

IMPACT OF THE ADVANCEMENT VIA INDIVIDUAL DETERMINATION
(AVID) PROGRAM ON CLOSING THE ACADEMIC
ACHIEVEMENT GAP

by

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ABSTRACT

IMPACT OF THE ADVANCEMENT VIA INDIVIDUAL DETERMINATION (AVID) PROGRAM ON CLOSING THE ACADEMIC ACHIEVEMENT GAP

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There is disparity in the quality of school experiences encountered by students of different races, languages, social classes, and communities. There are also systemic issues that affect the quality of education received by students attending schools primarily comprised of students from the lower socioeconomic status and ethnic minorities. Students of color and students from low socioeconomic backgrounds consistently earn lower grades and lower test scores than their peers. Despite many education reform efforts in the 1980s and 1990s, the academic achievement gap continues to persist.

The AVID program was evaluated as an academic intervention program geared toward closing the academic achievement gap. The study attempted to identify curricular and instructional practices that make a difference in mitigating student achievement differences school-wide. The study was based upon the notion that the students' academic success depended on their ability to negotiate complex, institutionalized power structures, and that school agents taught the students the skills that enhanced the students' ability to navigate the education system and succeed at schooling.

The research focus was the relationship between student participation in the AVID program and student achievement as well as the relationship between participation in the AVID program and student acquisition of the cultural capital that positively impacted academic success. The study took place in a comprehensive high school containing grades nine through twelve in an urban school district in northeast Texas. The research sample consisted of eight cohorts of students. Four cohorts included students who were in the AVID program, and four included those who were not.

Student demographic data, course grades, GPA, and statewide assessment results were obtained from the school's database. The student possession of cultural capital was determined based on teacher responses to a behavioral skills survey. The student groups were compared using success indicators such as GPA, math grades, English grades, and statewide

assessment results. Student possession of cultural capital was also used to compare the student groups.

The results of the study are mixed, yet there is strong evidence to support the positive effects of the AVID program on AVID participants for academic achievement and student possession of cultural capital. The impact that the implementation of the AVID program has on the academic achievement gap cannot be substantiated.

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CHAPTER 1

INTRODUCTION

There is disparity in the quality of school experiences encountered by students of different races, languages, social classes, and communities, particularly for students attending inner city schools in the United States. As a result of this educational inequality, President George W. Bush signed the No Child Left Behind Act (2001) to hold school systems accountable for the education of all students regardless of their background characteristics. Although No Child Left Behind (NCLB) requires all states to provide access to high quality educational experiences for all students, particularly the poor, racial/ethnic minorities, English language learners, and students with disabilities, the academic achievement between low-income ethnic/linguistic minorities and more affluent white students - known as the achievement gap - continues to persist (Lee, 2002; Lee & Burkam, 2002; Williams, 2003; Chubb & Loveless, 2003; Rothstein, 2004; Kozol, 2005; Lavin-Loucks, 2006).

The achievement gap was evident in the low performance by African-American students and Hispanic immigrant students who attend inner city schools (Rothstein, 2004; Kozol, 2005; Noguera, 2008). Low-income and minority students (Latino, African-American, and Native American students)

were more likely to abandon school before high school graduation (Greene & Winters, 2005), more likely to be denied high school diplomas because they cannot pass state proficiency tests, and more likely to need remediation should they enter college (Jenks & Phillips, 1998). Although there were significant gains in closing the achievement gap in the 1980s, it began to widen in the 1990s, which prompted a sense of urgency in the U.S. to find ways to bridge the achievement gap (Williams, 2003; Chubb & Lovelace, 2003; Lavin-Loucks, 2006). The U.S. federal government responded with NCLB legislation.

There is a concatenation of mechanisms contributing to the achievement gap—economics, social class, and culture. However, previous education reform efforts have attempted to disentangle these variables to discover solutions to the achievement gap. Some researchers contend family income has a debilitating effect on student achievement due to the school differences that exists between students living in poverty and those living in affluence in urban, suburban, and rural communities (Kozol, 2005; Olneck, 2005; Heifeng & Cowen, 2009). Other researchers propose the achievement difference occurs because students from lower- or working-class backgrounds do not demonstrate the classroom behaviors or possess the knowledge and skills necessary for academic success in the public school system as those students from more advantaged social groups (Bowles & Gintis, 1976; Apple, 1982; Bourdieu & Passeron, 1977). Furthermore, some scholars contend the cultural norms and values students obtain from their family and community may contradict school culture, thereby,

contributing the achievement gap (Lareau, 2003; Delpit, 2006; Trumbull, Greenfield, & Quiroz et al., 2003). This study integrates these three perspectives – economic, social class, and culture- into one analysis to take a more comprehensive approach to finding solutions to the achievement gap.

Although the home environment has been found to be the most significant factor in a student's achievement, instructional and pedagogical practices can make a profound difference (Trumbull, et al., 2003). In this case study, the AVID program is chosen as a reform effort to close the achievement gap because it addresses the differences in economics, social class, and culture between low-income and minority students and those from the dominant class through the use of instructional and pedagogical practices. The AVID elective class provides the AVID students with academic survival skills – organization, critical thinking, and time management skills- to facilitate academic success and bridge the achievement gap. Furthermore, the content specific writing, inquiry, collaboration, and reading strategies implemented in all classrooms serve as a catalyst for an increase in student achievement school wide; therefore, the strategies the AVID program advocates can be used to reach all students not just students who chose to participate in the AVID program.

This approach to closing the achievement gap through the effective use of AVID teaching practices school-wide, as well as through the cultural exchange of knowledge and skills required to be successful in the classroom, is useful to increasing student performance of all students. This study examines the

differences in academic performance and possession of cultural capital between AVID students and non-AVID students at an urban high school in North Texas, by examining teacher characteristics (i.e., years of experience, race, whether the teacher was on free/reduced lunch, and teacher use of AVID strategies) and the rigor of the courses in which the students are enrolled. Additionally, the study examines the factors contributing to academic success and possession of cultural capital of some AVID students, but not others, by analyzing explanatory variables such as gender, race, course rigor, the number of years the student is in AVID and teacher characteristics.

1.1 Background of the Problem

The best way to ensure equality of opportunity, many maintain, is to enable all children, regardless of their background characteristics, to leave school with skills that position them to compete fairly and productively in the nation's democratic governance and occupational structure (The National Commission on Excellence in Education, 1983; Texas Legislative Board, 2007; Rothstein, 2004). However, the educational inequity evident in the "achievement gap" in America's public school system persists. The achievement gap can be defined as "the chasm in access, expectation, and outcomes in education between low-income and high-income populations; Whites/Asians and Blacks/Hispanics, urban and suburban residents, etc." (Rothstein, 2004, p. 4). The achievement gap is significant in standardized test scores, grade point averages (GPA), honors and advanced placement (AP) classes, the racial make-up of special

education classes, discipline, drop-out/ retention rates, as well as in college entrance exam scores. As stated previously, there is a concatenation of mechanisms contributing to the achievement gap- economic, social class, and culture. Therefore, it is useful to examine the impact of each facet to find solutions to academic disparity in America's public schools.

1.1.1 Economic Impact

Economic status has an impact on academic achievement. Children from low-income and working class families typically have lower academic performance than those from middle- and upper-class families. For instance, children whose families have difficulty finding stable housing are more mobile, and constant relocation requires the children to change schools frequently. Of those children living in families with incomes below \$10,000 a year, more than 30% have attended three or more schools by third grade (Drier, Mollenkopf, & Swanstrom, 2004). Research suggests the student's mobility affects his or her academic achievement due to disconnects in the child's learning experience as a result of having to transfer to different schools (Alexander, Entwisle, & Dauber, 1994; Jarrett, 1995; Kerbow, 1996; Hanushek, Kain, & Rivkin, 2004; Rothstein, 2004). High mobility depresses academic achievement because each move means readjusting to a new educational environment that includes new teachers, curriculum, policies, and procedures. Kerbow (1996) contends learning difficulties are exacerbated if students enter classrooms at different points in the

curriculum than their previous schools because these students miss exposure to key concepts that are prerequisites for future concepts.

Researchers presume that many minorities, particularly African –American students, do not work hard in school because they anticipate discrimination in the labor market combined with the internalization of the inferior status attributed to them by the dominant group (Ogbu, 1978; Noguera, 2003; Rothstein, 2004). Historically, many minorities who excel in school are not rewarded in the labor market even if their grades or licensing exam scores were comparable to white individuals especially for those individuals who do not choose to pursue postsecondary education (Darity & Mason, 1998). Minorities with high school diplomas do not earn as much as white students with high school diplomas (Darity & Mason, 1998). Hence, the expectation of minorities that their academic efforts are not rewarded in the labor market to the same extent as their white peers causes minority students to reduce their academic effort, which exacerbates the achievement gap.

Many low-income families do not have access to or take advantage of governmental health care assistance. Despite federal programs that make medical care more accessible, there remains a gap in utilization (Dubay, Haley, & Denney, 2000; Rothstein 2004). Children without adequate medical care are more likely to contract illnesses that keep them out of school. The difference in school attendance, attributable to differences in access to health care, accentuates the academic achievement gap (Starfield, 1982, 1997).

Furthermore, more minority and low-income children have vision problems that interfere with their academic work (Egbuono & Starfield, 1982; Gould & Gould, 2003). Clinicians suggest that many minority and low-income students require glasses (Gould & Gould, 2003; Orfield, Basa, & Yun, 2001; Harris, 2002). In addition, enrichment during out-of-school hours impacts academic success (Hayes & Grether, 1983; Entwisle, Alexander, & Olson, 2000; Hauser, 2000; Hoffereth & Sandberg, 2001). However, school activities (i.e. sports, music, theater classes) and summer enrichment (i.e. vacations, summer camp, visits to the museum) require fees and access to transportation that lower class families are less likely to possess.

1.1.2 Social Class Impact

Children from higher social classes come to school with more skills and are more prepared to learn than children from lower classes (Moynihan, 1968; Wilson, 2002; Murnane et al., 2006; Murnane & Steel, 2007). This disparity in skills facilitates the achievement gap. Social class differences in childrearing, such as reading and the manner in which communication occurs, causes students to enter school with differences in how they are ready to learn (Mikulecky, 1996; Denton & Germino-Hauskens, 2000; Rothstein, 2004). For instance, parents from more educated families read to their children more often than students from the lower class and working class families; therefore, the typical middle- and upper class child who began reading at home enters school with more foundational knowledge and progress at a faster pace than a low-

income child who only reads in school. (Denton & Germino-Haskins, 2000).

Furthermore, homework exacerbates the academic differences between middle and working class or low-income children (Rothstein, 2004). Middle class children usually have a quiet place at home to read or do homework, whereas children from low-income or minority families are typically in more crowded places without access to a quiet place. Also, children from lower-income families do not have the type of parental support for homework as middle class students; many have less educated parents who are less capable to help with homework than students who have more educated, middle-class parents (Rothstein, 2004).

Furthermore, many students from low-income and working class families have parents whose work schedules, such as parents who work two jobs or long hours, do not permit them to help their child(ren) with homework. In addition, parental involvement impacts academic achievement (Epstein, 1986; Lareau & Horvat 1999; Horvat, Weininger, & Lareau, 2003). Middle class parents are more confident about challenging school policies and are more likely to solicit support from parents with similar concerns. On the other hand, parents from working class families do not always possess the linguistic skills or knowledge, so they may face resistance from teachers and school administrators as they try to advocate for their children (Lareau & Weininger, 2003). Due to the social class impact on academic performance, reform efforts are best if they incorporate solutions to the academic achievement gap that mitigates the powerful influence of social class.

1.1.2.1 Cultural Impact

Kroeber and Kluckhohn (1952) define culture as the set of shared attitudes, values, goals, and practices that characterizes an institution, organization or group. Schools across the nation exhibit a uniformity of values and practices that relate to the white American culture (Hollins 1996). Educators have examined the culture of schooling –norms and patterns of behavior, knowledge, skills, and practices- and its influence on academic success of minority and low-income students (Apple, 1982; Erickson, 1996; Ogbu, 1978; Mehan, Villanueva, Hubbard, & Lintz, 1996; Stanton-Salazar, 2001; Carter, 2003; Delpit, 2006; Noguera, 2008). This uniformity negates the diversity of cultures with which the students enter school. By the time children enter school, most have mastered the modes of interpersonal engagement through interactions with their families and communities. These interactions help to form the student's culture (Delpit, 2006; Trumbull et al., 2003). In every culture, parents unconsciously transmit the rules, the structure, and the goals of society to their children. However, many students from ethnically diverse or low-income families may have cultures that differ from the normative values that exist in the culture of schools. For instance, peer groups play a powerful role in shaping the cultural identity of adolescents. Many students desire to be accepted by their peers. Therefore, fitting in is of paramount concern for most of them. Ogbu (1978) and Fordham (1996) have attributed the marginality of students to oppositional behavior due to the students' fear of being ostracized by their

peers. Some researchers argue that many minority youths equate academic success to 'acting white' and assimilating into the dominant culture; thus, they choose to do poorly in schools to fit into their peer group (Ogbu, 1978; Datnow & Cooper, 1997; Spencer et al., 2001). Additionally, development of critical thinking skills in the culture of school requires students to articulate and even argue their views. At home, some students are disciplined for these behaviors because their parents view these actions as disrespectful (Okajaki & Sternberg, 1993).

