this process; however, campus and district leaders must prioritize time for counselors or college and career advisors to spend with students to discuss their academic path of study. Oftentimes, the counselor to student ratio is such that counselors do not have ample time to invest in truly understanding student goals. The addition of college and career advisor role to campus staff provides an addition person or persons to guide

students through the college application process. This could include help in choosing classes aligned to their goals. The guidance counselors and college and career advisors must then work in concert to provide students access to the social capital and resources needed to navigate course selection and the college application process. In order to prioritize time for these key staff members, funding must be prioritized to provide adequate staff to ensure effective counselor to student ratios.

The college-going culture must not stop with students. Parents must be involved in conversations around the needs of their children related to their post-secondary goals. As mentioned above, parents of traditionally underrepresented students often do not have the information or education about the benefits of engaging in the AP curriculum. The same parents often do not understand or have the social capital to help their children navigate the college application process; whether that be for a two-year school, a four-year school, or a vocational school. Providing parents with information and supports about the ACT or SAT tests, applying for financial aid and scholarships creates a partnership with the parents and the school that helps students gain a better understanding of their options after high school.

In order to establish a strong college going culture with adequate counseling staff and college and career advisors, schools or districts must prioritize funding to support this endeavor. The recent implementation of college readiness standards speaks to need to maximize staffing in counseling and in the classroom so that students are exposed to high levels of curriculum and have the supports needed to reach high levels of college readiness. This need to maximize funding and staffing presents challenges for schools and districts in that school funding in Texas is currently not meeting the needs of all districts. Therefore, schools and districts must seek grants, partnerships, and other

funding sources so that they are able to meet the needs of their students and build strong college-going cultures.

Ultimately one of the most significant drivers of support a more inclusive AP program is funding. Whether that funding supports a program such as AVID, training for teachers, or staffing to ensure programmatic needs are met, schools and districts must prioritize the effort. In order to prioritize and maximize funding, schools and district must undergo a strategic planning process to ensure the needs of the students, staff, and school are met.

Funding cannot be increased without support from policy makers at all levels: district, state, and federal. Educators must advocate for funding sources to allow for multiple levels of support for students and teachers. One method in Texas for policy makers to consider is to extend the funding for the high school allotment through the Texas Foundation School Program. This would generate additional funds for high schools to acquire resources, training, and staffing to support AP programs and college readiness efforts. Additional funding directed toward staffing could allow districts and campuses to staff middle schools and high schools with college and career advisors to work in concert with guidance counselors in assisting students with developing their courses, goals, and plans post high school. District policy makers must also consider various funding sources to allow for rigorous program support in elementary and middle school. The alignment of funding through K-12 education is vital for policy and decision makers to consider in order to provide a platform for underrepresented to access rigorous curriculum and college preparation activities.

Recommendations for Future Research

Several recommendations are suggested for future research. First, a study should be conducted focusing on the enrollment of underrepresented students in academically

rigorous programs in elementary school and pre-AP courses in middle school. The study should focus on how students are identified early on and how they are informed about Pre-AP or AP courses. Additionally, the study should examine those students' matriculation to AP courses in high school. Access to rigorous and challenging curriculum can make a difference in academic achievement of students (Darling-Hammond, 2010).

Second, a study to further examine student choices between AP courses and dual enrollment courses. The focus of the study should focus on the knowledge of staff and students on the benefits and barriers to dual enrollment compared to those of AP courses. A study of this nature could help inform district and campus decision makers on the need to implement or expand dual enrollment options for students.

A third recommendation is a study focusing on how systematic support systems are implemented in schools would be beneficial as it could identify strategies and systems that are successful and provide guidance in how to replicate those systems. One of the supports and systems to further examine is the role of college and career advisory. The study could provide understanding on how to maximize and replicate the work of the college and career advisor on high school campuses. The study could examine specific supports students need to understand the benefits of participating in AP courses as well as navigating the college application process. The study could provide insight on how to develop and implement those supports to aide underrepresented students in overcoming factors limiting their participation in AP courses.

