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by

Matthew Campbell

August 2018

EXPLORING TEACHER PERCEPTIONS OF UNDERREPRESENTED STUDENTS
IN ADVANCED PLACEMENT CLASSES

A Doctoral Thesis Presented to the
Faculty of the College of Education
University of Houston

In Partial Fulfillment
of the Requirements for the Degree

Doctor of Education

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Abstract

Background: Across the country, Advanced Placement® (AP®) course demographics are drastically different than the populations of the whole school. While action has been taken by the College Board to expand access and ensure potential to succeed, the reality is that these AP classes serve as a haven for traditionally higher-tracked students.

Purpose: The primary goals of this study are to understand teacher perceptions of underrepresented students in AP classes, to explore their perceptions about rigor, access, and expectations in the classroom, and to understand teachers' ideas about the value of AP coursework and communicating the value to students. Results from this study can provide feedback to stakeholders on how to better provide equity and access to historically underrepresented students. **Methods:** A qualitative case study was conducted and the following research question was investigated: What are the teacher perceptions about underrepresented students in AP classes with regards to open-access, differentiation, rigor, and the purpose and value of these classes? The development of survey questions for this study resulted from the use of a perception survey in a pilot study. Findings from the survey informed the refinement of questions used in the individual interviews. Four follow-up interviews provided a triangulation to assist in determining a better understanding of teacher perceptions. The data was collected from the interviews and coded to determine major patterns and themes pertaining to perceptions. **Results:** Teachers indicated that prior experience and student dispositions strongly dictated whether a student would be successful in an AP class. Teachers exhibited colorblind responses and perceived students in a mainly academic light instead of viewing students' identity. Teachers did not demonstrate a comprehensive

understanding of differentiation or culturally responsive teaching. **Conclusion:** The findings suggest that AP teachers could benefit from more knowledge of culturally-responsive pedagogy and additional time to collaborate on ways to better present college-level material to students from diverse backgrounds. By exploring teacher perceptions of historically underrepresented students, this study provides insight on how to provide equity and allow willing students' opportunities to succeed in advanced curriculum.

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Chapter I

Introduction

Over the past few decades, school districts across the nation have been striving to provide students with quality curriculum and opportunities to increase rigor, graduation rates, and reduce the achievement gap. Many public schools add Advanced Placement (AP) courses to their curriculum as a method for achieving their myriad of goals. Students have an opportunity to earn college credit while still attending high school. District schools use the AP program as a way to increase rigor and provide college-level experiences. AP classes remain one of the most frequent methods for delivering advance secondary coursework. However, the AP program has changed from its traditional goals of reserving their program for gifted students to now including students of all abilities (Gallagher, 2009; National Association for Gifted Children, 2009; McWilliams-Abendroth, 2014). Many schools aim to increase college enrollment and success by pushing to increase AP enrollment opportunities to students of all ability levels and particularly those from historically underrepresented populations (Byrd, 2007; College Board, 2012; Texas Education Agency, 2017).

Problem Statement

In a recent news release, College Board defined themselves and their Advanced Placement (AP) tests by stating, “the heart of the College Board’s mission is a commitment to ensuring that students have access to the opportunities they have earned” (2014b). College Board President David Coleman states, “While great strides have been made over the last decade to expand access to AP, we remain as committed as ever to ensuring that every student with the potential to succeed in an AP course has the

opportunity to take one” (College Board, 2014a). The reality is that 33.2% of public school graduates took at least one AP exam. Low-income graduates accounted for 27.5% of those who took at least one AP Exam in 2013; this represents a four-fold increase since 2003. In the district used for this study, 25.1% of the students taking one exam were granted a fee reduction. Black graduates constituted only 9.2%, and Latina/o graduates accounted for 18.8% in the same year (College Board, 2014a, pp. 33-34). In the district under study, there were 11,009 exams taken by 5,967 students in 2017. Black students accounted for only 7.8% of those test takers yet represent 17.8% of the total district population. Latina/o students also represented less than their total population with 44.8% of the district students with 32.9% taking one exam. White students, on the other hand, make up 24.6% of the population but account for 32.6% of the test takers in the district. While not as bad as some of the national statistics, this district still has a disproportional number of white, middle-class students in AP classes. College Board has made extensive steps to raise awareness about the achievement gap for historically underrepresented students and those who have been identified as “economically disadvantaged.” They have developed equity policies highlighting how schools should strive to eliminate barriers to access of AP classes and should ensure that the diversity of their student populations is reflected in the AP classroom (College Board, 2012).

So, why do AP classes in many schools across America not look like the data from the overall population? One would think with diverse districts and educational opportunities that there would be a closer correlation in the AP classroom; however, many classes do not represent the overall demographics of schools. Instead, they serve as a haven for students who have been in advanced classes for most of their grade-school

career, an elite group, to put it candidly. The answer to the difference in demographics is a complicated one, but one that this study attempts to answer. Teacher perceptions about their students, knowledge of curriculum, and instructional practices historically dictate how the teachers will instruct their students in the classroom. Parajes states, “few would argue that the belief teachers hold influence their perceptions and judgment, which, in turn, affect their behavior in the classroom” (1992, p. 307). If the teachers fail to recognize the potential of other students, especially those not traditionally slated to enter AP classes, those students will most likely not attempt the class or may fail trying. Teachers most likely feel that if they extend a helping hand to these students that they will, in fact, be watering down the “rigor” of the class. The paradox is that this does not seem to be the case for non-advanced level classes in public school systems where districts design plans to help lower-performing students master the same concepts.

The district used in this study has an open enrollment policy for all AP and dual credit classes, so each school works differently to encourage students to take these classes. Teachers also make up a large part of the success of the individual AP program at each school by the way that they conduct their classes and instruct, based on their general teaching philosophy, as well as how and to who they advertise to. This district encourages every student to reach their full potential, but there is still an astoundingly low number of students in these class that have been identified as “economically disadvantaged,” students of color, lower-tracked classes, those identified as “English Language Learners (ELL),” and English as second language (ESL).

Rationale

A better understanding of the teacher perceptions of historically underrepresented students, rigor, differentiation, and culturally relevant pedagogy may shed light on the access and success that students experience with AP classes. Research shows that teacher identity and perceptions strongly influence practice and in turn the motivation and success of students (Gee, 2001; Beauchamp & Thomas, 2009; Seyfried, 1998; Deci & Ryan, 2002; Hardré & Sullivan, 2009). While there have been many studies on teacher perceptions and several on the efficacy of AP classes, there have not been many studies that look at the preconceptions of teachers as a reason for low numbers of free and reduced lunch or students of color in AP classes. Understanding the background and philosophy of the way that the AP courses are taught and the teachers' definition of the course will help to better understand how to give improved/equal opportunities to underrepresented students and may help the district know how to direct their professional development.

It is also equally important for teachers to recognize that many of their students, depending on school, come from vastly different backgrounds. These student cultures manifest themselves in different learning styles, worldviews, and goals. The better that teachers can understand culturally relevant pedagogy, the better they create successful learning environments for all of their students. Recently, Tracy Maguire (2017) argued that relationships are the number one component of success for AP students who are racially, culturally, linguistically, and ethnically diverse (RCLED). A deep understanding of the teacher's perceptions of these issues will give more clarity to how to increase success.

As a former AP and dual credit teacher, I have experienced a wide gamut of student backgrounds. These students often came from traditionally upper-class pedagogical backgrounds that prepared them for success in my U.S. history class. As each year progressed, I began to ask how I could increase the number of students within the class while also supporting the success of students who may not have had the same learned skills as those who had been in other AP classes or honors-level classes. What I found is that my class sizes naturally increased as students told their peers about their experiences in the class. The AP class became a valued place to be regardless of prior learning. As the population increased, it forced me to come up with new ways to teach students while maintaining the rigor set by the College Board exams. It takes a higher level of creativity to keep students engaged and not lose very low performing students to the difficulty or the higher performing students to boredom. True differentiated instruction had to come into play.

As a reflective and critical educator and now a social studies curriculum coach, I want to see every student have every opportunity to take classes for college credit and to learn soft study skills that will help them later in life. I believe that although AP classes are mechanisms to grow the College Board, they do have value for students learning how to navigate college curriculum and skills. I believe that students' race and ethnicity or economic status does not define their possibility of success in an AP class. As a former AP teacher within the district, I had many years in which to self-evaluate and reflect on my practice to better serve the historically underrepresented students. As a first year AP teacher, I can remember lauding the fact that my students were of an elite nature. I was part of the problem and most likely intensified it in the first two years of my teaching.

Through much thought, learning, reflection, and realization I made a turn to work in opposition to those who celebrated or praised the nature of their AP students as an elite cohort. I slowly made it my goal to see that other teachers knew that those students in the AP classes were the result of not only of their hard work, but the privilege of tracking and access, supportive families, and continual encouragement. Historically underrepresented students often do not possess these same advantages. My personal goal is that school teachers would begin to understand the importance of equity and seek to understand the culture that their students bring to the classroom. Too often in my current position, I see teachers judge a student's learning ability based on their parents' income level, the color of their skin, or their language spoken. Even in 2018, we tend to live in a society that still has strong preconceptions about the abilities of students based on those criteria. It is my hope that schools will move beyond ability tracking and neo-segregating of AP classes and work towards equity in the education of all students at all levels.

Statement of Purpose

The purpose of this study is to examine teacher perceptions about historically underrepresented students in AP classes. Underrepresented for the purposes of this study may include those that have been identified as “Economically Disadvantaged” students on free and reduced lunch, students of color, or ESL students. These barriers are not connected to each other but may present themselves as mutually exclusive in some cases when regarding AP classes. This study will help gain a better understanding of best practices and hopefully raise awareness about students who do not regularly sign up for AP classes. Given my experience with teaching AP, I felt obligated for teachers to recognize the ability they have to foster student success in their classes and beyond

students' high school careers, without compromising the curriculum. My previous school had a high number of historically underrepresented and first-time AP students who were successful in taking the class and achieving college credit after testing. The ability to recognize, intervene, and differentiate with these students early on can help their success rate for the rest of their high school careers and beyond.

In addition to the issue of underrepresentation is the issue of teacher perceptions based on school environment. Some campuses may have students underrepresented based on their total demographics whereas others have almost all low-income or black and Latina/o students in their classes. What is important about this study is that it uncovers much about the teacher's ideas on what constitutes an AP class and its purpose. Furthermore, it describes general philosophies of rigor, curriculum, and differentiation.

According to the State of Texas, a child must meet several eligibility criteria to be on the list for free or reduced-price lunch program which was established under 42 U.S.C. Section 1751 et seq. The State used a term called "educationally disadvantaged" which is one of the six criteria that can place a student on this program (TEA, 2017). Children's parents who receive Temporary Assistance for Needy Families (TANF), Supplemental Nutrition Assistance Program (SNAP), or Food Distribution Program on Indian Reservations (FDPIR) are eligible for free meals. The main qualifier is the annual income based on the members of the household. For the 2017-2018 school year in Texas, a family of 3, including mother and father, would need to make less than \$26,546 in a year for free lunch and less than \$37,777 for reduced lunch (Texas Department of Agriculture, 2018). Depending on the campus, there can be a very large economic disadvantage that prohibits students from succeeding in school in more ways than one.

According to the National Center for Poverty (2015), there are higher proportions of economically disadvantaged families from black, Latina/o, and American Indian demographics in Texas. For all the low-income families, 59% of black children live in low-income families, 65% of Latina/o children, and 42% of American Indian children. For all white families, only 26% of the children live in low-income families. Of low-income families, almost half come from single-parent households, and 63% of them live with parents who are immigrants. Of those, two-thirds live with a parent who only has a high school diploma or have not completed high school. A general glance at the economically disadvantaged percentages for the studied district shows the need for more inclusive AP programs, especially with the rising number of students in past years as seen in Table 1. As these numbers continue to rise, teachers will need to come up with new ways to meet the needs of underrepresented students while keeping the rigor level appropriate for an AP class.

Students of color and non-English speakers have an “educational debt” according to Gloria Ladson-Billings (2006, p. 3). While many studies focus solely on the achievement gap, this study will aim to uncover the disparity between access demographics in AP classes versus those in non-AP classes. Ladson-Billings argues that historically the United States has created a sociopolitical debt, an economic debt, and moral debt that have impacted the present educational progress. The difference in the number of historically underrepresented students versus white students who sign up for AP classes and get a three or above is still drastically different based on a student’s race. Historically inequities were “formed around race, class, and gender” but have gradually receded in many facets (Ladson-Billings, 2006, p. 5). AP classes have continued to

become more diverse but still struggle with College Board citing that black students only made up 9.2% of AP Exam takers and Latina/os made up 18.8% of AP Exam takers in 2013. Whites students comparatively made up 55.9% of those exam takers in the same year (College Board, 2014a).

Purpose and Significance of the Study

Teachers are the single largest identifier of success for students in the classroom – more than programs, initiatives, and money. Sanders and Rivers (1996) stated that the “single largest factor affecting academic growth of populations of student is differences in effectiveness of individual classroom teachers.” The relationships and the attitude of the teachers directly relates to the drive and success of the students. If teacher perceptions about underrepresented students in AP classes could be identified, then it would shed light on a solution to the offset numbers and equity of access to success. Teachers play one of the biggest roles in the success of AP students, and if they are not supportive of the students in their classes, then propensity for underrepresented student success is exponentially hampered.

In some studies, teachers have played the role of making AP courses more equitable through high expectations and an attitude and belief of equity in the admissions process (Cavilla, 2014). Why is this not the case across all schools in the United States (Wilkins, 2006)? Much of what frames teacher beliefs is their own background, knowledge, and upbringing (Connelly & Clandinin, 2000). These beliefs about which students should have access to advanced classes comes out in the classroom. Teachers may choose to offer help to specific students or run a classroom that is a sink or swim mentality. Many teachers come to the classroom with a love of content and not

necessarily a love of teaching. If there are students who have not had any rigorous coursework before, they may not be acclimated to AP classes and thus not successful. It is also possible that teachers of AP classes come with preconceived notions of what an advanced secondary class should look like, thus teaching to their strengths and not necessarily to the students' needs.

Another issue that ties together with the idea of teacher knowledge is that of a curriculum maker/designer. How many teachers consider themselves makers of the curriculum they teach, and how many see themselves as just doing the curriculum designed by College Board? There is no neutral curriculum, so in either direction there may be hurdles for historically underrepresented students. Teachers often do not realize that AP classes are producing or reproducing cultural norms and hegemony. In the United States, schools are prominent social institutions, and like other institutions, they are mostly controlled and influenced by dominant power structures and groups. Thus, the curriculum at this district tends to reflect white middle-class perspectives and will perpetuate this without teacher knowledge. In the district studied, 92% of the teachers surveyed were white. However, this study will uncover a few teachers who despite demographics and personal preconceptions have turned their classrooms into cultural relevant places of learning and have seen success at the AP level.

Rigor is also another issue that presents a variable barrier depending on class and teacher. Each teacher seems to have a different definition of what rigor is and how it should be used in the classroom. Some teachers see it as way to keep specific students out of their classrooms. The continuum of rigors ranges from different type of teaching styles like lecture-driven classrooms and then student-centered or democratically led

classrooms (Gibbs, 2017). Increasing the rigor often raises the likelihood of graduation, success in college classes, and higher-paying jobs (Klopfenstein & Lively, 2016). Finding a basic definition of rigor is actually more difficult than it looks since there are so many definitions and no consensus. David Conley (2005) showed that there is a difference between students being “college eligible” which means that students can be admitted to college and “college ready” (p. xi). The latter of which is defined by students being able to meet the expectations they would encounter in a survey-level college course.

This study aims to advance the work of previous scholars who have looked at similar, but different aspects of the AP access. Two scholars that have dealt with similar studies are Steven Wood’s, *Student Access to Advanced Placement Coursework* (2010) and Justyna King’s *Excellence, Equity, and Access* (2010). Wood put together an original study by looking at principal perceptions of their AP program as they are paramount in the decision-making process of the school. He compares school practices to principals’ personal beliefs to see if there is a correlation. The study examines six different constructs through a survey: value of AP work, course offerings, open access, advertising, teacher adaptability, success for students (Wood, p. x). This is a quantitative study that utilized multiple regression analysis to compare the principals' perceptions against the College Board AP Equity and Excellence Score. King’s dissertation concentrates on educators’ perceptions about open access to AP and their impact on non-traditional AP students. Specifically, she found that most teachers felt that AP courses were important given their opportunity cost; however, educators expected students to hold to specific standards. Teachers also felt differently about the expectations of the

class than did the counselors who advise the students. The idea of mandatory or required classes as part of the curriculum were generally not supported by the teachers surveyed.

This study builds on both of these scholars' works and aims to correlate with more recent studies about culturally relevant pedagogy in AP classes such as Maguire (2017). Part of the perceptions survey used by Wood is used in this study to assess teachers', not principals', perceptions of their AP program. While this study will utilize Wood's survey, it is purely qualitative in nature and does not use advanced statistical analysis. Instead, it aims to dig deeper into the perceptions of teacher about subjects that have been brought up in previous dissertations. Combining a survey and multiple interviews, it aims to uncover the heart of the matter – the class teachers.

In the end, this qualitative study is meant to address this very issue – how can we as educators and support staff create opportunity and equity for high-potential students from historically underrepresented backgrounds. The teacher survey and interviews shed light on the perceptions of students, teaching philosophies, teacher knowledge, and common practices that teachers use in a suburban district. By examination, I contend that there are several avenues where teachers can improve their culturally relevant pedagogy, beliefs about rigor, and practices to support historically underrepresented students in AP classes.

Setting

The district under study was Northwest ISD (pseudonym) which is a large suburban district in a southern state. The district has over 100,000 students across their 12 high schools. The demographic makeup of the district is approximately 46% Hispanic, 26% white, and 20% African American, with about 10% Asian population. About half of

the district's students are identified as "economically disadvantaged." The schools within the district are deeply different depending on how close they are located to the urban end of the map. Individual schools range from approximately 12% of students identified as "Economically Disadvantaged" to almost 85% in one school. In the previous year, there were over 11,000 AP exams given to students within the district. For the purposes of this study, this district may be similar in aspects of demographics and struggles that manifest themselves in a diverse district.

Possible Bias

Research bias may also play a part in the study since I taught AP classes in the same district in which the research is taking place. According to Creswell (2008), the phrase "researcher bias" should be used sparingly because all research is meant to be an interpretation and an outflow of the author (p. 266). Thus, this research is meant to be a critical examination of the AP teacher perceptions and interpret those results herein. I did, however, make sure to eliminate as many preconceptions about AP teachers as possible. Throughout the course of this study, I kept a bias journal to check my thinking and be able to reflect on any biases that may have come to the forefront of my research. Maxwell (2005) encouraged researchers to "facilitate reflection and analytic insight" (p. 12). The journal gave me an opportunity to explore ideas apart from the writing process and re-examine them before moving forward in the writing or researching process.

I knew many of the social studies teachers who may have taken part in the anonymous survey through my role as a district social studies coach. This creates a possibility of increased research bias and socially desirable responses from those teachers. I was actually able to have a deeper insight into the responses from social

studies teachers, and I made sure to not apply those to other subjects but analyze the data obtained from a more neutral perspective. The survey and interview questions may lead some participants to answer with socially desirable responses. This is always a possibility in the interview portion of the study, and the conversation naturally flows towards what I am researching. Once teachers realized the subject for my work, many may have begun to think through that lens. I did try on multiple occasions to let the participants know that I was a former AP teacher so that they felt they could answer candidly. Since this research dealt heavily with issues of teacher opinion, practice, and underrepresented students, there was also the possibility of reactivity. In other words, some teachers may have become frustrated with the content of the research and seen it as tied to a specific political agenda.

Definition of Terms

Advanced Placement (AP): A College Board Program where students can take college-level curriculum in the high school and attain college credit. There is a larger amount of reading involved and a cumulative test at the end of the year.

Gatekeeping: Is the practice of only letting specific students into higher courses based on recommendation, background, economic status, race, etc. Teachers can be one of the most well-positioned professionals to make emancipatory choices (Swartz, 2009).

Historically underrepresented AP student: A high school student who may not be typically tracked to be in advanced or honors-level courses. For the purposes of this study, it could include students of color, students from low-income families, or those that do not speak English as their first language. (King, 2010)

Open access: The idea that all students should have access to any curriculum regardless of background, intelligence, or identification of socioeconomic status. (King, 2010)

Traditional AP student: Upper or middle-class student, typically white, who is self-motivated and has selected to take the AP course. These student may have been in higher-tracked classes or pre-AP classes in their middle school grades. (King, 2010)

Research Questions

1. What are the teacher perceptions about open access and differentiation for underrepresented students in AP classes?
2. What are the teacher perceptions about rigor and expectations for students in AP classrooms?
3. What are the teacher perceptions about the purpose and value of AP classes for underrepresented students?

Chapter II

Literature Review

Many schools across the United States are seeing higher numbers of traditional students remain in advanced classes, while there are only small increases in underrepresented students. AP classes work as a neo-segregation in many public schools where only the affluent and well-trained students end up. If schools want equity and access to their AP classes, it is imperative that they take multiple measures to ensure that both teachers and students are supported and that the culture surrounding these classes is for academic advancement. Some schools have incentivized these classes but often fail to recognize that there are other issues at hand. Teachers are a larger part of the success of students in these classes through their own classroom procedures and differentiation.

AP classes are often seen as an elite level of classes in many high schools; however, much less attention is paid to the nuances that separate one AP class from another. Essentially, all students who take AP take a standardized test at the end of the year. In recent years, the test has changed to be more fluid in giving credit to what students know. Instead of being a mile long and an inch deep, the test has been reworked to provide a more appropriate level of breadth and depth. The new test allows for more equity than rote memorization. College Board has made numerous changes to the rubrics and framework at the request of AP readers and teachers in the years following the rollout of the new framework.

Despite the best intentions, teachers of AP and dual credit classes in many suburban schools believe that AP is reserved only for those who are gifted or high achieving. In reality, the class should be open to any and all students that want to

challenge themselves and gain college credit while in high school. The literature review that follows will outline much of the research that has been done regarding AP classes and show a need for further research in the area of teacher perceptions. It will also frame the literature that is necessary to answer the research questions that form this study.

Research Questions

1. What are the teacher perceptions about open access and differentiation for underrepresented students in AP classes?
2. What are the teacher perceptions about rigor and expectations for students in AP classrooms?
3. What are the teacher perceptions about the purpose and value of AP classes for underrepresented students?

Theoretical Framework: Critical Pedagogy

This study centers around critical theory and more specifically critical pedagogy as it pertains to underrepresented students not being given proper support in their endeavors of AP and dual credit classes. Critical pedagogy has guided the research and opened up modes of thinking about modern classrooms. The goal in using this as a theoretical framework is to offer a social critique and produce change in the status quo of traditional education. As both a student and teacher in education, critical pedagogy has opened my eyes to the vast number of ways that public schools unintentionally marginalize students in the name of ordered practices and best intentions.

Critical pedagogy started with the works on Karl Marx in the mid-19th century. Marx was uniquely concerned with the exploitation of workers in economic and class-based terms. He believed that if profits were continually reinvested in the factories and

not the workers that the polarization of rich and poor would grow larger over time. These inequalities resulted in mass revolutions around the world as well as industrial revolts in the years around the turn of the century. As the industrial revolution continued to grow over the 19th century and into the 20th, Europe had solidified two distinct classes of people: the bourgeoisie and the proletariat.

Marx would eventually influence the works of those in the Frankfurt School. Hailing from the Institute of Social Research at the University of Frankfurt, critical theory was born as a method for disrupting or challenging the status quo in society (Kincheloe, 2008). Termed by some, these neo-Marxist theorists had experienced hard times during World War I in a postwar Germany but continued to dig deeper into their cultural criticisms. Although many modern critical theorists have denounced some of Marx's theories, they felt a need to reinterpret the previous years of class-based theory and create a new position that still understood the inequality that was present through the capitalist structures of the world. Essentially critical theory became defined practically as a theory that seeks human emancipation from slavery and acts to liberate or change the tradition (Horkheimer, 1972). While none of the Frankfurt theorists ever claimed to "have developed a unified approach to cultural criticism," they did create a cohort of theorists who defied injustice subjugation, which they believed shaped the lived world (Kincheloe, 2008, p. 46). By the mid-century, critical theory had made its way into the American universities as a critique on the capitalistic nature of American culture. Critical theory exploded in the 1960s with the coming of age of the New Left and the outcry of conformity. Critical theory that dealt with these inequalities and traditional norms in education became known as critical pedagogy. While there is no easy way to trace the

origin, critical theory has been constantly re-conceptualized in the last half century. Joe Kincheloe and other modern scholars have posited that critical pedagogy is most related to critical theory in that human beings, especially students, should be empowered to change the constraints they encounter because of race and class factors (2008). Amongst many facets, critical pedagogy should be seen as a contradiction to practices of authoritarian and traditional transmission practices found in classrooms today (Steinberg, 2010). Critical pedagogy upholds the importance of the rhetoric of democratic and liberal education.

More than any other scholar, Paulo Freire has come to define the critical pedagogy movement. His famed *Pedagogy of the Oppressed* calls for a critical understanding of education as an emancipatory mechanism of expanding democratic public life. For Freire, critical pedagogy surrounded the idea of critical consciousness and the recognition of oppressive relations. Henry Giroux built on Freire's work and by the 1980s had made critical pedagogy a domain of study and praxis. He distinguished the difference between what is known as the "language of critique" and the "language of possibility" (Giroux, 1983; Giroux, 1988). The praxis movement led by Giroux has called for a reorientation of the educational movement towards critical consciousness of understanding freedom and democracy, political action, and modes of power (1981). However, he wanted to show that previous theorists had been critics but not offered any language of possibility. He stated that the purpose of the school and the critical educator should be to "raise ambitions, desires, and real hope for those who wish to take seriously the issue of educational struggle and social justice" (Giroux, 1988, p. 177).

It is important to end a discussion about critical pedagogy with a discussion on how this is often played out in suburban AP classrooms. The problem exists and will be shown through this research that many teachers think of themselves as knowledge deliverers as opposed to knowledge producing professionals (Kincheloe, 2008, p. 29). Whether intentional or not, this will tie into the discussion on what teachers believe about rigor and how their own preconceptions dictate their worldview of underrepresented students. Critical pedagogy is also concerned with the power struggle that exists between the ideas of teacher-centered classrooms and then those in democratic student-centered classrooms. If the teacher-centered classrooms have been proven to be ineffective, then why do many of the AP teachers around the country still continue to employ delivery methods and assessments like they have for the past decade? Teacher perceptions of students are often founded on simple psychometrics instead of their ability to succeed as thinkers. If we want advanced classes to reflect the demographics of the school and not serve as an elite haven, then teachers must adopt a critical perspective of their own teacher training as well as barriers prohibiting entry and success for students. Teachers own critical consciousness must be aware that there is an issue with gatekeeping, tracking, and judging student abilities based on the background of the parent.

The AP Program

AP classes were essentially created in the 1950s specifically for gifted students. The goal was to allow a place for high achieving students to “work at the height of their capability and advance as quickly as possible” (College Board, 2003). The Committee on Admission with Advanced Standing had created a plan for developing college curriculum that could be used at the high school to allow students opportunity to get college credit or

placement. In 1952, there were 11 initial subject tests that were introduced with corresponding curriculum. College Board has since changed their vision for the AP Program by defining themselves as “the collaborative community of AP teachers and students, states, districts, schools, colleges, and universities committed to the daily work of developing college-level knowledge and skill.” They share a “deep conviction that all students who are academically prepared – no matter their location, background, or socioeconomic status – deserve the opportunity to access the rigor and benefits of AP.” For the class of 2013, there were over 1 million examinees that took at least one exam through the AP program and total of 3,153,014 exams taken. Of those examinees, 607,505 of them scored at least a three or above – the score often used to grant college credit or placement (College Board, 2014a).

College Board provides resources for teachers of each subject area on their website. It includes a course description, sample syllabi, resources for classroom teaching, as well as links to an online teacher portal for released exams and a community message board. Each syllabus is validated to hopefully ensure that teachers understand the required elements of each AP course and exam. College Board also provides professional development and as of 2015, online modules in certain subjects. They have also advertised that there will be more resources expanded and created in 2019 in conjunction with Khan Academy online. The College Board website also boast a wealth of resources for students and parents for each subject. One thing to keep in mind is that some students do not have access to these resources outside of the school day.

The AP test is the benchmark item of the program as it is the sole tool used to measure student mastery in the course. Depending on the subject, exams can consist of

multiple choice and subjective and objective essay-based questions. Some subjects have document-based question, free-response questions, and short-answer questions. Each of the essay portions are graded on a rubric. Scores range from a 1, which is considered a “no recommendation,” to a 3, which is “qualified,” and a 4 or 5 being “well qualified” or “extremely well qualified” respectively. College Board’s website defines “qualified” as a student who has proven themselves “capable of doing the work of an introductory-level course in a particular subject at college” (College Board, 2017a). Many of the exams have gone through course redesigns in the past decade to better align with expectations in college courses. For example, the AP U.S. Government and Politics redesign is set to happen starting in the 2018-2019 school year. The AP Program claims that it is “part of its ongoing process to make AP courses and exam material more effective for teachers and their students” (College Board, 2017b).

As the AP Program expanded, the College Board created a syllabus audit to ensure that courses were up to a standard while continuing to promote equity and expansion. The College Board wanted to maintain their label and give high education institutions assurance the classes were of the same criteria and rigor. In doing this, it has somewhat perpetuated educational practices that are not beneficial to all students. The paradox of too much information and not enough depth forces many teachers to revert to teacher-centered lecturing for a large portion of the class (Dague, 2015; Byrd et al., 2007; Oxtoby, 2007; Parker et al., 2011; Parker et al., 2013; Schneider, 2009).

The redesign of the course has not done much for many teachers with regard to making the classroom a democratic and critical place of inquiry (Dague, 2015, pp. 24-25). Changes to the exam were designed to allow students to answer what they know and

not be so picky with random items. Teachers were even given a framework that included all testable items to help promote alignment across classrooms. This “ready-made curricula” had made it easier for some starting teachers to get a footing, but also stifled debate and probing of the curriculum (p. 25). Teachers have become, as Giroux says, “dutiful technicians” in the classroom now that College Board has aimed at teacher-proofing the curriculum (Giroux, 1985; Apple, 1990; Giroux, 2001).

The Benefit Debate

As AP and dual enrollment courses continue to grow nation-wide, it is important that researchers and teachers are paying attention to the latest trends. It has been no secret that the College Board and Advanced Placement classes have aided students in getting into college with either credit for classes or a leg up in understanding the soft skills necessary to be successful in higher education. There has been less research done on students who do not make qualifying scores on the exam and also less studies highlighting the many variables that exist for underrepresented students. The College Board stated that students who score a three on the exam when compared to their peers often earned higher GPAs in college, performed better than students in subsequent college courses for which they took a test, were likely to graduate within five years, and had higher graduation rates (College Board, 2014a). McKillip and Rawls (2013) stated that students taking AP classes had a better advantage when taking the SAT test. Students who had at least one course in their high school career performed slightly better than those who had not participated in an AP course. The list is long of researchers who have proved that AP classes lead to better success in other high school classes as well as

college acceptance (Alexander & Pallas, 1984; Attewell & Dominia, 2008; Bottoms & Feagin, 2003; Gamoran & Hannigan, 2000; V. E. Lee).

Many scholars have debated the college readiness aspect of the AP program to determine if exams are actually a good indicator. Is the AP program really a college-ready curriculum? Dougherty, Mellor, and Jian (2006) argued that students who earn a 3 or better on one or more AP exams were more likely to graduate from college within five years. Thus, Texas students were 64% more likely to graduate within that time. Even those that made a 1 or 2 were shown to at least have some small difference in those that had and had not taken an AP test. Some studies have shown that AP classes do not reliably predict first-semester college grades or their retention in their sophomore year. A student may take one AP class, but the negligence to consider the student's other coursework has led many studies to have a positively biased AP coefficient (Klopfenstein & Thomas, 2006). Others have criticized Klopfenstein and Thomas' work in their study that used more than 30 predictor variables including GPA which was weighted with an increase for the AP classes. This led to a linear GPA increase and assumed that AP courses had a similar benefit. Thus, the relationship may have been skewed (Morgan & Klaric, 2007).

Following these studies, larger research has been done on high school graduates through their first year and fourth year in college. Students who had AP experience were matched with those who did not by their SAT scores to attempt to compensate for identification of socioeconomic status. Those that had taken AP courses and passed had consistently higher graduation rates than those that did not. Hargrove, Godin, and Dodd (2008) found that even those who made a 2 on the exam still did better in college. The

research from this study provided very strong evidence for the efficacy of the AP program on student's college careers.