The culture difference between the school culture and student culture often negatively impacts student academic success, thereby, facilitating the academic achievement gap (Okajaki & Sternberg, 1993; Bourdieu & Passeron, 1977; Apple, 1972; Trumbull et al., 2003) Education reformers have to recognize the role of culture in schooling and the relationships between home culture views of child development and those implicit in schooling practices in order for school reforms to effectively close the academic achievement gap. There continues to be a disparity in the quality of school experiences encountered by students of different races, languages, social classes, and communities. Academic achievement is an integral part in determining who will succeed in today's society. Many of the cognitive skills taught in schools are required for adequate job performance; therefore, the inequality in education not only impacts educational success but also social mobility. Therefore, the academic achievement gap perpetuates social and economic stratification in society.

1.2 Purpose

Scholars suggest many solutions to closing the achievement gap, such as programs focusing on non-cognitive skills (Miranda, Webb, Brigman, & Peluso, 2007; Wilson 2006), multicultural education (Warren, 1988; Gorksi, 2006), and a change in school culture to include the building of mentoring relationships among teachers (Sherman & Grogan, 2003). Some presuppose that refocusing on desegregation efforts, such as transporting students from their neighborhood schools to other schools within the district and school choice programs, can also reduce the achievement gap (Ikpa, 2004). Sociologists contend that education reform is not enough to close the achievement gap and that social and economic reform must occur to decentralize poverty, as well as facilitate and sustain full employment to promote economic growth (McLauren & Farahmandpur, 2006). Politicians argue the key to closing the achievement gap is the development of an accountability system focused on state developed standardized testing.

Previous reform efforts geared towards closing the achievement gap have been limited to improving achievement with fragmented strategies, proposals, and programs, and have not required the rigor of identifying and addressing multiple variables that impact group differences in academic (Mehan et al., 1996; Miller, 2003; Rothstein, 2004). This project takes a more comprehensive approach by addressing the economic, social, and cultural impact of the achievement gap. The AVID program is evaluated as an academic intervention that mitigates the academic disparity of white versus nonwhite, as well as low-

income or working-class versus middle class and affluent students in America's public schools. The instructional and pedagogical practices the AVID program advocates (Writing, Inquiry, Collaboration, and Inquiry as well as academic survival skills) addresses the economic, social, and cultural differences in which the low-income and minority students enter school by creating a social and cultural exchange between the school agents (counselors, administrators, teachers) and other students to help increase academic performance. The institutional agents teach the students the power codes of the dominant society – the ways of interacting, communicating, and thinking – through the AVID elective class and content specific curriculum which includes study skills, test taking strategies, and information processing strategies that positively impact academic performance and potentially close the achievement gap (Mehan, et al., 1996; Stanton-Salazar, 2001; Rothstein, 2004; Watt, Powell, Mendiola & Cossio, 2006).

The AVID program is evaluated as an academic intervention to bridge the academic achievement gap. Previous research on the AVID program has described it as an effective means to increase the number of minorities in advanced high school courses and college/university enrollment (Mehan et al., 1996; Stanton- Salazar, 2001; Lipovski,2004; Watt, Huerta, & Lozano, 2007; Luper, 2005; Watt et al., 2006; Weiher, Hughes, Kaplan, & Howard, 2006). Some researchers have evaluated the barriers to effective implementation of the program at the state, district, and school campus levels (Hubbard & Mehan,

1998, 1999; Guthrie & Guthrie, 2000, 2002). However, there is no research quantifying the impact of the school-wide use of the instructional and pedagogical practices the AVID program advocates (Writing, Inquiry, Collaboration, and Reading) as a means to closing the achievement gap. Although there has been a considerable amount of qualitative research describing the impact the cultural exchange between the AVID elective teacher and the AVID students, there has been no research quantifying the impact that participation in the AVID program has on student possession of the knowledge and skills –or cultural capital -necessary to increase academic success in the classroom in an effort to bridge the chasm in academic achievement. In an effort to discover viable solutions to closing the achievement gap, this project does both- quantifies the impact of the implementation of the AVID program on student academic achievement and student possession of cultural capital.

1.2.1 A Brief Description of AVID

In 1980, AVID (Advancement Via Individual Determination) was created in San Diego, California, by Mary Catherine Swanson, an English teacher at Clairemont High School, one of several schools under the district's court ordered integration mandate. Every day, approximately 500 ethnic minority and low-income students were bused into Clairemont High, consisting primarily of a middle-class, homogeneous white student population (Swanson, 2002; Arellanes, Bishop, & Castruita, 2005; AVID Center, 2005). In an effort to ensure the success of these students in rigorous college preparatory classes, AVID

began as a study skills class with 32 students. As a result of Swanson's focus on academic survival skills, such as time management, organization, questioning and study skills, a majority of the students in the AVID class performed well in academically rigorous classes and were later admitted into four-year colleges and universities. Impressed, the San Diego City School Board of Education voted to implement the AVID program in all seventeen comprehensive high schools by the end of January 1987 (Freedman, 2000). AVID began as a national reform movement in the Kentucky in 1999. Currently, AVID is adopted by over 3500 schools in forty-five states and fifteen countries with approximately 11,000 students in grades 4 through 12 (AVID Center, 2005).

To facilitate effective teaching strategies, AVID conducts annual summer institutes that are intensive staff development sessions. Every school implementing AVID is encouraged to send an interdisciplinary site team of teachers, administrators, and counselors to attend content specific training sessions to promote effective use of teaching strategies in the classroom, as well as to develop a plan to implement the eleven AVID program requirements that the AVID center contends to be essential to successful program implementation (see Table 1). Furthermore, monthly content specific workshops are conducted during the school year to further enhance the teaching best practice skills endorsed by the AVID center.

Table 1. Eleven essential elements the AVID center consider key to the success of the implementation of the AVID program school-wide (AVID Center, 2006).

1. AVID student selection focuses on students in the middle (2.0-3.5 GPA's as one indicator) with academic potential, who would benefit from AVID support to improve their academic record and begin college preparation.
2. AVID program participants, both students and staff, must choose to participate.
3. The school must be committed to full implementation of the AVID program, with the AVID elective class available within the regular academic school day.
4. AVID students must be enrolled in a rigorous course of study that will enable them to meet requirements for university enrollment.
5. A strong, relevant writing curriculum provides the basis for instruction in the AVID elective class.
6. Inquiry is used as a basis for instruction in the AVID elective.
7. Collaboration is used as a basis for instruction in the AVID classroom.
8. A sufficient number of tutors are available in the AVID class to facilitate student access to rigorous curriculum.
9. AVID program implementation and student progress are monitored through the AVID Data System, and results are analyzed to ensure success.
10. The school or district has identified resources for program costs, has agreed to implement AVID Program Implementation essentials and to participate in AVID certification, and has committed to ongoing participation in AVID staff development.
11. An active interdisciplinary site team collaborates on issues of student access to and success in rigorous college preparatory classes.

AVID staff developers train teachers to use several strategies designed to improve student success. The methodologies supported by AVID – writing, inquiry, collaboration, reading, and academic survival skills-are key focus areas

of powerful teaching in all classrooms. Mehan and colleagues (1996) suggest the implementation of these strategies expose students to the 'hidden curriculum'-the ways of talking, thinking, and acting in school- to which the dominant culture has access and to which students of color and economically disadvantaged students find difficult to discover.

French sociologist Pierre Bourdieu (1985) contends that the family institution transmits distinctive cultural knowledge, presuming, therefore, that parents of different classes have different skills, manners, norms, styles of interactions and linguistic facility so to will their children. The cultural knowledge, or cultural capital, that middle-income and upper-income families pass on to their children correlate to the knowledge expected of them in school (Bourdieu & Passeron, 1977). Because the same cultural knowledge is not transmitted to low-income and many minority children by their parents, they are not provided with the background knowledge to meet the inherent demands of classroom culture (Okajaki & Sternberg, 1993; Trumbull, et al., 2003). For instance, teachers often negatively evaluate the academic performance of children who are not vocal and adept at logical modes of argumentation. Many low-income and minority students are disciplined for argumentation in their homes. The cultural conflict between the culture of school and low-income and/or minority families negatively impacts academic success in the classroom for these students which exacerbates the academic achievement gap.

Exposing low income and ethnic/linguistic minority students to the hidden curriculum also increases their cultural capital. Therefore, the students are able to navigate the educational system more effectively through their understanding of the culture of schooling required to achieve academic success, such as the concern for factual knowledge and the ability to decontextualize literature. Mehan and colleagues (1996) suggest, “If we are to find ways to defeat reproductive mechanisms, then we must institutionalize practices that increase the possibility of equality” (p. 231). Consequently, it is useful to examine the school-wide implementation of the instructional and curricular practices supported by AVID in an effort to evaluate the means to promote academic achievement for all students but ultimately as a strategy for closing the achievement gap.

1.3 Research Questions

Despite countless efforts to reform the school system in the 1980s and 1990s, there is still a wide gap in academic achievement; African American, Latino, and Native American students continue to lag behind their White and Asian counterparts in many academic areas (Watt et al., 2006). The AVID program is examined in this study as a potential reform effort to close the achievement gap because it addresses the differences in economics, social class, and culture between low-income and minority students and those from the dominant class. This approach to closing the achievement gap through effective use of AVID teaching practices school wide as well as through the cultural

exchange of knowledge and skills required to be successful in the classroom is critical to increasing student performance of all students and closing the ever-present achievement gap. AVID is a program designed to restructure the teaching methods of schools by getting all students actively involved in the learning process instead of simply teaching to the status quo. Furthermore, it encourages open access to rigorous college preparatory curricula for students who have not taken pre-AP (pre- Advanced Placement), AP (Advanced Placement), or IB (International Baccalaureate) classes prior to AVID implementation. This project focuses on the impact of the AVID program as a catalyst for schoolwide change in a North Texas high school containing grades nine through twelve. It also examines the efficacy of AVID methodologies in core subject areas and the AVID elective class as a means to bridge the gap in academic achievement. The specific research questions for this study are:

1. Does participation in the AVID program increase student academic achievement? Student achievement is measured by
 - Math and English grades
 - GPA
 - Texas Assessment of Knowledge and Skills (TAKS) test results
2. Did participation in the AVID program impact AVID student possession of the cultural capital of the dominant society? Cultural

capital is measured by student possession of academic and behavioral skills that positively impact student achievement.

1.4 Importance of Study

A significant amount of research exists on quantifiable results of AVID focusing on the efficacy of the eleven program essentials (see Table 1), as well as student entrance and success in academically rigorous courses, such as Pre-AP, IB, and AP courses (Mehan, et al., 1996; Guthrie & Guthrie, 2000, 2002). Furthermore, documented research suggests the AVID program is effective because participation in the program leads to an increase in the college attendance rates of ethnic minorities, linguistic minorities (individuals who may or may not speak English fluently and who predominantly speak a language other than English at home) and economically disadvantaged students (Mehan et al., 1996; Stanton-Salazar, 2001). However, there is no systematic research quantifying the efficacy of the school-wide use of the instructional and pedagogical practices the AVID program advocates (Writing, Inquiry, Collaboration, and Reading) as a means to close the achievement gap. Although there has been a considerable amount of qualitative research describing the impact of the cultural exchange between the AVID elective teacher and the AVID students, there has been no research quantifying the impact that participation in the AVID program has on student possession of the knowledge and skills necessary to increase academic success in the classroom. Although an increase in academic achievement may potentially lead to an increase in college entrance

of all students, this study seeks to evaluate and document AVID curricular and instructional practices as a means to make academic achievement and the transmission of cultural knowledge more equitable between minority students and Caucasian students, as well as between low-income and the more economically advantaged students.

Currently, educational leaders are charged with the responsibility of providing students with strategies and skills that enable them to be successful learners. Therefore, it is important to document any practices that are succeeding in making education opportunities more equitable for all students. This study examines the school-wide use of AVID instructional strategies and pedagogical practices in an attempt to determine factors that might make a difference in mitigating the achievement gap within the school as a whole.

1.5 Organization of Remainder of Study

Chapter 2 includes a review of relevant theoretical literature related to the concatenation of mechanisms facilitating the achievement gap. It begins by discussing public education through the functional theorist lens. It then deconstructs the public education system to evaluate the structural causes of the achievement gap through the critical theorist lens. Afterwards, the literature review describes the impact the access to cultural capital has on educational attainment in America's public schools as described by French sociologist Pierre Bourdieu. It will conclude with the discussion of the instructional and curricular pedagogy the AVID center advocates as a means to close the achievement gap

by providing ethnic/ linguistic minorities, as well as low-income students, access to the cultural capital of the dominant society.

Chapter 3 sets forth the methodology of the study and describes in detail the study site, the population of interest, sampling methodology, data collection and instrumentation. Teacher responses to the Student Academic and Behavioral Skills Survey are examined to evaluate their perception of the academic and behavior skills that a student has to possess to be successful in the teachers' classrooms. These suggestions along with literature are used to design the student behavior skills surveys that measure student possession of cultural capital skills. Cultural capital factors –academic performance, behavioral skills, and disposition- are created from the results of the Student Behavioral Skills survey by performing a factorial analysis with Varimax rotation. Additionally, the English and math teacher surveys are evaluated to determine how often teachers use content specific AVID strategies in their classroom. All variables representing the student data, teacher data, and dependent variables are described as well. The data consists of student English and math grades, GPA, and TAKS scores as well as background characteristics such as race, gender, and socioeconomic level. Teacher data includes the number of years in service, race, and socioeconomic level during their school years. All data is evaluated to examine curricular and pedagogical practices that can be implemented to close the achievement gap.

Chapter 4 presents major findings of the study and provides interpretation of the data collection. Descriptive statistics, t-tests, analysis of variance tests

(ANOVA), and Pearson Chi-square tests were applied to the data to compare the difference in academic achievement -measured by course grades in math and English, GPA, and TAKS scores- and possession of cultural capital between the two groups (AVID/non-AVID). Analysis of variance tests were also employed to evaluate factors that contribute to the differences in student achievement and possession of cultural capital between the AVID and non-AVID students.