A final recommendation would be to conduct this study with modifications either on a different campus with similar demographics or a campus with less diverse population and/or more students identified as underrepresented. Conducting this study again in a different setting would allow the opportunity for more students to complete the

survey in order to get a more well-rounded picture of the students' perspectives. In a second study, further depth could be developed of the difference in perspectives between students enrolled in AP courses and those not enrolled in AP courses.

Conclusion

A student's experience and connections to school play a vital role in their attitude toward college and their level of college readiness (Jarsky, McDonough, & Nunez, 2009). Cisneros et al. (2014) argued that underrepresented students who have exposure to the AP curriculum are more likely to persist in college at rates comparable to their non-minority, high-income counterparts. Additionally, Hallett and Venegas (2011) found students with access to AP curriculum matriculate through their post-secondary experience with less struggle than their peers who did not participate in AP curriculum.

It is incumbent on schools and districts to provide an equitable educational and academic experience for students as it relates to their access to college readiness curriculum (James et al., 2017). Schools that recognize the underrepresentation of minority students in AP courses must develop systems and supports to engaged and assist the students in accessing AP curriculum. When those systems and supports are implemented, schools often see an increase in the enrollment of underrepresented students in AP courses. The students also experience an increase in their success in AP courses (Holland, 2015). To provide equitable access, it is imperative that schools create a welcome and supportive environment with high expectations of students in order to engage more underrepresented students in AP courses (Tomlinson & Jarvis, 2014). Additionally, schools and districts must engage in strategic planning to develop a systematic and structured plan to engage, recruit, and educate underrepresented students on the benefits of taking AP courses. Once the students engage in AP courses it is paramount to have systematic supports in place for underrepresented students to aid in

closing the opportunity gap. Schools and districts must prioritize funding so that campuses have the necessary resources to build a college going culture and provide adequate AP offerings. Proper funding will allow for teachers to have valuable training on maintaining rigor as well as differentiation for new AP learners.

The identification, engagement, education and support of underrepresented students who are not participating in AP curriculum is an important process for schools to undertake. Schools are the agents to help students access more social capital which leads to more underrepresented students engaging in rigorous curriculum. With increased social capital, the students are also able to understand and navigate the college application process. The exposure and access of students to AP curriculum allows students to be more prepared for college by creating a greater platform to pursue future aspirations. For many underrepresented students, the access to more social capital, rigorous curriculum, and post-secondary opportunities changes the trajectory of not only their future, but the future of their family.

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APPENDIX A
SURVEY COVER LETTER



March 2017

Dear Student:

Greetings! You are being solicited to complete a surveys regarding students' perceptions of college readiness and preparation while in high school. The purpose of this survey is to examine the perceptions of students towards the preparation and support they received regarding taking Advanced Placement courses. The data obtained from this study will provide useful information regarding improving the supports and college preparation all students receive.

Please try to answer all the questions. Filling out the attached survey is entirely voluntary, but answering each response will make the survey most useful. This survey will take approximately 20-30 minutes to complete and all of your responses will be kept completely confidential. No obvious undue risks will be endured and you may stop your participation at any time. In addition, you will also not benefit directly from your participation in the study.

Your cooperation is greatly appreciated and your willingness to participate in this study is implied if you proceed with completing the survey. Your completion of the *High School Follow-Up Survey* is not only greatly appreciated, but invaluable. If you have any further questions, please feel free to contact Dr. Michelle Peters or myself. Thank you!

Sincerely,

Jennifer Roberts, M.Ed

APPENDIX B

INFORMED CONSENT TO PARTICIPATE IN RESEARCH

You are being asked to participate in the research project described below. Your participation in this study is entirely voluntary and you may refuse to participate, or you may decide to stop your participation at any time. Should you refuse to participate in the study or should you withdraw your consent and stop participation in the study, your decision will involve no penalty or loss of benefits to which you may be otherwise entitled. You are being asked to read the information below carefully, and ask questions about anything you don't understand before deciding whether or not to participate.