Scholars have also studied group performance as a comparison. Research showed that students who took an AP Exam consistently outperformed their matched non-AP groups on most measures (Murphy & Dodd, 2009). Students who took the AP exam and earned credit were compared to their matched group who did not earn credit and to those who were concurrently enrolled in the entry-level college course. Groups were created by SAT scores and high school ranks in 10 different subjects. Comparisons were made on first and overall credit hours taken in their freshman year, first and overall GPA in college, and subject area credit hours along with those specific GPAs. Murphy and Dodd (2009) also found that AP students took more hours in their freshman year than did their counterpart who had not been in the AP program.

While the benefits seem noticeable, there has been a growing amount of research that questions the efficacy of the AP program. Many other studies have tried to control the background factors which made up a large number of variables in these studies. Duffy (2010) found that students at the University of Tennessee at Martin who had earned AP credit were more persistent in their studies and made better grades overall; however, after accounting for family income and background, these results were not so significant. Sadler and Sonnert (2010) also showed an interesting variable in that students who are awarded credit in AP biology, chemistry, or physics sometimes repeated the college level equivalent. Data showed that the students who passed the exam and repeated the course in college earned significantly higher grades in those courses.

Some synthesis of the literature questions whether the AP program has lived up to its hype and if it really is a good indicator of equity in schools. While this current study on teacher perceptions will not argue that AP is a powerful tool for equity, it will support the notion that it grants opportunity to those that participate. Newer quantitative studies have shown that there is a larger indicator for college readiness for those who received college credit, typically by making a 3 or higher on the test (Novak, 2017). Using Conley's College Readiness Theory along with linear models of a longitudinal education study, Novak showed that race, identification of socioeconomic status, and high school GPA all had moderating effects on the strength of the college readiness. This leads to a discussion on equity.

Equity and Access Debates

The College Board estimated in 2014 that there were nearly 300,000 in the class of 2013 who held potential to succeed in an AP class who graduated without ever participating (2014a). I would argue that there were many more than that, but College Board does not have them on their radar because they have not taken the SAT which they use to estimate. Black and Hispanic high school students enroll at half the rate of white students according to Klopfenstein (2004). This gap in enrollment is largely affected by the socioeconomic status of the student. AP programs can be especially beneficial to minority students who do not have other cultures of learning at home. Schools, state governments, and the College Board have tried many initiatives such as hiring AP teachers to work as mentors, incentivizing the AP program, and closing magnet programs. Both incentives and mentors have shown to be very effective in increasing AP enrollment.

Stemming from the idea of cultural capital, the history of the public-school system has created an educational debt for many students. Gloria Ladson-Billings (2006) argued that social inequity has been so ingrained in the American past that it is almost impossible to change. She stated that there has been an educational debt that has been built up over time made from historical, economic, sociopolitical, and moral components. She shifted the achievement gap theory and argued that it was misplaced. America cannot just look at the current achievement gap for an answer. Educators must understand the long and deep-seated educational debt that has accumulated. Comparing the educational debt to that of the national debt, she showed how concentrating on the achievement gap only produces short-term solutions to a “long-term underlying problem” (p. 4). Essentially, schools cannot continue to view the achievement gap as the source or cause for inequality. They must understand that it is a much bigger problem. If many in education agree that a college education can lead to more successful job wealth, then AP courses are one way to hopefully work to close that gap and also lead to changed generational debt for families.

In recent years, equity has become the focus of the AP program and has led to changes in role, function, and material. In 2002, the College Board began to advertise that all students should have a right to take AP classes if they so desired, and schools should not try to limit the program with prerequisites (College Board, 2002). College Board developed their own policy on equity and open access that they believed will close the opportunity gap and increase the enrollment of AP courses:

The College Board strongly encourages educators to make equitable access a guiding principle for their AP programs by giving all willing and academically

prepared students the opportunity to participate in AP. We encourage the elimination of barriers that restrict access to AP for students from ethnic, racial and socioeconomic groups that have been traditionally underserved. Schools should make every effort to ensure their AP classes reflect the diversity of their student population. The College Board also believes that all students should have access to academically challenging course work before they enroll in AP classes, which can prepare them for AP success. It is only through a commitment to equitable preparation and access that true equity and excellence can be achieved. (College Board, 2012)

They are also committed to seeing that the diversity in a school is reflected in the AP classroom. College Board also claimed that “AP Exam performance is a stronger predictor of first-year college performance than gender, racial or ethnic identity, and socioeconomic status” (College Board, 2012). States such as Florida have tried to institutionally close the opportunity gap by promoting AP classes in rural districts (Byrd et al., 2007). Some states has also followed suit in offering incentives and extra finances for districts to start or improve their AP programs.

What equity looks like in each school may be a different story. Educators have differing perspectives on what equity means, how it can be achieved, and whether it has a place in the AP classroom. A recent study on AP class equity and access found that most educators believed in the open-access policy and also that AP classes were beneficial to all students (King, 2010). Self-motivation was a factor in these educators’ beliefs as was the stipulation that students were not forced into the class. These educators expected the same self-motivation to manifest itself in traditional and underrepresented students as

exhibited through the “scholastic inclinations.” The reality is that not every student is the same, and in the absence of differentiation, something this current study will investigate, it may not be possible for students to be successful.

Open access to AP has been debated from many different angles, and it is a mainstay in the conversation between AP teachers and researchers. Proponents of open access to AP curriculum for underrepresented students argue that the success of these students is more related to gatekeeping than it is to the rigor of the curriculum. College Board, as well as school districts across the nation, have joined together to close the achievement gap; however, the focus has turned to teacher perceptions on open access. Proponents cite that successes for underrepresented students come from increasing motivation, something that open enrollment and open-minded teachers provide. Camara, Dorans, Morgan, and Myford (2000) asserted that open access for underrepresented students positively impacted students, educators, and the curriculum. Even if students did not achieve high scores on AP tests, there was an intrinsic benefit that students gain, not available to them in the regular classroom (Mathews, 1998). Opponents of the open-access movement argued that increasing the number of students in AP has led to a decline in average scores and a dilution of the AP curriculum. William Lichten has spoken candidly in his opposition to open access movement in AP by saying:

A law of diminishing returns sets in as the originally, well-qualified (often self-selected), well-informed and highly motivated group of educators and pupils becomes flooded by the deluge of badly qualified, ill-informed and poorly motivated followers. The program becomes less selective and quality declines. (Lichten, 2000, p. 12)

While Lichten countered the ideas of open access on account of the curriculum, few schools have yet to answer the challenge of keeping rigor high and increasing numbers simultaneously. Several of the questions used in this study will inquire about this subject.

Again, it is important to note that there are many variables in the equity debate and many do not consider critical pedagogy or the idea that these classes may serve as a catalyst for life change in some instances. Ultimately, schools need to have curriculum that prepares students for an AP class. Hallett and Venegas (2011) reported that many schools do not have quality coursework in schools that offer AP courses, thus leading to a decrease of minority readiness. College Board argues that students who take Pre-AP classes have more opportunities to prepare middle-school aged students for higher level of intellectual engagement.

Many of the students who take AP classes are high achievers, but there are a large number who are gifted. The identification of gifted students from historically underrepresented backgrounds is very low. Derek Cavilla (2014) suggested that there should be the creation and implementation of some sort of tiered access into gifted programs that teach AP classes. This would allow students who come from underserved and very diverse populations time to refine their “academic vocabulary as well as gain greater exposure to environmental activities that they are lacking at home” (p. 281). Cavilla also argued that differentiation should include a fusion of their culture in order fully meet the needs of these students. This leads to a discussion on culturally responsive teaching which will be a theme that emerged within this study. Cavilla argues that race and ethnicity are not the only factor that students identify with. Some students identify more as economically disadvantaged than with their race. Teachers of gifted students

have to be able to give them a voice that includes their own self-identity and work to give them options to explore this through school programs.

Newer studies, like *Excellence through Equity*, are based on the juxtaposition of new paradigms. With regards to equity, the paradigms are grounded in child development, neuroscience, and environmental influences on development. These three pillars all showed that equity is attainable through personalized learning that coincides with the child development, understanding and awareness about neuroplasticity along with the dangers of tracking, and plans for countering negative environmental factors. When these are used together, “the ability of schools to meet the developmental and academic needs of students increases significantly” (Blankstein & Noguera, 2015, p. 19). Equity is not about treating all students the same but instead about responding to the needs of students. Challenges to equity can be aided through the collaboration of adult stakeholders, defining personalized success for each student, and through mutual accountability of the stakeholders. For this to work, the needs of the students must be known, and it must be in a proper environment. Blankstein and Noguera (2015) argued that if they can “use this paradigm for excellence through equity to guide larger numbers of schools and districts, [they] can create a system that will do much more than simple espouse slogans about the ability of all children to learn” (p. 21).

Students who do not speak English as their primary language can also benefit from AP classes and teachers who take the time to work with them. At its core, *Excellence through Equity* is about the nature of positive change in schools. It is about mindset and action. Estella Olivares-Orellana’s chapter on culturally relevant curriculum is something that most AP teachers could implement fairly easily. A lot of it stems

around the knowledge and awareness of culturally relevant curriculum. She spoke about creating a caring learning environment but also about the importance of making connections to students' family's lives (Blankstein & Noguera, 2015, p. 167). She met with them on a regular basis and wanted to hear what they need help with – the key was understanding, not language for ELL students. Olivares-Orellana provided several concrete instructional strategies for dealing with students who are ELL in science classes.

Perceptions of Underrepresented Students

Much of the equity debate is rooted in educator perceptions of underrepresented students. Underrepresented students have been victims of gatekeeping and tracking which are both common practice in public schools in America. The number of minority students taking AP exams has grown tremendously in Texas in the last decade. However, black and Hispanic students are still growing at a much slower rate than that of white students. Klopfenstein (2004) argued that teachers have lower expectations of minority students and often there are not adequate resources for some minority schools. Others begin student tracking at very early grades which can make it difficult for minority students to overcome (pp. 115-116).

One large area of concern with underrepresented AP students is the counselors who advise them on their course selections. Some researchers argue that they are the gatekeepers when it comes to encouraging or discouraging students from taking these classes. Depending on a multitude of factors, a counselor may decide to do one or the other for the student. Davis, Davis, and Mobley (2013) showed in a case study for African American students, the large achievement gap that exists for their placement in AP classes and the importance of the counselor's role in reversing this systemic failure.

The school used in the case study, recruited African American students with “untapped academic potential” to an AP Psychology class and then created a cohort for academic success in which they could receive individual counseling. Students in this cohort performed better than their peers and better than African American students at the national level. The authors concluded that the traditional ways of recruiting for AP classes are failing and will not fix the achievement gap for underrepresented students if it is not changed. Davis, Davis, and Mobley’s study is one of many advocating for counselor interventions for underrepresented students.

Principal perceptions are just as important as the counselors who work with the students’ schedules. A proper vision for the school relates to its ability to function as a high achieving school with regards to AP classes. Wood (2010) argued that school leaders are among the most important people who can provide opportunities to help students be successful in AP classes. Many of the same questions posed to principals were adapted for use in this study of teacher perceptions. If other researchers have asserted that counselors and school leaders have an effect on the student performance and access to AP, then the teachers occupy the third part of the triangle. VanSciver (2006) showed that working together toward initiative to get historically underrepresented student into AP classes can be successful. It starts with not allowing or pushing for students to under schedule themselves, but instead take classes which would prepare them for the rigor of AP classes (p. 57). It is my belief, as is VanSciver's, that schools should aim to ensure that AP classes reflect the diversity of their student populations.

Some studies have looked at the teacher perceptions of equity and access with regard to the AP classroom finding that many teachers support open enrollment if the

students are self-motivated (King, 2010). King asserted that teachers and counselors have differing perceptions on AP enrollment. Teachers, however, expected all AP students, whether traditional or underrepresented, to follow the rigor aligned with College Board standards (King, 2010, p. 6). They also believed that regardless of the outcome of the class, students learned soft skills that they could take with them in future classes.

Educators' definitions of underrepresented students have surely changed in the past decades, but still, 45% of teachers in a national survey claim that minority students "lack the confidence that they can handle AP coursework." Even more telling, 43% of teachers stated that "messages from a culture that holds low expectations for them" accounts for their entry in regular education instead of AP (Duffett & Farkas, 2009, p. 16). What ultimately is missing from the teacher perception studies is a method for rectifying the AP class with the increase of underrepresented students. This study intended to build on King (2010) and Wood (2010) to explore how teachers perceive differentiation, rigor, open-access, culturally responsive teaching, and the value of AP classes.

Ethnic origin and socioeconomic status do not necessarily predict what a student is capable of learning. However, these factors can have an effect on how schools and teachers treat these students (Morris, 2002; Rothstein, 2004). This sort of thinking from teachers leads to a new type of segregation in schools based on socioeconomic status or perceived educational ability (Morris, 2002; Walker & Pearsall, 2012). Ultimately when this happens, there are more barriers and gatekeeping that occurs.

Teachers have also stated concerns with open enrollment of underrepresented students in that it alters their current mode of teaching. In one survey, teachers cited that with the increase of ability levels in their classrooms they were required to slow the

pacing of the course to meet the needs of all learners (McAlister, 2013). Although the inclusion of mixed ability students did not negatively impact other student performance, teachers did find themselves teaching rudimentary skills such as organization and note-taking. This is not surprising considering that students who have been tracked may not have had to use these skills in other classes. McAlister found that teachers commonly argued that their underrepresented students struggled with work ethic more than the course itself.

A paradigm shift for many schools is that the strength of the AP program should no longer be measured by the number of passing scores or total enrollment, but instead the representation and success of underrepresented groups. Ashmead and Blanchette (2013) recommended that all three of these factors be actively increasing for a productive program. Essentially, students who are underrepresented can actually be successful in AP courses if they are encouraged and supported and teachers are thoughtful about the circumstances (p. 285). While poverty is the number one obstacle in student achievement for AP classes, teachers can support by assigning free or easily accessible reading or resources. Ashmead and Blanchette showed that AP courses can exist without large amounts of homework, projects, and Internet access – something that can be difficult considering the home life of some students (2013). It is also important to understand that parent involvement is low for many underrepresented students and those that are involved may not have a comprehensive understanding of the AP program. While many teachers may have low expectations for underrepresented students, it is imperative that they set reasonable expectations and have high expectations for where students will end up. There is psychological support that is needed for underrepresented students. They need to

believe that they can succeed before they can (p. 288). This is best summed up by Chris Emdin (2016) who states that as educators we need to focus on “privileging the ways that students make sense of the classroom while acknowledging that the teacher often has very different expectations about that classroom” (p. 41).

Tracking

Given the noted benefits of AP classes, most schools still place the advanced-level courses within a track inhibiting the ability for all students to access equitably. Tracking is the practice of separating students by perceived ability or intelligence groupings for developmental benefits. It largely persists in the United States, despite research showing that it is ineffective and inequitable. The history of tracking in schools is deeply rooted in many social and political constructs of the late nineteenth and early twentieth century. Lewis Terman (1919) is recognized as the originator of tracking with his efforts to separate Black, Hispanics and immigrants apart from other native-born Whites. The idea was to provide some degree of homogeneity to groups of like race, ethnicity, and social class. After *Brown v. Board*, tracking became used as a tool to further separate minorities from white populations in both urban and suburban schools. Many schools after desegregation operated in a second-generation segregation format, which correlated strongly to race and economic status. Tracking, although often referred to as ability grouping, still haunts school districts throughout the country and is a roadblock for true educational equity and success.

The belief that tracking allows for a better or more tailored learning environment has permeated the mind of the public in the second half of the twentieth century. Jeannie Oakes (1985) has led the crusade against tracking in her work on social and

psychological effects of homogeneously grouped students. She asserted that “regardless of how ‘fair’ their placement might appear to be by traditional standards, it is never equitable to have any group of students be systematically offered less when it comes to educational quality” (p. 62). Oakes found that lower tracked students spent less time on task, receive less instructional time, and read more juvenile literature than their counterparts. When asked what sort of things they learn in their English class, many students responded with cursory and simplistic answers likes “spelling” (p.69). Their counterparts in higher tracks frequently responded to the same question with “reading classic novels and analyzing” (p. 69). Students in the higher tracked class were more often using higher order thinking skills which ultimately aided them in their pursuit of success in advanced classes. The purpose of the book was not to show that lower-tracked students have poorer opinions or lower expectations, as previous scholars have. Instead it was to show the nuances that exist in the different tracks (Rosenbaum, 1976; Cusick, 1973). Teachers also reported that students in higher-tracked classes were often expected to do independent work for a large portion of the time in class, which may have been a reason for teachers’ reluctance to differentiate for underrepresented students (Oakes, 1985, p. 85; Campbell, 2016). Students who go into low track classes year after year develop an educational debt that makes it almost impossible for them to be successful in advanced-level classes (Ladson-Billings, 2006). When *Keeping Track* (1985) was published, Oakes did not settle the issue on tracking; however, the three decades of scholarship which followed has shown that tracking is detrimental to successful learning.

Tracking often prevents students from being successful in advanced classes, but does it impede their ability to attempt such opportunities? When a tracking system is in

place, students who occupy the lowest track are often the result of some standardized curriculum that pushes the lowest socioeconomic students and English Language Learners (ELL) into the bottom. No research has shown that students move up in the tracking system through grade school (Blankstein & Noguera, 2015, p. 17). Several scholars have gone to great lengths to prove that tracking in schools is essentially “promoting elitism, de facto racism, and classism” (Pool & Page, 1995, p. 1). Thus, tracking is a detriment to all students in a school regardless of ability and often leads to a negative cycle of discrimination which weakens a school’s capacity for equity. School administrators and teachers can reinforce these ideas through their perceptions of student abilities and a need for multiple levels of courses. Lower tracked students often do not attempt AP courses by high school, and of those who do, they have spent a large portion of their time in lower tracks.

Harbison Pool and Jane Page (1995) discussed tracking as “inherently undemocratic and inappropriate in a country that values equality and opportunity for all” (p. 1). However, the question remains about what lies beyond tracking, and will a heterogeneous system be beneficial to all students? Tracking is not something that can just be done away with without any attention to change. Pool and Page argued, as do their contributing authors, that there is not a simple fix to tracking and that schools cannot untrack classes and then replace them with “the same old curricula taught in the same old ways to more diverse groups of students” (p. 1). Essentially meeting individual needs was not accomplished with an undifferentiated, middle of the road curriculum. Page and Pool also offered a suggestion that teachers much be consciously aware of the need to de-track. Otherwise, the system will not work. Likewise, parents and school board members

must understand that students will not be exposed to a watered-down curriculum but instead a rich, individualized learning. These ideas are imperative if schools want to enlarge the size of their AP program by the entry of underrepresented students.

Despite their best intentions to provide a better system for students, many schools districts have begun neo-tracking with the small framework of subject area differentiation. Roslyn Mickelson and Bobbie Everett (2008) demonstrated through a mixed-method case study of the North Carolina Class of 2005 seniors that eighth grade students pick one of three courses of study (COS) prior to beginning high school: career participation, college/tech preparation, or college/university preparation (p. 535). North Carolina offered students these courses of study along with subject-specific course levels which lead to a much deeper and “more complicated institutional structure of educational inequality” (p. 535). By viewing aggregate data on these programs, their study found that there are a large number of students who sign up for the college/university preparation. Enrollment indicated stratification by race, ethnicity, and socio-economic status. This is also true on a macro level by viewing the racial composition of the schools across the state. Schools of affluence were more likely to have a large number of students taking the college/university preparation. There were no requirements for students to sign up for honors or AP classes within these schools; however, given the competitive nature with regards to GPA requirements as well as other incentives, many students were drawn to these classes. Mickelson and Everett (2008) highlighted that the middle school COS placements “launche[d] students onto academic trajectories that most of them follow throughout high school” (p. 544; Kornhaber, 1997; Oakes, 1985). An earlier study showed that parental involvement, student group, and teacher recommendations highly

affected students decision in placement (Mickelson & Velasco, 2006). Ultimately, students in North Carolina were victims of the same issues as traditional tracking, and although students chose different paths, most students may not have been prepared for college or for the workplace, which was the initial reason for the creation of the COS.

Ansalone and Biafora showed that parents are the largest supporter of tracking within the schools, which may shed light on its popularity given the research against it. Ansalone and Biafora have also shown support from teachers and principals in earlier studies as a classroom management study (Ansalone & Biafora, 2004; Ansalone & Biafora, 2008). Their qualitative study looked at over 180 sets of parents' own interpretation and memories of being tracked, ability to determine tracking assignment, favorability of ability grouping, and beliefs about the outcomes of tracking.

Overwhelmingly parents of upper-tracked children supported the system of tracking as they believe it will help their child in the future. They also believed that if the classes are made heterogeneous that it may impact their child's ability to do well. Similarly, many parents of lower-tracked students also supported tracking because they believed that it would give their child more one-on-one time or individualized training, despite there being evidence proving that this was not happening. Essentially, despite the research that tracking holds many students back from equal education, parents were committed to upholding tracking as a best-case scenario in the current public-school system.

For AP classes, Burris (2014) synthesized several studies, including one by Paul Attewell (2001), purporting that parents believed that an inclusive class will lead to a watering down of the curriculum. Affluent parents believed their students should be able to take "prestigious" classes to sharpen their edge in getting into top colleges. Essentially,

this was seen as a privilege for their child. Burris stated that tracking undermines the real educational achievement for all students. She highlighted that parents believed that increased opportunity for others would lead to decreased opportunity for their own children. “Parents with a competitive mindset, however, perceive that the rarer the school’s AP designation, the greater the advantage bestowed on students” (Burris, 2014, p. 87). She also mentioned how people believed that students can move in and out of ability groupings with freedom, but there is little evidence that such movements actually occur. Most evidence points to students staying in the ability grouping or moving down. Another idea she noted is how low-performing students often are put into vocational education or military programs in schools. Ultimately schools have gone from college and career ready to college *or* career ready. Burris’ book, at its core, is a call for educational reform. She argued that true school reform cannot happen unless schools stop sorting students and build “strong, diverse schools and classrooms” (p. ix).

Tracking essentially keeps students from being able to reach their full potential. For many schools, the system shows no signs of going away any time soon. Educational equity is the only way that all students can be successful. The small number of low SES students and minorities represented in AP and dual credit classes are partly the result of years of tracking. While it seems that getting rid of tracking will solve the problem, it is only part of a much larger and multi-faceted issue in education. Further research is needed on how teachers' attitudes and perceptions toward low SES and minorities in advanced classes add to this inequitable system.

It will also be important to discuss social and cultural capital as well as self-efficacy as determining factors in whether a student signs up for an AP or dual credit

class. The classic work on cultural capital stemmed from Pierre Bourdieu's work in "The Forms of Capital" in which he explained the levels of academic achievement in relation to social mobility (1985). In this study, Bourdieu stated that cultural capital explains the "unequal scholastic achievement of children originating from the different social classes" (p. 17). Drawn from its roots in Marx's focus on economic capital as the basis of inequality, Bourdieu showed that cultural capital works much the same way. However, he believed that social structures do not exist in a vacuum, but instead, are created by individuals and are subject to change. He divided cultural capital into three states: embodied state, objectified state, and institutionalized state. Essentially, objectified cultural capital argued that in an educational context, students with resources such as books, or in the context of AP classes, those with teachers that differentiate, would have an advantage more than those without. AP classes become a type of institutionalized cultural capital in the form of an academic qualification. The qualification becomes an identifier of achievement and thus may manifest itself in economic capital if followed through college and into the job market (Maschal, 2013). Social capital may also manifest itself in regards to AP classes in the sense that it puts underrepresented students in a position to make relationships with other individuals that they may not normally come in contact within the regular curriculum (Maschal, 2013). The other thing to consider is that Bourdieu's theories have been criticized for the lack of recognition of the individual agency as well as interventions during educational paths.

Other studies have shown that cultural capital has much to do with class. Annette Lareau's study of *Unequal Childhoods* (2003) argued that social class shaped the logic of childrearing. Middle-class families were much more adept to navigating institutions than

their working-class or poor counterparts. In the update to her book in 2011, she showed how class continues to shape opportunities as the children grew up into their 30s. Other studies have also shown how inequality and a class-based structure have led to an educational debt (Ladson-Billings, 2006). If schools want to see their AP classes match the demographics of the school, then they need to consider barriers that exist and those that uphold racial and class stratification. Lareau's study argued that children of middle-class families had more knowledge of the "rules of the game," more sense of entitlement when asking for help, and were able to relate prior experiences when dealing with an institution. Poorer classes of students and adults conversely were "less knowledgeable about and more frustrated by bureaucracies." Although the actions of the middle-class was not always desired, they showed to be more in line with the institutions they were dealing with.

In 2015, Lareau gave an update to her longitudinal study of over 20 years where she purported that "cultural guides" had a crucial role in helping upwardly mobilize adults of the study. Small moments, she argued, are "critical in setting the direction of life paths" (p. 1). This research should be seen in context of those studies that argue about the efficacy of the AP classroom and should consider that some teachers do more than just teach curriculum in AP classes. (Klopfenstein & Thomas, 2009; McKillip & Rawls, 2013; Paige, 2004). These teachers are preparing students for the soft skills used to navigate their adult life and skills necessary for success. Lareau's evidence suggested that class reproduction "is often the default mechanism unless an intervention or unusual mentorship occurs" (2015, p. 3). AP classes by default may be considered an intervention

considering they provide a way to attain college credit while in high school and are often not taken by underrepresented students.

Teacher Knowledge

Teacher knowledge can be another indicator for student outcome and general classroom environmental health, and it can heavily influence social capital of students. It is important to analyze teacher knowledge and include it in any consideration on how well teachers are successful with underrepresented students. In the past few years, advances in neuroscience have shown how the brain best functions, learns, and uses information. These discoveries along with brain-based science have the potential to drastically inform and change teacher knowledge for the better (Blömeke & Delaney, 2012; Voss, Kunter, & Baumert, 2011). The question is whether teachers use or apply this knowledge in the classroom or return to the comforts of how they were taught or learn best.

One of the first major studies on teacher knowledge was led by Lee Shulman in the early 1980s. Among his research were seven distinct categories of teacher knowledge:

- (a) general pedagogical knowledge, with special reference to those broad principles and strategies of classroom management and organization that appear to transcend subject matter; (b) knowledge of learners and their characteristics; (c) knowledge of education contexts, ranging from working in a group or classroom, the governance and financing of school districts, to the character of communities and cultures, (d) knowledge of education ends, purposes, and values, and their philosophical and historical grounds; (e) content knowledge; (f) curriculum knowledge, with particular grasp of the materials and program that serve as “tools

of the trade” for teachers; (g) pedagogical content knowledge, that special amalgam of content and pedagogy that is uniquely the province of teachers, their own special form of professional understanding (Shulman, 1987, p. 8).

What is described by Shulman (1987), is what Connelly and Clandinin define as knowledge for teachers – basically possessions of things that teachers can acquire. This should not be confused with how they define teacher knowledge. What will become apparent in this study and should be kept for consideration while reading is that often teachers’ practice or mode of instruction is their knowledge in action (Connelly & Clandinin, 2000). It is important when looking at teacher perceptions to understand that most of what they believe is influenced by their knowledge. They operate in the classroom with their own teacher knowledge which is “embedded in teachers’ lives and acquired through living” (p. 92). How teachers view themselves and their roles in education is rooted in teacher knowledge and identity. Olsen (2008) defines identity as both a product and a process for the teacher. This dynamic is best described as:

A label, really, for the collection of influences and effects from immediate contexts, prior constructs of self, social positioning, and meaning systems (each itself a fluid influence and all together an ever-changing construct) that become intertwined inside the flow of activity as a teacher simultaneously reacts to and negotiates given contexts and human relationships at given moments. (Olsen, 2008, p. 139)

Some teachers have a specific way that they see their class, and thus their pedagogy is an outgrowth of that vision. Banking curriculum, treating a class as if it were a college

lecture hall, numerous long writing assignments – all of these may be spoken of as rigors but more represent the personal identity and knowledge of the teacher.

What often drives teachers to teach a specific way is their passion (Day, 2004). Teacher perceptions should be seen as an outcome of passion. Teachers believe that can make a positive influence on their students' success, but that positive influence is rooted in their own worldview and experiences. Historically underrepresented students may often not have the same cultural or experiential background as the teachers.

Rigor

Reconsidering rigor is a large part of the conceptual framework of this study. If teachers have mixed views of college-level rigor, then this plays out in the classroom. In addition, if we define teachers' practices by their backgrounds, then their view of rigor is what they experienced in their own schooling (Connelly & Clandinin, 2000). We need to operationalize the word rigor. One question that needs to be answered by teachers and schools alike is how rigor is measured in the school. Many AP classes deal with the difference between depth and breadth of the curriculum. For students from underrepresented backgrounds or urban environments to be successful, there needs to be curriculum that is both rigorous and accessible.

The International Center for Leadership in Education (ICLE) does not really give any singular definition to rigor. Instead, they define rigor along quadrants and show that more rigorous activities possess high degree of application or adaptation, provide opportunities for students to gather knowledge to solve complex problems and allow students to create solutions (Jones & Branigan, 2012). They argue that rigor is most closely aligned with the higher levels of Bloom's Taxonomy – creating and evaluating

(Bloom, 1954). The relevance of the coursework according to the authors makes the rigor possible in the classroom. While there is nothing wrong with this philosophy of rigor in the classroom, it paints a very singular picture and may not always be accessible for students who have been in lower tracks or have not had previous skills to build upon. Advanced classes will serve no purpose if the preparation for students in these classes does not exist.

Hallett and Venegas (2011) argue that even though there are more opportunities for low-income students to take AP classes, the performance does not match. Essentially, the students' own thoughts on their preparation and the resulting performance do not indicate real preparation for universities. Basically, students need more than just an AP class to prepare themselves for college which begs the question of the purpose of an AP class on the transcript if the students are not obtaining valuable skills. This reverts back to the idea of tracking and how having classes without rigor can make a student's AP experience even more difficult. They purport that the rigor of a student's schedule, including AP courses, is directly correlated to their eventual success in college classes. For those students who did not pass the AP exams or felt unprepared for the test, students cited teacher preparation, calibration of classwork to the exam, and school structural issues which made it difficult to navigate course selections. The AP teacher plays a big role in the overall quality and rigor of the coursework. Hallett and Venegas cite that increased numbers of AP courses are not enough to have a successful and rigorous program. Teacher certifications, delivery systems, and bureaucratic issues often impeded this goal.

Other scholars have shown how rigorous classes, not just AP classes, have benefitted disadvantaged youth. Long, Conger, and Iatarola (2012) show through their research that a student who takes one rigorous course in any subject will result in a 7 to 11 percent increase in the student's likelihood of graduating high school and going to a 4-year college. In several key pieces of their study, high school students were several points higher in standardized tests or more likely to graduate and go to college if they were to take even one rigorous course. This shows that there are elements to these rigorous classes that increases the confidence of student belief of success.

Many teachers struggle with understanding what rigor really is in a classroom since the word is used so often in other formats of daily life. If teachers want to raise rigor while also not alienating students, then they have to figure out how content actually fits into students' world. Kusuma-Powell and Powell (2004) state that schools can be rigorous and inclusive of multiple groups of abilities if it includes depth and integrity of inquiry, sustained focus, suspension of premature conclusions, and a continuous testing of hypothesis. Teachers can also aid some students in sustaining focus by varying the pace or grouping of the activities, develop a personal code system with students, and asking questions. To create inclusive classrooms, Kusuma-Powell and Powell argue that classes also need to be relevant to students' lives and to the current world both in content and in pedagogy.

Klopfenstein (2003) argues that a well-run AP program is one that teaches students about college. While she asserts that students should be challenged by rigorous coursework, these classes should "allow students to learn these skills in a familiar high school environment with a level of individualized attention that is unavailable at most

colleges” (p. 47). Students get an opportunity to learn study skills and good habits that they will need in college. Klopfenstein stresses that the academic culture of an AP classes is beneficial for underrepresented students who have not been previously exposed to a culture of learning. However, poorly run AP programs treat the rigor in the course as “college-level,” and students often get the impression that no great effort will be required. If the teacher is unprepared or does not know the material, this sort of scenario can cause many problems for student down the road.

Even from a perspective of high standards in the classroom, rigor is sometimes misconstrued. John O’Neil and Carol Tell (1999) discussed the idea of student learning as a creative process and how teachers can shape the instruction to meet the needs of all learners. They specifically mentioned rigor as a misrepresented item in many educational circles. They stated, “A lot of horrible practices are justified in the name of ‘rigor’ or ‘challenge.’ People talk about ‘rigorous’ but often what they mean is ‘onerous,’ with schools turned into fact factories. This doesn’t help kids become critical, creative thinkers or lifelong learners” (p. 20). Rigor in many circles is similar to long multiple choice tests, fill in the blank quizzes, and high-stakes environments where teachers are pressured into raise their scores. Although not written with AP in mind, it has many correlations to an AP classroom in that many teachers only teach to their respective test and are in competition with other teachers for high AP scores. While friendly competition is not bad in itself, it can destroy the ability for the teacher to create pedagogically sound environments for all learners, especially those from underrepresented populations.