ANOVA tests were also employed to evaluate the factors that contribute to the academic success and possession of cultural capital of the AVID students.

Chapter 5 presents a summary of the findings, conclusions, and recommendations for future research. The key questions are whether participation in the AVID program increases student academic achievement and whether participation in the AVID program increases student possession of the cultural capital required in order to be academically successful. The factors contributing to the differences (i.e., teacher characteristics, student characteristics, and course rigor) in achievement and cultural capital between AVID and non-AVID students are also examined. These two questions are explored in an effort to unveil methods to bridge the academic achievement gap.

CHAPTER 2

LITERATURE REVIEW

Some scholars have argued that the best opportunity this country has for achieving social and economic equality is to close the academic achievement gap (Darling-Hammond, 2006; Borkowski & Sneed, 2006). The 'gap' is measured at many different levels and by various means with the purpose of illustrating differences in academic achievement between specific groups, such as those that are often based on race/ethnicity, gender, and socioeconomic status (SES). Since academic achievement and educational attainment directly affect adult occupational status and earnings, the ever-present achievement gap is not only an educational problem, but also a significant socioeconomic problem impacting low-income, ethnic/linguistic minority children and their families from one generation to the next (Donhardt, 2004; Olneck, 2005; Texas Legislative Budget Board, 2007; Zaifeng & Cowen, 2009).

This literature review examines institutional causes of the achievement gap; then, it discusses the implementation of the AVID program and the pedagogy that it advocates as a means to reduce the gap. It begins with the overall purpose of public education and the structural and institutional barriers facilitating educational disparity. Next, it includes a discussion of Pierre Bourdieu's concept of cultural capital and the necessity to expose all students to

the cultural capital of the dominant class in order to reduce the disparity in public education, and it concludes with a discussion of the instructional and curricular pedagogy that the Advancement Via Individual Determination (AVID) program directors contend is necessary for effective change in the classroom to facilitate an equitable education experience for all students.

Two theoretical perspectives are presented. First, the purpose of public education is evaluated from the functionalist perspective; then, NCLB is discussed through the functionalist lens as aiming to adequately educate America's children to function in a capitalist economy. Second, critical theory is used to deconstruct public education and explore questions, such as how the institutional structures, practices, discourses, policies, and processes work to maintain inequalities in education. Bourdieu's notion of cultural capital is discussed through the critical theorist lens as a theoretical tool to examine possible causal mechanisms impacting academic success of students in America's public education system. Bourdieu's (1977, 1997) cultural capital thesis asserts that students from privileged socioeconomic backgrounds tend to acquire cultural capital (i.e., critical thinking, writing, linguistic, and scientific skills) that positively impacts their educational attainment; in addition, Bourdieu argues that institutions, such as schools, reproduce inequality by responding favorably to students with cultural capital while devaluing the culture of low-income students. This disparate treatment of children by schools is one key element of the achievement gap. Such a comprehensive approach is a

contribution to the literature because it focuses on a complex concatenation of mechanisms contributing to the achievement gap.

2.1 The Functionalist Perspective

Functionalists believe that everything has a function- a practice that satisfies the general needs of the social organism-in society which contributes to the survival of the system as a whole (Durkheim, 1933; Merton, 1936; Parsons, 1951; Hornsby, 2005). Functionalists perceive society as operating as a living organism whose parts and organs are grouped and organized into a system. The various parts and organs' work together to keep the organism's processes operating smoothly. Similarly, members of a society have a function to sustain the life of the collective entity. Durkheim (1933) proposed that complex societies are composed of parts (i.e., families, educational institutions, businesses, and religious institutions) that perform very different tasks, but there is a strong interdependence that develops among the parts to sustain society as a whole. Functionalists further contend society has a homeostatic nature, and some equilibrium must be achieved to maintain its stability (Durkheim, 1933; Merton, 1936; Parsons, 1951; Hornsby, 2005). Equilibration occurs through socialization into the basic norms and values that support the rules and practices of that society. When socialization is insufficient, functionalists contend social control mechanisms should be in place to restore conformity to culturally appropriate roles and socially supported norms (Durkheim, 1933; Parson, 1951).

Public education is essential to the development of a productive nation, and schools are a part of the system that socializes students in accordance with the dominant set of values. Hence, the purpose of public education is explored using the functionalist lens. Additionally, the NCLB Act (2001) is evaluated as a functionalist approach to closing the academic achievement gap in an effort to maintain an economically viable country.

2.1.1 The Purpose of Public Education

In the late 1700s, supporters for publicly funded education sought to ensure a literate America. Horace Mann, an educator in the state of Massachusetts, pushed for free schools paid for by the government and supported by professional educators to instill public virtue and morals in all Americans, particularly, as immigrants from various countries descended on US soil carrying practices and beliefs that varied widely (Rodgers, 1976). Once there was a consensus about the need for public schools, the issue became one of funding. In 1791, the 10th Amendment to the U.S. Constitution made education a right for all citizens to be provided for and supported by the state. However, the state gave control of education to the local government entities, such as cities and independent school districts.

As the United States attempted to create unity and a common set of norms, values, and behaviors, education played a key role. Education was viewed as a social means to exemplify and convey basic human values centered

on the quality of life for the individual. The focus of education was the preservation of national strength through the advancement of western civilization and the establishment of a productive and cooperative citizenry (Warren, 1988; Mourad, 2001; Marron, 2001). According to structural functionalists, education systems must be geared toward the needs of the workplace. Durkheim (1933) suggested the division of labor, or differentiation, was not peculiar to the economic world. Its influence was observed in all aspects of society including the education systems as schools were responsible for the sifting and sorting of individuals on the basis of their educational achievements, which perpetuated social stratification.

Functional theorists posited personal achievement was the cause of individual success. According to this 'achievement ideology,' one could obtain great rewards through effort and hard work (Mehan et al., 1996). The education system was viewed as an open and equal system that rewarded intellectual capacity, cognitive ability, and appropriate behavior. For instance, earlier generations of European immigrants, such as the Irish, Italians, and Jews, gradually improved their social conditions and experienced social mobility by relinquishing many of their ethnic and cultural distinctions to embrace a more socially acceptable American dream (Roediger, 1991; Brodtkin, 1999; Jiobu, 1988). As a result, many educators and political supporters of America's system of education believed that all citizens could have equal access to benefits regardless of an individual's race, gender, or social status. Although educators

believed all students could be educated regardless of their background characteristics, the academic achievement gap persisted.

A report written by the National Commission on Excellence in Education entitled *A Nation at Risk: The Imperative for Educational Reform* informed the government, under the Regan administration, of the possible economic consequences of the ever-present academic achievement gap prompting many education reform efforts (1983). This document cited the academic deficiencies of the U.S. students as well as the dismal progress of the students' work-place skills. As the doubt over U.S. superiority in the competitive, global arena persisted; educators, politicians, and business leaders believed the education system was responsible for the decline in U.S. economic power. The government, under President George W. Bush, responded with legislation, the No Child Left Behind Act (2001). The standards-based reform Act was geared toward reducing the academic achievement gap as a means to produce a more diverse, competitive workforce and maintain the economic viability of the country.

2.1.2 The No Child Left Behind Act

Research on the sources of long-term productivity and growth, or economic competitiveness, in industrial societies has consistently found that the knowledge and skills of the population are very important (Miller, 1995; Murnane, et al., 1995). As a result, the global economic and technological

changes that occurred put a higher premium on education. A Nation at Risk (1983) alerted the general public and the education communities to a major shift in the goal of public education, to educate all children, not just provide differentiated education that sorted children by likely occupations. The National Commission on Excellence in Education (1983) believed

Individuals in our society who do not possess the levels of skill, literacy, and training essential to this new era [the information age] will be effectively disenfranchised from a chance to participate in our national life. A high level of shared education is essential to a free, democratic society and to the fostering of a common culture (p. 7)

According to the U.S. Department of Labor, six of every ten jobs in the US economy depend on highly trained workers with skills only available through postsecondary education (Texas Legislative Budget Board, 2007). Economists estimate that by 2020, the U.S. could face a shortfall of 14 million workers who have the knowledge and skills to compete for middle-income jobs in a global economy. Thus, the educational achievement gap of an increasingly diverse population has serious economic implications for the nation as a whole, therefore, prompting the government to create the NCLB Act of 2001.

Prominent political leaders representing multiple ideological positions coauthored the No Child Left Behind Act of 2001 in an attempt to hold school systems accountable for equipping all students with the academic skills required to be successful in the workforce. President George W. Bush signed the No

Child Left Behind Act (NCLB), the reauthorization of the Elementary and Secondary Education Act (ESEA) of 1965, into law on January 8, 2002 (Kennedy, 2006; Kantor & Lowe, 2006; Paige, 2006; Bohrnstedt & O'Day, 2008). NCLB was part of the standards-based education reform movement predicated on the ideology that setting high standards and establishing measurable goals could improve individual outcomes in education. The emphasis on standardized achievement testing occurred as an effort to eliminate gaps in test scores among racial/ethnic, socioeconomic, home-language, and special education status groups by 2013-2014. NCLB attempted to combat the “soft bigotry of low expectations” by raising overall performance levels and closing the gap between high performing white and middle-class groups and low performing minority and low-income groups (Bush, 2001). The intent of NCLB is to improve outcomes for all students, particularly, those who have been historically neglected by the education system. The purpose of the act is to:

- Increase accountability for student performance
- Reduce bureaucracy and increase flexibility in spending and decision making
- Empower parents by providing school choice options
- Use data driven decision making to focus on what works for the individual campuses (U.S. Department of Education, 2003).

The federal No Child Left Behind law provides serious penalties for schools that fail to make sufficient annual gains (adequate yearly progress –AYP) and that

fail to narrow the gap in the percentage of black and white, lower- and middle-class students who are proficient (Karen, 2005; Darling- Hammond, 2006; Borkowski & Sneed, 2006; Stiefel, Schwarts, & Chellman, 2007). Federal law requires that every public school child in grades 3 through 8 be tested annually in reading and math, and students cannot advance from one grade to the next unless they demonstrate minimal competence on standardized tests.

Furthermore, a school with high rates of failure will be targeted for various forms of intervention and face the prospect of being taken over by state governments if they fail to improve (Elmore, 2003). Additionally, serious penalties (i.e. school exit options, redirection of funds, or school reconstitutions) begin if every grade and sub-group does not make steady progress toward the proficiency of all students in each subject area by 2014.

Functionalists contended individuals must be socialized into the basic norms and values of society, and schools served this purpose. They further contended mechanisms must be put in place to restore conformity when disturbances occur. The politicians thought America was losing its economic dominance due to the lack of skilled workers in the country, and the depletion in skilled workers was attributed to deficiencies in public education. Therefore, the NCLB Act is viewed as a control mechanism established to restore America's competitive edge in the global marketplace. However, states were finding it increasingly difficult to meet the achievement gains required by the law (Armor, 2008). The advent of standards-based reform drew greater attention to the

gaping disparities in student performance that corresponded closely with racial, linguistic, and socioeconomic differences.

The achievement gap has been in existence since the beginning of aptitude and achievement testing, and it is still large despite massive investments in many different educational policies and programs. Therefore, the critical theorist lens is used to deconstruct and analyze the public education system to decipher ways in which schools create systems of advantage and disadvantage that exacerbates the academic achievement gap.

2.2 Critical Theorist Perspective

Critical theory, with its roots in Immanuel Kant and Karl Marx, is a theory concerned with the emancipation of society as a whole. Critical theorists critique the current economic system and the social inequality that it produces. Max Horkheimer of the Frankfurt School of Social Science suggests critical theory “considers the overall framework which is conditioned by the blind interaction of individual activities (that is, the existent division of labor and the class distinctions) to be a function of which originates in human actions” (1972, p 365). He suggests an individual should not merely accept the norms and rules of conduct as they are. That person should examine processes that can alter the current system and seek to change them in an effort to liberate mankind.

Critical theory offers a critique of contemporary social conditions to identify processes that lead to societal transformation (Horkheimer, 1972).

Critical theorists focus on power. They posit that all major institutions, laws, and traditions in society are created to support those who have been traditionally in power.

The use of critical theory is used to evaluate the public education system in an effort to unveil structures and process that continue to reproduce the existing system of domination and oppression. This literature review provides a broad overview of the institutionalized inequalities in America's public schools due to segregation and inequities in public school finance. It then evaluates the cultural influences that positively impact educational attainment as described by Pierre Bourdieu in an effort to discover mechanisms to transform the structural and cultural aspects of education to mitigate factors contributing to the academic achievement gap.

Pierre Bourdieu's work belongs in this theoretical arena because he contends that structural processes, such as the school systems, enable social classes to preserve their social privilege across generations. He suggests that students' access to cultural capital has an impact on their academic success as schools privilege the cultural capital of the dominant class and devalue that of the working class (Bourdieu, 1984). The access to dominant values benefits some children while failing others. These differences facilitate the academic achievement gap and impact social mobility for undeserved groups.

2.2.1 Institutionalized Inequality in Education- Deconstruction of the Public Education System

2.2.1.1 Segregation

Herbert Marcuse suggests that critical theory “brings to consciousness potentialities that have emerged within maturing historical situations” (Marcuse, 1968; 392). He contends social inequity exists in society as a result of the structures and processes of power that were put in place in the past. He further contends these processes and structures remain in existence to allow for the domination of less powerful individuals or social groups by the dominant class. Segregation is evaluated from the critical theorist lens as a potentiality that was created to dominate and oppress minorities, thereby, facilitating the academic achievement gap.