Title: Closing the Advanced Placement Opportunity Gap in Traditionally Underrepresented Students

Student Investigator(s): Jennifer Roberts, M.Ed.

Faculty Sponsor: Michelle Peters, Ed.D.

PURPOSE OF THE STUDY

The purpose of this research is to examine how school policies related to course selection, school connectedness, and student and teacher perspectives influence the participation and success of traditionally underrepresented students (African American, Hispanic, and/or Economically Disadvantaged) in AP courses.

PROCEDURES

The research procedures are as follows: Students in 12th grade who are enrolled in English IV will be solicited for the survey. You will be asked to complete an on-line survey (approximately 30 minutes) about your perceptions of your high school experiences related to college readiness. Some participants (approximately 20 – 30) will be asked to participate in a focus group (approximately one hour) to answer more questions about your high school experiences related to college readiness.

EXPECTED DURATION

The total anticipated time commitment will be approximately 30 minutes for the survey and if you are selected for a focus group, another hour. Clarifying and/or follow-up questions during the data analysis may be needed. The timeframe for participation is the Fall Semester of 2017.

RISKS OF PARTICIPATION

There are no anticipated risks associated with participation in this project.

BENEFITS TO THE SUBJECT

There is no direct benefit received from your participation in this study, but your participation will help the investigator(s) better understand the factors that help or hinder

students' participation and success in AP courses and methods to help more students benefit from AP courses.

CONFIDENTIALITY OF RECORDS

Every effort will be made to maintain the confidentiality of your study records. The data collected from the study will be used for educational and publication purposes, however, you will not be identified by name. For federal audit purposes, the participant's documentation for this research project will be maintained and safeguarded by the Jennifer Roberts, for a minimum of three years after completion of the study. After that time, the participant's documentation may be destroyed.

FINANCIAL COMPENSATION

There is no financial compensation to be offered for participation in the study.

INVESTIGATOR'S RIGHT TO WITHDRAW PARTICIPANT

The investigator has the right to withdraw you from this study at any time.

CONTACT INFORMATION FOR QUESTIONS OR PROBLEMS

The investigator has offered to answer all your questions. If you have additional questions during the course of this study about the research or any related problem, you may contact the Student Researcher, Jennifer Roberts or the Faculty Sponsor Michelle Peters Ed. D.

SIGNATURES:

Your signature below acknowledges your voluntary participation in this research project. Such participation does not release the investigator(s), institution(s), sponsor(s) or granting agency(ies) from their professional and ethical responsibility to you. By signing the form, you are not waiving any of your legal rights.

The purpose of this study, procedures to be followed, and explanation of risks or benefits have been explained to you. You have been allowed to ask questions and your questions have been answered to your satisfaction. You have been told who to contact if you have additional questions. You have read this consent form and voluntarily agree to participate as a subject in this study. You are free to withdraw your consent at any time by contacting the Principal Investigator or Student Researcher/Faculty Sponsor. You will be given a copy of the consent form you have signed.

Student's printed name: _____

Signature of Student: _____

Student's Parent printed name: _____

Signature of Student's Parent: _____

Date: _____

Using language that is understandable and appropriate, I have discussed this project and the items listed above with the subject.

Printed name and title: _____

Signature of Person Obtaining Consent: _____

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)

APPENDIX C

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 D
FOCUS GROUP QUESTIONS

1. What are your plans after you graduate from high school?
2. How have you prepared for those plans?
3. What areas do you still have questions about to be more prepared for your post high school plans?
4. What is the course selection process like at your high school? Does everyone have the opportunity to take AP courses?
5. Where do you get information on course selection and which courses to take?
 - a. How have your teachers helped you choose your courses in high school?
 - b. How have your counselors help you choose your courses in high school?
 - c. How have your peers help you choose your courses in high school?
 - d. How have your parents help you choose your courses in high school?
6. Why or why have you not taken AP courses?
7. What type of conversations have your teachers, counselors, peers, and parents had to discuss graduation plans with you?
8. How have you been involved in extracurricular activities while in high school?
How has that impacted your high school experience?