By looking at rigor on a continuum, Brian Gibbs (2017) has shown that different definitions of rigor are not necessarily wrong, but have different anchoring identifiers. By

surveying several social studies teachers, he collected data about teacher conceptions of rigor and also gathered information from course readings, assignments, assessments, and projects. He argued that two distinct pictures of rigor emerged with “Rigor for Academics” (RA) on one end and “Rigor for Democracy” (RD) on the other. RA is much more focused on disciple-based skills, official knowledge with minimal critique, with the teacher as the center of the class. Teachers in these classrooms concentrated on content and did not see reason for any interdisciplinary connections. Teachers even defined what they believe College Board thought of as rigorous even though the College Board has made no official statements on their definition of rigor. RD takes a more justice-centered approach, with culturally relevant skills, and critical content and pedagogy. Students in these classrooms have opportunities to enter the curriculum and build up to very complex activities. Gibbs likened it to shooters and dribblers. In a basketball game, there are some players that do not need to dribble; they just take shots. These would be the students who can immediately enter a room and take an essay test over a complex issue. Dribblers, on the other hand, might spend a lot of time dealing with arguments and discussion that lead up to a sustained intellectual level. Some teachers argued that this buildup would actually reach higher levels of rigor for a longer sustained time. Gibbs made note to show that the rigor spectrum is not binary, but that teachers leaned heavily towards one end or the other. Although this study was done by interviewing social studies teachers, it is fundamentally grounded in critical pedagogy where RD can become a mechanism for success with underrepresented students.

Wayne Au (2008) discussed the difference between what he saw in teachers as academic rigor that often prepares students to be National Merit Scholars and students at

Ivy League schools and then the idea that multicultural education is rigorous. He described rigor being connected to dialogue and multicultural education. The traditional way to do school has been through the narrative of the textbook as the sole authority. Au suggested that in his experiences teachers who questioned the textbook and the material being taught created a space for their students to engage with the content. The connection that were made in this sense became more authentic to African-American and Latino students. The real social issues that were discussed allowed the creation of new historical knowledge in social studies classes and thus increased the rigor. In comparison, the traditional AP classes were rigorous in that they consisted of an immense amount of textbook reading, tests, and essays. Au argued that although these classes require significant amounts of work, they are not intellectually rigorous. Many teachers content leans towards memorization and comprehension over critical analysis. Au stated that it is impossible to see rigor without multiple perspectives that multicultural education provides. Teachers of AP classes should reevaluate their conceptions of rigor as they may not actually be rigorous at all, and worst, may be systemically excluding certain students.

Multicultural Curriculum

In American schools, there are many people who believe that there is a single way that subjects in schools should be taught. Historically, the belief was that structure and expectations of “good teaching” would produce success in student. This culturally blind approach was embedded in a European American, middle-class vision of education (Au, 2009). In the 1970s and 1980s, as American continued to diversify, multicultural education became a conversation among scholars, teachers, and circles of administration in public schools. Between then and now, discrimination and racism have reared their

ugly head through patterns in the United States such as health care, unemployment, schooling, and imprisonment. It is evident that traditional educational creed is still in effect today despite the years of study and conversation. Research has shown that much of society shows a positive perception for whites and conversely negative traits to blacks (Spencer, 1988). In educational circles, the Euro-centric approach to education has permeated almost every facet of teaching. Institutional racism perpetuated the values and beliefs of the white culture and the expense of other students, sometimes with the best of intentions (Maguire, 2017). In the past few decades, there has been an assumption that American is “melting pot” and thus should be a homogenized society. This assumption purposefully demeans specific groups in society which often play out in the educational sphere. Pluralism is vital to many in society, and thus many have dual identities that complement their own ethnic and cultural heritages and being American (Gay, 1994). With increasing diversity in the United States and in public schools, it is imperative that educational circles promote and uphold multicultural education for all students (U.S. Department of Education, 2017).

One of the foremost authorities on multicultural education and culturally relevant pedagogy is Ladson-Billings' (1994) study on African American students' success in culturally relevant classrooms. She interviewed several teachers of African American students to see what these teachers did to be highly effective with these students. In essence, she found that each teacher used part of culturally responsive pedagogy such as high belief in student abilities, the belief that knowledge is not static, and the importance of cultural community in their classroom. For these teachers, the belief that all students can succeed becomes paramount and moves teaching more to an art form than a task.

Relationships lie at the center of what Ladson-Billings investigated with these teachers. When they fostered a strong and personal relationship with the students in their class, they functioned more as “an extended family” (Ladson-Billings, 1994, p. 82). Each of these teachers used scaffolding strategies and create experiences for students to collaborate and construct knowledge through dialogue, regardless of the students’ previous educational foundation. This foundation of knowledge is necessary if teachers in AP classes expect underrepresented students to be successful.

According to Gay (2010), there are five fundamental tenets of culturally responsive pedagogy. First, is the belief that students and teachers cannot be separated from their culture. The second is that traditional ways of reforming or improving student progress are fundamentally flawed because they are embedded in “deficit” mentality (Ford & Grantham, 2003). Many teachers look at what the students possibly lack in educational knowledge instead of building their cultural capital. The next tenet is a call for more than just an awareness about discrimination and cultural difference. Teachers have to possess sound “pedagogical knowledge and skill as well as the courage to dismantle the status quo” (Gay, 2010, p. 14). Fourth, good multicultural education is only present if teachers believe that cultural diversity is a strength and one that can be used to deepen the learning and achievement of these students. Lastly, the process of grading that is used in many educational circles is not good enough because it only shows that diverse students made the grade. Proper explanation is needed to assess why students performed below expectations.

One of the issues that is present in the equity debate is how tailored the curriculum is to African American or Latino populations. In the past, many teachers and

educational researchers believed that cultural background, gender, class or race did not have any effect on the idea of good teaching (Au, 2009). Many textbooks used in history and English classes are part of the white canon and do not have much representation of multicultural scholarship. Taliaferro and DeCuir-Gunby (2008) have shown how this sort of curriculum can alienate African American students. Most parents or adults have no idea that much of the AP curriculum that is approved by College Board or items that teachers use as ancillaries are geared towards a traditional version of these subjects. Essentially parents are entrusting teachers who have do not have multicultural awareness and may not support their students in an AP class (VanSciver, 2006).

When multicultural classroom instruction is not used or considered, it is the achievement of the underrepresented students that is mostly in jeopardy as it affects their sense of belonging and validation as scholars (Cavilla, 2014). Teachers would benefit from considering multicultural classroom libraries as well as classroom decorations that integrate other cultures from around the world. Highlighting heroes or leaders from other cultures that accomplished a lot in a given field or subject can also serve as a way to inspire students. Cavilla argued that the creation of curriculum that is “motivating and relevant to diverse students from urban backgrounds” is necessary for success but requires creativity and work on the part of the teacher (2014, p. 284). One example of multicultural education at work for gift students is the addition of West African Adinkra symbols in a school that is almost entirely African American to empower students’ heritage through the curriculum and assignments. While not all students identify as African (most actually identify as American), Cavilla stated that by having students

explore their cultural heritage, the teacher can fill a role as a cultural translator (Morales, 2010).

Underrepresented students and those from culturally diverse backgrounds can be successful if the teaching in their classrooms is culturally responsive. It is not the only factor, but one barrier that may exist in a lot of schools. The professional development background of teacher goes a long way in preparation for helping these students. Maguire (2017) showed that teachers who had successful students from diverse backgrounds overwhelming stated that the creation of caring and effective relationships with students was the catalyst. Teachers can close the performance and enrollment gap by offering culturally responsive pedagogy. Many of the teachers in Maguire's study were said to have an openness to multiculturalism which is seen as an advantage for students from diverse backgrounds. The mindset of the teacher can make a difference in the success and motivation of the student. Maguire argued that connecting, knowing, and caring for the students were all cited as indicators for success in students scoring higher than a 3 on their AP exams.

Grantham (2012) argued that for AP classes to truly become equitable for underrepresented populations then it is imperative for teachers to change the way they teach and make their curriculum and instruction more culturally responsive. Evidence from Dilworth and Brown (2001) showed specifically that teachers are more effective when they consider students' ethnicity, culture, or background, as opposed to ignoring it or holding a prejudice view. Thus, students do better academically and have a better chance at being successful on rigorous courses when their teachers are culturally responsive (McGrady & Reynolds, 2013). The underrepresentation of low socioeconomic

and minority students in AP classrooms across the country can be combated with teachers and schools that embrace multicultural teaching practices (Ford & Grantham, 2003; Kumar, Karabenick, & Burgoon, 2015; Tomlinson, Callahan, & Lelli, 2004).

Culturally Relevant Pedagogy

Gloria Ladson-Billings (1995) argued that Shulman's (1987) interpretations of teacher knowledge minimize the cultural agency that is possible in most classrooms. She built on previous works that discussed a cultural mismatch that existed between the school and home. Much of the practice and knowledge up to this time, and what may still permeate educators' knowledge today, is that of culturally appropriate, culturally congruent, and culturally compatible; however, all of these work to push the student's culture into that of mainstream teaching – in this case, suburban standards. Ladson-Billings offered culturally responsive teaching as a way to build up both the home and school culture closer together. Ladson-Billings highlighted that the teachers in her study all had concern for the “implications their work had on their students' lives, the welfare of the community, and unjust social arrangements” (p. 474). This sounds good, but what is absent was the teachers care for the individual students – instead, the emphasis was more on their work preparing student for “inequitable and undemocratic social structure” (p. 474). She highlighted in her study that students were successful and culturally competent when the teacher was culturally responsive to those student individual identities. For the success to happen, teachers have to find way to allow students to maintain their cultural roots instead of assimilating. Ladson-Billing expressed that for teachers to be culturally relevant they do not have to have “fixed or rigid” behaviors but need to pragmatically follow several propositions: belief that all students are capable of

academic success, see teaching as unpredictable, see themselves as member of a community they are giving back to, maintain good student-teacher relationships, encourage collaboration, an understanding that knowledge is not static – it is constructed and shared, an understanding that teacher must view knowledge critically, and teachers must scaffold. While the list is not exhaustive of her findings, they represent what is necessary to see culturally relevant pedagogy. Without cultural competence, critical consciousness, and a desire to develop students academically, teachers run the risk of forcing students to assimilate and role-switch to a school environment that is not conducive to all student learning.

Conclusion

The goal of this chapter was to survey some of the literature that surrounds perceptions about underrepresented AP students in advanced classes. Educators must remember that there are both internal and external factors that many of these studies are grounded in. To compare one study to another can be dangerous as they use different populations and often are looking at ideas from different angles. As researchers, we can synthesize the information and make conclusions. By looking at educator perceptions in light of both critical pedagogy and the idea of cultural capital, we have to push toward teachers who are willing to understand the schools they work in and develop a critical consciousness about the ability of the AP classroom as an emancipatory mechanism. It all starts with the teacher. In an interview at the 2016 Southwestern AP Regional Forum, a young African-American professor from Harvey Mudd College, Dr. Talithia William, got up and spoke about how her high school AP math teacher was extremely encouraging to her when she was a struggling student. This teacher facilitated a culturally relevant

classroom. She told how the AP course that she took and the small words propelled her to become a professor and educator herself. It is the stories of success which should push us as critical educators to ensure that the AP classroom is both equitable and accessible.

Leaders in school districts should recognize that educators must be trained on multicultural awareness and concepts like differentiation for this to become a reality.

Chapter III

Methodology

The purpose of this qualitative study is to explore the teachers' perceptions of underrepresented students in their AP classes. It aims to uncover some of the possible reasons for underrepresentation of students across many district high schools by using a large suburban district, Northwest ISD, as a case study. Within this study, the researcher aimed to find ways to increase the equity and access of historically underrepresented students to AP classes and increase the level of success of these students. This may be partially possible through self-realization of the participants as well as changes made to processes because of the analysis of the data by the researcher. Through the data obtained from participants, I examined the beliefs and perceptions of teachers about their AP classes and their experiences with historically underrepresented students. The previous two chapters discussed the problem that historically underrepresented students face in AP classes as well as much of the literature that surrounds the topic. This chapter describes the methodology used to study teacher perceptions.

Research Questions

The goal was to answer the following research questions:

1. What are the teacher perceptions about open access and differentiation for underrepresented students in AP classes?
2. What are the teacher perceptions about rigor and expectations for students in AP classrooms?
3. What are the teacher perceptions about the purpose and value of AP classes on underrepresented students?

Research Design

The research design for this study was a multiphase qualitative case study (Creswell, 2014). Typically, this method design draws heavily from an initial phase and then helps to inform a subsequent phase. The researcher analyzed the data and used it to purposefully select participants for the second phase. For this study, I employ a mixed-methods survey and use it to inform semi-structured interview questions for a (Creswell, 2014). The chosen design is useful since it allows the researcher to gather quantitative data on Likert scales to help assess where the district participants may be in terms of my research questions and qualitative views of participants through in-depth interviews (Creswell, 2014; Collins, Onwuegbuzie, & Sutton, 2006). The study is not a true mixed-methods approach since the survey was only used to help inform how I might edit the interview questions. Archival data from College Board was also used to triangulate information across multiple sources and participants for the district under study (Mertens, 2005). Participants for both phases of the research were selected to form a purposeful sample. Follow up interviews were conducted to help triangulate information that was given in the initial interviews.

The singular focus of this study was to uncover the teacher perceptions of historically underrepresented students to see if there are ways to provide for more access and equity. Through two separate phases of data collection and extensive time coding and performing thematic analysis several new ideas began to emerge which painted a different picture of the district teachers than previously thought. This study, although in separate parts, maintains methodological congruence described by Richards and Morse (2012) to connect many forms of data such as interviews, surveys, field notes, archived

statistics, and general researcher observations to a single purpose. All of the data collected was coded in multiple ways and organized into themes to better be able to interpret the participants perceptions.

Participants

If teachers are the biggest influencer of student success in a school, then it is imperative to start with their understanding and beliefs about their students (Pajares, 1992). The perception and worldview of the teachers affects how they teach their class and can also affect the general efficacy of their teaching ability with specific students. Many underrepresented students who opt for AP classes are in need of a teacher who can differentiate for them. While Wood (2010) posited that the principal has the highest level of influence over AP success and climate, it is necessary to look at the teacher within the classroom. The only school professional who has the ability to intimately know the students and monitor their progress daily is the teacher in the classroom. It is also understood that there are other factors at play with underrepresented student success such as parental income and background. Wood (2010) stated that his study would be best be extended by interviewing teachers and seeing what perceptions they have in conjunction with the principals.

The study is designed to use a larger suburban school district, Northwest ISD, as a case study for comprehensive conclusions about teacher perceptions. A purposive sample of individuals were chosen for this study from eight approved schools within the district. Only AP teachers who work first-hand with AP students can offer the information that is needed for the study (Shank & Brown, 2007). All AP teachers at the approved campus were invited to take part in the initial anonymous survey. Depending on the return rate,

this study could have included up to 217 AP teachers. The population that is targeted aims for at least 20 school respondents to the survey from each of the clusters within the district. The reason for this selection is to get info from teachers of various student populations. There are 12 high schools and three clusters out of those. The clusters are separated by free and reduced lunch population – lowest, middle, highest. For the second phase of the research, the expected outcome of the targeted population would be at least two interviews per core subject to help better corroborate the data across different subjects. A total of 16 participants were asked to take part in the interviews.

Survey Questionnaire

Qualitative data collection techniques were used as the primary research method for this study. However, the qualitative data is quantifiable due to the nature of the survey. For the survey, an online Google Form utilized 25 Likert scale questions as well as some demographic questions about the teacher (See Appendix B). Each scale statement had seven possible responses for teachers, with anchor points of strongly disagree and strongly agree. These questions were taken from Wood's (2010) principal perceptions survey, although they were given to teachers. Only very minor word changes occurred in a few questions to maintain the validity of the survey questions. Most of the changes involved wording, such as a change from the phrase "low-level classes" to "on-level classes" which is what teachers would recognize in the district. Instead of using Wood's survey in its entirety, only the perceptions questions were used since the data for practices at each campus were available through archival data at the district level. The domains that were used from the Wood (2010) survey were the Value of AP Coursework and Communicating that Value to Stakeholders, AP Placement Policies – Open vs.

Limited Access, Attracting More Students to AP Courses, Teachers' Adaptability and Commitment to AP Excellence and Expansion and Expecting and Ensuring Success for Students in AP Courses.

While none of these categories deal specifically with underrepresented students, the perception questions are arranged so that the higher number values show that teacher belief in removing barriers to student participation. They also reflect a belief that in rigorous courses they advocate for student success. On the other end of the spectrum, lower scores on the Likert scale indicate that AP classes should be only be available to select students, mainly those who traditionally enter AP classes. These questions were previously validated in the Wood (2010) survey by AP teachers in the field for accuracy and relevance. Wood originally switched some of the questions so that "strongly disagree" would be connected to beliefs that remove barriers for student. To ensure balance and validity, the questions have been kept the same. The questions also helped inform the trajectory of the interview questions. The questions that were calculated in reverse are shown in Figure 1.

In addition to the Likert and demographic questions, the survey concluded with an additional two open-ended questions. The first question asked teachers if they differentiated for historically underrepresented students and to provide an explanation. The other question simply asked if the participant had any comments about the study or that they thought would be beneficial to the researcher. The reason for adding these questions at the end was to elicit some rich comments from the participants once they have had their mind on the subject at hand. Since I could not interview every survey

Question Number	Question
6	In my opinion, on-level courses are necessary to accommodate the needs of our students.
7	I believe on-level courses are necessary to provide our student a sense of success.
10	In my opinion, AP courses should be reserved for our highest academic achieving students.
11	I think pre-requisite courses should play a large part in determining if a student is prepared to take an AP course (or courses leading to AP participation).
12	I believe that preparation to take an AP course should include an “A” average in that particular subject area.
13	In my opinion, faculty recommendations should play a larger part in determining if a student is placed in an AP course.
18	If we significantly increased the number of students in AP courses, I believe AP scores would suffer significantly.
23	I think teachers in our school consider teaching AP courses as more important than teaching other courses.
24	I think our teachers would view increasing enrollment in AP as leading to “watering down” the AP curriculum.

Figure 1. Research questions that were score in reverse where “strongly agree” would represent a limiting access to AP classes

participant, this provided a method for digging to the heart of the first research question about open access and equity. While the open-ended questions do not ask specifically about open access to historically underrepresented students, the question does ask about differentiation which is deeply tied to access and equity in this situation.

To ensure that the questions in the survey actually would help answer the research questions, each survey item was matched with one of the research questions. Figure 2 shows a matrix of how each of the instruments are connected to the research questions. Some of the questions did not directly address one of the research question but will help frame the context of the teachers’ perceptions. In the similar fashion, there were several questions that addressed or helped contextualize more than one research question. The quantitative section utilized a perception survey, and the qualitative section consisted of

follow up interviews regarding teachers' perceptions specifically about underrepresented populations. The matrix shows the potential for these instruments to answer these questions. It should be known that the interview questions can answer one question over another depending on the participants' response.

Research Question	Likert Questions	Interview Questions
Research Question 1: What are the teacher perceptions about open access and differentiation for underrepresented students in AP classes?	6, 7, 8, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 21, 22, 24, 26	1, 2, 3, 4, 5, 10
Research Question 2: What are the teacher perceptions about rigor and expectations for students in AP classrooms?	3, 5, 6, 10, 16, 18, 21, 24, 25, 26	1, 2, 4, 6, 8, 9, 10, 11
Research Question 3: What are the teacher perceptions about the purpose and value of AP classes for underrepresented students?	1, 2, 3, 4, 5, 11, 14, 15, 16, 17, 20, 21, 23	1, 2, 4, 7, 10, 11

Figure 2. Question and instrument matrix showing data collection method

Interviews

Semi-structured interview questions served as the second phase of data collection in this study and will help inform much of the survey. This data helps triangulate the study and align similarities between survey data and recorded district data. Figure 3 shows how the questions correlate to the research questions for the study. The interviews were guided by a set listing of questions in a predetermined sequence. This allowed for there to be more continuity of comparison and reduce potential interviewer bias (Patton, 1990). The questions served to narrow the purpose of the scope directly to underrepresented populations and less about general AP perceptions; although, some of

those perceptions can influence underrepresented students' success (Creswell & Poth, 2018). Within the interviews, a strategy of probes was used allowing for participant to provide more individualized responses dealing with perceptions on historically underrepresented students, rigor, culturally relevant pedagogy, general assignments, and expectations. (Fraenkel & Wallen, 2006). Each interview lasted approximately 45 minutes, although I did not stop the interview process if they were running longer. The interviews were recorded with a digital recorder to allow for later review and transcription. The interviews were conducted in the interviewee's place of choice, mostly within their own classrooms.

Interview Questions	Correlating Research Question
What are your perceptions of underrepresented student who are taking your AP class?	RQ1, RQ2, RQ3
Can you describe your perception of the College Board AP Equity Statement?	RQ1, RQ2, RQ3
In reading the statement, can you describe how you best carry out the AP Equity Statement in your class?	RQ1, RQ2, RQ3
What experiences have you had with underrepresented students in your AP class?	RQ1, RQ2, RQ3
What roles does differentiation play in your classroom with AP students?	RQ1
What do you see as your best assignment in your AP classes? Describe it.	RQ2
How do you view the value of an AP class for students who have never taken one before?	RQ3
Can you tell me about the rigor of your AP class?	RQ2
Can you describe your best students in your AP classroom?	RQ1, RQ2
Can you describe your experiences with multicultural education or culturally relevant pedagogy?	RQ1, RQ2
Can you describe what you have done to make students successful in your AP class?	RQ1, RQ3

Figure 3. Qualitative Instrument correlation to research questions

Survey Data Collection

The surveys began after receiving permission from the district research office, high school principals, IRB approval, and the participants. A link to the questionnaire along with a letter describing my research was sent to the Directors of Instruction (DI) at each campus who then forwarded the Google Form link to the AP teachers. Each DI took the liberty of contacting their AP teachers in their own way. Some essentially forwarded the message to the teachers and ask them to read the email, while others wrote a personal message and asked for participation from their teachers. The general return rate was about the same for each campus.

Out of the eight high schools in which the survey was sent, there are a total of 217 AP teachers. The selected teachers had to meet simple criteria to participate, mainly be a current College Board approved AP teacher within the district and be willing to participate. Of the teachers who were contacted, 100 completed the survey questionnaire and electronic consent form for a return rate of 46%. Considering that there were originally 12 high schools slated for the study and only eight principals returned the request for study on their campus, this number represents about a third of all of the AP teachers in the entire district. The number of AP teachers in the district totals 303. The participants had a two-week window to complete the survey. A reminder email was sent after the first week to the DIs to remind their teachers of the deadline for the survey. Data from the survey was stored on a secure Google Drive. The raw survey data was then transferred to Excel to run descriptive statistics as well as other analysis.

Interview Data Collection

Once most of the survey data was completed, an email was sent to the four main subject curriculum coordinators to request the names of AP teachers to interview. These were math, science, social studies, and English/language arts. To have a purposeful sample of teachers to interview a snowball (or chain) method was chosen. This method allow those coordinators that best know the teachers in their subject to recommend teachers to the researcher for interviews (Creswell & Poth, 2018, p. 159). I requested four teachers for each subject, two of whom would be considered veteran or established AP teachers and two who would be consider new to the subject (less than two years of teaching AP). This purposeful sample is important because it provides data that will best help the “researcher understand the problem and the research question” (Creswell, 2014, p. 189). Once analysis had taken place, this method for finding teachers would highlight any differences seen in the length of time a teacher has been teaching their AP subject. This sample would return a total of 16 names overall to interview evenly spread across the main subject areas.

I contacted these teachers specifically as opposed to using the DI to maintain as much confidentiality as possible for the sake of the participants. The participants were emailed inviting them to participate in the interview. Included in the email was a copy of the consent form for them to read over before they sent back their reply. The subject were informed that their name had been given to the researcher from their respective curriculum coordinator. If the teacher responded, then we would schedule an interview at a mutual date and time, preferably off contract hours in the afternoon. When I arrived at

the interview locations, two copies of the consent forms were signed, one for the participant and one for the researcher to collect. At the beginning of each interview, I would explain the purpose of the study without giving away too much information that might lead to socially desirable responses. Then, I would also inform the participant that I used to be an AP teacher as to find some common ground for the beginning of the conversation.

All of the interviews took place in the teachers' classrooms with the exception of one that took place in a small quiet conference room because the teacher's room was in use during the time of the interview. In addition, all of the interviews were recorded for transcription and study purposes except one teacher who declined to be recorded. Field notes were taken for this interview to coincide as closely as possible with the coding processes used for the recorded interviews. During the interview, the researcher took simultaneous notes to compare themes brought up in the conversation to those that might be coded later with the transcriptions. Once the interviews were concluded, the files were coded to maintain confidentiality and then uploaded to Temi, a service that electronically transcribes the interviews. These interviews could then be downloaded in Word format and used for data analysis. Any quotations that were used are verbatim with the exception of deleting words like "um," "you know," or other non-essential speech interjections.

After a few weeks of looking through the coding, I contacted four of the participants as a convenience sample and asked them qualitative questions through a Google Form. The goal was to mention some of the larger findings and ask teachers their perceptions or reflections on these items. This information was used to triangulate data obtained earlier. This process is shown in Figure 4.

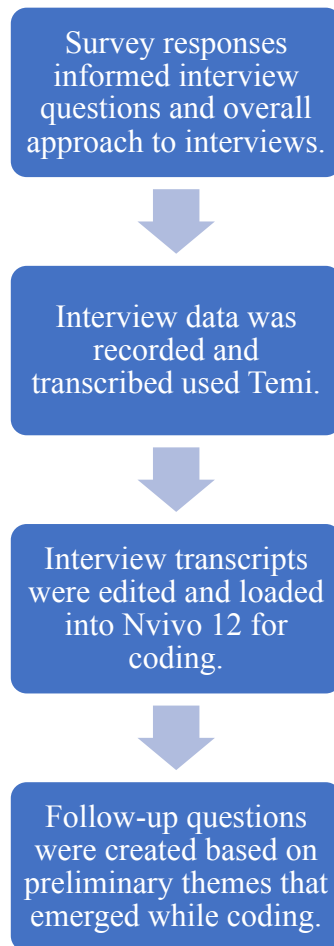


Figure 4. Processes for Data Collection

Risk and Reward

There were no major foreseen risks involved in this study. While I do work at the central office for the district, I am not in a position to evaluate teachers as it is done on the campus level. The information in the surveys was shared with district personnel in the research office to raise their awareness of the findings and hopefully work to create more equitable access to AP class success. There were no rewards for taking part in the study other than the idea that they will be helping identify areas of need and be a part of the

solution. The reflective practice that might take place by participating in the survey or interviews may raise teachers' awareness of issues which could possibly create avenues for more equitable practice.

Limitations

One peculiarity to some of the AP classes in the studied district is that it is mixed with students who are taking dual-enrollment courses through the local community college. In most cases, the college has adopted the AP framework for several of their crosswalks and teachers will have any mixture of the both dual credit and AP students in the same class, learning the same material, but testing to get the credit in different ways. The AP students take an end-of-year exam designed by the College Board and the dual credit students take two semester final exams designed by the teacher and college faculty. Being that a large majority of college degrees require several of these core classes, these high school courses are a favorite of students wanting to bypass having to retake history, math, and English when they arrive at college.

The other limitation is that the subjects under study are only a small portion of the teachers in the district and may not represent the perceptions and values of all the teachers. The survey had 100 participants but still may only be representative of those teachers and cannot speak for those that did not participate.

Data analysis

In the research design, the two phases were analyzed separately. The goal was to see what the teachers' perceptions were and if they change depending on cluster group, years in education, or other variables. At the same time, the survey was used to inform the questions being asked in the interviews. While a detailed analysis had not be

performed up to that point, the survey did highlight questions that were contested between the 100 survey participants and could be used as talking points during the interview.

The Likert questions in the survey were essentially analyzed qualitatively so that they could be calculated for each of the themes. This information helped inform some of the idiosyncrasies that were present within the district and with AP teachers. Correlations between the parts of belief scale and other archival data were calculated to help inform the research questions. This data analysis aimed to see if there are correlations with any themes discussed in the literature review or theoretical and conceptual frameworks. The open-ended questions at the end of the survey were treated similar to the interviews. The information was coded and used to compare to the conversational themes in the interview.

In addition to the survey questionnaire about AP program perceptions, those who were selected to participate in the interviews were asked a series of semi-structured interview questions regarding their beliefs about underrepresented students and their AP processes in their classrooms. Teachers' responses were analyzed by inductive analytic methods for descriptions, themes, and interpretations; however, it should be noted that the questions for the interview were heavily built around previous themes that aligned with the research questions and the survey (Roulston, 2010). Participant answers were again compared to those on the open-ended portion of the survey for triangulation. The interview research utilized inductive coding choices that were emergent and data-driven (Saldaña, 2016, p. 75). Four main methods for coding were employed starting with attribute coding to get a better sense of who all participated and how that demographic

data can help inform the study. The transcripts and fields notes were also coded using value coding as a first cycle. When value coding was not appropriate in certain circumstance, then structural coding was used as a default method. This coding method was only used if there was not a possibility of offering immediate meaning to what was discussed in the interviews. Some of the coding was more conceptual and abstract which led to a form of structural coding before arriving at the second cycle coding. These perspectives that did not initially present value to the interviewer were then forwarded into a secondary method called pattern coding to search for major themes and concepts. Some of the patterns that emerged were in conjunction with the themes of the interview questions, but others emerged through a careful analysis of the coding. I also did word frequency test using both the open-ended survey questions and the interview transcripts to see if any codes might have shown similarities.

Coding Method in Order of Use	Cycle	Goal of Coding
Attribute Coding	1st	To find basic descriptive information about the participant demographics (Saldaña, 2016, p. 83).
Value Coding	1st	To discover the perceptions and beliefs present in teachers (Saldaña, 2016, p. 131).
Structural Coding	1st	To develop topic for analysis for the large amount of transcript data available and keep in focus with the research questions (Saldaña, 2016, p. 98).
Pattern Coding	2nd	To gather inferences that result in patterns and themes (Miles et al., 2014, p. 86).

Figure 5. Methods for Coding Qualitative Data from Interviews

Once the analysis of the transcripts were completed and all codes were recorded in NVivo 12, it was possible to do a second coding by pattern. This was difficult

considering that many of the participants' ideas could have help answer more than one part of a few research questions. These inferences in the pattern coding helped set up the structure for the findings. The methods for coding are shown in Figure 5 and Figure 6.

District and College Board data was also used to help inform the study. Longitudinal data was pulled for the total numbers of AP students across the district as well as at each individual campus. The information was divided up by total test, demographics of ethnicity and race, as well as student who took and passed the test that were on free and reduced lunch. This helped give a better picture of the diversity that exists across the district but also highlighted how historically underrepresented students are still underrepresented in the district under study. This information gave a setting for better understanding the participants and the environments that they work in.

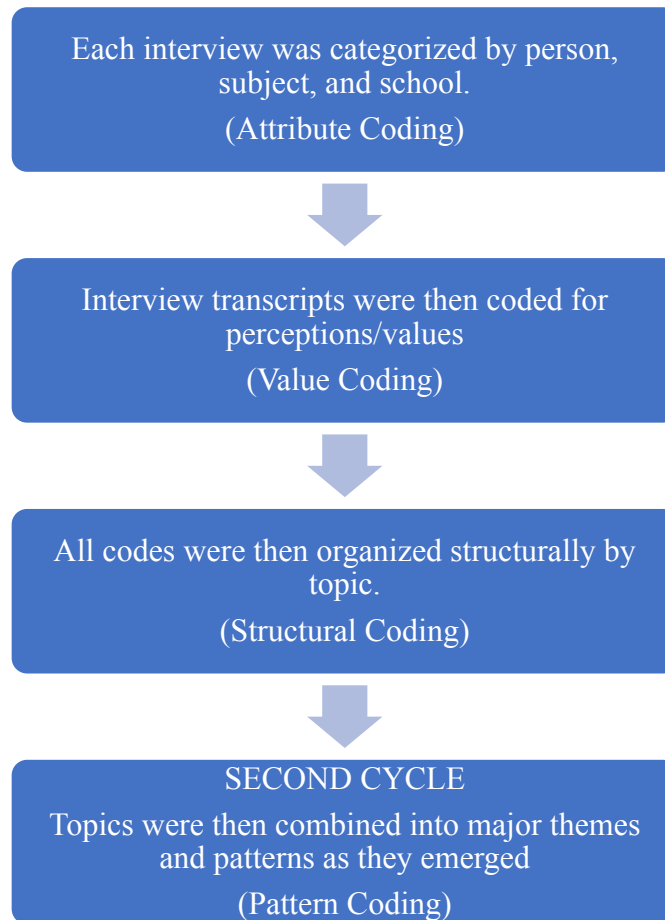


Figure 6. Process of Coding

Chapter IV

Findings

The purpose of this study was to explore the teacher perceptions of historically underrepresented students to inform ways to improve access and equity. These perceptions would help follow up information that was originally presented in Wood's (2010) dissertation on principal perceptions of access to AP students. This study has built from that work and expanded the scope to look at teacher perceptions in a rapidly changing suburban district. The deeper goal of this study is to brainstorm new ways to help teachers increase equity and access for underrepresented students. The analysis that follows in this chapter will hopefully shed light on idiosyncrasies that exists within this district and may be comparable to other suburban school in Texas or the nation. The chapter will explore the findings of the data collected from both instruments and analyze them with regard to the research questions. The findings are organized by instrument as well as by how they best answered the research questions.