Although public education was deemed important to maintaining a politically, socially, and economically viable citizenry, it was stratified along racial and ethnic lines. In 1896, the *Plessy vs. Ferguson* judgment (‘separate but equal’) allowed for the continuation of rigid segregationist policies of pervasive racial separation in many aspects of American life, including education (Orfield & Eaton, 1996; Irons, 2002). Spring (2003) suggests segregated schools were designed to ensure that dominated groups, such as ethnic/linguistic minorities, could not use education as a means for economic advancement. The primary purpose of schools attended by Black students was to teach skills for menial labor instead of focusing on academic content, and schools attended by Black

students did not receive the same resources as those attended by White students. In the end, the schools were separate but not “equal.”

Critical theorists contend societal transformations must occur to dismantle the structures that produce and reproduce relationships of domination and subordination. On May 17, 1954, the U.S. Supreme Court declared that racial segregation in the public school system violated the equal protection clause of the 14th amendment of the U.S. Constitution, which states “no state shall ...deny any person within its jurisdiction equal protection of the laws”. According to the *Brown v Board of Education* decision, the provision of education must be made on equal terms since the states have made the commitment to provide an opportunity for free education in public schools (344 U.S. 1. 1953). Supreme Court Chief Justice Earl Warren in *Brown v. Board of Education* concluded, “Education is the foundation of a fully functioning democracy. It is the very foundation of citizenship” (344 U.S. 1., 1953, p. 428). The consenting Supreme Court Justices did not believe a child could be successful in society without equity in public education. Consequently, the “separate but equal” structure of education upheld by *Plessy v. Ferguson* was rejected.

Schools are still not created equal 50 years after *Brown v. Board of Education*, and there remains educational disparity in American public schools (Rothestein, 2004; Kozol, 2005; Noguera, 2008). According to *Brown v Board of Education*, equality in public schools should be the norm; yet disadvantaged children are ill served by many inner city schools (Levin, 1991; Kozol, 1991,

2005; Rothstein, 2004). School-based achievement differences reflect fundamental inequities between districts serving predominantly poor and minority students and those serving more affluent and largely majority students (Levin, 1991; Kozol, 1991, 2005; Rothstein, 2004). Also, poor and minority students are more likely to be in classrooms that are overcrowded and too chaotic for learning to be productive and have more inexperienced and uncertified teachers than high achieving schools (Ingersoll, 2005; Kozol, 2005; Murnane, et al., 2006). Urban public schools are affected by social and cultural factors associated with changing racial, ethnic, and language demographics (Parker, Kelly, & Sanford, 1998; Stanton-Salazar, 2001; Breitborde & Swiniarski; 2002; Carter, 2003; Delpit, 2006).

Despite political pressures for education reforms, most urban initiatives, such as tutorial programs and a rise in school choice options, fail to reverse the overall pattern of low performance. Research on these interventions suggests they are not institutionalized in schools in ways that will lead to meaningful gains in closing the achievement gap. Black and Latino students continue to lag behind White and Asian students in outcome measures, such as GPA (see Table 2). Moreover, students from these underserved populations are overrepresented in disciplinary actions and in special education classes (Rothstein, 2004; Noguera, 2008). America's public schools have failed to produce the kinds of changes needed to make schools more responsive to the needs of most students who attend them.

Table 2. Mean GPA of high school students by ethnicity.

	African-American	Caucasian	Latino	Asian
1998	2.61	2.96	2.75	3.04
2000	2.63	3.01	2.80	3.20
2005	2.69	3.05	2.82	3.16

From high school transcript study (HSTS), 1990-2005, by US Department of Education, National Center of Education Statistics, 2007, Washington DC: U.S. Department of Education, Government Printing Office.

The practice of segregation is important to highlight because it establishes and continues to perpetuate an unequal playing field in education. Critical theorists posit the current system of education is a result of what happened in history. Minority subgroups traditionally have low levels of academic achievement compared to Caucasian students, which can be attributed to the unequal distribution of educational resources (i.e., experienced and qualified teachers, access to technology, and funding) as a result of segregation (Kozol, 2005). Furthermore, the largest disparities in academic achievement are between schools that are racially segregated rather than between schools that are racially integrated (Borman & Overman, 2004; Hodge, Harrison, Burden, & Dixon, 2008). The practice of segregation is examined as a structural process –the organized arrangement by which students are assigned to schools- that continues to produce a relationship of domination and subordination in the public education system.

2.2.1.2 Public School Funding

The American public education system has historically been considered a social equalizer presumed to provide equal access to education for all and the means for social advancement regardless of class, race, or national origin. However, disparities in access to equal education continue and closely parallel disparities in school funding (Orfield & Lee, 2005; Kozol, 2005). As Ladson-Billings (1998) suggests “no area of schooling underscores inequity and racism better than school funding” (p 12). Social conflict theorists and critical theorists argue that this disparity occurs because groups (i.e. social classes) within society have differing amounts of material resources. In order to remain economically superior, the more powerful class, that with the most material social and cultural resources, exploit those groups with less power. (Marcuse, 1968; Collins, 1975; Mills, 1963; Aleman, 2006). Critical theorists further contend all major institutions, laws, and traditions in society are created to support those in power, so the quality of education is tied to economic status (Aleman, 2006; Mills, 1963). School funding disparities continue to impact educational achievement and to exacerbate income and race differences in the public education as a result of the current social framework.

America’s schools are funded almost entirely by state and local taxes, predominantly property taxes, which are products of local wealth. Under this funding scheme, property-rich districts can tax property owners at a lower tax rate and still produce more revenue than property poor districts taxing at the

maximum rate allowed. This type of decentralized funding system provides students with significantly different educational opportunities based on where they live (Janssen, 2000; Green & Baker, 2002; Aleman, 2006; Kozol, 2005; Ryan, 2008).

Federal, state, and local funding exacerbates funding inequities through perverse formulas that provide the neediest states, school districts, and local schools fewer dollars per student. For instance, per pupil spending ranges from \$5216 in Utah to \$14,117 in New Jersey (US Department of Education, 2007). There are also intra-state disparities. For instance, the most highly-funded schools in Montana spent \$22,242 per student, one of the best funded in the nation, while the poorest schools only spent \$5,714 (U.S. Department of Education, 2007). Due to funding disparities, law suits have been filed in over forty states challenging the states' methods of funding their public school systems (Green & Baker, 2000; Greenspanh, 2008).

Poor and minority students are often in the schools with fewer resources (Kozol, 2005; Orfield & Lee, 2005). Blacks and Latinos comprise 80% of the student population in extreme poverty schools. The achievement gaps between white and minority students, as well as between low and average income students, persists. The quality of education a child receives remains tied to race, income, and neighborhood, strengthening critical theorists' arguments that the quality of education remains tied to economic conditions perpetuating social stratification.

2.2.1.2.1 Texas Public School Finance

As this research study is set in Texas, a closer examination of school funding methodologies is warranted. Gross inequity has existed throughout the history of school funding in Texas (Walker & Casey, 1991). The current system of public school finance, although much improved, continues to exemplify the structural remnants of its discriminatory past. Although an equalized funding system helps to ensure a minimum academic program for most districts, property wealthy school districts have the ability to raise local funds for enrichment programs beyond what is considered a basic academic program, thus, leading many school districts to challenge the fairness of the state school funding system (Aleman, 2006). However, equalization has been a problem in the state of Texas since the 1800s. During this time period, the state legislature did not believe there was a need to tax. Consequently, Texas legislators apportioned money annually based on the number of students attending each school (Walker & Casey, 1991).

Due to state revenue constraints, Texas could no longer finance public education in the same manner. In 1983, Gov. Mark White formed the Select Committee on Public Education, chaired by H. Ross Perot, to examine ways to reform the current finance system. The Legislature met in a special summer session in 1984 to evaluate this committee's suggestions. The Legislature passed House Bill 72 during this special session (Walker & Casey, 1991). The bill contained a variety of finance reform measures, such as the states' weighted

per-capita apportionment, the expansion of compensatory education, and special education allotments. Although the Legislature attempted to equalize school finance, a string of lawsuits began to arise challenging the efficiency of the school finance system (Walker & Casey 1991; Aleman, 2006). Before the special legislative session in July, the Edgewood district in San Antonio, along with other property poor districts, filed a lawsuit, *Edgewood v Bynum*, in state court challenging the equity in the Texas school finance system. James Vasquez, Edgewood ISD superintendent at the time of the lawsuits, described the background conditions of the students attending school in EISD that prompted the lawsuit:

In the Western side of San Antonio, one of the most economically and socially depressed areas of the city, 96% of the children are on free and reduced-price lunches, which means that their families qualify under the federal poverty guidelines. The educational attainment is about 5.6 years... Getting to school is something that middle class people believe is just the natural thing to do. It is not something that comes into play with many of these children. Many of these children, then, are traumatized by circumstances they have no control over. So then you put them into a school system that is basically constructed for white, middle class, English-speaking children, in a system that pretty well hasn't changed over the last 34 years (Aleman, 2006).

The case went to trial in 1987 (*Edgewood v Kirby*). State District Judge Harley Clark ruled that the system of finance violated the “equal protection” provision (Article I section3) and the “efficient system” (Article VII Section 1) provision of the Texas Constitution. In 1988, a state court of appeals reversed the decision. The court of appeals decided the system was inefficient, but not a violation of the constitution. In October 1989, the Texas Supreme Court reversed the appeals court decision and affirmed the district courts decision that the system of finance violated the “efficiency” requirement of Article VII Section 1, but Texas Supreme Court did not address the equal protection aspects. The Texas Supreme Court instructed the Legislature to find a more efficient system of school finance. In 1993, Gov. Ann Richards signed Senate Bill 7, commonly called “Robin Hood,” into law. This bill involved the recapturing of local funds over a certain property wealth per Weighted Average Daily Attendance (WADA) and the disbursement of the recaptured funds to property-poor districts. In Texas, students with educational needs are weighted for funding purposes to help recognize the additional costs of educating those students (i.e., special education, vocational, gifted and talented, or free/reduced lunch students). The Supreme Court ruled Senate Bill 7 constitutional, and it continues to be our current system of school finance in Texas.

The use of the property tax to fund the local share of public school finance is blamed for many of the inequities in funding public education. The major criticism of using property tax to pay for education across the nation has

been its lack of equity in relation to the ability to pay (Walker & Casey, 1991; Brunori, 2003). As a result of the shift to an urbanized and service-oriented society, local government agencies have serious limitations on the ability to raise tax revenue (Brunori, 2003). In the modern economy, municipalities are competing with each other for business investments. Also, modern businesses are using technology to create and sell products; they no longer need property or sell tangible products, whereby, both, property and product, were eligible for taxation. Therefore, local governments rely heavily on the property tax for revenue.

The property tax has been defined as a regressive tax by most tax-payers because it tends to take a larger percentage of income from low-income groups than from high-income groups (Brunori, 2003). The tax places undue burdens on low- and middle-income property holders and senior citizens on fixed income. The property poor districts can tax the maximum property tax allowed and still not be able to fund education adequately. On the other hand, property wealthy districts do not have to tax as heavily and can obtain more money than those districts taxing at the maximum.

The achievement gap still exists even after the 'dual school system' – separate but equal- has been dismantled as a result of *Brown vs. Board of Education* and after various state legislatures attempted to reduce funding disparities. Therefore, education researchers suggest that education reform

alone will not eradicate the achievement gap; social and economic reform must occur as well (Viteritti, 2003; Warren & Jenkins, 2005; Kantor & Lowe, 2006).

2.2.1.3 The Impact of Cultural Capital in Public Schools.

Inequality in education continues to exist along ethnic, gender, racial, and class lines (Rothstein, 2004; Kozol, 2005; Noguera, 2008). Some have turned to cultural explanations for this achievement gap. Using the work of Pierre Bourdieu and his notion of cultural capital as a theoretical tool, disparities in academic achievement is explained in an effort to minimize the impact of privilege and race in schooling experiences across America. Bourdieu contends economic obstacles are not sufficient to explain disparities in the educational attainment of children from different social classes (Bourdieu & Passeron, 1977). He suggests cultural habits and dispositions inherited from the family are fundamental to school success. Bourdieu's work fits into the critical theory frame of work because he argues that the role of education is mainly one of social reproduction that serves the ideological purpose of enabling a dominant class to reproduce its power, wealth, and privilege. Therefore, the impact that student possession of cultural capital has on academic success is discussed as a means to close the academic achievement gap.

2.2.1.3.1 Forms of Capital

Social scientists have identified significant resources, or types of capital, that play a role in influencing student academic outcomes. Economic capital,

that is, the wealth and income of parents, is one of the primary factors influencing student achievement (Burnett & Farkas, 2009; Farkas, 2003; Rothstein, 2004). Student achievement is also influenced by more subtle resources, such as social capital- the benefits derived from connections to networks and individuals with power and influence (Mehan, et al., 1996, Stanton-Salazar, 2001). According to Bourdieu, cultural capital, the tastes, styles, habits, language, behaviors, appearance, and customs of the dominant class, serves as an indicator of status and privilege (Bourdieu & Wacquant, 1992). All three forms play a role in perpetuating disparate educational experiences and differential access to educational opportunities. However, access to cultural capital and its impact on educational opportunities will be the focus of this literature review. The various ways cultural capital can impact educational achievement will be explored in an effort to transform current teaching and pedagogical practices.

2.2.1.3.1.1 Cultural Capital

Bourdieu (1977, 1984, 1985) used the concept of cultural capital to explain the disparity in educational success of students in France. According to Bourdieu (1984), cultural capital involves social interactions between people and the exchange of cultural knowledge that enables an individual to gain access to the social benefits (i.e. power and status) of the dominant class. He defines cultural capital as “forms of knowledge, skills, education, and advantages that a person has, which give them a higher status in society” (p 26). In *Distinction*

(1984), Bourdieu argues that tastes and preferences are determined by access to cultural capital. Taste functions as a marker of class, and there is a strong relationship between education and taste. He further suggests that affluent parents provide their children with dominant cultural capital by transmitting the attitudes and knowledge needed to succeed in the current educational system. Thus, the acquisition of cultural capital depends on the cultural context and the socialization of a child that occurs through his/her family and later, school.

Bourdieu argues that any competence becomes a capital insofar as it facilitates the appropriation of a society's "cultural heritage" but is unequally distributed, thereby, creating opportunities for exclusive advantages. In societies characterized by a highly differentiated social structure and system of formal education, these advantages largely stem from the institutionalization of "criteria of evaluation" in schools, that is, standards of assessment which are favorable to children from a particular class or classes (Bourdieu, 1977).

For Bourdieu, cultural capital encompasses a broad array of linguistic competencies, manners, preferences, and orientations, which he terms subtle "modalities in the relationship to culture and language" (Bourdieu and Wacquant, 1977, p 82). Cultural capital also involves proficiency and familiarity with the cultural codes and practices of the dominant class. Although some scholars associate cultural capital with the participation in "highbrow" aesthetic cultural activities such as visiting museums, attending concerts, taking fine arts classes, (i.e. art, choir, and band) and going to theaters (DiMaggio, 1982; DiMaggio &

Mohr, 1985; Aschaffenburg & Maas, 1997; Dumais, 2002), others define cultural capital by non-cognitive characteristics, such as confidence, aggression, assertiveness, entitlement, appearance, and behavior, (Farkas, Grobe et al., 1990; Reay, 2004) or by “micro-interactional processes” whereby individual strategic use of knowledge, skills, and competence comes into contact with institutionalized standards (Lareau & Weininger ;2003). Although there is no parsimonious definition of cultural capital, it has also been used to explain educational stratification in the American education system by focusing on the ways teachers respond to students (Lamont & Lareau, 1988; Lareau & Horvat ,1999; Lareau & Weininger, 2003).

Habitus

Pierre Bourdieu’s (1990) concept of habitus is seminal within cultural studies. Habitus describes the cultural and social context in which an individual’s subjectivity develops. Habitus is a cultural theory of action; he posits that cultural orientations –habitus- learned early in life are unconscious, taken for granted, hard to change, and powerful in shaping responses to later experiences (1977). He defined habitus in this way:

The habitus, a system of dispositions to a certain practice, is an objective basis for regular modes of behavior, and thus for the regularity of modes of practice, and if practices can be predicted...this is because the effect of the habitus is that agents who are equipped with it will behave in a certain way in certain circumstances (Bourdieu, 1990, p. 77).

Simply stated, habitus is a concept Bourdieu uses to explain an individual's behavior and responses when confronted by the demands of life. In *Distinction* (1984), Bourdieu discusses ways in which individual decisions are made based on the class of the actor and those decisions that are appropriate to a given cultural context. Thus, an individual from a privileged background, growing up in an environment of education, academic achievement, and professional accomplishment, learns the "rules" of the "game" and possesses the habitus to navigate the educational system effectively.

Cultural Capital Influences in the School Environment

Bourdieu (1977, 1985) presupposes that schools are not socially neutral institutions, but that they reflect the experiences of the dominant class. He contends schools reward particular tastes and dispositions that are taught to and developed in upper- and middle- class children by their family experiences. Families transmit distinctive cultural norms, values, behavior, and verbal communication styles to their children. These children, as students, enter schools carrying different types of knowledge. Stanton-Salazar (2001) concurs by theorizing that the style of communication and socialization practices of students from higher socio-economic families is similar to those of the classroom. For example, scholars have demonstrated that middle-class parents typically talk more to their infants and young children more than working class or poor parents. As a result, middle-class children often have larger vocabularies when they enter school and subsequently excel academically (Hart & Risley,

1995; Trumbull, et al., 2003). For low-income and minority students, the communication patterns and socialization practices do not reflect those of the dominant group and are interpreted as not conducive to effective learning (Mehan, et al., 1996; Stanton-Salazar, 2001; Noguera, 2004; Rubin & Noguera, 2004). The researchers suggest that the cultural knowledge or cultural capital that middle income and high-income families transmit to their children enable the children to become more aware of the procedures and practices of the classroom. However, low-income and minority students are not knowledgeable of the 'distinctive cultural knowledge' required to compete academically with middle and upper income students because they are not familiar with the socialization process that accrues social and cultural capital that positively impacts educational attainment.

As stated previously, individuals enter the educational system with different endowments of cultural capital based on the family (Rothstein, 2004; Lareau & Horvat, 1999). Children from the dominant class enter school with key social and cultural cues, an advantage that working class and lower class children do not possess. These children must acquire the implicit knowledge and skills to navigate through the educational system adapting and further developing cultural and social skills, as well as preferences, necessary to be successful in school. Due to the differences in cultural habits and dispositions in which students enter school as a result of family cultural differences, schools are depicted as reproducing existing power relations subtly via the production and

distribution of dominant culture that conforms to what it means to be educated (Cummings, 1986).

Curricular Impact of Cultural Capital

Bourdieu (1985) argues “the educational institution succeeds in imposing cultural practices that it does not teach and does not explicitly demand, but which belong to the attributes attached by status” (p 26). Mehan and colleagues (1996) concur by suggesting academic life has implicit or hidden dimensions that students must master to be successful in school. Some educators refer to this concept as the ‘hidden curriculum’ (Apple, 1982; Mehan et al., 1996). The hidden curriculum pertains to the specific ways of talking, thinking, and acting demanded by the conventions of schooling. The hidden curriculum involves a regard for factual knowledge, a high value attached to labeling, naming, and categorizing information, and the insistence on text-based knowledge (Mehan et al., 1996). Delpit (2006) terms the hidden dimensions of the educational system the “culture of power”. Delpit contends that the schools’ enactment and rewarding of dominant societal norms, such as “linguistic forms, communication strategies, and presentation of self”, serve to reinforce the idea of one dominant mode of learning and communicating within schools, and these norms are unconscious practices that serve to maintain dominance for those in power and compliance by the disempowered. The culture of power premise, as well as the concept of the hidden curriculum, demands that students acquire the rules and

adapt to the culture of those in power in order to be academically successful in schools.

Bourdieu (1984) argues the devaluation of non-dominant cultural resources has a detrimental effect on students who do not enter schools knowing the rules for behavior and learning because the public school system serves to maintain the present hierarchy in society in which many students of color are at the bottom. In essence, schools exist merely to teach students how to act and think in ways that conform to what society has deemed appropriate. Consequently, Bourdieu (1984) posits that schools contribute to the reproduction of inequality by devising a curriculum and a notion of acceptable behavior that rewards the 'cultural capital' of the dominant class. However, scholars contend that exposing students to the cultural capital –the manners, preferences, and orientations- of the dominant class and teaching them how to 'play the game of school' can facilitate academic success and mitigate the impact that cultural capital has on academic achievement (Mehan et al., 1996; Stanton-Salazar, 2001; Watt et al., 2007).

Academic Tracking

A student's access to cultural capital also impacts the academic track in which a given student is placed (Oakes, 1985; Dauber, Alexander, & Entwisle, 1996). Tracking is the educational practice of "categorizing and classifying

students by curriculum standards, educational and career aspirations, and/or ability levels” (Callahan, 2005, p. 307). It infiltrates all levels of schooling, from ability groups in grammar school to enrollment in college preparatory classes in high school (Oakes, 1985; Mehan, et al.,1996). The premise guiding academic tracking is that separating students and putting them in classroom settings with peers of similar ability level and achievement will create a more effective learning environment for all students (Callahan, 2005). However, tracking is based on racial, ethnic, and social class, not on student ability level. The practice of tracking students of color results in placing them in special education and/or vocational classes at higher levels than White students (Oakes, 1985). Furthermore, tracking for students who speak languages other than English is particularly detrimental as it involves separating the students completely from the regular curriculum and fuels a perception that those in English as a Second Language (ESL) are less than capable of success in schools. In addition, there is no option to enroll in advanced ESL courses. Therefore, ESL students are limited to learning conversational skills versus true academic content (Valenzuela, 1999). Mehan and colleagues (1996) argue that educationally underrepresented students are not provided the opportunity to receive intensive training in their learning environments because they are placed in a sequence of academic classes that are slow paced and remedial. These “tracked” classes, emphasizing basic literacy skills and computation skills, consistently offer less exposure to higher order thinking skills and more complex discussion topics. Students are predisposed to ideas about what they are capable of achieving

early in their academic careers; thus, tracked students are denied equal access to educational opportunities since tracking maintains an unequal system of education.

The most damaging aspect of tracking is its caste-like character. Once students are assigned to a low track, sometimes as early as kindergarten, it is very difficult to move them out of this track. “When students are tracked on the basis of class, race, and ethnicity and not on the basis of individual effort and achievement, students in tracked schools are denied equal access to educational and occupational opportunity” (Mehan, et al., 1996, p8). Tracking maintains an unequal system of education and sustains the achievement gap between White students and students of color.

Teacher Perceptions

Family socio-economic status and structure have implications for the amount of attention and level of expectation a teacher places on a student (Rist, 1973; DiMaggio, 1982; Alexander, et al., 1987; Farkas, et al., 1990; Carter, 2003). Research suggests teachers with high status backgrounds, largely white, young females, relate poorly to low-income and minority students (Williams, 1976; Alexander, et al., 1987; Farkas, et al., 1990). Farkas (1990) and colleagues contend gatekeepers recognize and reward a broad list of characteristics, including habits, skills, and styles as well as attitudes, preferences, knowledge, ethnicity, and social class. Teachers’ judgments of students’ non-cognitive characteristics are powerful determinants of course

grades even when cognitive performance is controlled. Consequently, teachers tend to communicate more easily with students, like themselves, who participate in elite status cultures by giving them more attention and perceiving them to be more intelligent than students who lack the requisite tastes, traits, and style. Teachers also tend to discriminate against students from low-income and/or minority households who typically do not comply within the middle-class hegemony within the schools (Farkas et al., 1990; Trumbull et al., 2003; Delpit, 2006)

Bourdieu argues that cultural knowledge, status, and distinctions mediate the relationship between economic structures, schooling, and peoples' lives. To ensure academic success, it is essential to transmit cultural knowledge in the form of academic and behavioral skills from school agents to students to increase student possession of cultural capital. School is a vital place where adolescents can develop and exercise psychological orientations and behavioral skills that allow them to achieve academic success. School agents, such as teachers and guidance counselors, are valuable in the socialization process necessary for academic achievement in America's public schools (Mehan, et al. ,1996; Stanton-Salazar, 2001). School agents have the power to actively manipulate the structural barriers in schools to provide low-income and ethnic/linguistic minorities the educational opportunities required for academic and occupational success. Furthermore, research suggests that peer interactions with students from the dominant culture are key to the socialization

process and academic success (Vygotsky, 1978; Mehan, et al., 1996; Datnow & Cooper, 1997). Once the low-income and/or ethnic/linguistic minority students are placed in rigorous classes, they adjust to the school setting by adopting academically successful behaviors, such as communication skills and the disposition expected of students in the dominant culture. As a result of the transmission of cultural capital by school agents and through positive peer interactions with students from the dominant social groups, ethnic and linguistic minorities, as well as economically disadvantaged students, can acquire the manners, skills, and communication patterns of the dominant class and obtain academic success, thereby, facilitating the closure of the academic achievement gap.

2.3 Early Academic Intervention Programs

The goal of early academic intervention programs is to provide educationally and economically disadvantaged students with the skills, knowledge, and general college preparatory information needed to enter and succeed in college (Swail & Perna, 2002). Over the past decade, early academic intervention programs (EIP) have increased in response to federal government initiatives and state policy concerns aimed at increasing academic levels and post secondary opportunities for this student population. Although existing programs offer a variety of services, those that have the potential to increase the number of underrepresented students who enroll and succeed in college are those that offer high-quality instruction, special services such as

tutoring, or a redesigned curriculum that better suits the students' needs (Cunningham, Redmond, & Merisotis, 2003; Tierney & Hagedorn, 2002).

Although there are several EIPs that meet the criteria described above, there are only three with documented success that are offered in Texas – Upward Bound, Gear Up, and AVID (Advancement Via Individual Determination). Although all three EIPs will be discussed in this paper, the focus will be on AVID, as that is the method of intervention used in this research project.

2.3.1 Upward Bound

Upward bound is a college preparatory program, helping to prepare low-income and first generation students for college, it is the oldest of the TRIO Programs (Upward Bound, Talent Search, Student Support Services, Educational Opportunity Centers, Training Program for Special Support Services Staff and Leadership Personnel, and the Ronald McNair Post-Baccalaureate Achievement Program). Upward Bound was established in 1964 when President Lyndon B. Johnson signed the Economic Opportunity Act in response to the administration's War on Poverty (Fashola & Slavin, 1998). During this time, ethnic and linguistic minorities had low academic achievement and/or dropped out of the educational system at higher rates and at younger ages compared to white students (McElroy & Armesto, 1988). Education reformers- politicians, educators, and sociologists- presupposed the disparity in academic achievement existed because of poverty, racial/ethnic and cultural distinctions, or linguistic abilities. They believed ethnic/ linguistic minorities and low-income students

lacked home and community resources that enabled them to succeed in conventional education settings. The reformers then urged government to intervene to ensure academic success for all Americans. As a result of the pressure by reformers, Upward Bound was established to increase the number of low SES, minority students attending college by providing them with academic skills and additional resources that they may need to make them college eligible.