Research Questions

This study aimed to answer the following research questions:

1. What are the teacher perceptions about open access and differentiation for underrepresented students in AP classes?
2. What are the teacher perceptions about rigor and expectations for students in AP classrooms?
3. What are the teacher perceptions about the purpose and value of AP classes on underrepresented students?

By looking at these research questions, many new ideas about teacher perceptions emerged. Many of which are specific to this district but also some that can be attributed to AP teachers in other suburban districts across the country. The instruments used in the study specifically address aspects of these research questions.

Instrument Summary

As a qualitative inquiry, this study utilized both an anonymous survey with Likert scale and open-ended questions, interviews with a purposeful sample of teachers, and follow-up interviews with a convenience sample of teachers. A purposeful sample of the AP teachers within the district was selected for interview whereas the survey went out to every approved AP teacher. Archival data, as well as follow up interviews, have been used to triangulate and validate the information gathered in the qualitative instruments. The survey and the interview questions both aimed at answering different aspects of the research questions, as seen in Figure 7; however, the survey was strictly intended as an instrument to inform the interview questions and the trajectory of the study. I was able to get a better understanding of how AP teachers might respond to specific questions by doing the survey first.

Research Question	Likert Questions	Interview Questions
Research Question 1: What are the teacher perceptions about open access and differentiation for underrepresented students in AP classes?	6, 7, 8, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 21, 22, 24, 26	1, 2, 3, 4, 5, 10
Research Question 2: What are the teacher perceptions about rigor and expectations for students in AP classrooms?	3, 5, 6, 10, 16, 18, 21, 24, 25, 26	1, 2, 4, 6, 8, 9, 10, 11
Research Question 3: What are the teacher perceptions about the purpose and value of AP classes for underrepresented students?	1, 2, 3, 4, 5, 11, 14, 15, 16, 17, 20, 21, 23	1, 2, 4, 7, 10, 11

Figure 7. Question and instrument matrix showing data collection method

Validity and Reliability

The Likert scale questions on the survey questionnaire have been previously validated by Wood (2010) by his own work as well as by “experts in the field of AP coursework” (p. 117). For the sake of this study, only a portion of those questions were used – the perception questions. These questions were arranged in categories that corresponded to different perceptions that teacher may have about AP classes. Open-ended questions were added to the survey to canvas the district on their opinions about historically underrepresented students.

Once the survey data was analyzed, I rewrote the initial interview questions to better fit themes seen through the survey. The teachers that were interviewed appeared very reflective although it did not seem that many of them have had time to reflect on some of the questions I was asking them. Therefore many of the answers that I got came back to their own teaching experiences instead of solely about their perceptions of

underrepresented students. The categorical responses that teachers gave in the interviews often times had less to do with underrepresentation and more about their reflections on their teaching philosophy and experiences. It is important to recognize that these experiences, attributed values, and opinions all play into ideas about open access and equity for historically underrepresented students.

A follow-up interview was done with four of the teachers who were previously interviewed. The goal of the follow-up interview questions was to help validate and triangulate the information gathered in the larger interview process. I created questions to reflect the themes that emerged in the process of the earlier interview. Teachers were asked to reflect on these themes and to provide insight on aspects that were not previously mentioned.

Summary of Demographic Data

Before looking at how the data specifically answers the research questions, it is important to understand the participants in the data and how they played a part in the study. Attribute coding was used to help categorize the participants and demographics in the survey and interviews. There were 100 participants in the survey portion of the study out of a possible 217 teachers for a return rate of 46%. Eight schools were represented in the survey, with all schools except one having a fairly equal amount of participants. As shown in Table 1, Forest Heights High School represented a small part of the findings, which is a school that does not contain all grade levels. The interview participants were spread throughout subjects and across schools. There were 11 participants for the initial interviews out of a possible 16 for a return rate of 69%. As stated in earlier chapters, it was important to be able to canvas the entire district and get participants from as many

schools as possible. There is a wide gamut of socio-economic status (SES) and demographics represented across the district, and it was important to see if there were any differences of opinions depending on these factors. Table 1 shows the number of survey participants from each school within the district and is also arranged by the district socio-economic cluster status.

Table 1

High Schools Represented in the Study

High School and SES Cluster	Survey Participants	Interview Participants
High SES		
Aspen	15	1
McCullum	13	3
New Haven	15	1
Middle SES		
Old Town	12	2
Wolf Creek	11	1
Low SES		
Forest Heights	3	1
San Luis	11	2
Tahoe Bend	18	0
Participants not disclosing school	1	-

Of the teachers surveyed, 43% of them came from schools with students from the high socio-economic backgrounds, 23% came from the middle category, and 32% came from schools with the lowest socioeconomic status. One teacher did not disclose the school for unknown reasons. The percentages of teacher responses on the survey were taken into consideration since teachers from high socio-economic clusters may have a different viewpoint about historically underrepresented students due to the nature of the demographics of the school in which they work. In the same manner, the frequency distribution of interview per school was very similar with 46% of the interview from high SES schools, 27% from middle SES schools, and 27% of the interviews from the lowest SES schools.

In Table 2 and 3, I have shown the participants for the interview. One table shows beginning teachers and the other shows veteran teachers. The idea for the research was to see if there were any differences in responses from these two groups of teachers.

Table 2

Demographics of the Beginner AP Teacher Interview Participants

Participant	Age	Race	Hispanic Origin?	Gender	Number of Years in Education	Current School	Number of Years Teaching AP	Current Subject Taught
Allison	-	White	No	Female	16	New Haven	4	Calculus AB, Statistics
Maribel	26	White	Honduran	Female	4	Forest Heights	1	World History
Lacie	29	White	No	Female	3	San Luis	2	English Literature
Jacob	28	White	No	Male	3	San Luis	2	Macroeconomics

Table 3

Demographics of the Veteran AP Teacher Interview Participants

Participant	Age	Race	Hispanic Origin?	Gender	Number of Years in Education	Current School	Number of Years Teaching AP	Current Subject Taught
Brianne	42	White	No	Female	18	Aspen	9	Statistics
Ashley	61	White	No	Female	24	Old Town	18	English Language
Kelsey	40	White	No	Female	17	McCullum	17	English Literature
Connor	40	White	No	Male	16	McCullum	9	U.S. History
Lesley	55	White	No	Female	33	Old Town	11	Physics 1, Physics 2
Darren	53	White	No	Male	28	McCullum	23	Calculus AB, Calculus BC
Brandon	44	White	No	Male	10	Wolf Creek	9	Macroeconomics, U.S. Government and Politics

Another goal of the research was to get opinions and perceptions from across different subject areas as they each come with their own challenges and successes. The survey was open to all AP teachers within the district. The frequency distribution of the subject is summarized in Table 4. One thing to note is the high number of social studies participants which could have been attributed to my job as a prior social studies teacher and current position as a social studies curriculum coach. While there are a higher number of those teachers represented in the distribution, there is nothing that would lead me to believe that this majorly skewed the data. It is possible that some of the responses to the survey, which were used to inform the interview questions, would have come from a typical classroom background where there is a lot of discussion about social and civic issues. Whether or not this would alter the outcomes of the survey questions is unknown.

Table 4

Frequency Distribution of Survey Participant's Subject Area

Subject	Frequency	Percentage of Total
Math	10	10%
Science	16	16%
Social Studies	42	42%
English	15	15%
Foreign Languages	8	8%
Electives (Art, Music)	9	9%
Total	n = 100	100%

Another demographic to consider when looking at teacher perceptions is the length of time a teacher has been in education and also how long they have taught AP. If past experiences and teacher identity are an indicator of teaching style, then it is important to know how long teachers have been in the education field. The survey gathered a wide range of experienced and non-experienced teachers, and the interview sample was canvassed over both experience levels.

Additionally, I asked teachers in the survey to indicate how many sections of AP they currently teach. The goal was to understand if teachers are speaking from a background where they only teach AP students or if they have other classes at a lower level of the tracked system. Less than 10% of the teachers taught only AP which means they have a point of comparison in their daily schedules. Out of 11 interview participants, only two of them taught full AP schedules. So, I know that the responses that I was getting on the survey should match in that regard to the interview participants chosen.

District Data

It was important for me to look at the district data that was referenced in the first chapter. One thing that was well known by participants in all parts of the student was that the demographics of the schools have changed. How much they responded to those changes varied. Figures 8 and 9 show the trends in district AP testers over the past seven years. Specifically, Figure 8 shows the number of students who passed with a 3+ on the exam each year separated by demographic. Figure 9 shows the total number of testers each without regard for the score.

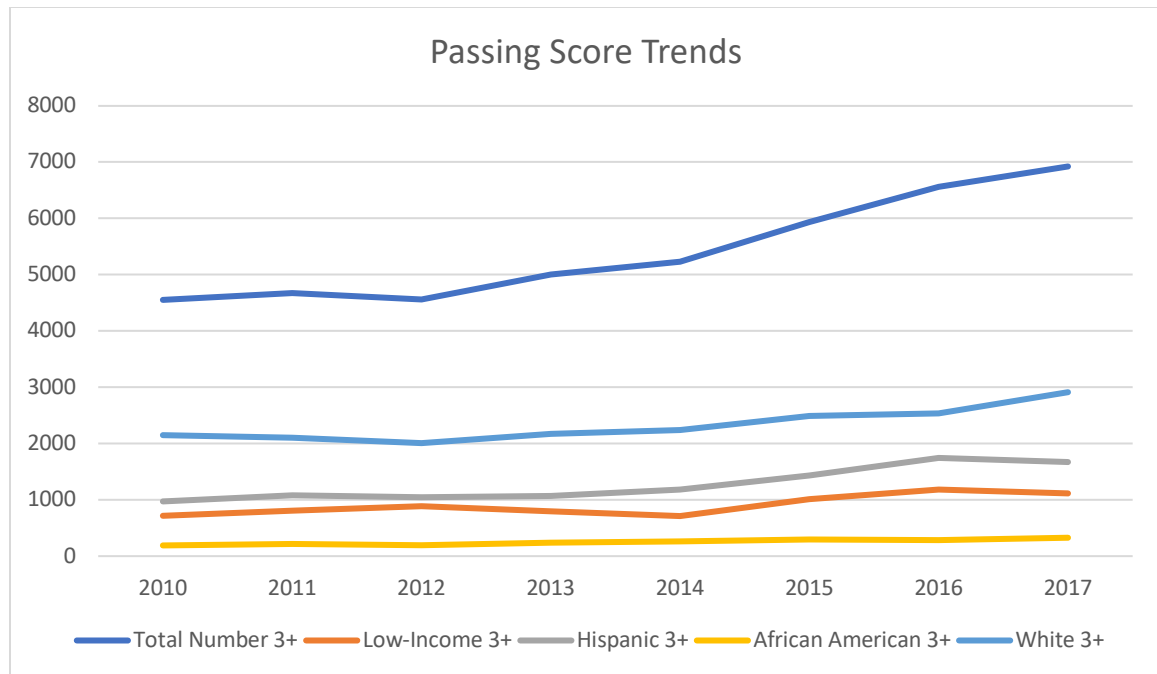


Figure 8. Passing Scores (3+) by Demographic

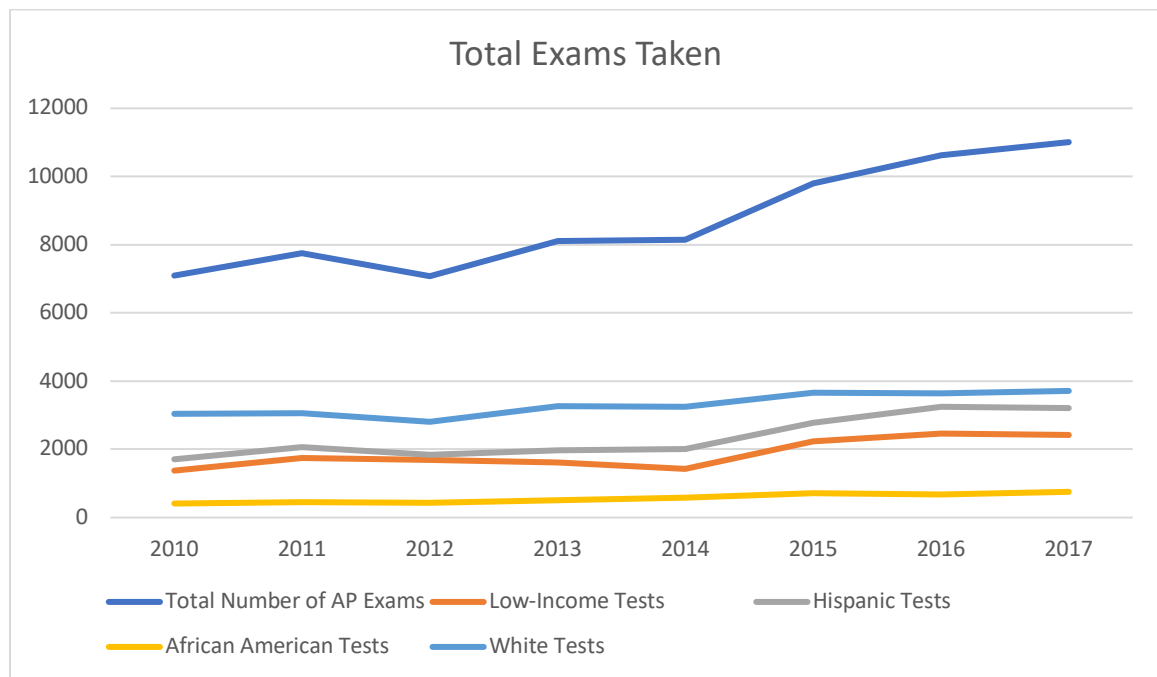


Figure 9. Total Exams Taken by Demographic

Survey Influences

The largest task that I had during the research was to be able to take the information that was gathered from the survey and put that into a usable format. The goal of the survey was to help get a better idea of where teachers were in the district and how to go forward with a study about historically underrepresented students. While the survey influenced the writing of the questions on the interviews, it also vastly enhanced the view of the district and the state of AP teachers. There was no statistical analysis or anything of that nature used in the findings of the survey. Typically, the more that teachers agreed with statements in the survey, the more they believed in open access to AP. As stated earlier, some of the questions were scored in reverse to make sure there was not a positive response bias. Holistically speaking, I looked through the responses and read the short paragraphs that many teachers left at the end. This gave me an idea of how to approach certain topics including differentiation, a dual credit alternative, and general beliefs about AP classes within Northwest ISD.

When looking at teacher perceptions of the value of AP coursework, most all teachers believed that AP classes were necessary and that regardless of the outcome, students would benefit from the experience. The category on the survey was “Value of AP Coursework & Communicating the Value to Stakeholder” which helped frame this for the interview. Only a few teachers believe that schools should not have measurable goals about AP participation. Most agreed or strongly agreed that if students were going to go to college that their high school schedule should include at least one AP class before graduation. The reality of a statement like this fall in stark comparison to the actual number of students within Northwest ISD that actually take an AP class. On a

more personal level, most of the survey respondents expressed that the quality of coursework in AP would be good enough for their own children to take if they attended the high school that the parent taught at. Although there was only one question I included in the interview about the value of AP for students, I expected some of this information to come out in other questions that I asked. The goal for AP teacher should be for them to see value in the AP class for all students, including those that may not perform at the highest caliber.

The next category teachers were asked to give responses for was about their school's "General Course Offerings" and the need for specific courses. The survey asked teachers if they believed that on-level courses were necessary to accommodate the needs of our students. This question was not meant to be a "gotcha" but was scored in reverse to see if teachers would mark this as a strongly agree. A large majority of the teachers indicated we need a system that has on-level classes for students to be successful, which would ultimately mean that they do not believe that some students can be successful in AP. While not many schools in the nation exist that have all AP classes, it is the system of tracking mentioned in Chapter 2 which often prevents students from gaining upward mobility. This response was taken into consideration when asking interview questions regarding how teachers specifically differentiate or help students be successful in the classroom.

Two questions that teachers were split on were regarding the ability to teach full loads of AP classes and have pure college-prep sequences. Teachers were asked if they believe that a college preparatory sequence should be the minimum standard academic program for students. Many teachers were undecided or neutral, with a sizable portion

answering that this should not be the case. Again, this led me to believe that the teacher values the three-track system that exists in Northwest ISD. As a previous AP teacher, I know that there is a desire by many AP teachers to only teach those classes and not split their course load into two preps. There are many reasons that I believe lead to this assertion whether it be the feeling of perceived prestige of the AP classroom, the ability to only have to prepare for one class, or the desire for those “elite” students that often end up in the AP track. By teachers being heavily divided on this idea, it showed me that teachers might have differing views on how they actually run their AP classrooms and the overall purpose of AP or being an AP teacher. I was very careful to pay attention to this when it came time to ask about rigor in the interview.

When asked questions regarding AP placement policies and their perceptions of open versus limited access, teachers were also divided. Teachers were heavily divided when asked if faculty recommendations or an “A” average in a previous course should dictate whether or not a student should be able to participate in an AP class. Many teachers were hesitant to strongly agree or disagree that AP courses should be reserved for their highest academic achieving student, which does lend me to believe that they have had some experience where students may have overcome some perceived difficulties with the course to be successful. A majority of teachers communicated that pre-requisite courses should play a role in which students are placed in AP. This will later be discussed in their open-ended perceptions of historically underrepresented students, many of whom teachers expressed did not have sufficient “experiences” to qualify them for success in an AP class. This was a key factor for including a question about the teachers' perceptions of the AP Equity Statement in the interview. There is a specific

clause that states that AP programs should give “willing and academically prepared students the opportunity to participate in AP” (Interview Questions). One item teachers did agree on in this category was that hard work was as important as high aptitude for a successful AP experience. This led me to believe that teachers do value hard work and that not every student that walks into an AP classroom has an innate ability to be successful in AP. Again, this influenced how I asked teachers about their preferred or best students in their AP classes on the interview questionnaire.

Teachers were also asked about their perceptions on attracting more students into AP courses. Teachers generally agreed that the schools in which they worked should explore options to increase participation in AP courses. Some of this may have come from a desire for the teacher to have more AP sections and less on-level sections. When teachers were asked about significantly increasing the number of students even if the scores would suffer, teachers were less inclined to strongly agree, showing that there is still a desire by many teachers to have a specific type of student in their classes. Teachers agreed that more students existed in their schools that could be capable of being successful in AP. They were divided on the issue of whether the public school they were in should prepare all of their students for college. This issue ran much deeper than this current study could include, but it does play into the idea of college readiness and their general teaching philosophy. One interesting result from this section of the survey was teachers’ perceptions about their school’s leaders and their willingness to accept an initial drop in AP scores if it would mean a larger AP enrollment. While there were no questions asked specifically about this topic during the interview, it did come up organically through conversation in the interviews.

The next section on the survey asked teachers about their ability to adapt their classroom teaching and their general commitment to the AP Equity Statement. This section was highly influential in how I structured the interview questions. Teachers were asked if they believed that part of the teacher's role should be to encourage students to enroll in AP classes. While most of the teachers agreed or strongly agreed, the fact that there were teachers, even in small number, who strongly disagreed with this statement shows that this should be part of the discussion in the interview. While I did not actually ask what the role of the AP teacher is in the interview, I did include a question about what AP teachers have done to make their students successful in their AP classes. Teachers overwhelmingly agreed that there should be a variety of instructional approaches to accommodate different learning styles in their AP classes; however, when asked how they differentiate for students in their AP classes on the open-ended portion of the survey, many teachers did not believe that this was necessary. This shows a clear disconnect between their understanding and how they are willing to differentiate. The question one for my interview was adapted to ask about the "role" that differentiation plays in their classroom with AP students. This became a backbone question for the rest of the interview. This assertion about the teachers' desire to differentiate was also confirmed by asking teachers if they felt that increasing enrollment in AP would lead to a watering down of the AP curriculum. Teachers were especially undecided on this issue with a few definitively agreeing or disagreeing. Again, this caused me to believe that teaching philosophy and rigor may have everything to do with their definition or role of differentiation.

The last section of the belief scale on the survey asked about teachers' expectations of the school with regard to the AP program or class. This section dealt with other stakeholders in the AP program and asked teachers to reflect on how they see the AP community within their school or district. Teachers were asked if they believed that it was the school's responsibility to ensure that an AP student is successful upon enrolling and most all of the teachers disagreed with the statement. This helped frame how I would ask about the teacher's role in making the students successful in the interview. Teachers were also strongly in favor of being given specific professional development opportunities to increase their effectiveness. This will be kept in mind for Chapter 5. In addition, they mentioned that administrators should be given ongoing professional development focused on creating and expanding a successful AP program. It is not definitive whether this represents a disconnect between the teachers and the administrators at the campus level. When teachers were asked to reflect on how their community views the AP program at their school, they hesitantly agreed that the community believes if a student enrolls in an AP course, the student will succeed in the AP course.

Two open-ended questions were added at the end of the survey to get some more qualitative responses from the teachers that participated. Teachers were asked if they felt the need to differentiate for historically underrepresented students in their AP classes and to explain their answer. This information was coded by a basic thematic analysis to help decide which questions definitely should be asked and which ones, if not given the time, could be skipped in the interview. Since the main goal of research question one is about differentiation for underrepresented students, this was an opportunity to canvas the

district and narrow the scope of the question. Many teachers answered with a simple comment and did not add any further thoughts. Others said no and then began to explain that their curriculum was already meant for all students and that there no need for differentiation. It is not clear exactly how this is possible in some instances. Several teachers also took this opportunity to disclose that all students needed some sort of differentiation and not just historically underrepresented students. While this is true, based on the majority of the responses I viewed, this as a colorblind nature of teaching AP. One participant stated, “I differentiate when needed, not because a student belongs to a historically underrepresented group.” This represents that subtle colorblindness which will also become present in the interviews. Once more, these responses helped me better know how to follow up the initial talking points about the role of differentiation and their experiences with culturally responsive pedagogy. Most of the teachers seemed as though they are pretty passionate about their answers. Several even stated that they did not feel the need to differentiate because no one would do that for them in college. I believe that this represents each teachers' knowledge and identity as an AP teacher. Being that these are high school classes with college curriculum, it is hard to have comprehensive success if the teacher treats the class as if it were a college lecture hall. One conclusion to take away from the 84 open-ended responses to this question is that teachers were heavily divided, and some clearly did not have a comprehensive understanding of differentiation and its purposes.

Other responses that stood out to me as necessary to cover in the interview were regarding rigor, relevance, teaching methods, the purpose of an AP class. Some of the responses in the survey when juxtaposed with the interviews made for very meaningful

follow-up interview questions with a small convenience sample. In the survey, one teacher stated that “AP courses are designed to allow students to test the rigors of college while still at the high school level” and went on to explain that this ultimately sets limits on the degree to which an AP teacher can differentiate for students. This same teacher noted that they felt strongly “that the student has all of the burden to rise up to a minimum standard level in order to achieve success, and that minimum standard level should reflect a college-level environment.” Two of the follow-up interview questions addressed this exact subject and tried to get the teachers to discuss this need to differentiate in a high stakes environment. Clearly, the idea of standards was at stake here in the mind of many of the teachers. One teacher noted that AP classes should not be differentiated because of student background or ethnicity, but because of different learning styles. This teacher's responses solidified the need to ask about multicultural education and culturally relevant pedagogy in the interviews, even if the teacher did not know what those were.

The second open-ended question simply asked teachers if they felt there was anything else that would be pertinent to the study. Many teachers took this opportunity to comment about how they felt that the district's dual credit program was a better option for students since there was no normalized AP test at the end of the year. For as many teachers who praised dual credit as a saving alternative, some teachers perceived that counselors or principals were unfairly advertising dual credit over AP or telling students not to sign up for AP. This is an interesting result considering that no previous question in the survey had anything to do with dual credit. It shows that there are some deep-seated issues that may be present within the district. I waited until the end of the interview and

asked all of the teachers “a question that was not on the sheet” about their feelings on dual credit and using it as an option for historically underrepresented students.

Many teachers commented on how their schools had initiatives that aimed at increasing AP participation. As part of the new accountability system through the state, campuses will be rated on the number of students in advanced credit classes and the successfulness of the classes. Many teachers commented on the expectations of the AP program and the need to encourage students and work with them or to fall into more of a sink or swim mentality. This is one reason that I added a question about a teaching philosophy with regard to AP classes in the follow-up interviews. Some teachers suggested that the study should include questions about the appropriateness of the work effort, hinting that some of the AP classes are actually harder than regular college classes. This would fall in line with the many teachers who consider dual credit as a better option for the student.

The information that was presented in the open-ended questions seemed very scattered at times but boiled down to ideas about the rigor of the course and the mode in which an AP class should be taught. Teachers noted that the College Board has a standard in the form of a test at the end of the year, and if teachers are not teaching at that level, then students will not be successful. I believe there should be a building process that gets the student to that level as opposed to practicing the test from day one. The other large issue was that in a district where dual credit exists, it was threatening to the AP program but may be better for historically underrepresented students. This leads me to believe that teachers presume true that dual credit is easier and thus more suited to underrepresented

students. Motivation to work was also heavily cited as a necessary skill for students coming into AP classes.

Research Findings From the Interviews

The interviews were an outgrowth of the survey and the data that was gathered from those teachers. The figure below shows all of the major themes that arose during the process of interviewing and coding. Sub-themes are shown under their respective themes and arranged by research question.

Research Question 1	Research Question 2	Research Question 3	Additional Findings
<ul style="list-style-type: none"> • Teacher Adaptability • Teaching Philosophy • Culturally Responsive Teaching • Color Blindness • Barriers to AP Program 	<ul style="list-style-type: none"> • Teacher Expectations • Student Dispositions • Student Preparation • Approached to Instruction 	<ul style="list-style-type: none"> • Value of AP Classes • Dual Credit Alternative 	<ul style="list-style-type: none"> • Teacher Isolation • Competition

Figure 10. Subject Outline of Findings

Findings for Research Question 1

The first research question was a combination of perceptions about open-access but also about differentiation, which is a key to equitable access and success in the class. While at first some may think that these do not belong in the same research question, it was imperative that differentiation and teacher adaptability be seen as a foundational

piece of access to AP. There were three major themes that emerged when coding the interview transcripts: teacher adaptability, culturally responsive teaching, colorblindness, and barriers to AP. While there is some overlap in these themes, they all help answer how teachers perceive open access and differentiation with regard to historically underrepresented students.

Theme 1: Teacher Adaptability

Often in education, teachers do not have all of the same types of student in their classroom. There is no reason this should not be the case for an AP classroom. One of the most salient themes throughout the research was that of teacher adaptability, which was then really shown through differentiation, teaching norms, and teacher definitions of equity. Since there was a question about differentiation and the role that it plays in the AP classroom, this naturally became one of the larger themes. It was canvased in the surveys and then asked in the interviews. Teachers that were interviewed had a range of responses and many that did not initially deal with differentiation but led to a discussion on how they work with students. Teacher adaptability thus ended up in one of a few categories. First, being with the teacher describing how they differentiate for students, second being their ideas on how they help students, and third was their larger view of what an AP class should be and how their educational philosophy falls in line with that. Any of these directions clearly equate to access when it comes to historically underrepresented students, but not all teachers actually dealt with differentiation in the classical sense. Thus, differentiation and access are symbiotically connected when dealing with underrepresented students.

Differentiation in the educational community usually deals with how to help students approach the material from multiple vantage points. There have been countless studies, professional books, and hours of training on differentiation, yet it still seems to me to be a fairly misunderstood concept. Many teachers, when asked about differentiation, had a large range of responses. In reflecting on the interview questions, I would have given them a definition first and then talked with them about how they differentiate. It was an interview, however, to see what teachers stated as differentiation. Since there was no definition of differentiation given during the interview, I left it up to the participant to define and describe how differentiation plays a role in their class. Ten of the twelve teachers responded to the question directly, while two digressed in a different direction.

Allison described how she differentiated between different classes and the time that she allowed on assignments for her AP students:

I mean, the differentiation is, is really constant because if I see something going on that isn't working for everyone, I can make a change and do what I need to do. I'm even able to differentiate from class to class or for one of my classes if it takes a little bit more time to catch on to things. And so that's the first statistics class of the day, but I'll find that the other two classes I'm able to move more quickly with them, and so we'll get a little ahead, but then I'll be able to take more time with the one group that needs a little bit more. Calculus I can do the same to some degree, but there's another calculus teacher who is the one that's more experienced. And so this is my first year teaching AP Calculus, and so I count on

her quite a bit too if my students were struggling, to give me direction and guidance and on what I could do differently and such.

Her statement led me to believe that in math classes with a lot of repetition, teachers can adjust the speed of the curriculum to best meet the needs of the students. Some students may struggle with specific concepts more than others and need more time to develop specific math skills.

Other teachers took a different approach. Ashley stated how she thought of differentiation in regard to AP students in her classroom:

I'm a very old-fashioned teacher. I'm going to guess because I'm an old person. So the way I handled differentiation is I'm going to teach it, we're going to go over it, you're going to get in groups, and you're going to talk about it. And then sometimes you have those kids that are helping to teach each other, and then there's always the opportunity, and then they use it, and you don't understand. I'm here before school or during lunch for you. I'm here after school. You told me what time you want to come in, and I'll stay, and we will work as late as you want. We do a lot of, you know, I'm going to show you and then somebody else is going to talk about it because maybe they have a better way of explaining it and the kids are so comfortable with that. Today we were reviewing rhetorical analysis, you know, I was like, oh, you have forgotten this. And a student asked a question, and I answered it, and I realized what was coming out of my mouth. It was probably too technical that I needed to get back into this little nitty gritty and the kid in the row like two rows over, he was like, "what she's telling you is..." he actually brought it down, explained it differently and then this boy went, "oh

yeah, that's right now.” And so to me in the AP class, I always tell them, I'm going to guide you, but you're going to learn how to teach yourselves how to do things, and you're going to learn how to help your peers understand how to do it.

It seems as though Ashley sees differentiation more in the sense of who they are learning from. Her remarks remind me of newer models of personalized learning or blended learning where the teacher facilitates, and the students are led to figure things out. I see her teaching as more a “sink or swim” mentality; however, she did say that she would be willing to be available for students to ask questions. While her explanation does not really describe how she differentiates in regard to student difference in the classroom, it does show how she allows peer-to-peer collaboration in the learning environment.

Brianne shared a common thread with the peer-to-peer instruction and the idea of differentiating the teaching method. When asked how differentiation played a part in her class she stated:

Well, I tried to, in different ways, like sometimes I have to straight lecture because this is all new material to them. Sometimes in math, it's like, “oh yeah, I've had this before,” There is hardly anything that I teach that where students say “oh yeah, I've had this before,” because it's taking everything that they have had and now we're actually applying it. They learn how to do regression in Algebra 2—now what are we going to do with this? And they have to take it a step further, which I think is what makes it more AP than just a regular math class. So with that—that's where the differentiation might come in. Once I've taught it, I do a lot of where they're working together. You might help me because maybe you've got this topic better one way or another here—and you know, as well as I do, if a kid

can teach it to someone else, they know, they know it. So I give them an opportunity for that. They have opportunity to—a lot of working together. They can choose to work alone should they want, on different things. Sometimes it is—of course, you've got to do this for me because I have to see that you yourself know it. Sometimes the assignments vary, you can choose the problems you want to do tonight—your choices. And so I try and give them some choice.

Brianne's classroom has a very democratic style of learning. She speaks about how the application of math skills leads to a higher rigor in the classroom. Brianne tries to allow choice in the method in which student goes about learning the material and a more “show and tell” method for learning. The key is for the student to show that they have mastered the concept. I see this as a useful method in allowing for variance in pacing the learning but can also see where this can be a roadblock for some students who may struggle in environments with less structure or scaffolding.