Upward Bound was originally established for the educationally disadvantaged students. The education reformers defined these students as “those students who lack home and community resources that enable them to succeed in conventional education settings” (McElroy & Armesto, 1998, p. 375). The first generation college criterion was added in 1980. Currently, Upward Bound targets youth between grades nine and twelve who have experienced low academic success and whose family income is less than 150% of the poverty level. The goal of Upward Bound continues to be to increase the rates at which the targeted students enroll in and graduate from post secondary institutions by providing fundamental support, such as help with the college admission process and assistance in preparing for college entrance exams. Students are provided extra instruction in math, science, foreign language, English, and composition. This early intervention program engages students in an extensive multi year program designed to provide academic counseling, tutorial services along with a cultural enrichment component, career exploration, and an intensive six-week summer program on a college or university campus.

2.3.2 *GEAR UP*

The Gaining Early Awareness and Readiness for Undergraduate Programs (GEAR UP) is a discretionary grant program established by the federal government under the Higher Education Amendment of 1998. It was created to provide college awareness and support for students who are underrepresented in colleges and universities, and it was designed to support states and partnerships that provide information on early college awareness, academic support, and financial assistance to disadvantaged students to enable them to enter and succeed in post secondary education (U.S. Department of Education 2006). GEAR UP is the successor to the National Early Intervention Scholarship and Partnership Program (NEISP); when GEAR UP replaced the NEISP program, any state that received a GEAR UP grant that formally served students under the NEISP was mandated to continue providing services to former NEISP students until they completed secondary school.

GEAR UPs intent is to impact low performing schools serving low income and minority students, and the program's approach is to examine the reasons contributing to students' low performance and to provide the necessary financial incentives and academic models to transform these schools into high-performing ones with high-performing students by providing the following services:

1. Mentoring
2. Tutoring

3. Counseling
4. Outreach to teachers and students
5. Parental involvement activities
6. Curriculum support
7. Teacher staff development
8. Assistance with the college application and financial aid process
9. Administration of college entrance exams

GEAR UP serves entire cohorts of low-income students rather than only those students chosen by well-defined criteria unlike many other EAIPIs. However, the grant stipulates that at least 50% of the participants must be eligible for free or reduced-price lunch or the families combined income is at or above 150% of the poverty level, and students are to start no later than the 7th grade and continue through the 12th grade.

GEAR UP provides six-year grants to states and partnerships to provide services at high-poverty middle and high schools and provides academic models and financial incentives to upgrade low performing schools and their students by academically aligning the K-16 curriculum, eliminating academic tracking in schools, providing after-school and summer activities, and offering continuous curricular content and other professional development opportunities to teachers and school staff in the area of pedagogical and content development (Wyatt, et al., 2007). There is also an emphasis on data collection and analysis to measure the impact of the program and areas of improvement.

When state grants are awarded under GEAR UP, the governor of that state is given the authority to designate the entity/entities, such as typically state higher education agencies, state departments of education, student financial assistance agencies or governor's offices that may apply for and administer the GEAR UP grant (Cunningham et al., 2003). The states receiving GEAR UP funds are required to target services to students who receive free or reduced-price lunch, students whose parents receive Temporary Assistance for Needy Families funds, those who attend Title I schools, or those at risk of dropping out of school. The state of Texas through the Texas Education Agency secured a GEAR UP grant, known as the Texans Getting Academically Prepared Program, to implement programs meant to increase college attendance of low-income, minority students in six Texas School Districts (Weiher et al., 2006).

2.3.3 Advancement Via Individual Determination (AVID)

Stratified cultural knowledge exists in public schools. School-aged students possess different forms of capital, including social skills, norms of behavior, dress, styles of interaction and language, and schools reward particular tastes and dispositions that are taught to and developed in children by their family experiences. Children who read books, visit museums, attend concerts, and attend theater performances acquire a familiarity with the dominant culture that the educational system implicitly requires of its students for academic attainment (Bourdieu, 1984; Mehan, et al., 1996; Lareau & Horvat, 1999; Rothstein, 2004; Noguera & Wing, 2008; Noguera, 2008). Knowledge and

familiarity with dominant uses of language, types of writing, and cultural and literary allusion transmitted through the family are required to gain and maintain access to and mastery of the curriculum. Consequently, students are limited in their chances to learn from educational material and interact profitably with teachers without cultural capital. Thus, schools act as institutional agents by rewarding the cultural capital of the dominant classes.

School agents –administrators, counselors, teachers- can manipulate the institutional forces that determine who is successful academically in the public education system (Mehan, et al., 1996; Stanton-Salazar, 2001). Manipulation occurs by exposing the lower class and ethnic/linguistic minority students to the cultural capital of the dominant class. In doing so, the students come to identify with and conform to the established order. Now integrated, students make the necessary efforts to meet academic demands. In essence, school agents facilitate changes in the students' habitus by exposing the students to the academic and behavioral norms the upper- and middle- class students receive from their family interactions. Through this exchange of cultural capital between school agents and students, students are acquiring some of the skills that they need to be academically successful. This concept is deemed to be critical to closing the achievement gap. This section describes the strategies used by AVID to make explicit the dimensions of the hidden curriculum and the culture of power. These strategies include the implementation of instructional and

curricular pedagogy that facilitate equal educational opportunities for all students.

The purpose of AVID is to restructure the teaching methods of the entire school by engaging all students in learning and exposing them to all facets of the culture of power. Specifically, this goal is achieved by opening access to the rigorous curricula that will ensure four-year college eligibility for all of the students in the program (AVID Center, 2005). Although the AVID program focus has been to increase the minority and low-income presence in advanced academic classes - pre-AP, AP, and IB- the AVID pedagogical and instructional practices can facilitate the gap in educational attainment as well. AVID provides the students the access to the academic and behavioral skills presumably inherited by the upper- and middle- class students, such as test taking strategies, questioning skills, and time management. The practices implemented by the AVID program can not only be successful to increase access to advanced academic classes but also be used to bridge the gap in academic achievement between low-income ethnic/linguistic minority students and white, middle-class students.

AVID is a system designed to prepare students in the academic middle (2.0- 3.5 GPA with average standardized test scores) for college (AVID Center 2005). Originally, the program recruited low-income students with high academic potential from ethnic groups, including African American, Latino, and Native American, who were historically underrepresented in colleges and

universities; however, in response to state funding and political pressures preventing the use of race, gender, and ethnicity as criteria for college admission, the selection criteria later changed to include 'underachieving' students 'in the middle' with a GPA between 2.5 and 3.25 (Hubbard & Mehan, 1998; Freedman, 2000). Although race is no longer a focus in the selection process, students selected to participate in the program are typically low-income and ethnic/ linguistic minority students in the academic middle. Also, a majority of the students selected to participate in AVID have parents who have not attended college.

AVID is considered to be an 'untracking' program whose goal is to place previously low achieving students in the same college preparatory academic program as high achieving students (Mehan, et al., 1996; Hubbard & Mehan, 1998). The program's founder, Mary Catherine Swanson, contends that AVID exists to provide additional academic and social support to assist the student's in making the transition from a watered down curriculum to a more challenging one (Mehan, et al., 1996; Swanson, Marcus, & Elliot, 2000; Swanson, 2002; Luper, 2005). Furthermore, it seeks to motivate students academically, culturally, and socially by providing support and counseling.

The AVID program, considered to be a 'catalyst for school wide change,' gives schools the skills to improve teaching and learning throughout the entire system (Swanson, 2002). School-wide implementation of the AVID curriculum can ensure the attainment of higher levels of achievement for all students on the

campus (D'Souza, 2000; Oswald, 2001; Foy, 2002; Watt et al., 2006). Also, the opportunity to take rigorous courses can be extended to vast numbers of students previously excluded: average students, struggling students, and students who do not fit the traditional college-prep profile.

2.3.3.1 AVID Implementation at the Campus Level

Research has shown that schools that maintain the eleven AVID essentials (see table 1) and follow the AVID design closely produce academically successful students (Guthrie & Guthrie, 2002). Each state, school district, and/or school campus has restrictions on the implementation of the program (Mehan, et al., 1996; Hubbard & Mehan, 1998, 1999; Guthrie & Guthrie, 2002). Some school districts and/or states dictate funding, determine which schools can implement the program, and place stipulations on which grade levels will offer the AVID program. Others states or districts may allow each campus to allocate funds to tailor the AVID program to meet their campus needs.

According to research on the implementation of the AVID program, several issues impact effective AVID implementation:

1. The school context, which is influenced by cultural and structural forces imposed at the state, district, and campus level, (Mehan, et al., 1996, Hubbard & Mehan, 1998, 1999; Guthrie & Guthrie, 2002). School context involves the environment in which student

learning and engagement occurs, such as the relationships between students and teachers, the climate in the classroom, and a meaningful yet challenging curriculum.

2. Support of the AVID ideology as well as instructional and curricular pedagogy at the state, district, and campus level (Hubbard & Mehan, 1999; Freedman, 2000)
3. Preconceived notions by teacher, counselors, and administrators about race, income, and academic achievement (Mehan, et al., 1996; Hubbard & Mehan, 1999; Freedman, 2000). Prior to AVID, many school agents did not encourage minority, as well as economically disadvantaged, students to take academically rigorous courses unless their course grades and test scores met teacher standards.
4. Gate-keeping processes preventing equal access to college preparatory courses and the academic success once the students are enrolled in academically rigorous courses, such as teachers requesting students out of their academically rigorous classes as well as counselors not enrolling certain students in pre-AP, AP, or IB courses (Freedman, 2000).

Although the essentials are relevant to the successful implementation of AVID, the program is not a 'one size fits all' program. The context dictates the

adoption and implementation of the AVID program. Thus, each school may face complexities in implementing the program model.

2.3.3.2 Professional Development

Ongoing professional development is critical to supporting student and teacher success. The AVID center offers numerous professional development training opportunities, such as content specific path trainings, administrative leadership trainings, and the AVID summer institute – a week long summer teaching institute during which AVID methodologies and implementation strategies are disseminated (AVID Center, 2005). More training occurs at the district level by the regional/district directors. In addition, AVID encourages campus level staff development facilitated by the school's interdisciplinary site teams.

2.3.3.3 The AVID Certification Process

The AVID data collection form and the AVID Certification Report and Self-Study (CSS) are used to collect data necessary to validate AVID programs (Contreras et al., 2007). The overall certification rating for the school is determined based on the individual implementation levels of each AVID essential (see Table 1). The AVID regional/district director examines the documents (student recruitment records, student samples, class schedules, lesson plans, and tutor information) in a portfolio to determine whether a site meets certification standards for each essential each year. If a campus meets

certification standards in each essential, the school becomes an AVID certified site.

2.3.3.4 AVID Curriculum

AVID academic instruction programs focus on WICR (writing as a tool of learning; inquiry; collaborative, subject specific learning groups; and reading as a tool for learning) strategies (see Appendix B). The curriculum is designed to teach underserved students the skills they will need to succeed in academically rigorous courses (Swanson, 2005). Writing is the core of the AVID curriculum; it facilitates the development of the student's thought process as well as effective communication. Consequently, the focus is on evaluative and analytical writing strategies, as well as timed writing. The AVID note-taking system is also part of the writing-to-learn process. It is an adaptation of the Cornell system, which originated at Cornell University. The Cornell notes system, based on research conducted in the area of memory and learning, involves separating the notepaper into two columns: (1) Notes are taken from lectures or textbooks on the right side of the notepaper and (2) The left column is the development of questions that require higher order thinking skills (Sundly, 2006; Furgerson, 2006). This type of note-taking format allows the students to compile main ideas, abstract key concepts from the content, and identify questions to guide analysis of the subject area.

In addition to writing to learn, the inquiry process – the ability to ask probing questions- is considered part of the AVID curriculum. Mary Catherine

Swanson suggests that the ability to ask questions is “important in learning complex subjects, especially subjects where there isn’t one right answer” (Swanson, 2005). The inquiry process empowers students to become masters of their own learning. Asking questions is fundamental to gathering information, and if students are to process information beyond simple recall, they will need to ask more rigorous questions. Formulating higher-level questions is a skill that is an integral part of most activities leading to student success. Although those that dismiss the cultural capital arguments would instead say that white, upper- class kids acquire these skills by child-rearing practices or innate ability prior to entry into the school system, Swanson, Bourdieu, Mehan, and others contend low-income and/or ethnic/linguistic minority students should be exposed to higher-order questioning to acquire the skill as well. Thus, inquiry is an integral part of AVID success strategies.

Collaboration is also a valuable part of the AVID curriculum. In collaborative learning groups, students experience the process of learning. In small groups, they learn to work together to inquire, explore, and answer questions. This process facilitates active learning. Research shows that students learn best when they are actively manipulating materials through making inferences and then generalizing from those inferences (AVID Strategies for Success). When students participate in collaborative groups that are implemented correctly, they exhibit interdependence, shared leadership, shared

responsibility for each other's success, and task completion. In the collaborative groups, students learn to work together.

In addition to writing, inquiry, and collaboration, reading is a major component of the AVID curriculum. When used strategically with varied curriculum, AVID incorporates strategies that can help students become more effective readers. Reading is taught strategically to facilitate mental predictions, comprehension, context clues, and recognition of main ideas. There is also an emphasis on brainstorming, summarizing, and paraphrasing.

2.3.3.5 AVID Elective Class

The core component of AVID is the AVID elective class, which supports students as they tackle the most rigorous curriculum. The AVID elective class is part of the school's schedule of classes and is accredited by the state of Texas. AVID students attend an academic elective class taught within the school day by a trained AVID teacher. The three main components are academic instruction, tutorial support, and motivational activities.