Later in the interview, Brianne spoke on a deeper level about the ability of students and how differentiation might help students with different abilities. She sees students on a huge spectrum coming into Calculus AP from different backgrounds and then moving into different levels of AP, such as Calculus AB or Calculus BC:

So my students concurrently in BC calculus versus—I've just finished Algebra two out, so I run this huge difference of abilities within the class. So that presents challenges. I feel like that's where differentiation can come in. Do you necessarily need to do this assignment? Maybe you don't because you got what I said, but you need to practice a little bit more.

In this aspect, Brianne took a more quantitative view of differentiation as opposed to qualitative. She believed that her greatest successes in the classroom have come from this differentiation, repetition, and grit:

So we do a lot of repetition. They kind of are tutoring, tutoring or if they're struggling on something that seems to help as well—but it's got to be broken down into steps that I feel like are manageable steps for them so that they're not overwhelmed—one way or another here. Most of them are taking many AP classes, so they have to find a balance within themselves to get everything done. You want them to be successful. So what I do, I feel like I have to capture them while they're here. So we work hard bell-to-bell why they're here because that may not happen when they go home because maybe you have a job you need to get to, maybe you have some other obligations. So I have to use my 48 minutes as best as I possibly can and keep them going the entire time.

Brianne, like many of the teachers, sees differentiation as how they teach differently, or in their case how they attempt to make all students successful. Conversely, scant attention seemed to be given to how the teacher might actually make lessons approachable to a student with different needs and abilities.

Connor, a social studies teacher, expressed his frustration with the ability to be able to differentiate in an AP class:

Well, differentiation in AP U.S. History—what I teach, it's hard to—I think differentiation is hard because there is a curriculum that you have to meet. There's a curriculum that you have to address with the College Board, and it's very rigorous. There's a lot of information they need to know and a lot of skills they

need to know. And so what we try to do is we teach the skills early, and then it's just constant practice throughout the year.

Connor went on to describe how they have a wide variety of activities, and they try to design intentionally fun assignment to keep students engaged with the material. He keys into the idea of repetition as a method for differentiation but clearly described how differentiation is difficult given the rigor of the curriculum. This led me to believe that some of the teachers, depending on the subject, believe that they cannot make the material approachable to different needs or abilities because they would be compromising the rigor of the course. Other social studies teachers, like Jacob, shared his frustration with being able to differentiate.

English teachers that were interviewed seem to have a clearer understanding of how to differentiate for students. They also described the efficacy of group work or peer-to-peer collaboration. Kelsey described how she utilizes it in her classroom with different literature:

I started asking questions about whether or not they had been in AP the year before, and I started realizing that it was more students that I had originally expected. Um, and when I started kind of catering to that experience with reading more minority literature, my kids responded to that.

She continued to define differentiation in terms of her class:

I guess in terms of differentiation—I mean I'm going to use the lingo—but, you know, just making everything student centered I think is really important. I think it's important to recognize that the kids have strengths and the students that have weaknesses. I believe that it's important in certain aspects to pair certain people

together so that, you know, this person can, can help this person to understand this particular concept. Some people are really good at poetry because they live and breathe it, some people are really good at writing essays, but differentiation to me basically means recognizing your students' kind of strengths and recognizing your students' weaknesses and giving them opportunities within the realm of possibility, you know. One example of differentiation for me—and I absolutely love it—we do a satire unit. My kids love satire. I tell them they can express themselves in any way that they want. So if they want to do a video, they can, if they want to do a commercial, if they want to do a public service announcement, if they want to do a pamphlet. I mean, I've had interpretive dance, I've had playing with Play-Doh. I have this one where it was like an audio file, so you didn't see anything, you know, when you call into a, like for an ATM fee and you get the computer automated—and it was the computer automated voice. So it was his voice.

Kelsey sees differentiation in the more traditional sense of the word. She was quick to describe how she sees ability grouping and group work as a good practice. Like other teachers, many felt as though the level of engagement, or how fun the lesson was, helped students approach the material better. Project-based learning and their choice of how they want to show their understanding of the material was common among the English teachers.

In the follow-up interview questions, I gave the teachers a definition of differentiation. I explain to them that differentiation posits that all students have different learning styles, strengths, weaknesses, needs, and abilities. I asked them to give me their

thoughts on how it is possible to differentiate in an AP classroom since many of the teachers showed frustration with the concept in the first interview. I also asked them to think about how differentiation may or may not be tied to the classroom expectations of an AP class. The responses were interesting but triangulated the previous responses by providing a deeper understanding of how the teacher see this concept.

Allison reiterated her perceptions of the purpose of an AP class to be close to college classes:

I try to approach my classes as much like college as possible. Homework is given on a per-unit basis, and students are able to work through it at their own pace. The online assignments have help options, show an example, ask the instructor all of which lends itself to different kinds of learners.

She explains that students can work at their own pace and have opportunities to ask the instructor questions. Her response leads me to believe that teachers are still hesitant to actually differentiation in an AP class because of some “invisible” bar that has to be set in these types of classes.

Brandon commented on how he feels he can best differentiate. After giving a definition, it seemed that he gave more detail on how he meets the needs of diverse learners and allows for choice:

The best way that I believe one can differentiate in an AP classroom is both in how students are taught on a daily basis, as well as how homework is assigned. I believe that it is important to try to work on all types of instruction, whether through lecture, video, slides from a computer through a projector, the Socratic Method of question and answer, group work, requiring students to 'act' something

out, or even come up with a haiku to describe a certain term or concept. As for homework, the greatest method of differentiation is to provide choice, which allows students to move freely within their comfort zones and also requires them to delve into uncomfortable areas to develop those talents. They can choose how they would complete an assignment, as well as choose to research their own areas of interest, within limits.

His response was much more in line with how experts like Tomlinson (2017) describe differentiation. I wondered whether Brandon's response was true or just a socially desirable response because of a leading question. Either way, I feel that he does have an idea of how to differentiate but may not see it all the through when first asked.

Brianne also echoed the sentiment that students need differentiation in the classroom. Again, after giving the definition, there were some deeper responses:

All students need to be met where they are, regardless of ability. This is possible in AP classrooms as well. Some students may only be taking the course to gain exposure to the curriculum while others are looking to demonstrate mastery on the AP exam. Those looking for the basics might do the minimum needed to find personal success, but those looking to achieve at a higher-level push further. I used Google classroom to offer extra things for students to meet their needs.

Here, Brianne, states that this is possible in the classroom. Her response caused me to question how many teachers actually understand the definition of differentiation versus how many actually use it in the classroom.

One last teacher, Ashley, gave her opinion on differentiation. I wondered if she might be feeling some frustration with the concept or may have been asked to differentiate for students in ways that she did not want to:

Differentiated instruction occurs as soon as more than one student shows up for instruction. Even though paid presenters flaunt this as the newest wave for reaching students, this is not a new phenomenon. Teachers integrate the varying techniques without labeling them. In an AP classroom, as well as other levels, peer-to-peer, small group, and whole group instruction/ discussion occurs.

Teachers model and show students best practices, and students interact with each other in a classroom. Instructing in various ways is continual because as humans we have learned to interact with one another to gain understanding- both in and out of the classroom. We all use differentiation every day.

Whether or not she was frustrated, she highlights some important points. Differentiation is not new, and teachers integrate it in different ways.

Amongst all the teachers I sensed there was a common hesitancy to talk about what differentiation actually was and how it was being used in their class. Most responses were the teachers' reflections to instructional approaches and how they felt they deviated from the curriculum or traditional classroom to provide a way to get students through the material. The amount of work and the rigor level of the curriculum were often cited as reasons why teachers felt that they could not fully engage in differentiation. Many had their own definitions of differentiation and explained ways that they attempted to have students be successful. Teachers contrasted on what exactly was being differentiated: the content, the process, or the product. Tomlinson (2017) stated that differentiation is not

just grouping or individualized instruction but instead taking multiple approaches to the curricular elements. A few teachers recognized that differentiation really dealt with the student differences and the design of curriculum for academically diverse students. Much of the focus on differentiation during the interview quickly shifted to how the teachers created structures to help students, their ability to work with students, or their views on equity. All of these conversations dealt with how adaptable the teacher was apart from a unified set of curricular guidelines set by the College Board. I believe that many teachers wrestled with the ability to leave the “standards” of the College Board while trying to maintain the set standards so that students can pass the AP exam. Some teachers voiced this as a concern, but almost all alluded to it in some way or another.

Teachers were also adaptable in that many stated that they were willing to work with students by having extra credit, tutorial times, or guided notes over the content. When asked about the role of differentiation, they often would talk about how they give extra time on assignments or repeat a lesson, if necessary. To what degree teachers were willing to do this often was the point of comparison. By looking at some of these “alternatives” to differentiation, it is evident that teachers do provide opportunity for their students in a seemingly sink or swim class that some of the AP have described.

Many of the teachers who discussed working with students concentrated on the speed of the curriculum, their students' circumstances, and their availability. They argued that students in AP classes have other things that take up their time besides the content, and thus most teachers stated that they allowed time for students to ask questions and communicate their struggles. I see where this can be valuable for historically underrepresented students who may struggle with some of the foundations as a new AP

student. Many teachers praised their ability to be available. Darren even stated, “I’m much more available than a professor.”

Lacie, who was a beginning English AP teacher, commented on how her students, who would be most considered historically underrepresented, had other responsibilities besides school which complicated the situation of availability:

Three other classes that are like eating up their time too. We definitely have those students. We have that range. If anything, that's part of the challenge is—it's not like the kids all come from similar places in—that you have so many of them. I'm like, OK, how do I help the kid who has two jobs—and gets it one way? Group work and differentiation helps a lot, but...

Another teacher, Brandon, commented on his willingness to work with students regardless of the issues:

If I do find that a kid is having those issues or any of that kind of stuff—or is having problems at home for whatever reason, I’m much more forgiving of that student I let them know. I always tell students I am very willing to work with you, but you have to be the one to initiate it, which is where the college aspect of it comes in.

He continued later in the interview, “So when it comes to historically underrepresented student, is there something extra I do if I know that they are someone who’s not taking these [AP] classes and they’re struggling? Of course, I’ll work with them, but I also would work with every student.” Brandon’s statements led me to believe that he was a very willing teacher but does not have the time to intervene if the students do not

communicate the issues. I believe this is where a majority of the AP teacher mindset was for the interviewees.

Maribel, a social studies teacher at school with a very high low-income student population, commented on her role in transforming the entire class so that she can work with her students:

I believe that there is a disconnect between what we are talking about here and in what we actually do in the classroom. For example, in a school like the one I work with or the kids that are working with—I probably will not be able to raise them to a high level if I want to keep my AP students, but I have coached them into skills and get them as high as I can, but it probably will never. I will never be able to just have him walk in from the first week of school and say, listen, this is the way people work. I have to—it's almost like a remedial AP class or a pre-AP class.

Jacob echoed this sentiment when he described an English Language Learner in his AP class:

I thought he was born somewhere else. He's actually been here his whole life, but you know, he has a little trouble reading and speaking and things like that. He pops in, and we have to go through things, you know, it's so hard. He does fine, but he's really hard on himself. And uh, so I had to go through the reading and what they're asking for and how this connects to this previous thing and for him to get it. There's definitely extra work that needs to be put in for certain students, which is the job. But that's about as much as I could do is get them one on one

time or get people working independently so I can go around and assist one-on-one.

His description of the student and the understanding of the work that needs to be put in led me to believe that there is an awareness of historically underrepresented students in his classroom. Both him and Maribel work at schools with higher numbers of underrepresented students in their classes and thus not only have to make themselves available but also have to change the way the class is being taught.

Brandon also described that he works with students in other ways besides just being available. He tends to add extra questions on most assignments for the students to be able to earn additional points if they missed a previous question. He stated, “If there’s 20 points available and I know that certain ones are the five question [cluster], I will want at least four.” Any of the extra questions that are done will count on top of the 20 points possible.

Other teachers also used more concrete methods for working with students, like Allison. She stated:

I have moved completely to the new textbook, and in that process, I have created for my students’ guided notes. So, in statistics, every problem has a paragraph or a big set of data to it, and you got to write down the problem before you do the work, otherwise, the work in your notes will mean nothing to you. And so rather than spend time writing down all the problems or copying the data or whatever. So I created the guided notes for them, and I have them print them out and bind them, and so they don’t lose them—and I go through them myself. I’ve done them

so many times, and this is my new book. To make sure that they've got the key elements and then they don't have to copy all that down.

These guided notes, Allison said, help keep the students on track and organized.

Although she did not speak about being available before or after school, I believe that this is a step in the direction of working with student needs. Brandon also had a similar approach to economics by giving the students reading guides. He said, “That’s kind of a hybrid between the college—what you see up on the board. You’ll see here’s a date by which you should have this chapter read, you should have this next chapter by...I give them worksheets that go along with the reading.”

Other teachers, like Connor, concentrated on more abstract notions of working with students:

The most important thing is showing the kids that you want them to be successful, and then you care about their success. It's not a “gotcha” thing...Right? I mean you want the kids to have good experience in your class, you want them to be successful. And I think if the kids know that like they'll jump to the moon for you and they'll do whatever you got to do whatever we want them to do. So I think that's the number one most important thing that you want them to be successful.

They are willing to do whatever it takes for them to be successful. Um, you know, teaching things in different ways of building. When you make a mistake in saying, hey, all right, I screwed up this, let's try this a different way. You know, uh, being honest with them, you know, all those things—being transparent.

This statement led me to look at many of the responses from teachers in a different light. What was their teaching philosophy in AP, and how does that play out in the classroom?

Most teachers adopt either a “sink or swim” mentality, or they work tirelessly to make their classes approachable and equity even at the expense of teaching at or above the College Board standard.

Another sub-topic of teacher adaptability was looking at the general teaching philosophy or their general approach to the AP classroom. This became an apparent theme when seeing the number of teachers who commented on the standards of the College Board or how their class was like a college classroom. I began to reflect on what the teachers were really saying and how this perspective actually plays out in the classroom. The teaching philosophy was an outgrowth of the discussion on differentiation but ties back into teacher adaptability for historically underrepresented students.

Like many of the other teachers, Brandon felt that what is being taught in the AP classroom should look and feel like a college class. He said, “My comment to them is always this, I’m not going to make you read anything, but here’s the deal—If you don’t read, you’re not gonna do well. This is a college class.”

Conversely, Maribel, from Forest Heights High School, stated that since her population was different, there had to be a different mindset:

If I go too “AP” on them, almost none of them would stay in my class. And so I think there's a disconnect on the amount or the rigor of work that we give the students and the rigor that we should really be giving them—and the pressure comes from different sides. Right? And also schools don't want to look like they are just keeping a certain kind of student in that classroom. So, sometimes you have to—I don't want to say overlook, but you have to lower the standard to be able to keep different students in the classroom. This is a conversation that I have

heard with other AP teachers as well—that administration sometimes will say “you can't just drop kids,” so you have to know where the rigor is if you want to keep those kids. And so you have to compromise one or the other because of that.

Because of certain kids who are not prepared, but you are expected to keep them.

Maribel seemed to see the way she teaches the class as connected to what administrators might want to see on their campuses. I was led to believe that since she was in her first year of teaching AP, she was walking with caution on how she decided to teach. She also caused me to question the motive that got students into those AP classes. Many teachers see the AP environment as a challenge and feel that students should feel challenged.

I remembered from my time as an AP teacher the feeling of needing to strike a balance with the students. One teacher, Brianne, stated that she wanted to meet the students halfway and remembered a Hispanic student who was in her class this year:

I want to meet the kids where they are—I don't know what your background is and we end up finding out background about a lot of them as we can get to know each other throughout the year. I have one girl, she's one of my absolute best students, and at the beginning of the year, she came to me. She was struggling at the beginning of the year. The first couple of tests she did very poorly on. She said, “I've never been in an AP class before.” So we had to figure out what she needed to do. She came to tutoring a few times, and she said, “you actually made me work.” ...And now she consistently, truly is one of my best students. She rose to the challenge. She is a first-time tester. She is Hispanic, and she is low socioeconomic. She's hitting all these boxes.

Brianne spoke fondly of the student and how she should be in this class and felt that she had a sense of belonging. This also led me to think about the idea of motivation and challenges. There seems to be a common thread of expectation that teachers had.

Connor stated that he believed all students should be academically challenged in his classes:

I think as many students as possible should be academically challenged in school and so AP provides that challenge. There are some students though who simply shouldn't be in there, and that's kind of, I think the role of the school, the role of the counselors, of the role of their teachers to kind of speak honestly and level with these kids, you know, insight or I think one of the good things that we do is we give them that three week grace period in the beginning.

I felt that Connor has some sort of secret standard that has been set for AP classes as they are a precursor for college. Students have a specific time in which they need to show that they can perform in the class. Jacob references this in his feelings about anxiety in the classroom:

I mean we can work something out, but, and I think they've really felt this, this little bit of um, I don't know what they call it in college—positive anxiety. They may feel a little bit of that positive anxiety, that you might get cold called on this question. That's forcing them to kind of stay on their toes but not in a negative way. They felt so much of that. Now when I throw them a free response question or throw them a major grade test, it's challenging. So I think that that's good.

They're good to be challenging. All students should.

Jacob sees where teachers believe that their class should be held to a higher standard and that the anxiety that students feel is a good thing to help them better prepare.

Ashley described her idea about the element of surprise for the students since that is what they will see on the AP test:

Their first time writing, we go over it [to them show them] what I'm looking for.

Let's look at some samples. This is what a prompt looks like; this is how it reads, etc. When you come in tomorrow, you're going to write one, and they're used to saying "I want to see what I'm going to write about." And I'm like, nope. You walk in tomorrow see it for the first time, and it's great.

She reiterated her feeling towards keeping the class in an element of surprise instead of catering to the interest of specific students. When asked about how she might use different text to increase engagement, she stated:

Do that, absolutely not. Absolutely not—because what we tell them is you don't know what you're going to get in front of you. So what each and every person's going to do is we're going to put ourselves in the situation that's been presented on this sheet of paper. So we talk a lot about, we bring history into our class by the way, but we talk about historical events. So now put yourself in that. So you know, only three of you are African American, but we have a lot of African American pieces. And so the other kids, they don't know, they can't relate. And I'm like, OK, but you know what? It's the 1930s. Put yourself in this position. You're all females right now by the way. So you're in pitch yourself in this position. And so what's going on? And we'd have that discussion, and I think teaching them how, I always tell them, nobody's going to ask you if a piece is

interesting to you as to whether or not they're going to put it on a test. A test writer does not care, so you have to learn how to have a vested interest in everything. You've got to find something interesting, something you can connect to. You have to put yourself in the piece in order to write about the piece or even to understand it. And so that's what they are taught to do.

Ashley's responses were similar to others in that they suggest that they were willing to have students try to put themselves in different situations but did not necessarily want to change the curriculum or readings being offered for fear of deviating from what has been seen on previous AP tests. Her response reminded me of Ladson-Billings (1995) participants who did not care for the individual students but instead their work as a teacher preparing students for "inequitable and undemocratic social structure" in their future world (p. 474).

All of these responses about their teaching philosophy related back to the idea of teacher adaptability. One interesting caveat was when Maribel reflectively described many of the AP teachers that she worked with this year have been unwilling to change their style of teaching. While there is much to say about how teachers define the rigor of the classroom here, I will save more of those findings for Research Question 2. The information that teachers gave regarding their own differentiation and adaptability suggests to me that many of them often look at it through a purely academic lens and not related to the students they have in their classrooms. These thoughts on teacher adaptability, differentiation, and teaching philosophy have also led to a discussion on culturally responsive teaching. Being that the district under study is a very diverse suburban district, it would seem necessary to be able to use those student backgrounds

and identities to make classes more engaging. The philosophy and even underlying teacher identity closely aligns with how open teachers were to adopt some sort of culturally responsive teaching in their classes.

Theme 2: Culturally Responsive Teaching

There has been a lot of research on culturally responsive teaching in the last few decades. I felt that it was important to ask a pretty straightforward question about it since the purpose of the study was to explore teacher perceptions about historically underrepresented students in their AP classes. Teachers had different ideas about culturally responsive pedagogy, and some did not know what it was. The responses that were shared relate to the teacher adaptability. Typically, if the teacher was not very adaptable in the differentiation sense, then there usually was a possibility that they rejected the notion of culturally responsive pedagogy. Instead of asking teachers how they use cultural responsiveness or multicultural education, I decided to just ask them about their experiences with it. On several occasions, I had to give them examples of what it was. Typically, I would use a social studies example and have them think about how they would do that in their classroom. It was a reflective question for many as they realized they were not currently doing it. This question also led to discussions about differentiation, general awareness of underrepresentation, and colorblindness as sub-topics.

As discussed earlier in the topic on teaching philosophy, some teachers like Ashley, were strongly opposed to the idea of institution culturally relevant pedagogy in their classes:

Absolutely not. Because we tell them you never know what you are going to get in front of you...I feel like by the time we're done we've probably hit something for everyone, but because the English language is, you look at a piece of writing and all you do is you focus on language, that's all it is kind of literature. See I'm thinking literature, literature is what that is for. But for us it's very much you've got to get in this person's head, you have to get inside their time period, what's affecting them in order to understand why they're saying this and how it's being said. Why is this particular language use? So it's a little bit different.

She discusses how culturally responsive pedagogy would best be used in an AP Literature class as opposed to an AP Language class. The literature classes would have more time to explore various texts, while the language class concentrates on the rhetorical analysis and items of that nature. It was unclear to me whether she was vehemently opposed to the idea on the grounds that it did not fit her class or on a more personal level. Brandon shared her sentiment in that he was not really a fan of purposefully adjusting the curriculum to meet a specific background. Instead, he said that he tries to discuss topics in social studies that are modern and relevant to all students, like the Ferguson, Missouri turmoil. He said, "I expose students to as much as possible regardless of their background."

Other teachers seemed more open to the idea in the sense that it could be used in their classroom examples. Jacob stated that he remembered having some classes in college on "low socioeconomic status kids and things like that." I asked him if he had any area where he used or thought about using culturally responsive teaching in his class. He answered, "I really haven't. It's not something that I would be opposed to. I just haven't

thought about a way to do that.” He later mentioned that he had read Howard Zinn in college and likened what I was discussing with culturally responsive teaching to how Zinn views history. Connor also cited a college class that he took on multicultural education:

When I was in graduate school for my masters in school administration, I took a class in multicultural education. It was eye-opening to hear different perspectives on the things that I thought were kind of just hard and fast. Given about teaching history, the professor really had us look at different topics, not just history with different topics but from multi-racial perspectives. For example, a political election, elections in most of American history are dominated by two white men to be against each other for the prize. Well, a black person is going to have a very different perspective on that. Like you may be into it as a historian and say, “oh, well, you know, the election, between Dewey and Truman was fascinating” You have these guys, Dewey was the favorite, and then Truman upset him. In the end, he won more electoral college votes. And so a black student hears all this, and they're like, “Well, what does all this matter? Like, why do I care about two white men going at it? It didn't really change anything for my people. It didn't change anything for that.” So then that's why bringing in facts about the black vote during that election, facts about Truman and his push for civil rights that was denied by southern Democrats—like kind of adding in those extra components of history to make it more relevant to different races helps. That was one thing that was really eye-opening about that class. I just assume, “Hey, I'm teaching it, it's really

interesting. It's fun. Let's just get into it.” And I'm like, oh no, that's not really relevant to certain people.

His response led me to believe that many of these teachers look at culturally responsive pedagogy as very political and something that creates a binary between white curriculum and other curriculum.

Kelsey, who teaches English at McCullum High School, has led some changes in her classroom and with other teachers toward a more multicultural landscape. She describes her own experiences and how she came to a more multicultural awareness:

In terms of like multicultural education, mine has just been about exposing myself to more diverse, texts. One of the wonderful kind of products of my grant program was that I have started a multicultural library. What I find absolutely fascinating is the more that I expose my students to multicultural literature, the more they respond to that and in turn, bring me literature. So every time that I've introduced a new work and I've talked about how much I love it and kind of what inspired me to want to read it. and, My students have really kind of—for example, I was in the Peace Corps, and I lived in Cameron for a time, and so I have kind of a connection to Africa and I really, really loved the music, and the drumming and things that were in *Things Fall Apart*. I talked about that experience while I have a student who's African and just became kind of so passionate about it and his mother gave him these flags from Zimbabwe that he brought to me, and I have them hanging in my classroom. And so it's just really interesting when you step outside of your own culture to appreciate another culture and how much people respond to that.

She continued later to talk about how this impacted her teaching and was effective for all students:

And so one of the things that I kind of tried to consciously do is look at the types of texts that I was teaching, and I recognized that the test itself was changing and getting more diverse and that they were pulling authors that were more international. You know, they had Derek Walker who is a Caribbean author, and they had an African American author or poet last year. So I started looking at my classes and started thinking about what sorts of literature that were different than what was ideally taught. And so to me that kind of is, is through my perceptions of what the college was looking for, was recognizing that, you know, diversity is a key term. It's on all the college application entrance exams. It's on; it's something that they're looking for. And I think even through the conversations that I have with my students about getting into college, um, that you don't have to be the person to be the perfect student.

She cites that one of the reasons she began to do this was because the test was getting more diverse. So in opposition to what Ashley said, Kelsey sees it as an advantage. Clearly here I began to see that the teacher's background and worldview heavily defined how open they would be to culturally responsive teaching in their AP classes. I also believe that their own student population may dictate some of this. Maribel commented on the students she has at her campus and the need to implement culturally responsive teaching:

So, I definitely get to use that a lot in the classroom, and I'm sure a lot of it also comes from my background because I'm Hispanic myself, and the majority of our

students are Hispanic on campus. If they ever need something and I see the look on [a student's] face, I'll try to relate it to something they know or bring it down to a basic topic that they know also for students who are bilingual and sometimes If I feel like they don't understand something, I'll try to explain it to them in Spanish and they'll get it better that way. So it helps me also be aware of the student who also might have a language barrier, and I'm more aware of that because of it. But also we get to use a lot of pop culture to help them explain things that are not just there for them.

I realized that in a high Hispanic school, Maribel has a clear advantage to create environments that are conducive to success.

Math teachers overall struggled with this concept for fair reasons. It is clearly easier to replace a text or a story for something that students might be able to identify with as opposed to basic multiplication facts or algebraic equations. One math teacher, Darren did not really know how to answer the question and stated, "What we've been able to do so far, I would say, is put José in there instead for a joke every once in a while." Others saw where it could be applicable. Allison related it to statistics that might be used in the class:

I think the best thing that I can get out of that is the idea that I'm in statistics. We can study things that are relevant to different cultures, different ethnicities. For example, we have what we call investigative tasks that we do using the data on race, and a death penalty and the data that I have has the black versus white defendants and black versus white victims and the percentage of a death penalty versus a different. And then they stuck. They do the inference test on that and see

whether there's any indication that there's an association between. So the best we can do in math is find things that are relevant that we can work into the problems that we do.

She saw the value in at least using examples that might bring discussion into the lesson. I feel that she was hesitant to discuss how she might actually change her teaching to include culturally responsive teaching though.

Science teachers were very similar to math teachers in that they did not see how it was possible to create multicultural teaching environments for a curriculum that did not lend itself so easily. Lesley, a Physics teacher at Old Town High School, said that she did not really see how it was possible to talk about physics or early scientists from a culturally relevant background because all the scientists whose work they study were white Europeans. Teachers were mostly split on their ideas about culturally relevant pedagogy. Social studies and English teachers seemed to find more comfort in being able to adjust their curriculum to be culturally relevant.

The responses that I received about their experiences with culturally responsive teaching or multicultural education has opened up a deeper understanding of the teacher's knowledge and identity. It appears that many teachers communicated that culturally responsive teaching was synonymous with multicultural education or social justice education. Most teachers did not have a comprehensive understanding of the capacity building involved to be culturally responsive.

A sub-theme that was very closely related to culturally responsive teaching was teachers' awareness of underrepresentation. I began to think that one way that we can see that there is a lack of culturally relevant teaching is to look at the success rating of these

diverse students. I began to wonder if teachers even knew who the students were in their classes or if they just assumed that they were all the same. This will lead to a discussion later on student disposition. However, it is important to discuss briefly the awareness of underrepresentation. One of the initial responses to the survey from a participant was there was never any information given to them to help them identify who the underrepresented students were. This made me think that there might be some teachers out there that truly do not recognize or have chosen to ignore the demographics of their classroom.

Ashley brought up that her school has been slowly changing over the last 18 years that she had been there:

This is my 18th year at Jersey village teaching AP English. So the demographics have greatly changed since I started and what I have now. So 18 years ago I had mostly White and Asian students. That was it pretty much. Now I have a whole gamut of students from low socioeconomic, to the white students, black students, Asian students and everything in between student. And I was actually counting today, and I want to say two-thirds of my class would be the underrepresented population. They're brilliant, but they are the underrepresented population in multiple ways.

Ashley understands that the course of the district is changing. This led me to believe that not every school or even class has the same demographic makeup. A lot of that depends on where the school is located. In terms of ethnic or racial background, Ashley understands that her classes are filled with a diverse audience.

Maribel, who works at a school with a very high Hispanic population calls into question the term underrepresented:

I guess it depends on the definition of underrepresented, right? But we're talking about racially, or economically disadvantaged students and our school is majority economically disadvantaged, and you can see the difference in the way that they learn. You can see the setbacks that they have been through. A lot of my students struggle more with reading. They struggle with understanding or analyzing primary sources.

Clearly, she can see that the background and circumstance of the student can affect the learning environments.

Kelsey shares a common thread with Maribel when she describes how we should be treating historically underrepresented students who come into the AP classroom:

I definitely think that students from ethnic, racial and socioeconomic groups should all be served and that we should make the effort to reach out to students that we don't think would traditionally fall under that category because they don't know until they're approached. Then when they are approached, and someone believes in them, they rise to expectations, and that's kind of what I've always found.

This mentality was shared by a few teachers who felt that students from diverse populations actually aided the class and made it more interesting. One teacher, Allison, even said that she knows at a school that “we could do a better job preparing students that are in that upper-level track.” She was referring to students from historically underrepresented backgrounds that sign up for AP classes.

Theme 3: Color Blindness

The responses and analysis of those responses led me to wonder if teachers recognized culture within the classroom or looked at it through a very mono-culture lens. Since only one of the interview participants stated that they were Hispanic, I began to question the teachers' outlook on the students. This led to an emerging theme of colorblindness. This most often happens when teachers do not think of their students in terms of race or ethnicity. There were a lot of comments about how they try to treat all the students the same and do not use race as a reason to help a student. I believe that these teachers have the best of intentions but miss out on being able to use the students' culture, race, ethnicity, and identity as an opportunity to connect with what is being taught. I arrived at this being a theme after reviewing the coding several times for information about the ability to differentiate and awareness of underrepresented students. I also asked teachers to describe their best students for me which led me to conclude that several teachers had a very stereotypical answer for an AP student. Teachers were also shown the AP Equity statement and asked to reflect on what they thought about it. This often brought a range of responses, many of which had colorblind tendencies.

Many of the teachers tied the ideas of color blindness to ideas about rigor and expectations of the students. Brianne reflected on how she goes about viewing her students when they walk in her class:

I usually just start with—when I look at my students, I don't look at it and say, “oh you are this, and you are that” they're just my students and I have to teach them all—regardless of where they are. I have to meet them, and we have to come forward. So I feel like there are a cross mix of all kinds of things. I honestly have

not sat and thought “you are African American and you are Asian, and you are this”—like it doesn't matter to me one way or another. They're here, so I don't care—they're here. So come on in. Let me help you.

The comments reflected those of other teachers as they did not want to preemptively identity or profile their students. I felt as those they wanted to lay out the expectations and see which students would rise to the occasion.

In a follow-up interview, I asked teachers for their opinion on the theme of color blindness and how teaching should be responsive to individual differences and identities. Brianne talked differently about the topic than she did in the first interview:

Each child brings unique gifts to my classroom, and I must work to uncover and unwrap them. I need to figure out what motivates my students and help them to develop an appreciation for my course and hopefully a passion for the topic. I like the challenge in discovering what fuels my students to success!

This led me to believe that she may not have wanted to touch the topic again and rather gave a socially desirable response since it was in writing instead of an oral interview.

Brandon had a similar approach. In his first interview, he stated that he tries to equalize the class, “Yes, there's an attempt on my part to equalize the class, but it's the reaching out a hand, not a lifting up. I'll help you get to that point. I'm not gonna bring you to that point.” While Brandon did recognize that his classes were filled with students from various backgrounds, he was adamant that there be level playing fields. In the follow-up interview, I explained color blindness, and he reiterated his thoughts and expanded on the difference between catering and being sensitive:

I think that teaching should not change based on the differences you identified.

However, I believe that teachers should be sensitive to such differences when choosing, for example, what students read about, what options students are given when they choose assignments, and the language being used as teachers engage students in conversations, arguments, and question/answer sessions. I think that you nailed it in your question--teachers ought to be sensitive and responsive.

Alternatively, teachers don't need to cater to every difference imaginable and become overly sensitive or politically correct. Ultimately, we are ensuring that students are challenged and are learning. As a final matter, all teachers need to be aware of students' economic limitations, in that every student may not have a cellular telephone with Internet access, a computer with Internet access at home, or access to a printer or other materials for class.

His response left me wondering how much of this theme was tied to teacher expectations for the AP test versus not wanting to utilize a student's identity to help them grasp the work. This seemed to be a tough scenario for a lot of the teachers as their end goal in the class was to have students pass an AP test. This ties back into the entire teaching philosophy in AP and what the teacher considers rigorous, which I will discuss in the next research question.

Other teachers, like Allison, went on to reflect on what seems like her frustration with the topic:

This is a push-pull topic...you must treat everyone equally and fairly at the same time honoring individuality among students. You point out differences or use cultural examples, and you are a racist to one person, and the person in the next

seat may appreciate the acknowledgment of their culture. I view this as a no-win issue. To me, it is most important to get to know your students and act accordingly. My golden rule is treat others how they want to be treated, not necessarily how I would like to be treated.

Another teacher, Ashley, seemed to see the idea of color blindness as a more political topic and seemed to see identifying these students as counterintuitive:

If I am picking individual pieces for individual students to feel more comfortable with the materials presented, then I am segregating not integrating. The aim is to create worldly students aware of what is happening around all of them. Students need exposure to vast cultures, races, and world issues. They need exposure to issues they both agree and disagree with. If a student is not taught to see both sides of an issue before making decisions, voicing an opinion, or taking action, what is the point? One does not create better citizens and better thinkers if they are not taught to synthesize information and seek the truth, even if it is not the result they wanted. It is making sure students have a well-rounded exposure to the world and not just a recreation of what is already known.

Ashley's feelings on the issue of color blindness were echoed by a few teachers either in their first interview or the follow-up interview. I felt as though that many of the teachers have disdain for the idea of placing a student's race or ethnicity at the center of their personal learning identity. Most teachers seem willing to recognize students' individual differences but not necessarily to be responsive towards them. For many, the AP test and the rigor of the curriculum stand as a bar that has to be crossed to be successful in the

class. I concluded that many teachers seemed to not see race and culture connected and not see culture and learning style connected.

Theme 4: Barriers to the AP Program

After hearing teachers' thoughts on differentiation, culturally relevant pedagogy, and issues of color blindness, I began to consider how negating these things might be a barrier to many students getting into and staying in the class. There emerged two distinct barriers to the AP program, one that was brought on by the teacher, the nature of teaching and the ability of the teacher to adapt to the students' needs, and the other a more institutional or systemic barrier that teachers described. Tracking has been around for much of the twentieth century; however, it is especially salient in some of the paths to AP classes in this district under study. All of these subjects were described in one way or another by almost every teacher.

When shown the AP Equity statement which discusses an AP environment that is open and accessible to all willing students, a few teachers had direct rebuttals to the idea that the classes are actually open-access. Considering the requirements that are needed for a student to get into the class, several teachers cited this as a reason they did not have more underrepresented students in their classes. Ashley commented on the district requirements and her frustration with the current standings:

That has been the biggest, I think, um, irritation, at least for the English AP teachers on campus is that there are probably so many other kids that we would love to just pull in. The district is saying what they have to meet this and this for us to see if they can be in the class. And I'm thinking, no, you have to have a desire to learn. I can teach you all sorts of things, and I can guide you, and you

know, when this was something we could ignore because quite frankly we did ignore it for a very long time. And depending on who the DI is sitting in the office, they will say you make the right decision for students—that when you don't have that ability to say, yes, come on in and let's see how you do for six weeks or maybe 12 weeks or whatever it is—that you feel a student needs to bridge maybe some of that gap that's there. How do you know? How do they know if they can achieve or not?

I could clearly see that there were some other mechanisms at play besides the adaptability of the teacher. I asked her to expand on the barriers at the campus level:

So you have to have, grades, you have to have the 85, you have to have a teacher that says, “Oh yeah, good student.” But if I want to bring in a kid that's made a 60, but I, I recognize that, oh, he's got some talent, I can't do that. Our HORIZONS/AP/K letter from the district is actually not a dismissal letter. It's an entrance letter that states that they must carry a specific grade to come into the class. And so you've already eliminated a lot of kids.

After hearing what she was saying about her school's policy on entrance requirements, I was heartbroken. To my knowledge as a former AP teacher and a district employee, there are no teacher recommendations for AP class at the district level, which probably meant that she was speaking from the experience of a lot of older rules at the campus. The only rule at the district level is that a student must have an 85 average in the previous year's on-level class. I could sense her frustration with not being able to freely talk about what she thought about the district requirement and her campuses standards.

Math teachers also commented on having added barriers which were specific tracks that had to be followed to prepare the students for the advanced classes:

I think it should be accessible to everyone. Yes, you need to meet the requirements to get there, but once you've gotten there, it should be open to anybody one way or another. So for the requirements, you've got to make it through Algebra 2 successfully. And then from there, if you make it through Algebra 2 – honors, you are better off than Algebra 2 – on level because it's just stronger skills that way. But again, I don't care what kind of person you are. Did you go here and how'd you do, what's your work ethic?

In describing her AP class, it was clear that she was welcoming to all students but also understood that students had to be in higher tracked classes to be successful. She also described that for AP Calculus the students had to be a year ahead in math to be able to fit it into your schedule. This means that the student would have had to skip a math one year or be able to take it over the summer to get ahead. She seem to signal that this was a hard barrier for many historically underrepresented students who have not had early success in their math classes. Allison guided me through what it takes to get into an AP math class, like Calculus:

If the students don't get in accelerated math in sixth grade, they won't necessarily have—they won't get to these classes they need to get to Calculus. You've got to take Geometry at least by ninth grade. So if the kids are not identified as being capable of being accelerated in math by sixth grade, it's very unlikely that they would end up in an AP course in math. Statistics, they could, because it can be taken after Algebra 2. And so we find that kids will concurrently take AP

Statistics with Pre-Cal their junior year, allowing AP Calculus to be their senior year or take Pre-Cal their junior year and AP Statistics senior year. And so they could get away with getting to Algebra 2 their junior year and taking AP Statistics their senior, but not Calculus. So, if they're not identified early on, they're not, they're not going to have the coursework.

Her explanation of the path to Calculus shows early math classes as gatekeepers. Another math teacher from McCullum High School, Darren, commented on the tracking that existed:

By the time they get to me, they are seniors. They understand what an honor class is. Every once in a while I get—you see we have two levels of calculus, AB, and BC. Uh, sometimes the BC kids, we'll call it the varsity and the JV for junior varsity, but those kids are in an advanced placement class--By the time they get to me they're used to taking classes like that. They're used to the honors classes here at [McCullum]. I don't see a difference. I don't, I don't see someone failing because they're any certain category.

As I listened to his explanation of students being familiar with the AP classes, I was reminded of a few other senior level teachers who had commented on how the students that they get in their classes are used to it. I was led to believe that there are not a lot of first-time AP students that come into senior-level classes. If they have not entered the track at an earlier age in their grade school career, then the teacher or track may be a barrier for them.

Connor commented about the competition that he sees with the honor classes (K classes) in the district. He said that many students see honors level classes as an easier

option which creates a hypothetical barrier since students are very concerned about their GPA:

I think a lot of the kids that drop are kids who are, they're overextended, a lot of the kids that drop usually are involved in sports, or some kind of extracurricular that requires consistent attendance and effort and late nights and they, they look at it, and they say well I'll just go down to [honors], because [honors] is the same GPA impact, and it's a much easier class, and so I'll just sit in there. For those kids, I tell them, "look, I mean if you've got a lot going on" and some of these kids are taking five AP classes plus doing football or plus doing theater or band or whatever. And I'd say, "look, I mean if you know your overextended here and you think this is just—this is going to help you to kind of survive the year going to K level, I respect that."

Connor brought up a point that has been an issue with a lot of the teachers I talked to—that there is an honors class that receives comparable GPA points that is a lot less rigorous. I felt as though in a state like Texas where GPA is a solid indicator for college, many students would rather just not take the AP class. While this does not initially seem like a barrier to me, I see it as pressure on many students. If they take an AP class and make a low grade, they will ultimately hurt their GPA. Although there is no data to prove that students are not signing up for that reason, I see where some students and even underrepresented students will take the path of least resistance especially if the rigor is less challenging for the same GPA points.

All of the themes discussed with regard to Research Question 1 deal with open-access to AP classes as well as the teacher adaptability. The teachers reflected on many

questions and subjects that allowed me to see a bigger picture of how they view historically underrepresented students in their class and the length they go to for their success. Much of the discussion on these subjects led me to consider the next group of themes which deal with rigor and expectations in the classrooms. The relationship between teacher adaptability, cultural relevancy, and the disdain for some areas of differentiation led me to believe that much of this is contingent on how the teachers define and view rigor and what they see as the ideal AP classroom and the ideal AP student.

Findings for Research Question 2

Rigor is closely tied to teaching philosophy, worldview, and general teacher knowledge or identity. When thinking about an AP class, all of these things come into play and define the amount of equity and access that students experience. While rigor is a buzzword in many educational circles, it has yet to be properly defined by many teachers. Just as an understanding of differentiation is important, so is rigor to the successful teacher. Most teachers suggest that rigor was based on the difficulty of the class or the amount of work as opposed to the depth of critical thinking skills used in the classroom. In reflecting on the themes that emerged with regard to Research Question 2, I saw many teachers describe their ideal students and typically suggest that the AP class was either a college class or a precursor that should mirror a college class. The themes in this section are directly tied to some of the perceptions about differentiation and teacher adaptability. It will also stand to reason that they are connected to how teachers see value in these classes that will be discussed with Research Question 3.

Theme 5: Teacher Expectations

I would like to holistically talk about teacher expectations that were observed during the interviews and then relate those to sub-themes on student dispositions and teacher knowledge and identity. It seemed as if much of the time that teacher spent talking with me about their struggles or victories in the class centered around the idea of a set of expectation. Some of the expectations were verbalized, and other were much more seen as a known part of the course. As a former AP teacher, I understand that one of your top goals for students is to get them to learn and hopefully pass the AP test at the end of the year. I was reminded of the feeling of having to let the students know that they needed to pull out all the stops to be able to do well on the exam. I sensed that some teachers possibly were frustrated about me asking them about differentiation because it might lower the expectations of the class.

A few teachers shared in depth about their expectations for their AP classes.

Ashley described here feeling towards students coming into her class:

Um, well I think there's a high expectation that if you come in then you're there for the long haul and you're there for the challenge. I'm not going to start at step one with you. I'm going to start at step 10 out of, you know, like 50 steps or whatever it is, however long it takes. There's zero babying when they come in, and there's a reality check because of the AP class is supposed to mimic a college course, or it's going to prep them for college. There isn't an—I tell them there's no room for babies here, you know—baby steps here, you take a huge step, you come in, and you fall on your face because that's what it is. They have to learn vocabulary, because of the reading that they do, everything that we do is from the

college board pretty much. We have put together our own essay packet. We don't use any books from the district. So we pick things.

I sensed that Ashley had very high expectations for her English students that took her class. As she reflected on what I perceived as her philosophy of teaching AP, it suggested that students needed to be ready for the rigor of the course from the first day. Another interviewee, Brandon expressed similar concern regarding his expectations for the students. He told me his message to students is:

I basically will say to them up front first, this will be a hard class that's not to encourage or discourage anybody from being in the class. I said I'm not telling you this to scare you. I'm telling you this so that you understand what you're in for. Because my perception has always been any student can pass an AP class and exam if they put their mind to it, if they've got the desire to do the work, if they have the desire to come see the teacher when they're having those problems.

He continued later in the interview:

You start with all the puzzle pieces, and you have to show them what each one of those puzzle pieces should look like. But their ability to put all of them together to make that picture. That's where I spend my time is you should be able to figure out what the picture kind of looks like and I'll, I'll give it its different hues and different levels of brightness, darkness or whatever for you in class. But then I'm also going to try to show you; this is why the picture looks the way it does because you can't get that just from a PowerPoint. Again, they're not used to that, and a lot of them don't take notes, and I'm constantly harping on them, take notes

of things that I say that will help you understand what you are learning better for yourself.

Brandon's thoughts suggested that he had expectations in his AP Government classes for students to be able to synthesize material and concepts. But more than that, he led me to believe that there was a more important point to his class beyond the regular content.

Other teachers, like Connor, had a different approach to students signing up for the class. He stated:

My challenge to the students is always, look, this is when they come in in August, I say, "look, everyone in this room, you've signed up for this class, you want to be here right now. You want to work hard, and you're going to work hard these first couple of weeks, but my challenge to you is will you have this same work ethic that you have right now in August? Will you have it in the dark days of February or March before spring break or right before Christmas?" That's, to me, that's the test, and that's what I tell the kids and I mean I don't have a lot of kids drop.

His statement led me to believe that he might have trouble keeping students in the class for the remainder of the semester if they are scared away. Comparing this approach to those that seemingly wanted to draw a hard line can result in two different types of AP environment.

Most teachers moved beyond just an explanation about their general expectation about the class and suggested that student disposition was a major factor in being successful in the class. Teachers were asked to describe their best students. The purpose was to see what specifically teachers valued about their students and to identify if teachers perceived students in mostly academic terms or from their culture or identity.

The dichotomy between how teachers viewed students thinking versus their actions became an even deeper theme. The characteristics of the students were emphasized and tied back to what they wanted to see in terms of expectations.

When asked to describe her best students, Brianne described the students with the following:

They are very inquisitive. They're hard-working, very responsible, inquisitive because they don't want to just accept that I've said here's what we need to do. They want to know why. And I love that they want to know why. It tells me that they've figured this out, I feel like more than anything else. And so it is interesting. Sometimes, if they struggle a little bit, that's actually a good indication to me. If one of those people are struggling, like I need to slow back down or go back over something again because if these guys aren't getting it. Yeah. I know that the rest of our population is not on here with me.

In listening to her response, I was reminded of when I used to teach AP classes. There were always a few students who did not seem like the teacher needed to really be there for them to learn and be successful on the AP test. Several of the teachers appeared to have a fondness for these types of students and hinted that this should be the goal to strive for – intrinsic motivation. Connor described this intrinsic motivation in one part of his interview:

My best students are the ones that are intrinsically motivated to do well. They want to read the textbook; they want to understand the nuances of history, they ask questions about things they read, whatever in Foner [history textbook] or any other source that we give them, they ask questions about it. They want to be able

to, like we talked about critical thinking, they want to be able to develop those arguments as best as possible and write really well. They're not content just to get like five out of six points on an essay. They want to get that six out of six points on that essay. "What do I have to do, Mr. Williams to get that next level up?" I think they're willing to participate in class and put themselves out there, you know, not be afraid to mess up, make mistakes, but a lot of this is just that intrinsic motivation to do well to strive for excellence.

Here, I see some honorable qualities that teacher like to see in students. This made me wonder how much teacher desire to have this in their classroom or if it was an ideal because they don't get many of these types of student in their classroom. It caused me to think about the expectation and success of the students who are not intrinsically motivated. These suggested ideas of motivation are deeper in that they are perceptions of student dispositions.

Another math teacher, Darren, described what he called grit in the classroom: You've heard of grit? Seems like finally I've been in education for 25 years. Finally, someone's coming out with the idea that I've always felt—that if you were, if you got after it, if you wanted to apply yourself if you wanted work and you had someone that was there for you, to help you with any questions—you could master it. I mean, I really believe that. I see so many brilliant people that can't pass the class because they won't sit down and give me anything. They'll look at the math; they'll enjoy it as you're presenting it and—they can talk about it reasonably well, but when they asked to execute it, they can't. I think I've got one right now. I talked to his parents the other day... So when there were other

students, other parents are trying to uplift their children. “You can do it; you can do anything.” These parents, they're going “ever since grade school they been telling him, “You're not all that, you know, you're not a gift to...,” you know, just trying to get him to move.

Darren's reflection on student motivation seemed to signal that he might have students in his class that are not intrinsically motivated but possibly entitled to be in the class. His initial statement though suggested that he too, might believe that if students only ask questions they will succeed in the class. This caused me to wonderer if that is truly the case or for a specific type of student.

Other teachers, like Jacob, described more middle-class qualities of students in their classes when asked about their best:

I'll be honest, my, my highest achieving know how to play the game, and there's sometimes a little checked out. I got like 10 national merit scholars and almost all of them in one class. So getting those kids engaged is kind of hard cause they get it and if they don't they'll let me know, but they get it. But I wouldn't say those are my best students. I think the model students in my class, there was one, she carries a B average and she came in one day, they're self-motivated, and she came in and didn't like that [grade]. She got a low grade and she was at the point that a lot of kids do, they are like, “Am I smart enough to do this? What am I getting myself into?” And instead of backing down or dropping down, she said, “Nope, I'm going to work twice as hard.” So she came in. She's like, “Listen, I took the notes in class. I went home. I watch videos online. I rewrote the notes back and ever since that...” I mean just like a sponge, you know, in terms of trying to get

more knowledge, more understanding of “why does this do that?” I would take 30 of those, honestly, before talking to brick walls of kids who have figured it out. His perspective on the difference of kids in his class matched a few others who looked more toward the characteristics of motivation against setbacks. I was reminded of Lareau’s study of *Unequal Childhoods* (2003) where she speaks about some students being more successful because they know how to play the game and how to seek out the answers. My thoughts on Jacob’s discussion was that engagement was sometimes difficult when his highest achieving students would check out and then his time was spent trying to engage the rest of the class.

One unique perspective was from Kelsey, who said that she actually liked the theater students best in her English class:

I mean there is kind of no best student, but I guess to me my best students are the ones who are truly engaged, who are as passionate about my subject as I am about teaching it. You know, they participate in every conversation. They're excited to do every assignment, they're not bothered by their cellphone or their..., I really tend to like my theater students because they tend to have a unique perspective on a lot of what we read because they've studied it previously in theater, so they always tend to have unique insight into the plays and things that we've read. I always want to read the UIL play. Like for instance, this year we did the *Curious Incident of the Dog in the Nighttime*, and we read that with our [honor] students. So it was so interesting because I just read the book and then I got to go see the UIL play and they almost it to state. I mean, it was a fabulous production. So I

think that those students are particularly engaging. They always do really great projects because they're good at acting.

While she seemed to share the desire for some of the common attributes with other teachers, like students being engaged or participating in conversations, she saw the uniqueness of her theater students as a quality attribute for AP. This led me to believe that she does a lot of conversational assignments in her class which require students to participate orally instead of just reading.

Maribel, who works at a school with a very high number of historically underrepresented students had a different perception on her student expectations and motivation:

And it's kind of what I mentioned earlier. I probably will not get them to AP level, but I've seen growth, which is what we want. The problem is that a lot of times it's a mindset thing—a lot of students, underrepresented students, will also not stick it out. They don't have that grit to stay through or push through it. If they can't, if they don't have the previous skills or previous knowledge, a lot of the times also they just cannot make it within an AP class.

Later in the conversation she again alluded to the motivation:

Coming back to this theme in the AP statement, I would love to have more students, especially Hispanic students join the AP program because that is an experience that a lot of them will not get because a lot of them will not pursue college. My AP students have such a different view of history now, that I wish some of my kids saw from [on level], you know, because some of my [on level] kids have that drive to do well, and they will do well in an AP class—and

sometimes what's stopping them is stupid things like they don't want to look uncool....Even with my kids, sometimes they'll talk about the [on-level] kids, and I'm like "they're just like you, just with less motivation! That's all it is that separates you, is the motivation levels" and it's an AP thing, I think, you know.

While her main theme appeared to be motivation, it seemed grounded in a different purpose. She suggested that many of her students have similar backgrounds and that the motivation to learn was a big separator between a student taking on-level classes and AP classes.

A few veteran teachers, like Ashley, described a student disposition related to asking questions and remaining inquisitive:

Inquisitive. They are not necessarily always the loudest, but sometimes they are. Sometimes they're very outspoken, they're willing to take risks, you know, when we have discussions I tell them, yes—there are silly questions, there are dumb questions because there really are, you know, there are dumb questions, and there were silly things that come out of your mouth. But we had a discussion—it's like, you're going to think a little bit, but you're also going to take a risk. We always talk about the fact that there are great ideas and people will say them, and you're like, "ah, I was going to say that" and I'm like "you should have." So learn to take a risk. So it's the risk takers, and the kids that write the best now are the ones that I said, "hey, will you please take a risk and put your pen down [to the paper] and never pick it up again—just keep writing and let's see what comes out of your head and out through your pen." And those were the kids who are achieving the

most. They're the ones who were the risk takers—who are willing to just, you know, “I can make a fool of myself on this paper. It's okay.”

Her conversation indicated to me that her view was less about the intrinsic motivation and more about the ability to try something new in an AP class. As a veteran teacher, I sensed that she had seen a lot of different students with various ability levels come through her class. Her interview overall suggested that writing was a process that had to be learned over time. A common view among all of these AP teachers was on the types of students that they want to see in class. This suggests that as an ideal this becomes somewhat of an expectation or goal for all students.

These perceptions by teachers are not all that different from what has been seen in earlier studies by King (2010). However, it can be applicable here if historically underrepresented students do not fit the mold that teachers are looking for in their classes. Again that ties back to the differentiation findings. Several teachers seemed apprehensive to differentiate because they would be lowering the expectations of the students when they enter the classroom.

A few teachers shared their concern for AP students who did not meet their expectations in the classroom. Most of these teachers commented on external factors such as band, extracurricular activities, or responsibilities at home that may have hindered the students from being about to perform at the expected level. Brandon commented that it was a time management issue, “My expectation is one where they’ve done the studying before, they know how they best learn too. They’re going to have to do this in the future. They need to manage their own time, don’t tell them how to manage their own time.” Brandon’s concern appeared to be shared by a few teachers who felt that students needed

to learn the soft skills of college while they were in high school. As college allows students to freely pick their own desired engagement level, teachers feel that they best learn these skills while in high school. Not much was said about how they accomplish this though. Connor shared his thoughts on how external factors like home life may dictate performance in the classroom:

And in terms of their performance in class, I think it really is really varied. There are some minority students who are absolutely phenomenal. I know that they come from really good, strong academically-minded homes. Then there are some minority AP students who struggled. Hispanic or African American, I know many of those, their home situations are not very stable. I think if there's one constant in performance it's what's going on at home. Um, and kind of how studious they are and how much that's emphasized at all.

Other teachers, like Lacie, suggest a more empathetic approach for students who had to maintain outside responsibilities. She shared about many of her students who would be considered historically underrepresented:

I have AP kids who like maybe it doesn't reflect the typical AP or GT kid family wise, like at home and because of that socioeconomic economic stuff. Right? Like a lot of them don't have a parent like one at home, like even if they've just lost a parent. That puts them in a compromise with the financial situation, you know, it's different. Many of them work because they do need to. I have one girl I know she comes in exhausted almost every day because she's working two jobs and doing school. But she is like, I read her essays, she's there. I know that she's also exhausted in the middle like most of the class and so it's going to be hard for her

to participate in other ways. I'm sure she's not the only one that works by any stretch of the imagination. Whereas like maybe at some schools and we have these too, like the students who they're just involved in 10 other things.

Later in the interview, she came back to talking about a specific student in her class:

So the first paper we have them senior year English for their senior year is there a college essay. I really get to know that part of their story early, which is nice for that factor of like, okay, where are we at? Where is everyone kind of coming in—taking the temperature a little bit. I know probably at least half of them work. The other half were involved in like two or more school activities. It's not a stretch to say half, maybe even more than half of the words I have. Like many of them are like restaurants. The one I was talking about who like comes in exhausted works two jobs. One of them is at [a burger place], and they've made her the manager even though she's not like the oldest or most experienced, but she speaks two languages, and so they're like, we need you, we're holding on to you. She's got a good head on her shoulders—personality wise. She's a mature kid, and so it doesn't surprise me, but I also see that as like, that's exhausting and that's a lot of responsibility to carry without all the AP classes she's in, and another job, and life. For high schoolers that a lot, in my mind. I mean, you know, like she's 17-18 and she's the manager of that one and they, they want her there a lot because she speaks both languages and not many of them speak both. I see her position, but for her, that weighs on her and pulls more of her time. She's there more than she is at school almost, and that's not the only case. A lot of my kids, they're either at work or in bed as much as they are at school. I have another, he works at a car

wash, and he likes to joke with me that that's what he's going to do forever. And I never let him say that. "I'm never going to be okay with you joking about this" because he's smarter than that and he knows he is. That kid could be an engineer. The way he writes, it's systematic. I've had students who've gone into engineering, you know what I mean, like there's a pattern, like this don't just work at a carwash, don't do it.

While Lacie was discussing these students with me, I felt as though she had a general concern for some of her students that have responsibilities at home. She recognized that they have skills that probably often fall under the radar. Her response suggested that a large portion of her students were underrepresented from San Luis High School. Her response, as well as a few others, differed in their approach to student expectations – mostly in the sense that either teacher preferred students who were applying themselves or those who fit a specific type of mold.

One final sub-theme of teacher expectations was that of student preparation. Most all teachers commented at some point during the interview on what skill students enter the classroom with. Often there did not seem to be a concrete vision of what those skills were supposed to be, but more that students were coming into the class not ready for the rigor or pacing of the curriculum in AP. Academic preparation in a school district that has a three-tiered tracking system can present problems for students who enter AP classes. At Northwest ISD, historically underrepresented students fill the on-level classes. For those students who do decide that they want to take AP classes, it can be a jump to be successful in an honor class or an AP class if the on-level class has not prepared them for the rigor or soft skills that are necessary to succeed. Again, this is tied to the

conversations on differentiation and know where the students are coming from and what their needs are. Several teachers commented on the vast amount of reading that was necessary in AP classes. Jacob, a social studies teacher, spoke candidly about the expectations and frustrations in his class:

It's Economics; it's not that it's a reading test. You need to know what they're asking you. You need to know how to respond. You need to understand synonyms. There's so many little things. So the only real hurdle to that, the academic preparedness is, is the reading. Some kids logically have trouble working through the content. I break it down. I had more of an issue in my [honors] class, but I break it down into memorizers and processors. Memorizers do terribly in my class. Processors, who can think logically and are used to applying rather than just memorizing and spitting it back. That's why it's strange that it's tied to Government because a lot of the students feel like Government is a memorizer class. So if they get an 85 in Government, then they're put in Economics [honors] and then they're buried if they don't have any of the skills.

I followed up by asking him if he thought his historically underrepresented students were less prepared. He stated that he was not surprised by some of these students. He remembered one Vietnamese student who did not speak very good English. He was worried about the student until the student took the first test and aced it. Jacob again commented later in the interview about the skills that his student have:

Yeah, the experienced ones know how to put the work in and they're used to the—if they take four tests a year or something, they know exactly what to do. Um, but the academically prepared part, the biggest hurdle in my class is reading

skills and you're going to get that with kids from all different backgrounds, you know. They don't—even—half of them don't even speak English when they go home, and then they come to my class, so I completely understand that But the ones who really struggle are the ones who have trouble reading.

Another teacher, Kelsey, who has worked with many historically underrepresented student in their program at her school discussed her thoughts on the preparation level of students:

...At risk students and I would also say students that have never had any sort of prior AP experience. That's something that's kind of changing in our schools is sometimes I think we have the assumptions, AP teachers, that these students are coming with previous AP experience. So we already have a level of expectation that they understand, you know, these certain literary devices. And I found, I do kind of a brief survey at the beginning of the year, and I've found that I have a lot of students that either come from dual credit because they have already gotten the credit that they need or the students just decide, "Hey, it's my senior year, college is really important to me. I'd never thought I could go to college before. I really want to get prepared. I'm going to try out the AP class and see what I think." I definitely think that those students who are underrepresented, that we don't necessarily try to identify them. You know—low socio-economic, I think at-risk students, students of color, minority students, first in their family to go to college...

Kelsey's descriptions at her campus led me to believe that she has a keen awareness of who these students are and that we cannot have the same curriculum, teaching styles, and

expectations if students are coming from on-level classes with no prior experience. He thoughts fell in sharp contrast to Brandon who felt that since his AP class was for seniors that all of them understood the AP mindset. He commented in one part of his interview that he was a senior teacher and he treats all student the same regardless of their behavior or desire to learn. He makes himself readily available but expects the student to initiate the contact.

Maribel spoke about her school's issues with keeping students in the classroom and being able to master the skills in an AP course, "I chuck it up to them having different opportunities, learning experiences. There's a difference in what they know, what previous knowledge they come to me with and what previous skills they have before they step foot into my classroom." She later commented on the district opportunities as a good thing for the variety of student presented:

As a district, we do a very good job of trying to keep all kinds of groups in the class. But I think because of what I mentioned earlier, their previous knowledge, sometimes underrepresented students are the first to go because they just can't master certain skills.

I strongly sensed from Maribel that one of her main goals as a teacher was to encourage students to stay the path with the AP class. The discussion reminded me that there is a large degree of difference in student populations at some of the schools that I interviewed.

Allison, who teaches Calculus, also commented on the expectations and some possibly failed ways to get students prepared for AP:

To be prepared for the AP tests—Calculus, for example, there's a big portion of it that's non-calculator on the AP test, and our programs are very calculator heavy. While there is a place for it, I think that sometimes we go a little further with the technology—that allows students to kind of cut corners rather than really understand the curriculum. I think that that's something we could do a better job on.

While this is obviously only an issue in math classes, it does help complete the picture of teacher expectations and skills that these AP teachers deem as important for students to be successful in AP.

A few teachers share their teaching philosophies regarding the teaching of an AP class. These philosophies appear to reflect a true sense of what they have been saying about the expectations in the classroom. Allison stated that her philosophy was to, “Provide the students opportunity to understand the material at a college level, prepare them for the AP Test while understanding that they are chosen to take a more difficult class (for the same GPA points) than other students do.” Other teachers, like Brianne, commented that:

AP classes offer students a chance to delve deeper into a course than traditional curriculum. Classes are excellent ways to prepare students for college, but in a safer, nurturing environment with more opportunity for mastery before a composite final exam.

Ashley also spoke about opportunity for students:

Any student with a desire to attempt an AP course, and understanding the rigor thereof, should be granted the right to take an AP course. To stand in the way of

someone willing to challenge his or her abilities is to say that the student does not have the capacity to achieve, and such arrogance is intolerable.

These comments led me to believe that some teachers put emphasis on the high expectations, but believe that the AP class is generally a great option and believe that there should be open access. Some of the teacher statements caused me to think about how these philosophies effect historically underrepresented students.

Teacher expectations are related to their own teacher knowledge and identity. Many teachers suggested that AP classes were designed to prepare students for college or thought AP was a college class. This leads me to believe that some teachers may consider themselves as college professors. Many described what it would be like in college and used that as a justification for their approaches to the instruction. While no teacher spoke in a reflective manner about their own identity, it was apparent to me that what fueled their desire to run their class in the way that is was because they thought they were either teaching at a college level or preparing them in a sink or swim environment for college. This has the potential to be a huge barrier for historically underrepresented students.

Theme 6: Approaches to Instruction

Through the discussion of teacher expectations and teacher adaptability, there have been several different approaches to instruction that have manifested themselves after analysis. Throughout the interviews teachers often talked about the rigor of their course and what they found to be difficult. Several smaller themes besides rigor helped frame the approaches that teachers took to their AP classes. Teaching to the test, engaging lessons, the importance of passing AP scores, and student-teacher relationships all came up in the discussion. This led me to believe that the teachers choice of approach

to instruction could possibly be affected by other things outside the teacher knowledge and identity. However, that teacher identity should be seen as a foundation for decisions in approaches.

One of the questions that I asked teachers was to describe their best lesson in their AP class. My goal was to see what types of lesson teacher considered the best and if there might be any correlation or connection to the teaching style that they have talked about in their interview. Almost all teachers described some sort of project where students were at the center of the learning and most often where the student gave the best feedback. These lessons or projects were suggested to be the most fun. What was interesting is that while teachers considered these to be the best, and most fun, lessons in their classes they did not resemble the types of teaching that teachers seemed to portray with large amounts of reading, homework, or application of skills. In my mind, I believe that these student-centered lessons and projects can actually help many historically underrepresented student approach the curriculum better. As opposed to the long lecture and copious notes that some teachers spoke about, these lessons paint a different picture of the AP classroom. The contrast that exists between these teachers is the ability to teach to the test and the ability to prepare them for the test without always having to take practice AP test drills.