Academic instruction includes WIC-R (writing, inquiry, collaboration, reading; see Appendix B) strategies as well as several other AVID strategies for success (Sundly, 2006). For instance, there is a focus on time management and organization. In addition, each AVID student participates in goal setting by the GPA (Goal, Plan, and Action) of success. Furthermore, there are team building and test-taking components. Moreover, Socratic Seminar and Philosophical

Chairs, both involving classroom discussions about a certain issue, are designed to engage students in all levels of critical thinking (i.e. analysis and inferring) . Socratic seminars involve students having a discussion about a piece of text assigned by the teacher, and philosophical chairs involve students debating a position (agree or disagree) based on a piece of text assigned by the teacher.

Tutorials are also a critical component of the AVID elective class. The method of instruction used by the teacher/tutor is inquiry. In the tutorial sessions, college tutors who have been trained in AVID methodologies facilitate tutorial groups and engage students in using Socratic questioning to help classmates solve problems from their core academic classes.

Critical theorists suggest there are processes in place that maintain society's current system of power and privilege, and transformations must occur to achieve social equity. Education is a transformative process that facilitates social mobility. This literature review evaluates structural processes, such as segregation and public school finance, and cultural processes, such as the curricular practices in the schools, that exacerbate academic disparity in America's public schools. Schools that protect the hidden dimensions of education, whether knowingly or not, from all by the brightest and previously successful generations perpetuate social stratification. The AVID program is as a program that can transform the current curricular and pedagogical practices that preserve social stratification. Implementation of the strategies school-wide exposes all students to the 'hidden curriculum' –the manner of thinking,

speaking, acting, and writing- necessary to navigate the culture of school and obtain academic success.

Although the AVID program directors not use cultural theoretical language (i.e., cultural capital) to describe its instructional strategies, the AVID instructional and curricular pedagogy provides access to the cultural capital of the dominant class. This program identifies students whose habitus would not typically allow them to navigate the academic field successfully and teaches them the skills, such as writing skills, time management, communication skills, and questioning strategies, needed to play the game of school. Although the home environment has been found to be the most significant factor in a student's achievement, instructional and curricular practices can make a difference. The clear gap in achievement for students of color suggests there is a need for teachers to develop new, creative, innovative instructional and curricular practices that teach students the cultural habits and dispositions of dominant class rewarded by the education system in an effort to close the chasm in academic achievement.

CHAPTER 3

RESEARCH METHODOLOGY

3.1 Purpose of Study

Despite countless efforts to reform the school system in the 1980s and 1990s, there is still a wide gap in academic achievement; African American, Latino, and Native American students continue to lag behind their White and Asian counterparts in many academic areas (Watt et al., 2006). This project focuses on the impact of the AVID program, which promotes the use of content specific instructional practices and extensive staff development, as a catalyst for school wide change in a North Texas high school containing grades nine through twelve. This case study evaluates the extent to which the participation in the AVID program impacts student achievement, as measured by grades, GPA, and TAKS scores, and student possession of the academic and behavioral skills- cultural capital- required to be academically successful. The implementation of instructional and pedagogical practices of the AVID program is evaluated as a means to close the achievement gap. These practices not only impact the students academically, but the AVID elective class curriculum exposes the AVID students to the culture of schooling through a socialization process that occurs within the context of dominant cultural norms, values, and beliefs. Teaching the AVID students how to play the game of education by

adapting to the acceptable manners, preferences, and behaviors that positively impact academic success in the classroom can potentially bridge the gap in academic achievement.

3.2 Site of Study

The study takes place in a high school, which will be called JBHS for the purpose of anonymity. The school is in an urban school district in northeast Texas at which the researcher serves as an assistant principal. The high school enrolls approximately 3000 students. Over the past ten years, there has been a demographic shift in the student population at JBHS leading to a majority African-American and Latino population, as well as an increase in low-income families (see Table 3).

Table 3. Student demographic data at JBHS over a 10-year period (% of students)

Category		1998-1999	2008-2009
Ethnicity	Native American	0.2	0.3
	White	49.7	18.5
	African-American	27.3	39.9
	Hispanic	12.4	27.4
	Asian Pacific-Islander	10.4	13.8
	Limited English Proficient	2.5	4.2
Income	Economically Disadvantaged	9.8	38.9

The achievement gap as measured by standardized testing between ethnic and linguistic minority students and the white students has increased during this ten-year time period (see Table 4). Although there is a decrease in math scores of all groups from 1999 to 2009, the gap in math scores between white students and minority students increased substantially. The Asian students are not listed because there was not enough students during the 1999 school year to impact accountability measures. Also, prior to implementation of AVID, many minority students did not take the pre-AP, AP, or IB classes although majority of the students are minority.

Table 4. Student performance data for the TAAS test administered Spring 1999 and TAKS test administered Spring 2009 (% passed based on state passing standards)

Category		ELA	ELA	Math	Math
		TAAS	TAKS	TAAS	TAKS
		1999	2009	1999	2009
Ethnicity	All Students	91.2	90	82.9	67
	White	94.8	95	87.8	79
	African-American	90.3	90	74.4	57
	Latino	81.4	87	75.0	61
Income level	Economically Disadvantaged	86.8	87	77.1	60

AVID was implemented at JBHS in the Fall of the 2005-2006 school year with hopes of increasing the number of minority students taking AP (Advance Placement)/IB (International Baccalaureate) courses. AVID at JBHS began with

34 ninth graders, two AVID I elective classes, and two elective teachers. The JBHS AVID program had 206 students (54 in grade 9, 76 in grade 10, 34 in grade 11, and 40 in grade 12) and seven elective teachers. Many schools allowed students to remain with the same AVID elective teacher as the students matriculated through high school (Guthrie & Guthrie, 2000, 2002; Watt et al., 2006). However, scheduling constraints did not permit the students to remain with the same elective teachers throughout high school at JBHS.

3.2.1 JBHS AVID Site Team

The AVID protocol requires each campus to have a site team. According to the AVID protocol, “the site team is to collaborate to achieve the mission of AVID, foster the development of a school-wide learning community, focus on student achievement, develop and implement the site plan and meet regularly to reflect, assess, and plan ways to address student needs”(AVID Center 2006). The JBHS site team consists of the AVID counselor, AVID coordinator, the AVID administrator, the elective teachers, and an AVID trained teacher from each of the four core courses (English, math, science, and social studies), a world language teacher, an AVID tutor, AVID student, and a parent. The AVID coordinator selects the AVID student and the parent. The site team meets once a month to discuss academic issues, cultural and social events, the certification instrument, and community service events. The site-team has gone through a transition over the past couple of years. Three of the site team teachers resigned (two because of the amount of work required to serve as a site-team member

and one because of breast cancer). Fortunately, others willing to take on the extra work have replaced each teacher. Furthermore as the program grows, new elective teachers are added to the site team. The principal selects the elective teachers, but he gets input from the AVID counselor, coordinator, and administrator prior to making the final selection.

3.2.2 JBHS Administrative Core

The AVID administrator, AVID coordinator, and the AVID counselor form the AVID administrator core. The three individuals consistently communicate with others to ensure the success of program implementation, as well as student success. The AVID administrator, appointed by the principal, has been the administrator since the inception of the program at JBHS. This individual serves as the advisor in staff recruitment and training, elective classes, student selection and recruitment, student probation, the discipline of AVID students under special issues, and final approval on all budget items.

The AVID counselor is the counselor for all of the AVID students. She is responsible for student scheduling, student recruitment and selection, student probation, and she works with the AVID coordinator to organize college field trips. Also, the AVID counselor organizes parent-teacher conferences, which consist of all of the student's teachers and the AVID coordinator, for AVID students who continue to struggle academically and create an improvement plan for the student. She continues to follow-through with the parent, teachers, and

the AVID coordinator about the progress of the students. She is also instrumental in facilitating academic success in rigorous classes by carefully selecting the teachers who teach the AVID students. If she contends certain pre-AP, AP, or IB teachers are not receptive to an open enrollment policy for these classes, she does not schedule the AVID students into their classes. Furthermore, the counselor is responsible for the oversight of the college admission and financial aid process in an effort to build the bridge between high school and college.

The JBHS AVID coordinator is a full time position. She does not have any teaching responsibilities. Her primary responsibility is to ensure the implementation of the AVID essentials to guarantee AVID certification. She visits each AVID elective class to ensure proper implementation of the AVID curriculum. She is responsible for collecting all of the documentation for the portfolio and organizing each piece of documentation according to the AVID essentials (see Table 1). She also serves as faculty liaison and AVID public relations. Additionally, she is responsible for tutor recruitment, selection, and on-going AVID tutor training on BHS campus. She also coordinates all social and cultural events and makes budget requests to fund those events. She works closely with the AVID counselor on student probation, student recruitment and selection, as well as organizing college field trips. She is instrumental in the academic success of AVID students by meeting with teachers to determine and

alleviate academic issues. In addition, she serves as the liaison between JBHS and the district during monthly meetings conducted by the AVID district director.

3.2.3 AVID Staff Development at JBHS

The AVID program directors contend that the key to effective AVID implementation is on-going staff development (Arellanes et al., 2005). As stated previously, a core group of teachers, a counselor, and an administrator attended AVID summer institute prior to implementation of AVID. After implementation, the principal made the financial commitment to send more teachers to AVID awareness training, path training, as well as other AVID trainings offered in the area to ensure effective implementation of the program and to facilitate school-wide implementation of content specific AVID instructional strategies.

During the first year of implementation, the principal requested all core area teachers, not just the teachers who were trained in the AVID Summer Institute, to use the Cornell note-taking system in all classes, particularly all ninth grade core classes. So, each teacher at JBHS was trained on the use of Cornell notes during a campus staff development. Also, JBHS site team members trained all ninth grade core teachers on content specific AVID strategies (writing, inquiry, collaboration, and reading in a pull-out (training during contract day on JBHS campus) process. The pull-out process continues annually for all core teachers in an effort to facilitate school-wide implementation of AVID strategies. Additionally, there is an AVID curricular strategy highlighted during monthly staff

meetings to the staff how to implement certain WICR strategies in their classroom effectively. The principal consistently provides AVID staff development opportunities for the teachers at JBHS; he contends school-wide use of the strategies facilitates an increase in academic achievement for all JBHS students, not just those selected to participate in the AVID program.

3.2.4 AVID Socialization Process at BHS

The administrative core and the AVID elective teachers work together to facilitate academic success and alleviate the academic inequality associated with the AVID students' lack of access to the social and cultural capital as the middle-class and upper-class students. As Mehan et al. (1996) suggest, AVID is instrumental to the socialization process of the students. In the AVID elective class, academic social supports, such as test-taking skills, note-taking, study strategies, and vocabulary building strategies, as well as non-cognitive skills, such as conflict resolution and communication skills, are taught. The socialization skills taught in the AVID elective are similar to those more economically advantaged students receive from their parents. Scholars suppose the students are provided access to the schools' hidden curriculum through AVID (Mehan et al., 1996; Stanton-Salazar, 2001; Wyatt et al. 2007) .

Student advocacy is vital to the socialization process as well (Mehan et al., 1996; Stanton-Salazar, 2001). Parents of many of the students may not have the knowledge to navigate the school system effectively or the linguistic skills to

advocate for their children (Mehan et al., 1996; Laureau & Horvat, 1999). Thus, the AVID elective teachers, the AVID coordinator, and the AVID counselor consistently check on the student's academic progress and talk to the teachers to determine the impediments to the student's academic success if necessary. For instance, many JBHS AVID students were failing their Pre-AP or AP classes after the first three weeks of school during the 2007-2008 school year. There were meetings scheduled by grade level (9th, 10th, and 11th) with the AVID coordinator, the AVID elective teachers, the Pre-AP and AP teachers from each of the core academic areas –math, science, history, and social studies, and the AVID administrator to identify the impediments to academic success in these classes. A 'success' plan was put into place, and a clear line of communication was opened between the AVID elective teachers and the Pre-AP and AP teachers. Also, accelerated classes (the students are fast-tracked from on-level to Pre-AP in a semester) were created in biology, history, and English to help the AVID students gain the skills necessary for academic success in rigorous classes. In addition, it was determined that the students needed more in depth studying and test taking strategies. Consequently, 'Skills Seminars' were developed to teach test-taking strategies and study tips for two hours every other Saturday for four months. Additionally, many AVID students came to school with non-academic issues (i.e., raising siblings or their own children or parents with substance abuse problems) that may impeded their academic success or interfered with their ability to follow classroom rules, policies, and procedures. As a result, the AVID elective teachers, administrator, coordinator,

or counselor worked together to ensure success for these students and advocated for their academic and personal well-being.

3.3 Sample Selection

3.3.1 *Student Selection*

In order to determine the impact of the AVID curricular and pedagogical practices on the achievement gap at JBHS, the academic achievement and possession of cultural capital of students who were in the AVID program will be compared to that of students who were not in the AVID program. A comparison group case study using a nonequivalent group design (NEGD) is the method of choice because the targets are assigned to the AVID program based one or more of the following AVID selection criteria:

- Average to High Test Scores
- Will be the First to Attend College
- Historically Underserved in 4-year Colleges
- Low Income

The comparative NEGD study will compare outcome measures of the students who were accepted into the AVID program based on the selection criteria described above to students who were randomly selected from a list of students currently enrolled in JBHS but not involved in AVID based on the following criteria:

1. None of the students are in the special education program.

2. The students' previous years' TAKS scores have a scaled score equal to or greater than 1900 for grade 9 and at least as great as 2000 for grades 10 through 12. The scaled score on the TAKS test is a conversion of the student's raw score on the test to a common scale. The scale score is used to control for slight variations among tests because there are different versions of each TAKS test. Therefore, the scale score allows for a numerical comparison among students.