Kelsey, was ecstatic when I asked her about her best lesson. I could really sense that she enjoyed teaching her class and enjoyed the students working through these parts of the class. She said about her best assignment:

Definitely, the satire unit is something that they're all engaged in. I mean, like I don't have students that don't turn in that project. I don't have zeroes on that

assignment because they all want to participate in some way, shape, or form. Right now we're doing a film unit that I feel is very successful. We talk about media literacy, and again, I feel like film to students is very accessible, and ironically they love Shakespeare because we watch *Much To Do About Nothing*. And the film is absolutely beautiful, and it's a comedy. So they're so used to having all this tragedy, and then I throw in this comedy, and they just find it absolutely delightful. So, they still have to think, they're writing film reviews of the movie but what's fun about it is they get to have an opinion. Now it has to be an educated opinion because they have to use what they know about Shakespeare and things like that. But again, that's kind of another very successful project that I do.

She continued to talk about what new and fun things she was doing with the students:

We incorporated a couple of new things that we've done this year. We've been trying to understand the technology. I did homework two nights ago. I'm trying to understand why vines were funny. I'm still working on that one. But we did a podcast, we used to do like a Socratic seminar, and we turned our Socratic seminar into a podcast and again, like kids came out of the woodwork. I mean, I would have student who would not participate in the Socratic seminar because they were so scared. They just didn't want to get up and say something, but with the podcast they all kind of participated. So we had a really good turnout with that. And then we also did an activity also with *Grendel* where we did memes where they had to kind of come up with their own memes and again, it's that kind

of, they understand little satire, they can get kind of the humor in it. So kind of throwing that in there kind of worked well in my AP class.

As I was listening to her speak, I remember thinking about how relevant of a teacher she was. Even though she did not know why vines were so funny, I felt that she wanted the students to be engaged in a modern way. It would appear that this sort of teaching would be better for students who come from a variety of backgrounds. She continued in a later portion of the interview about another lesson that she thought was very successful and innovative in her class:

I do a poetry slam when we're introducing poetry. One of the things that I do with the poetry slam is I allow them to write their poem or read their poem in their native language. So if they want to do it in Spanish, they can do it in Spanish. I asked them to do kind of like a loose translation so that I can show the translation on the screen to the class. When I do stuff like that—I mean to me it's just such a little thing, but for them it's everything. And then people start recognizing that this person knows five languages and that person knows three, and they start kind of opening up about who they really are. And so that has been really good.

Her comments in this portion of the interview led me to believe that she has a deep understanding of multicultural education and tries to allow her students to perform in a way that connects with their culture. It also suggests that what is rigorous about her class is not the traditional school mechanism in AP classes but the rich amount of culture that students are exposed to within the class.

Another English teacher, Ashley, spoke about her best lesson in her class, which seemed to be a seemingly traditional approach.

I'll tell you what I think is the best assignment, and that is their research. Their research paper I think is the best assignment and oddly enough, they love it. That helps them with the synthesis question that they have to address in the writing portion of the [AP] test. They pick a novel that they would like to read. As they're reading it, they have to write down everything that they find questionable or that they don't understand or that they feel like they needed more information for that to make sense. "Is that viable, you know, is that like, is that really what happens?" And they come up with all of these questions, and then we ask them to whittle it down to compartmentalize the questions and then whittle it down. You can have four questions with subcategories in it. So they're doing all the footwork, and then we take them to the library, and we say, you've got to research all this, and we spend about a month researching, and then we bring them back. They have said that they have learned so much from doing that, from researching, from understanding what good research is, and actually having to find a research topic on their own. Usually, they're handed a research topic, and it was like no, "Pick up a book. Pick a book that you want. You're going to have your parents sign off on it. This is going to be your project from beginning to end. No one's going to give you questions. Nobody's going to do anything. You're going to figure out. What it is that you want to know about?" All of it is about validating what people tell you, and we talk about how even an author is going to fudge on what they say. They're going to manipulate information. So they all of a sudden realize that not only are they learning about argument, and they're learning about manipulation, but they're also learning how to sift through words and figuring out why people

say what they do and how they say it. Because all of that is what's pertinent for the AP test. So by the time they're done with the research, they have covered so much ground, and at the end, they do a presentation, and they're like, "Wow, this was great. I thought it was going to pull my hair out, but this is great."

I began to think about the best lesson not only being something that the student enjoys but a reflection of what the teacher values. Her story of her best or favorite project seemed different from the ways that Kelsey described here. One seems to concentrate on the test, and the other seemed to concentrate on the student's engagement.

Other teachers had similar approaches within the spectrum. Maribel talked about a hands-on lesson that she did with her World History AP students this year:

So I didn't come up with assignment myself. I did edit it as, you know, it would fit my students, but we did an autopsy report. And what that is—is the students are given—and you can actually see some of them are now hanging from the windows. I gave my students an empire and what they have to do is an autopsy report. The first part is a eulogy speech of why we remember this empire. So this is where the students would research all of the highlights, the inventions, technology, all of the accomplishments, who were the main rulers, who are the people we remember, that kind of stuff. And they would say, "We are here to remember the Roman Empire." And you know, they, we'll talk about why the Roman empire was so great. And so normally my students will dress like they are going to a funeral. Then the second part they transition to the medical examiners. And I mean I got the gowns and masks and everything. And then for this part, what they do is they analyze the cause of death or the reason or the reason why

the empire declined. And so this is where they start talking about, “oh, there was conflict within or corruption or all of this stuff.” And they talk about the reasons or the cause of death of that empire. It was one of the first projects we did with students. I kind of like put the fear of God in them and I'm like, “it needs to be AP material, or you're going to fail.” And so they like pulled through amazing, the first time around, you know. We'd set up in different classroom to where there was like a table in the center with a dummy body and they put their poster over and like they were all dressed up like doctors... You are a medical examiner, tell me why this empire died. The students that we're not presenting at the time were all sitting around in just taking notes on that empire. As soon as we're done presenting the audience, got to ask questions.

Reflecting on her autopsy lesson, I realized that this was just another way to do traditional projects, but one that is in a seemingly less threatening environment.

Math and science teacher also had interesting projects that they did with their students. One teacher did a real catapult that the students had to design in which they launch Gummy Bears down the hall. Students were required to record their result and figure out ways to make the Gummy Bears go farther by adjusting the angles or direction.

Other teachers also discussed another side of their approach to instruction by talking about how much they attempt to prepare their students for the test. Jacob spoke about this in his interview:

They'd sit there and be like, “What's the deal? Why aren't we getting this? We were never supposed to be in this class. They pushed us into this class,” when I'm pushing the AP signups. When it comes down to it we've got to teach the [state

standards], we've got to teach content—It's all very important. But with these AP classes, they turn into test prep classes. You're teaching to the test, and so we're preparing how to take a test and if I've only got 60 of 90 kids taking the test because they didn't plan on taking in the first place, right? We get to this part of the year, and it's like, what are we doing here?

I got the feeling that there was a large push to get students into his class, but as the semester went by, many of them decided that they did not feel prepared for the test. This is an issue with any teacher, I'm sure. I remember having this same issues as an AP teacher. However, he brought up a good point that for some AP classes they are just seen as test prep courses.

Maribel also spoke candidly about her thoughts on teaching to the test and what that means for the students:

And then the other thing, I guess, it's kind of what we were talking about, the test scores—I feel like we place this is a class where you are teaching to the test and it kind of sucks at the same time. I'm very realistic with my students, and I tell him this is a test that is very hard and that not a lot of people pass. And I always tell them, I don't want you to think that I'm driving you down or that I'm depressing you on purpose. I want you to go in there knowing that you did the best you could possibly do in that the test score does not define how you will do in college. But at the same time, we put the whole year's emphasis on this is going to be on the test. This is the test. This is the test. It's almost like a paradox. How do you tell a kid, “don't worry about the scores,” but the entire year you've been like, “it's about the test!”

This discussion on teaching to the test made me realize that what teachers consider rigorous is a big indicator of how the class operates. How much a teacher is teaching to the test could possibly be dictated by how they define rigor. Connor, when referring to differentiation made a point about how there is a standard that has to be met:

I think differentiation is hard because there is a curriculum that you have to meet. There's a curriculum that you have to address with the College Board, and it's very rigorous. There's a lot of information they need to know and a lot of skills they need to know. And so what we try to do is we teach the skills early, and then it's just constant practice throughout the year...I think the ultimate rigor in a class like AP U.S. History is critical thinking.

Other teachers commented on what they felt was rigorous about their courses. Brianne talked about the depth of her math classes:

It's not the workload itself, but it's the depth of what we're doing here. So in math, a lot of times I think they skim the surface, and they're really good at skimming the surface, but we now have to dive in, and you have to think and apply. So I think that's what's much more rigorous within the class itself. The kids will tell you the first semester is easier than the second semester. I teach all these topics in isolation, and then we spend the whole second semester tying it all together. It's been within the last couple of weeks that truly the entire course has now come together.

Allison also commented on the critical thinking aspect:

Statistics overall is a very rigorous course. It's so much about thinking and describing and critical reading to make sure that you're answering the right question,

looking at the right things. It's not so much rigor. I mean it's not the math, it's the concepts behind it and the thinking about what you're going to do with the information you've got and how you interpret it. Absolutely everything that we do, I am exaggerating a bit, is meaningful, you know? Yeah, sometimes we do experiments on the color of the M&Ms, and so that's fun—not really meaningful. When you think about statistics, every problem has a different real-world thing to it—medical research—what's the probability of this versus that? It just requires so much focus, thinking critical reading, critical thinking.

Lacie also spoke from an English perspective on what she considered rigorous about the course.

I think that that's changed even for me as I've taught a little bit more. The pace is definitely quick. For a lot of our students, the rigor comes in the amount of out of schoolwork and like study skill kind of stuff. Any books that they've read this year, they have not read it like in class and so they've had to do that on their own time. They've had to take the time, like the mental space even to like sit and focus and actually read this thing. A lot of the writing. It's definitely not still where I would want it to be. I'm still trying to gauge like where the kids are and how much can I push them without just totally—like it's too much.

As a beginning teacher, she reminded me of my first year of teaching AP and not knowing exactly what the expectation of the class should be. Lacie brought to mind the idea of challenging students, not necessarily teaching to the test. She continued later in the interview to talk about her thoughts on her underrepresented students:

So passing the test is a goal. I don't want to not recognize that because it does get them out of college credit and money bottom line, and it gets them ahead later. I don't like the idea of just teaching for the test though either. So there's that side. I think there are still—between the projects we do, and I do more writing within even just the projects and AP essays, right? Like there's still other writings they do that I think it allows them to grow as a writer. We definitely pushed them to heavier reading, and so it makes him a better reader. Many of our kids aren't going to read much, especially with the time constraints many of them have. They're not going to read much more on their own and what school's going to demand to them.

Kelsey, a veteran English teacher also commented on her experiences with rigor and her students:

I think coming back to the actual rigor of the class, it's just practice, practice, practice, practice, practice the writing, practice the types of questions that they're going to see on the test. I think sometimes, you know, it's hard, I would say especially second-semester seniors to motivate them through this time right now, to get to burst through the senior-itis kind of aspect right now. So to me, it's about specifically having assignments that still but expect them to kind of demonstrate integrity. We do a project called the legacy project, which is where hey kind of tell us a little bit about their life and their legacy and the morals and values that they have that kind of made them who they are and kind of how they will use those to take them, kind of, into the future. And that's a really great project. And even for me, it allows me to see them as not just like Tom in my second period

English class, but Tom who has this family and does all these wonderful things. I mean I had a student last year that took us down to the orchestra room, and he played his own music for the background. So instead of playing a CD in the background, a song in the background, he...were all bawling and crying by that, but their opportunity to kind of show us who they are as a student, but like as a person seeing them as people.

Again here, I quickly recognized the difference of approach that Kelsey had to her classroom with regard to rigor and mode of instruction. Few of the teacher have the same outlook on multicultural education, culturally responsive teaching, or differentiation. It stands to reason that the rigor and approach to instruction follow that same model.

In looking at the various approaches to instruction and thoughts about rigor, there is a clear division between teachers that see the class as an opportunity for students to get ahead or learn something and then those that are majorly tied to the test scores. This was not really surprising to me since I had taught AP before. However, there were some interesting details that emerged about how teachers conception of rigor might dictate how the teacher also thinks about differentiation and open access. It was here that I realized that as much as differentiation and open access are tied together, they cannot be separated from the information describe for Research Question 2 about expectations and course rigor.

Findings for Research Question 3

The value of AP classes was probably one of the least spoken about topics but still appeared to be intrinsically tied to the purpose of teaching the class. I still believe it is tied to the previous two questions under the umbrella of the teacher background,

knowledge, and identity. Teachers were asked how they perceive the value of an AP class for students who have never taken an AP class before. Some of our conversations turned to historically underrepresented students as well as how this class would prepare them for college. Ever present was the idea by a few teachers that this was college and they should experience it now so they will know what college is like. This gave an interesting picture of how these high school teachers envisioned college. Others felt that even if students did not do well in the class, they most likely would have gained some skills that will help them in the future. Research Question 3 was meant to figure out what specifically the teachers perceived as valuable by allowing them to describe the efficacy for students. Many teachers in their responses highlighted the fact there is a dual credit program in the district which provides an alternate to the AP route in some classes. The perceptions of dual credit as an alternative were highly polarized, mostly by whether the same AP teachers also taught dual credit.

Theme 7: Value of AP Classes

Teachers looked at the value of their classes in a number of different ways. I sensed through the interviews that when teachers advertised their classes, they would often talk about the advantages that students get by taking the class. Some teachers specifically spoke about what they regarded as valuable while others discussed what students found as valuable. There was a range of responses about the philosophical value all the way to the practical value of the class.

Kelsey commented on the more abstract values and advantages that AP classes have:

Well, I think the other thing too for me is I come from the philosophy in it. This is hard for the kids, but for me, it's not about the grade. And I know it's hard because I'm teaching a class that the ultimate end result is a test that they have to take. But a lot of those kids will stay in that class and never actually take the AP test and the College Board and the statistics prove that they're better off for having had the test regardless. Colleges don't look so much at the actual grade on the test as they do at whether they have taken an AP class. I tell them, you know, I respect so much a kid that will sit in my class and try hard and get a D, because they want to be there, because they recognize their learning more in that class than they ever have before. If they're willing to take that D, it means they really want to be college ready. And to me, I respect that, that has integrity. A lot of times I'll have kind of individual conferences with those kids, and obviously, if they have a C or D at some point we're talking about their grade, and I'll tell them that. And you'd be surprised at how many kids will continue to stay in that class because they realized that it isn't about the grade. They liked the class; they liked the literature that we're reading. They liked it. I'm not just giving them worksheets. We're sitting down, we're having conversations about life and death, and things that are kind of relevant to them. So I think being able to kind of connect to them on that level and also kind of negating the anxiety of the test is important.

Kelsey's outlook on the value of the class for her students seemed to be in sync with her method and purpose of teaching described earlier. More than the grade she suggested that the preparation for college-level rigor was important.

Some of the social studies teachers had similar feelings about their classes.

Maribel recalled a message that she always tells her students:

I tell my students this all the time. This is the experience of a lifetime. You get to experience what college is like for pretty much free. It's valuable because they're picking up skills. Even if they do not pass that AP exam, at the end of the day, they learned something. They learned how to analyze; they learned higher thinking skills which are necessary for any career you decided to go into today. I definitely recommend the AP experience. I don't know that I would recommend the AP pressure on a kid though. That to me is—as a parent I don't know if I would be okay with my kid feeling that much pressure. But I think that the AP class, for what it's worth for kids who are willing to commit for it, it's a good experience. It challenges them and helps them rise above what they thought they could do.

By viewing her perceptions about the workload, I felt that Maribel might have been conflicted about the opportunity cost involved in an AP class. She expressed her belief that the AP classes are actually valuable even if the students do not pass the test. Other social studies teachers, like Jacob, expressed their opinion that the class was good for students if they are not taking the test or barely getting by in the class, he argued that “I think there's a lot of value in” hanging out in an AP class if you have college aspirations.

Some of the math teachers see things in from a different perspective due to the nature of their content. Allison spoke about the value of the class for her underrepresented classes:

I think it's very valuable. I mean any exposure to advanced mathematics I think is awesome and even if the AP test—even if they choose not to take it. Which I always try to encourage everyone to take it because you'll hear them say, “well I don't need that for my degree plan.” It's like, yeah, but it's still a course you don't have to take, or I'm going to take calculus any way to make sure I'm solid on it. I think it's very valuable. Also the idea, especially with under-representation, they're usually underrepresented in college also gives them a little taste of, “you can do it—it's not out of your reach.”

She suggested that for underrepresented students it will give them a preview of some of the college skills. Brianne echoed this sentiment in her conversations with me:

I think it's important if they're planning to go to college, I think this helps get you ready so that maybe college isn't so shocking one way or another when you get there. Most of our kids here do you go to college. So I think there's got to be some kind of AP. We've got them in every subject. So hopefully there's something that you feel comfortable that you can get just to expose you to the curriculum. Even if you don't take the AP test that you've had exposure to the content and you've had exposure to the depth of it, like what's required of you. So I feel like it's helpful just to prep you for the next level.

The reflection by many of these teachers including Brianne suggests that these classes are a large part of preparing students or previewing college to high school students. Almost all of the teachers who saw it as preparation for college felt that even if the student does not take the test, they are still learning valuable skills or content to make college less of a jump.

Teachers on the other end of the spectrum shared their perception that AP was a college class and that by its very nature it was showing students what college will be like. Ashley had previously said when talking about the rigor of her course, that an AP class should “mimic a college course.” Brandon also stated that he did not feel as though he could always be extending a hand to students because their “professors are not going to hold your feet to the fire.”

One sub-theme that came up in the first few interviews was about a dual credit alternative to the AP classes. Since it came up in the first few interviews, I decided to ask the question of the rest of the interviewees to see if there was something worth exploring. Dual credit is offered within the district, and many AP teachers have mixed feeling about it because there is no high-stakes test at the end of the course in May, but instead, a final exam that is written and graded by the teacher of record. The biggest concern that teachers shared with me was about the ability for dual credit classes to actually maintain the rigor of college classes if they are being taught by high school teachers. This was interesting to me since AP class are also taught by high school teachers yet serve as college preparation or college-like classes.

Allison commented about the flexibility of dual credit as an option for students to get college credit:

The one thing about dual credit that I think is not as good as AP is that it's not universal, I mean if you're going out of state. I had my daughter take dual credit, because I'm like, you don't have to take the AP test, and you get the credit! Guess what? She's going to University of Nebraska. So her dual credit may not count for anything she needs it to count for. Whereas her AP scores will.

From personal experience, I see that some of the teachers see AP not necessarily as a better experience, but possibly just a safer option. Other math teachers, like Brianne, said they were not a fan of dual credit:

I don't like it. I am not a fan of dual credit because I feel like it would be easier to get your credit through dual credit because it's just like "here you go." But AP is holding them to this higher standard. So can you take what I've imparted on you and can you prove you actually know it versus the grade coming from me and you've been with me all year long. So, not a fan.

Her sentiment seemed as though AP was held to a higher standard and not just handed to the student in a semester grade. Later in the interview she reflected on dual credit, "it's not my favorite thing, but I don't have my master's anyway, so that doesn't matter." The requirement within the district and partnering college is that dual credit teachers need to have 18 hours of graduate-level credit in their subject to be able to teach dual credit.

There is also an extra stipend that comes from the college for these teachers. So, I sensed that some of the teachers were against dual credit because they were not teaching it, but also because it might possibly be pulling students away from their classes.

Other teachers, like Ashley, had very strong opinions on dual credit classes in her school:

Don't get me started on dual credit. That is a very, very sore issue. I'm the department chair here, and I have very little to say as far as what curriculum really is being taught because it's directed somewhat by [the community college] And yes it has to be English three, English four. Yeah, I get that. But really I don't have much of a say about what they teach. Dual credit does not have the rigor of

AP—period. And I don't care what anybody tells you. I see what they do. I go into classrooms, and I've stepped in when they have subs, I talk to the kids. Kids will come talk to me about, oh, what are you doing? Cause we're not doing anything like that or you know, the boyfriend of the girlfriend will make the comparisons, and I will tell you that dual credit is the beautifully watered down English course. But for the most part, our [honors] students in this district are working harder than our dual credit students are. And our dual credit students are getting A's and B's for being there and college credit. And our AP students are working and losing their GPA points. I can tell you every kid that's sitting in an AP class that they're like "Oh my gosh, my grade point average!" and I'm like, "Yes, but you know what? When you go to college, you're going to be highly successful and this other person, they're going to be successful, but they're going to struggle because they've not had the challenges that you've had." And I know that my juniors right now, they have worked so hard that if you just pull them out and throw them in college at the end of this year, they would be fine. They'd write beautiful papers. They'd be able to read the textbooks. They'd have discussions. They'd be perfect. And to me, dual credit is a slap in the face and what we have are very entertaining dual credit teachers. Um, they do fun projects. If you can't get an A on your paper after having rewritten it four or five times then clearly there's something wrong with you. But I would do away with the dual credit in a heartbeat if I could. And it has killed our AP numbers. So it used to be we had six, seven classes, eight classes of AP. We have had three probably in the last few years, and kids will flat out tell you—I'm going to take dual credit. It's a lot easier, and I'm going to get an

A or B—just flies right out of their mouths. And they say, “well I don't want to work that hard. Why do I want to work that hard,” for maybe a B sometimes a C and nothing positive that I'm going to get. And I think the only great thing was when they pass the house bill where if you make a three or above and you go to a [State] public university. I mean, so those kids were like very happy to hear that because a three is relatively doable, but in the same token, are you happy to just kind of get the A or the B. And I've had AP kids say, “You know, if I were going to go to a college in Texas and I were positive that that's what I'm going to do. I'd probably taken dual credit because it's so much easier. And that's what we're up against, and next year I'm looking at numbers and there's only going to be two AP classes, and it's just full of dual credit.

As a department chair, Ashley had a more global view of how many AP or dual credit courses are being offered within her school. Her comment reminded me of a phenomenon known as “course credit inflation” which is used to describe how the content master of a median student has declined over time (Dougherty, Mellor, & Jian, 2006). Similarly, this has led to an increase in the number of students in advanced classes but without an increase in skill level (Attewell & Dominia, 2008). I got the sense that she was very upset about the fact that dual credit was getting more student participants than AP. However, I was also reminded that Ashley keyed in on the rigor of the AP class in several parts of her discussion. They led me to believe that there might be a push-pull factor with AP students and especially historically underrepresented students. Many are attracted to dual credit because they plan to remain in the state or at the community college and they are

also somewhat possibly scared away from AP because of the perceived rigor or teaching method employed by specific teachers.

Some of the beginning teachers did not seem to have solidified opinions on dual credit, possibly because they have not been teaching AP long enough to recognize what some of the other teachers did. Maribel talked about her understanding of dual credit:

Dual credit is an alternative where all you have to do is pass the class. A lot of these kids are passing the class, but they will not pass the test. When dual credit gives you that opportunity to still get the credit, and all you have to do is pass the class—now mind you it should still be a rigorous class.

She commented about the rollout of an increase of dual credit classes at her campus next year:

I think it'll be great for our kids in our underrepresented populations. I would encourage as many kids as I can to do it because this is your chance to not even have to do two extra years if you're not planning to go to a four-year college.

Lacie, another beginning teacher, stated that she thought dual credit classes “definitely prepares students for what’s coming in college on a different level.” She mentioned that she thought it would better help bridge the gap between on-level students and those in college. Kelsey, a veteran teacher, echoed the sentiment and gave her opinion on the place of AP and dual credit:

So I guess I don't really have any thoughts on dual credit because, well I don't feel like I can have a thought on dual credit because I don't teach it. Our school—I think it's a complicated topic. I think it's complicated because some schools in the district don't have enough of a population to have a separate AP class like we do. I

think our school works brilliantly because there are students that want the AP credit that are going out of state. They know exactly what they want the credit for. So I think that our parents and our kids here are very educated in terms of knowing how they want to use their credits and whether or not they want to do dual credit. My understanding is that dual credit is beneficial to students who want to stay in the state and that AP is more beneficial for students who want to go outside or want to try Ivy League or something like that. And so our system works really well. I know that I get along really well with our dual credit teacher at the school. We read a lot of the same work of literature, and we do share some of our ideas, so there's not anything at our school like "Oh, you teach dual credit so we're not going to like this, that or the other.

It was clear to me that there are a lot of different thoughts going around about dual credit. The main difference I saw was between those who also teach dual credit in addition to their AP classes versus those that teach just AP classes. Kelsey commented about one of her friends who teaches both dual credit and AP and about how exhausted she always was. I sensed that there was a spectrum of feelings about dual credit depending on the campus and depending on the population at that campus. Schools with higher numbers of historically underrepresented students tended to see more dual credit students. Conversely, schools within the district with high numbers of white upper-middle-class students tended to much higher numbers of AP enrollments.

In the end, the value of an AP class for that haven't taken one was seen as very high regardless of what teachers thought of the rigor of their class. Only a few teachers actually commented on how it might help historically underrepresented student; however,

it may have been implied by those that talk about students taking it for the first time. Overall, teacher's responses to this portion of the interview mirrored their teaching philosophies, perceptions of rigor, and thoughts on differentiation. For example, the teachers who felt that the course was extremely rigorous and were not as open to differentiation were also usually the teachers who were opposed to dual credit as an alternative.

Additional Findings

The biggest additional finding that I noticed emerge as a theme was that of AP teacher isolation and competition. This might have been through something that was said in an interview and perceived that way by me, or there was an actual statement made by teachers saying that they felt isolated. Rick DuFour (YEAR) has identified teacher isolation as a large problem in education, so it stands to reason that it would not be any different for AP teachers. Mostly the beginning teacher felt isolated which I am assuming is attributed to the length of time that they have had to learn the curriculum and the teachers at other schools in the district. The competition stems from the isolation as many teachers suggested that scores were important.

Maribel talked at length about the struggles that she was having as a first year AP teacher:

And so it's been a very lonely thing for me because I've had one or two good teachers who like, I go, and I'm like, please here's Starbucks or anything just helped me, right? I've had one or two who have helped me, but for the most part, a lot of teachers don't want to. I think about this all the time—I wish there was some kind of training that they give new AP teachers taught by AP teachers that

are doing it currently. But I also know the conversations I've had with them—a lot of them wouldn't be open to it either.

She also spoke about the feeling of being really unprepared for the class:

It's a learning experience, and I have never felt so unprepared and my life to do something. I remember my first day of teaching; this is my fourth year. In my first year, I don't think I was even as nervous as I was the first year teaching AP. I wish there was more training on it. I do wish there was more training. It's kind of what you said. The district has very experienced teachers, especially in social studies. The majority of them have been doing it for a very long time. So where I came in as a newbie, and I was like, "oh gosh!" I went to AP Teacher Institute, and I went to the wrong one. They signed me up for the wrong one, so I walked out of there and got in my car and cried because I'm like, I have no idea what I'm doing.

She continued:

I'll be very honest with you, there's days that they leave and I cry because I'm like, I have no idea that I'm doing the right thing and there is nobody there to tell me that "yes, you are teaching them the right skills or no, this is not even on the test." No one's there to teach me that. It has been a learning experience. I will tell you this. I think that there hasn't been a moment where I don't think how is this going to impact them? Is this going to help them or not? So I think I'm doing it with the right intentions whether or not I'm doing more good than harm. I have no idea if the test results will show that.

Maribel continued to tell me about how she has found a really good resource with a Facebook group for World History AP teachers, “Just to commiserate, like I just feel like there’s somebody else who’s going through the same struggles and it’s great to get resources.” As a teacher at a fairly new school and a teacher who is new to AP, she suggested that it was especially difficult for her to work with the student population she has and to also try to navigate the course. Her statements reminded me of a conversation that I had with Lacie after her interview was over. While she is in her second year of teaching AP English, she hinted at the fact that she would really like to get some resources from Kelsey and that she was really interested in seeing the list of culturally relevant books that she uses. I sent her an email later that day and got her in contact with Kelsey who sent a list of the books in her multicultural library and how they could be used in the classroom. Some teacher seems as though they were more than happy to help each other, whereas others were critical of their fellow teacher's practices.

Conclusion

The goal of the study was to answer the research questions posited in Chapter I. These were: What are the teacher perceptions about open access and differentiation for underrepresented students in AP classes? What are the teacher perceptions about rigor and expectations for students in AP classrooms? What are the teacher perceptions about the purpose and value of AP classes on underrepresented students?

In the end, the results from the interviews were eye-opening. Even as a former AP teacher and a teacher coach, I felt that there were things that I was not in tune with as a district representative. The story from Maribel shocked me since I am in the same subject as her and did not know that she was struggling so much. Looking back on the responses,

I felt that there were many things that I had personally dealt with in my career as an AP teacher. Especially when teachers began to talk about setting the rigor of the classroom. I know as an AP teacher I was not knowledgeable of a definition of rigor or how to use it in the classroom. To me, rigor was just the difficulty of the reading and the assessments. Throughout the coding process and the writing of this chapter, I began to see how all of the puzzle pieces aligned for each teacher. Often I felt as though it all related back to the reflective capacity of the teacher and the degree to which the teacher was open or adaptable. All of the other themes seem to have their root and foundation in differentiation.

Chapter V

Discussion

The aim of this study was to explore the teacher perceptions of historically underrepresented students in AP classes. Through a qualitative approach rooted in critical pedagogy, my goal was to focus on the perceptions of the teacher and how these perceptions help shape their practice in the classroom. By canvassing the district and then interviewing a purposeful sample of teachers, I have tried to shed light on how these teachers view their own teaching as well as their thoughts about teacher adaptability, culturally relevant teaching, expectations, rigor, and value to stakeholders. By creating a follow-up interview, I triangulated and confirmed some of my perceptions as a researcher after reviewing data from the initial survey and interviews. This study has encouraged me to think about ways that this district, the schools, and the teachers within can create the capacity for a better and more equitable AP program. Many of their stories reminded me of my time as a teacher and the struggles I felt as I tried to navigate maintaining high AP scores and also being fair and equitable to all students. These teachers' experiences are probably not uncommon amongst the vast majority of teachers within the district, myself included.

Discussions and Implications

The subject of historically underrepresented students was a tough one for me as I know that every teacher had an opinion on the matter. What led me to the study was the experiences I had when I looked out at my own AP students and realized there were many populations that were underrepresented. I got the sense that the teachers looked at my study as very political in nature. Given the status and polarization of politics in the

American public, I can see where teachers would consider this a political ploy or liberal research wanting to change the world. As a critical researcher, I have opinions on the subject, and although I tried not to let those slant the interviews, there were times when teachers could sense that what they had said was in direct opposition to what I was trying to uncover. They would stand their ground on what they thought about open-access or rigor. My goal was not to go in and try to paint them as bad teachers but more to hear their thoughts on the matter. No amount of educational practice can be changed if we as researchers do not first understand the field of study. Having analyzed the surveys, I already knew in some regards what to expect. So to say that teachers' responses are tied to their politics is not fair, but there is a part of me that realized how the teachers were describing their experience with AP and with historically underrepresented students, strongly correlated to the face of politics today.

Teacher adaptability and the mindset of the teacher remained a strong theme throughout the study. To me, there were clear differences between the teachers who were willing to adapt their AP classroom to accommodate academically diverse learners. In regards to differentiation, I saw many teachers used differentiation in a reactionary sense. They would get a feel for their students and then use differentiation, or their definition of differentiation, as a means for helping students meet a specific standard. Tomlinson (2017) describes differentiation as something that is planned and proactive. In other words, this should be something that is at the foundation of the teaching in AP and not just used as a help for struggling students. This may be done at the curricular level, even in an AP class, as most classes only have a loose outline of the topic or skills that need to be covered. Tomlinson states that "differentiation is typically designed to be robust

enough to engage and challenge the full range of learner in the classroom” (p. 6). In a sink or swim style of class, the teacher is left making a reactive adjustment for students who do not grasp concepts. In Northwest ISD, the number of historically underrepresented students in AP classes has doubled in some categories, like Mexican-American and Hispanic students, yet the number of students who pass the AP test with a three or higher has gone down.

Teachers in social studies and English seem to find it easier to differentiate since there is more flexibility in what can be used as a source of teaching. Many that I spoke with did not think it would be difficult to think of ways to chunk readings or to allow easier reading passages if students were still concentrating on the AP skills. Science and math teachers seemed to think of their subjects as more concrete. The interview of the one science teacher did not yield any deep reflections from teachers in that subject. The science teacher did comment that her method for differentiation mostly came from the processing portions of her lessons. Math teachers exhibited almost no knowledge of how to differentiate for AP students or were opposed to it on the ground of the supposed College Board rigor standard.

Many teachers spoke quickly about the rigor of their class and the belief that if they were to differentiate, then it would not allow them to stay true to the rigor level of a college class. I often had an issue with these responses since there are no set standards as to what has to be taught in the class – only an approved syllabus that says the teachers will give the students opportunities to address the curriculum that College Board requires and the rest is preparation for the test. A few teachers, like Kelsey and Maribel, showed a deep knowledge of differentiation and responsive teaching, possibly because of their

experience or their own ethnic background. Again, I believe that much of this may be tied back to general feelings of adaptability or mindset of the teacher in the classroom. I can see where these teachers have a more equitable environment that has been established in their classroom for historically underrepresented students.

In my observations, it would behoove AP teachers to think about differentiation on a comprehensive level. So many of them seemed to be only differentiating parts of the class or only recognizing that differentiation was possible in certain aspects of the curriculum and instruction. To my knowledge, there has not been any district training on differentiation besides what teachers might get through a state-mandated Gifted and Talented (GT) training. Although teachers are required to get a GT update each year, there is nothing to say that the training has to be about differentiation. I believe it would be a great help to have teachers have opportunities to share and discuss ways to differentiate on many different levels. It would also be good for them to receive specific training on how to adapt their teaching in AP classes to a diversifying district population; otherwise, many of these teachers run the risk of becoming the biggest barrier to their own students' success.

Culturally relevant pedagogy (sometimes known as culturally responsive teaching) was another theme that emerged throughout the study and was the subject of one of the interview questions. The premise that teachers should use students' culture as an aspect of learning was foreign to many of the teachers that I interviewed (Ladson-Billings, 1994). Only one of the teachers that I interviewed seemed to have a grasp on some of the fundamental characteristics of culturally responsive teaching: inclusion of culturally and linguistically diverse students, high expectations, using a wide variety of

instructional strategies and texts, culturally mediated instruction, and an acknowledgement of the advantage of cultural heritages to students that affect their disposition and approaches to learning (Gay, 2018, p. 37). Kelsey, by far has transformed her classroom into a multicultural haven for students of all backgrounds. Her discussions with me seemed to be the ideal perceptions that I would want other teachers to appreciate. The stories she shared about her class and the appreciation the students had for others in the class is the type of empath and democratic teaching we need to see more of in this current educational and political climate.

A large majority of the teachers that I spoke with in the interviews did not know what culturally relevant pedagogy or multicultural education was. Two teachers mentioned that they had a graduate class in college on the subject, but did not seem to have implemented it by their recollections. My concern in hearing the responses of several of the teachers was that they treated every student the same and did not see students with regard to the skin color or ethnicity. While I do believe that these teachers meant this with the best of intentions, it represented a color blind teaching practice which is a barrier for specific students and undercuts the ability of all students to learn in a culturally relevant environment. The biggest myth about culturally relevant teaching is that it is only advantageous to students of color or from countries outside the United States. Color blind teaching misses out on opportunities to use students' own identities as advantages in the learning environment, especially those who come from historically underrepresented populations. I got the feeling many of the teachers were keen on open access to underrepresented students but wanted them to be able to build themselves into the mold of a typical AP student.

Some teachers even went as far as to say they would not consider culturally relevant teaching because it would not be properly preparing students for the AP test. I could sense there was a political tone involved with some of the interviews where teachers opposed the practice of responsive teaching. A few teachers who opposed the practice stated that we would not be preparing students for life by catering to their identities and that what might be a cultural acknowledgment to one person may be racist to the next. Ladson-Billings (1995) talks specifically about this trend by teachers to want to prepare the students for the future without regard for the individual. I think my biggest realization when analyzing these interviews with regard to this subject was that many teachers did not appear to see that culturally relevant teaching would actually help all of the students within the class.

A conversation on this subject would not be complete without including the work of Gonzalez, Moll, and Amanti regarding Funds of Knowledge (2005). It is important that teachers understand that every students' learning is bound within the "larger contextual, historical, political, and ideological frameworks that affect students' live" (p. ix). Thus every student has life experiences that form their knowledge from outside the classroom. There are many defining characteristics which act as strengths according to Gonzalez, et al. (2005) teachers have to be willing to change their perceptions of working-class or poor communities and see these as places that can carry funds of knowledge that are "intellectual residues of their activities" (p. x). The families to which the students belong carry their own funds of knowledge from their social spheres, their work, and their experiences. Students bring these into the classroom and should not be

taught in a vacuum. If teachers ascribe to a one-size-fits-all model, they cannot expect a high success rate for a diverse group of students.

It would behoove the school administration to support teachers in their endeavors to learn culturally relevant teaching. Ultimately without administrative support for such an initiative, it will not make its way into many classrooms. My suggestion would be for principals and other curriculum administrators to work on providing professional training on culturally relevant pedagogy. If this is embraced from the top down, it can become an environmental change in the school instead of just in isolated classrooms. Teachers need to see culturally relevant teaching as important and be held accountable for creating equitable and safe learning environments that value the culture of students.

Teachers who are leaders have an opportunity to make an impact by modeling culturally relevant teaching in their classroom. The more buy-in they can get from other teachers, the better the environment for the whole school can be improved. It is beneficial for teachers to have an opportunity to network with others who know best practices with regard to their curriculum and instruction. By providing or creating space for these conversations to happen schools can expect to see an improvement in the equity and access of historically underrepresented students in their AP classes.

I did not necessarily notice any specific trends with regard to differentiation and number of years a teacher has been in service or teaching AP. Overall the younger teachers seemed to be more open to the ideas of culturally responsive teaching and being able to adapt their classes for the needs of low-income students who worked extra jobs or made money for their families. Part of this difference noted between beginning and veteran teachers may be in the solidification of their identity as teachers (Thomas &

Beauchamp, 2007). Teachers who have not been teaching for a specific length of time may not have completely formed their identity as an AP teacher, which informs their practice. An awareness of this identity early in their career, along with a positive intervention or instilling of culturally responsive values, might help the ability for teachers to increase open access and equity for underrepresented students in AP classes.

Teacher expectations and approaches to instruction were an outgrowth of how teachers perceived differentiation and culturally responsive teaching. Typically, I found that those teachers who were unwilling to engage with responsive teaching or true differentiation had rigid perceptions of student dispositions that reflected upper-middle class students that come from the white suburban background. The biggest trend during the interviews in this regard was a problem of tracking. Most teachers cited that students did not come into the class with the skills necessary to succeed in the classroom. There did not seem to be much change in regard to what grade level the teachers' AP class was in. I even asked Brandon about his senior-level class and if he had a mechanism for students who had not ever taken an AP class before. There did not seem to be any regard on his part for students that may just be attempting an AP class for the first time. In a district where there is a three-tiered tracking system, it can create a strain on students making the jump to an AP class, especially if there is a large difference in the expectations for the different levels.

Teachers' expectations for AP students existed along a spectrum depending on whether they thought the AP courses resembled a high school class or a college class. There was a discrepancy over it being college-level material taught at a high school level or college-level material taught in a college class at a high school campus. Nowhere does

College Board claim their AP classes to be actual college classes, but more designed to allow students more opportunities to dive deeper into subjects (College Board, 2014a). Those teachers that treated their class like more of a preparation for college seemed to have more open, responsive, and differentiated classrooms, as opposed to those who felt the AP class, was a college class. While the teachers who felt their classes were college classes were not any less likely to work with historically underrepresented students, the mode of teaching has the potential to create a barrier for entry and success in the classroom. This discrepancy between college or high school rigor has been studied in Klopfenstein (2003) that argues that a well-run AP program is one “allow[s] students to learn these skills in a familiar high school environment with a level of individualized attention that is unavailable at most colleges” (p. 47).

The expectation that teachers discussed is likely tied to their own personal experiences and identity in college and their love of the subject. I was reminded of Dewey’s continuum of experiences in which every experience “affects for better or worse the attitudes which help decide the quality of further experiences” (Dewey, 1938, p. 37). Day (2004) also connects these experience in teaching with passion and enthusiasm that teachers have for their subject. This passion is often shown in the expectations that they had for the students regardless of teaching philosophy. The teachers’ class resembled their world-view and the world in which they see themselves best preparing these students (Hobbs, 2012). Passion drove some teachers like Kelsey to make their AP course less threatening to students of color and those from low socioeconomic backgrounds. Accordingly a teacher’s pedagogy, adaptability, expectations, and rigor “is influenced by a link between the way teacher see their student and the subject” (Hobbs, 2012, p. 725).

Thus, teacher knowledge is strongly related to how the teacher understands their subject matter, but also the content knowledge is changed to a way that the teacher perceives it best meeting the student's needs.

Teachers also talked at length about the rigor of their courses. I was reminded of conceptions of rigor on a continuum that was defined by Gibbs (2017). At one end of the continuum some teachers, Kelsey and Maribel, have a conception of rigor described as rigor for democracy where students are the center of a discussion-oriented class. These conceptions of rigor for democracy in the classroom are much more culturally relevant, but should not be considered binary to traditional rigor for academics (p.195). These teachers saw rigor as an opportunity for students to better understand the world around them and learn from the cultures and the values represented by their students.

Teachers who thought of rigor in the traditional sense appeared to be concerned with students being able to pass the AP test and prepare themselves for how their professors would treat them. These teachers put emphasis on their content or "official knowledge" and tended to be more about the skills necessary for college (Apple, 2014). This was also examined in teachers responses about dual credit and their dislike because of the perception of lowered rigor.

Rigor is not all about essays and readings. My recommendation is that teachers work on becoming more aware of underrepresented students and how they can rethink rigor to best fit the needs of the students. Most teachers are probably not aware of how their rigor differs from other teachers or the idea of rigor for democracy (Gibbs, 2017). They could also benefit from reflecting on their own style of rigor along the continuum. If teachers could gain a broader understanding of rigor, they may better be able to define

it and work along the continuum at different times and with different students.

Professional development or training on this subject has the potential to increase the accessibility of teachers' AP classes for willing and capable underrepresented students.

The combination of teacher perceptions about open access, differentiation, rigor, and expectations framed how they saw the value of their class for historically underrepresented students, if not for all students. Teachers typically said that their classes were valuable because they gave students a view of what college would be like or they practiced skills that were necessary for college. Teachers also agreed that the ability for students to gain college credit was a high value for students from underrepresented backgrounds. I noticed that there was some difference in whether teachers seemingly talked about bringing students up to the college level or pushing them past a level to get ahead in college. It is possible that a few teachers had low expectations for certain students in their class and concentrated more on how to pull them up to the AP level.

Several of the teachers were sympathetic to their students since there were honors level classes that posed a threat to the enrollments in AP classes. I was unsure if teachers were more inclined to hold their classes to a higher standard than those honors classes or if they wanted to work with students to keep them from dropping down a level. The presence of a middle-level honors class underneath the AP classes with the same GPA created an interesting culture for students and teachers. There is a possibility for students to take easier classes but still maintain a good GPA. This may be systemically diverting students, even underrepresented students, away from AP classes.

In the end, teacher isolation accounted for a small but connected part of the picture. This isolation was seen in the frustrations of some of the new teachers as well as

a perception of competition amongst different AP teachers. I would recommend that the district create more opportunities for AP teachers to work together with the district or campus goals in mind. I was reminded that too often AP teachers are required to go to professional development that does not even apply to them because they don't have anywhere else to go. While summer institutes are nice to send AP teachers to learn about their content, they are missing out on opportunities to get to know those in the district and at their school in other subjects. New teacher relationships, if guided by a mission or vision, could help teachers begin conversations about differentiation, rigor, and expectations.

Suggestions for Future Research

One thing that came into focus as I was doing the research is the absence of perspective from teachers outside the core curriculum (math, science, social studies, and English). While the purposeful sample of teachers were from core subjects, it may have benefited to reach out to other coordinators within the district to get a few of their teachers. Getting interviews with these teachers may shed light on how elective courses such as art or computer science are breaking down barriers for historically underrepresented students. It is highly possible that some of these ancillary AP courses can work as good avenues to boost success in subjects like English, Government, or Biology.

Another thought for future research would be to better examine the teacher background and teacher training that AP teachers participate in. Possibly even a look at what is taught in most approved or endorsed College Board trainings. Different teachers have different motives in teaching, and this comes out in the classroom. Their prior

experiences also highly dictate how they will teach and the possible perceptions they will have on students in the classroom. What we are putting into AP teachers is what we should expect to get out of them.

It may also be helpful to replicate this study for high school counselors or administration. On a qualitative level, it is unknown whether a study like this exists to date. However, counselors and administrators who deal with course sign-up have a lot of influence over students getting into AP classes. While the teachers may be a strong indicator of success, it is necessary to view all avenues that students might cross in high school to fully understand open-access policies or possible barriers.

Summary

Even though AP classes have been under scrutiny in the past few decades, they are still valuable for students to learn soft skills and possibly get college credit. For that, it is important that we are making concerted efforts to make access equitable and differentiated for students that need extra help. The district under study would benefit from aiming more resources at the AP program and also the teachers that prepare them for AP classes.

The focus of this paper has been on the teacher perceptions of underrepresented students in AP classes. What eventually came to the surface for many teachers was their thoughts on their own practice and a reflective nature in which they can talk about how and what they teach. There are so many complex idiosyncrasies that exist across all districts, campuses, and classrooms that it makes it hard to pinpoint specific ideas. I had an opportunity to speak to 11 teachers who honestly are doing what they know to prepare their students for the AP test. I believe that all of them do what they do with the best of

intentions, but most are clouded by their own teacher knowledge and identity which possibly prevents them from creating a truly equitable environment for historically underrepresented students.

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Appendix A
IRB Approval

UNIVERSITY of HOUSTON

DIVISION OF RESEARCH
Institutional Review Boards

APPROVAL OF SUBMISSION

March 23, 2018

Matthew Campbell

mattross84@gmail.com

Dear Matthew Campbell:

On March 23, 2018, the IRB reviewed the following submission:

Type of Review:	Initial Study
Title of Study:	Exploring Teacher Perceptions of Underrepresented Students in Advanced Placement Classes
Investigator:	Matthew Campbell
IRB ID:	STUDY00000881
Funding/ Proposed Funding:	Name: Unfunded
Award ID:	
Award Title:	
IND, IDE, or HDE:	None
Documents Reviewed:	<ul style="list-style-type: none"> • Letter of Intent - Interview, Category: Recruitment Materials; • Conditional Cooperation Letter, Category: Letters of Cooperation / Permission; • Interview Questions, Category: Study tools (ex: surveys, interview/focus group questions, data collection forms, etc.); • Survey Cover Letter, Category: Consent Form; • Protocol - Tracked Changes, Category: IRB Protocol; • Letter of Intent - Survey, Category: Recruitment Materials; • Consent Form - Interview, Category: Consent Form; • Data Share Agreement, Category: Letters of Cooperation / Permission;
Review Category:	Expedited
Committee Name:	Not Applicable
IRB Coordinator:	Danielle Griffin

The IRB approved the study from March 23, 2018 to March 22, 2019, inclusive.

UNIVERSITY of
HOUSTON

DIVISION OF RESEARCH

Institutional Review Boards

To ensure continuous approval for studies with a review category of “Committee Review” in the above table, you must submit a continuing review with required explanations by the deadline for the February 2019 meeting. These deadlines may be found on the compliance website (<http://www.uh.edu/research/compliance/>). You can submit a continuing review by navigating to the active study and clicking “Create Modification/CR.”

For expedited and exempt studies, a continuing review should be submitted no later than 30 days prior to study closure.

If continuing review approval is not granted on or before March 22, 2019, approval of this study expires and all research (including but not limited to recruitment, consent, study procedures, and analysis of identifiable data) must stop. If the study expires and you believe the welfare of the subjects to be at risk if research procedures are discontinued, please contact the IRB office immediately.

Unless a waiver has been granted by the IRB, use the stamped consent form approved by the IRB to document consent. The approved version may be downloaded from the documents tab. Attached are stamped approved consent documents. Use copies of these documents to document consent.

In conducting this study, you are required to follow the requirements listed in the Investigator Manual (HRP-103), which can be found by navigating to the IRB Library within the IRB system.

Sincerely,

Research Integrity and Oversight (RIO) Office
University of Houston, Division of Research
713 743 9204
cphs@central.uh.edu
<http://www.uh.edu/research/compliance/irb-cphs/>

Appendix B

Survey Consent Form



Consent to Take Part in a Human Research Study

Title of research study: Exploring Teacher Perceptions of Underrepresented Students in Advanced Placement Classes

Investigator: Matt Campbell, this project is part of a doctoral thesis being conducted under the supervision of Dr. Cameron White, College of Education.

Why am I being invited to take part in a research study?

We invite you to take part in a research study because you are a current AP teacher in Cypress Fairbanks ISD.

What should I know about a research study?

- Someone will explain this research study to you.
- Whether or not you take part is up to you.
- You can choose not to take part.
- You can agree to take part and later change your mind.
- Your decision will not be held against you.
- You can ask all the questions you want before you decide, and can ask questions at any time during the study.

Why is this research being done?

The purpose of this qualitative study is to examine teacher perceptions about AP classes, student success, and underrepresented student to gain a better understanding of best practices. The reality is that 33.2% of public school graduates took at least one AP exam in 2013. Low-income graduates accounted for 27.5% of those who took at least one AP Exam in 2013. College Board has made extensive steps to raise awareness about the achievement gap for under-represented and socioeconomically disadvantaged students. They have developed equity policies highlighting how schools should strive to eliminate barriers to access of AP classes and should ensure that the diversity of their student populations is reflected in the AP classroom. If we can understand teacher perceptions and practices we can shed light on ways to increase access and success for all students. The information from this study will help educational leaders and teachers in high schools better understand non-academic factors that influence student achievement as well as provide a deeper understanding about the type of advocacy and institutional support necessary to promote AP classes to a diverse body of students.

How long will the research last?

We expect that you will be in this research study for approximately 15-20 minutes. This is long enough to participate in one survey.

Consent to Take Part in a Human Research Study***How many people will be studied?***

We expect to enroll about 303 people in this research study.

What happens if I say yes, I want to be in this research?

If you decide to participate in this study you will be asked to check the box on the online form before proceeding. Any questions you may have can be answered at any time, but especially can be discussed before signing the consent form. Once you have checked the box you will be asked to participate in a single 20-minute survey at your place of choice. Participants will be prompted to answer a series of questions on AP perceptions. Once you have finished the survey your part in the research will be concluded. The questions are demographic, Likert-scale, and free response. The survey is anonymous and no information you provide can be linked to your identity.

What happens if I do not want to be in this research?

You can choose not to take part in the research and it will not be held against you. Choosing not to take part will involve no penalty or loss of benefit to which you are otherwise entitled.

What happens if I say yes, but I change my mind later?

You can leave the research at any time it will not be held against you.

If you stop being in the research, already collected data will be removed from the study record and you will not be required to do any further. You will not be asked to explain the extent of your withdrawal. You will not be asked for anything else.

Is there any way being in this study could be bad for me?

There are no foreseeable risks related to the procedures conducted as part of this study. If you choose to take part and undergo a negative event you feel is related to the study, please inform the principal research or research supervisor.

Will I get anything for being in this study?

There is no compensation or payment that the subject can expect to receive for their participation.

Will being in this study help me in any way?

We cannot promise any benefits to you or others from your taking part in this research. However, possible benefits include discussions that may lead to better AP enrollment and teaching practices. Other teachers may also benefit from your insights about AP classes and students.

What happens to the information collected for the research?

Your taking part in this project is anonymous, and information you provide cannot be linked to your identity.

We may publish the results of this research. However, unless otherwise detailed in this document, we will keep your name and other identifying information confidential.

A copy of the data collected from this research will be stored in the Dr. Cameron White's office (FH 230) of the Curriculum and Instruction department for 3 years following completion of the research. All recording will be destroyed once transcriptions are completed.

Consent to Take Part in a Human Research Study***Who can I talk to?***

If you have questions, concerns, or complaints, or think the research has hurt you, you should talk to the research team at mcampbell3@uh.edu or cswwhite@uh.edu. You may also call Dr. White's office at 713-743-8678. The principal researcher (Matt Campbell) may be contacted at 281-517-2874.

This research has been reviewed and approved by the University of Houston Institutional Review Board (IRB). You may also talk to them at (713) 743-9204 or cphs@central.uh.edu if:

- Your questions, concerns, or complaints are not being answered by the research team.
- You cannot reach the research team.
- You want to talk to someone besides the research team.
- You have questions about your rights as a research subject.
- You want to get information or provide input about this research.

Appendix C

Interview Consent Form



Consent to Take Part in a Human Research Study

Title of research study: Exploring Teacher Perceptions of Underrepresented Students in Advanced Placement Classes

Investigator: Matt Campbell, this project is part of a doctoral thesis being conducted under the supervision of Dr. Cameron White, College of Education.

Why am I being invited to take part in a research study?

We invite you to take part in a research study because you are a current AP teacher in Cypress Fairbanks ISD.

What should I know about a research study?

- Someone will explain this research study to you.
- Whether or not you take part is up to you.
- You can choose not to take part.
- You can agree to take part and later change your mind.
- Your decision will not be held against you.
- You can ask all the questions you want before you decide, and can ask questions at any time during the study.

Why is this research being done?

The purpose of this qualitative study is to examine teacher perceptions about AP classes, student success, and underrepresented student to gain a better understanding of best practices. The reality is that 33.2% of public school graduates took at least one AP exam in 2013. Low-income graduates accounted for 27.5% of those who took at least one AP Exam in 2013. College Board has made extensive steps to raise awareness about the achievement gap for under-represented and socioeconomically disadvantaged students. They have developed equity policies highlighting how schools should strive to eliminate barriers to access of AP classes and should ensure that the diversity of their student populations is reflected in the AP classroom. If we can understand teacher perceptions and practices we can shed light on ways to increase access and success for all students. The information from this study will help educational leaders and teachers in high schools better understand non-academic factors that influence student achievement as well as provide a deeper understanding about the type of advocacy and institutional support necessary to promote AP classes to a diverse body of students.

How long will the research last?

We expect that you will be in this research study for approximately 45 minutes. This is long enough to participate in one interview.

Consent to Take Part in a Human Research Study***How many people will be studied?***

We expect to enroll about 15 people in this research study.

What happens if I say yes, I want to be in this research?

If you decide to participate in this study you will be asked to complete the consent form prior to any other arrangement. Any questions you may have can be answered at any time, but especially can be discussed before signing the consent form. Once the form is complete you will be asked to participate in a single 45-minute interview at your school or place of choice. You will be contacted by Matt Campbell (principal researcher) to arrange a time and a date that is mutually agreeable (usually before or after school). Participants will be asked a series of questions on AP perceptions and the interview will be recorded for transcription purposes. Once the questions are answered the interview will be concluded. The questions are semi-structure as to elicit a conversational response. All information will be kept confidential and pseudonyms will be used for all names of campuses and personnel.

This research study includes the following component(s) where we plan to audio record you as the research subject: Semi-structured 45-minute interview.

- ☐ I agree to be audio recorded during the research study.
 - ☐ I agree that the audio recording can be used in publication/presentations.
 - ☐ I do not agree that the audio recording can be used in publication/presentations.
- ☐ I do not agree to be audio recorded during the research study.

Participant may still participate in the interview if they do not agree to be audio recorded. The audio recording is for the purposes of better analyzing the findings.

What happens if I do not want to be in this research?

You can choose not to take part in the research and it will not be held against you. Choosing not to take part will involve no penalty or loss of benefit to which you are otherwise entitled.

What happens if I say yes, but I change my mind later?

You can leave the research at any time it will not be held against you.

If you stop being in the research, already collected data will be removed from the study record and you will not be required to do any further. You will not be asked to explain the extent of your withdrawal. You will not be asked for anything else.

Is there any way being in this study could be bad for me?

There are no foreseeable risks related to the procedures conducted as part of this study. If you choose to take part and undergo a negative event you feel is related to the study, please inform the principal research or research supervisor.

Will I get anything for being in this study?

There is no compensation or payment that the subject can expect to receive for their participation.

Consent to Take Part in a Human Research Study***Will being in this study help me in any way?***

We cannot promise any benefits to you or others from your taking part in this research. However, possible benefits include discussions that may lead to better AP enrollment and teaching practices. Other teachers may also benefit from your insights about AP classes and students.

What happens to the information collected for the research?

Efforts will be made to limit the use and disclosure of your personal information, including research study records, to people who have a need to review this information. Each subject's name will be paired with a code number, which will appear on all written study materials. The list pairing the subject's name to the assigned code number will be kept separate from these materials. We cannot promise complete secrecy. Organizations that may inspect and copy your information include the IRB and other representatives of this organization, as well as collaborating institutions and federal agencies that oversee human subjects research.

We may publish the results of this research. However, unless otherwise detailed in this document, we will keep your name and other identifying information confidential.

A copy of the data from this research will be stored in the Dr. Cameron White's office (FH 230) of the Curriculum and Instruction department for 3 years following completion of the research. All recording will be destroyed once transcriptions are completed.

Who can I talk to?

If you have questions, concerns, or complaints, or think the research has hurt you, you should talk to the research team at mcampbell13@uh.edu or cswwhite@uh.edu. You may also call Dr. White's office at 713-743-8678. The principal researcher (Matt Campbell) may be contacted at 281-517-2874.

This research has been reviewed and approved by the University of Houston Institutional Review Board (IRB). You may also talk to them at (713) 743-9204 or cphs@central.uh.edu if:

- Your questions, concerns, or complaints are not being answered by the research team.
- You cannot reach the research team.
- You want to talk to someone besides the research team.
- You have questions about your rights as a research subject.
- You want to get information or provide input about this research.

Consent to Take Part in a Human Research Study**Signature Block for Capable Adult**

Your signature documents your consent to take part in this research.

Signature of subject

Date

Printed name of subject

Signature of person obtaining consent

Date

Printed name of person obtaining consent

In the future, our research team may be interested in contacting you for other research studies we undertake, or to conduct a follow-up study to this one. ***There is never any obligation to take part in additional research.*** Do we have permission to contact you to provide additional information?

- ☐ Yes
☐ No

Appendix D

Survey

Survey Questions from Google Questionnaire

Demographic Questions

1. Including the current school year, how many years have you worked in education?
2. Including the current school year, how many years have you worked in your current school?
3. Including the current school year, how many years have you taught AP classes?
4. Which school do you currently work at? (Drop Down Menu)
5. Which AP classes do you currently teach? (Select all that apply)
6. How many sections of AP classes do you currently teach? (Select number 1-7)
7. What other classes do you teach? (Select all that apply)
8. Your age (1-99)
9. Census Race/Ethnicity
10. Gender (Census)

Likert Questions

Item	Question	Strongly Disagree – Strongly Agree
<i>Value of AP Coursework & Communicating the Value to Stakeholders</i>		
1	I believe that students who plan to attend college should participate in at least one AP course.	1 – 2 – 3 – 4 – 5 – 6 – 7
2	Students benefit from the AP experience, even if they don't achieve a qualifying score on the AP exam (3, 4, or 5).	1 – 2 – 3 – 4 – 5 – 6 – 7
3	Students who earn qualifying scores on AP exams (3, 4, or 5) are prepared for college coursework.	1 – 2 – 3 – 4 – 5 – 6 – 7

4	I believe our school should have specific, measurable goals about AP participation and success.	1 – 2 – 3 – 4 – 5 – 6 – 7
5	If my child attended our high school, I would want him or her to take at least one AP course.	1 – 2 – 3 – 4 – 5 – 6 – 7
<i>General Course Offerings</i>		
6	In my opinion, on-level courses are necessary to accommodate the needs of our students.	1 – 2 – 3 – 4 – 5 – 6 – 7
7	I believe on-level courses are necessary to provide our students a sense of success.	1 – 2 – 3 – 4 – 5 – 6 – 7
8	I believe a college preparatory sequence should be the minimum standard academic program for our students.	1 – 2 – 3 – 4 – 5 – 6 – 7
9	I believe an AP teacher's course load should include teaching both AP and non-AP courses.	1 – 2 – 3 – 4 – 5 – 6 – 7
<i>AP Placement Policies – Open vs. Limited Access</i>		
10	In my opinion, AP courses should be reserved for our highest academic achieving students.	1 – 2 – 3 – 4 – 5 – 6 – 7
11	I think pre-requisite courses should play a large part in determining if a student is prepared to take an AP course (or courses leading to AP participation).	1 – 2 – 3 – 4 – 5 – 6 – 7
12	I believe that preparation to take an AP course should include an "A" average in that particular subject area.	1 – 2 – 3 – 4 – 5 – 6 – 7
13	In my opinion, faculty recommendations should play a larger part in determining if a student is placed in an AP course.	1 – 2 – 3 – 4 – 5 – 6 – 7
14	I believe hard work is as important as high aptitude for a successful AP experience	1 – 2 – 3 – 4 – 5 – 6 – 7
<i>Attracting More Students to AP Courses</i>		

15	I think our school should actively explore options to increase participation in AP courses.	1 – 2 – 3 – 4 – 5 – 6 – 7
16	I believe there are significantly more students in our school who could be successful in AP courses than are currently enrolled.	1 – 2 – 3 – 4 – 5 – 6 – 7
17	I believe our school should prepare <u>all</u> of our students for college.	1 – 2 – 3 – 4 – 5 – 6 – 7
18	If we significantly increased the number of students in AP courses, I believe AP scores would suffer significantly.	1 – 2 – 3 – 4 – 5 – 6 – 7
19	I think our school's leaders would accept an initial drop in AP scores if it corresponded with a larger AP enrollment.	1 – 2 – 3 – 4 – 5 – 6 – 7
20	I think our school should actively recruit and encourage students from underrepresented populations to take AP courses.	1 – 2 – 3 – 4 – 5 – 6 – 7
<i>Teachers' Adaptability & Commitment to AP Excellence & Expansion</i>		
21	In my opinion, part of a teacher's role should be to encourage students to enroll in AP courses.	1 – 2 – 3 – 4 – 5 – 6 – 7
22	I believe AP teachers should use a variety of instructional approaches to accommodate different learning styles in our AP courses.	1 – 2 – 3 – 4 – 5 – 6 – 7
23	I think teachers in our school consider teaching AP courses as more important than teaching other courses.	1 – 2 – 3 – 4 – 5 – 6 – 7
24	I think our teachers would view increasing enrollment in AP as leading to "watering down" the AP curriculum.	1 – 2 – 3 – 4 – 5 – 6 – 7
<i>Expecting and Ensuring Success for Students in AP Courses</i>		
25	If a student enrolls in an AP course, I believe it is the school's responsibility to ensure he or she is successful.	1 – 2 – 3 – 4 – 5 – 6 – 7
26	Our school community believes that if students enroll in an AP course, they will succeed in the AP course.	1 – 2 – 3 – 4 – 5 – 6 – 7

27	I believe AP teachers should be given specific professional development opportunities to increase their effectiveness.	1 – 2 – 3 – 4 – 5 – 6 – 7
28	I think administrators need ongoing professional development focused on creating and expanding a successful AP program.	1 – 2 – 3 – 4 – 5 – 6 – 7

Open-ended Questions

Do you feel the need to differentiate for historically underrepresented students in your AP classes? Please explain.

Anything else? If there is anything that you think would be pertinent to this study, please leave comments below.

Thank You!

Your participation in this survey is greatly appreciated. Should you have any questions, please contact Matt Campbell, matthew.campbell@ [REDACTED]

Appendix E
Interview Questions

Questions for Interviews

1. What are your perceptions of historically underrepresented students who are taking your AP class?
 - 1a. Based on this definition of underrepresented students....?
2. Can you describe your perception of the College Board AP Equity Statement?
3. In reading the statement, can you describe how you best carry out the AP Equity Statement in your class? (Include Statement) – May ask question again if have not read the statement.
4. What experiences have you had with underrepresented students in your AP class?
5. What role does differentiation play in your classroom with AP students?
6. What do you see as your best assignment in your AP classes? Describe it.
7. How do you view the value of an AP class for students who have never taken one before?
8. Can you tell me about the rigor of your AP class?
9. Can you describe your best students in your AP classroom?
10. Can you describe your experiences with multicultural education or culturally relevant pedagogy?
11. Can you describe what you have done to make students successful in your AP class?

Appendix F

Follow Up Questions

Follow Up Interview Questions

1. Briefly describe your teaching philosophy with regard to teaching AP.
2. Differentiated instruction posits that all students have different learning styles, strengths, weakness, needs, and abilities – how is it possible to differentiate in an AP classroom? Can you describe how differentiation may be tied to classroom expectations of students taking an AP class?
3. Based on the responses from AP teachers, students' previous experiences are a real indicator of success and motivation in an AP classroom. Describe your thoughts about how these previous experiences may help or hinder historically underrepresented students.
4. Colorblindness is often cited when teachers attempt to not discriminate and work to treat all of their students equally; however, race, ethnicity, socioeconomic status play important roles in student identities. Describe your thoughts about how teaching should be responsive to individual differences and identities in an AP classroom.