The student selection criteria described above were chosen in order to have a comparison group with characteristics as similar to the AVID students as possible prior to the random selection process. None of the AVID students were in special education and their scaled score on the TAKS exams were not lower than 1900 for 9th grade AVID students and 2000 for AVID students in grades 10 through 12.

Research participants were divided into four treatment groups and four control groups (see Table 5). The non-treatment groups were constructed for comparison with the treatment groups by using a systematic random sample. The first student in the school's computer data base was chosen for each grade level, then additional students were chosen at evenly spaced intervals to obtain the desired number of students to compare with the AVID student groups. The students from the control group were selected in February in an effort to choose students who have completed at least one semester at JBHS. However, some of the students from both the treatment and control groups relocated to different

schools during the second semester of the 2008-2009 school year and, therefore, were no longer included in the study. Thus, the number of students in the treatment and the comparison groups are not the same for three of the cohorts.

Table 5. Research participants divided by treatment and control group.

Treatment group number	AVID treatment (the year entering 9th grade)	Number of AVID students	Number of non-AVID students
1	2008-2009	54	48
2	2007-2008	76	78
3	2006-2007	34	32
4	2005-2006	40	40

3.3.2 *Teacher Selection*

Only math and English teachers were chosen to evaluate the impact that the use of content specific AVID strategies has on student achievement. Those two subject areas were evaluated to keep analysis consistent across grade levels because the freshmen (9th graders) took the TAKS test in math and English/language arts only. All math and English teachers were asked to participate on a voluntary basis; however, one English teacher decided not to participate. A total of 52 teachers volunteered to participate in the research project.

3.3.3 *Data Collection Procedures*

Before completing the research methodology portion of this study, the researcher had to meet with the school district's deputy superintendent and the assistant superintendent for curriculum and instruction in order to receive approval to use student data and to survey teachers for the researcher's personal endeavors. During the meeting, the researcher had to provide a detailed explanation of her intent and the purpose of the study, as well as the decision to use student data and to survey the teachers. The researcher had to agree to survey voluntary teacher participants only and not use coercion to get teachers to participate. The deputy superintendent was concerned about the use of survey research in this instance due to the researcher's administrative position and perceived reprimands that may occur as a result of the lack of or nonuse of AVID methodologies. The researcher agreed to administer the English and math teacher surveys in May after the teacher appraisals were to be turned in to the district office to ensure no teacher would be penalized as a result of their ineffective use of AVID strategies, and she ensured there would be a disclaimer on the survey to indicate the survey was for the researcher's dissertation only; none of the school's staff would be privy to the information. Furthermore, the researcher had to de-identify all data once it was obtained to ensure anonymity of teachers and students. The researcher also had to agree not to include the actual name of the school or school district in the dissertation.

3.3.4 Student Data

The researcher was not given permission to survey the students; thus, all student data was retrieved using the school district's data. Student data- ethnicity, grade point average (GPA), and course grades- was retrieved from one database, and the other student data – free/reduced lunch status, English language learner (ESL), and TAKS scores- was retrieved from another.

3.3.5 Instrumentation and Data Analysis

All survey instruments were created to assess the impact of the level of use of content specific AVID pedagogical and instructional practices in math and English classes and the skills taught in the AVID elective class. All surveys were developed to evaluate the presupposition that the AVID curricular practices can be used as school-wide catalyst to bridge the academic achievement gap.

Student Academic and Behavioral Skills Survey (see Appendix C): This survey was given to the math and English teachers to gather information about which skills they deemed important to academic success. The researcher did not prime the teachers. She asked the teachers to answer the questions during a department meeting. The primary statement of interest to the researcher was: "Please describe the academic and behavioral skills that a student should possess to achieve academic success in your class."

The researcher examined the surveys to identify consistency among teacher responses according to content area (math or English). Both math and

English teachers contended the students' possession of good study habits and participation in class by asking questions were important to academic success. Also, teachers in both content areas suggested students' possession of a strong work ethic, such as completing homework and other assignments in a timely fashion, were necessary for academic achievement. In addition to those characteristics mentioned above, motivation and organization were essential characteristics that a student should possess to be successful in the classroom. Moreover, both content area teachers perceived student characteristics such as attendance, as well as the ability to listen attentively, follow directions, and stay on task were crucial. An English teacher summarized the skills she believed a student should possess to be successful in her class in the following manner,

Successful students attend classes regularly. They are on time. They listen and pay attention. Successful students complete assignments that are well written and neat in appearance. Successful students take advantage of extra-credit opportunities when offered. They also participate in class discussions and are willing to help other students who are having problems.

Although the English and math teachers were consistent in their perception of some skills that were vital to academic success, the English teachers focused more on writing skills, academic integrity, effective communication skills, creativity, and independent learning. The math teachers focused on the ability to think critically and analytically. Furthermore, both

content area teachers addressed the need for the students to have basic foundational skills. However, the description of foundational skills was content specific. For instance, basic foundational skills in math included skills such as basic arithmetic functions, problem solving skills, order of operations, and calculator literacy. An English teacher suggested: “Students should possess general background knowledge of English fundamentals such as basic knowledge in grammar and basic literacy skills such as knowing definitions and recognizing them in context.”

Farkas and colleagues (1990) contended teacher demographics impact student achievement. To test this hypothesis, demographic questions about the teacher, such as ethnicity, years of service, and their SES status during their school years was included in the survey. SES was determined based on whether the teachers were on free/reduced lunch when they had been in school. The researcher administered the surveys for the English teachers during an English department meeting, and the math teachers were given their surveys during a math department meeting.

The responses to the teacher open-ended survey are similar to the skills scholars contend are relevant to academic success in the public school system (Mehan et al., 1996; Stanton-Salazar, 2001; Noguera, 2008; Delpit, 2006). Many of these characteristics are considered part of the schools’ ‘hidden curriculum’ because they are cultural codes of the dominant class that are not taught in the classroom but are crucial to academic success (Mehan, et al., 1996). The

researcher considers these academic and behavioral skills to be the cultural capital pertinent to student achievement.

Student Behavioral Skills Survey (see Appendix D): This survey was developed to operationalize the student possession of cultural capital-dispositions or behaviors that are rewarded by teachers and positively impact academic achievement. As a result of the teacher responses to the student academic and behavioral skills survey and the extensive literature review noting the academic skills rewarded in the classroom, the researcher developed the survey with the following statements to measure student possession of cultural capital:

Completes homework correctly

Comes to class on time

Completes all assignments in a timely manner

Turns in assignments that are neatly done

Voluntarily participates in classroom discussions/problem solving activities

Puts forth effort to be successful in class

Shows creativity and originality

Has organization

Reaches academic potential

Seeks to understand all material by asking questions

Challenges questionable grades, policies, or decisions appropriately

Remains neat in appearance

Interacts appropriately with classmates

Stays on task in the classroom

Uses correct English when communicating/writing

Speaks eloquently

Because the researcher was not given permission to interview the students, she had to rely on the teachers' perception of the students' academic and behavior skill as a means to determine the students' possession of cultural capital. The survey instrument was based on a four-point Likert scale from 1 (performs tasks less than half of the time) to 4 (perform tasks majority of the time). The math and English teachers were given a survey for each of the students from the treatment and control groups who were on their class rosters. Therefore, each student had two surveys – one from an English teacher and one from a math teacher – except those students who were in the freshman English class in which the teacher chose not to participate. The students were not identified as AVID or non-AVID prior to survey distribution. The researcher delivered the surveys to the English and math teachers at the beginning of the spring semester.

A factorial analysis with a Varimax rotation and Kaiser normalization was performed to condense student possession of cultural capital into discrete factors prior to further analysis (see Table 6). The analysis yielded three factors that accounted for 74% of the total variance for the entire set of variables. One large factor accounted for 56% of the total variance across all terms. Survey questions that loaded highly on the same factor were summed together to form composite variables (Academic performance, Behavioral skills, and Disposition).

A reliability test was performed to test for the internal consistency of the factors. The Cronbach's α values were 0.959, 0.885, and 0.832 respectively. The academic performance factor was strongly correlated to the behavioral skills factor ($\alpha = 0.688$) and disposition factor ($\alpha = 0.610$), but the disposition factor and behavioral skills factor were moderately correlated ($\alpha = 0.434$). The correlation analysis showed the three cultural capital factors were indeed separate factors.

Table 6. Factor loadings after rotation for the student academic and behavioral skills survey

<i>Survey question</i>	<i>Academic performance</i>	<i>Behavioral Skills</i>	<i>Disposition</i>
Completes all assignments in a timely manner	0.867		
Has organization	0.784		
Completes homework correctly	0.771		
Reaches academic potential	0.755		
Assignments are neatly done	0.754		
Stays on task in class	0.736		
Puts forth effort	0.729		
Comes to class on time	0.574		
Voluntarily participates in classroom discussions/problem solving activities		0.852	

Table 6 - Continued

Seeks to understand all material by asking questions	0.842	
Shows creativity and originality	0.743	
Challenges questionable grades, policies, or decisions	0.719	
Uses correct English when communicating/writing		0.885
Speaks eloquently		0.885
Interacts appropriately with classmates		0.638
Remains neat in appearance		0.610

Math Teacher and English Teacher Surveys (see Appendix E): These surveys were created in an effort to evaluate how often the Math and English teachers use AVID instructional strategies (writing, inquiry, collaboration, and reading) in their classrooms. Math and English teachers were given a survey of twenty instructional strategies which AVID advocates. Some of the AVID strategies listed on the surveys were content specific. As a result, the English and math teachers received different surveys. The questions for the math teacher survey were formulated from instructional strategies described in The Write Path Mathematics Teacher Guide (Dooley & Swanson, 2003) and those for the English teacher survey were formulated using strategies detailed in The Student Guide for English Language Arts (Crain, Mullen, & Swanson, 2002). The survey items were based on a five-point Likert scale from 1 (never use particular AVID strategies) to 5 (the use of particular AVID strategies at least once a week). In an effort to encourage the teachers to accurately assess their use of the AVID strategies during instruction, the researcher reassured the teachers the survey responses would not impact their teacher evaluations. Therefore, the surveys were not distributed until the end of the teacher appraisal period. By that time, the teachers were aware that the researcher was not returning the following school year.

The surveys were examined to determine the teacher level of use of AVID instructional practices. The level of use was determined based on how often the teachers perceive themselves to use each of the 20 content specific strategies listed in their surveys at least three times a month or at least once

a week (see Table 7). The researcher averaged the survey responses to determine level of use initially, but the majority of the teachers were in the medium or high level of use ranges even though many of these teachers did not use many of the strategies in their classrooms often. Therefore, counting the number of AVID strategies each teacher uses in their classroom often (at least three times a month) or very often (at least once a week) paints a more accurate picture of how often these strategies are used to impact instruction.

Table 7. Level of teacher use of AVID instructional strategies

Total number of AVID instructional strategies used at least three times a month	Teacher level of AVID use
15 or more	High
8 – 14	Medium
Less than 8	Low

All student data, teacher demographic data, and results from the academic and behavioral skills surveys were analyzed to determine the impact that AVID has on closing the academic achievement gap (see Table 8). The teacher ethnicity variables were recoded to AfAmericanMT for math teacher ethnicity (African American =1, non-African American =0) and AfAmericanET for English teacher ethnicity (African American =1, non-African American =0). These variables were recoded to evaluate the impact that teacher ethnicity has on student achievement and student possession of cultural capital. Majority of the teachers were white or African-American.

Therefore, the researcher decided to evaluate the impact of teacher race by the variable described above. Also, the teacher years of experience variables were recoded in an effort to identify the impact that teacher years of experience had on student achievement and student possession of cultural capital (see Table 8).

Table 8. Definition of Variables.

Variable name	Description of Variable	Source/How Operationalized
ESL	English not the primary language at home 1: ESL 0: not ESL	School district database
GENDER	This variable indicates whether the student is male or female. 1: female 0: male	School district database
ECONDIS	Economically disadvantaged. This is determined based on whether or not the student participated in the Free/Reduced lunch program. 1: participated 0: did not participate	School district database

Table 8- Continued

English Grade Math Grade	The numerical grade given to the student by the teacher. This grade consists of an average of the semester 1 and semester 2 grades. Advanced courses are weighted.	School district database
AVID	The student has applied and been accepted in the AVID program and is in an AVID elective class during the school day. 1: AVID 0: non-AVID	Received a list of AVID students from the AVID coordinator and non-AVID students were randomly selected based on certain criteria by using school district mainframe.
YRSNAVID	This variable indicates the number of years a student has been in the AVID program. The number of years does not correspond to the number of years in school for some students.	Received a list of AVID students from the AVID coordinator indicating the number of years in AVID for each student.
GPA	Grade point average; advanced courses are weighted.	School district database
TAKS	The scores are analyzed by grade level (8th through 11 th) as well as content area (ELA or Math). 1: passed TAKS 0: did not pass TAKS	School districts database

Table 8- Continued

PREAPAPIBM PREAPAPIBE	This variable indicates whether the student is in an advanced course. 1: non-advanced 2: accelerated 3: preAP,AP, or IB	School district database
Academic Performance, Behavioral Skills, and Disposition	Derived from the Factorial Analysis of the Student Academic and Behavioral Skills Surveys	The factorial loadings for each factor were added together to compute the variables to measure student possession of cultural capital.
ETEACHERAVIDUSAGE MTEACHERAVIDUSAGE	Describes the amount of time the teacher uses AVID instructional practices in the classroom. 1: low level of use 2: medium level of use 3: high level of use	Derived from the math teacher and English teacher surveys
MTYEARSOFEXP ETYEARSOFEXP	These variables describe how long the teachers have been teaching.	Teacher demographic section of the Academic and Behavioral Skills survey
MTYOE ETYOE	The recoded variables indicating the years of teaching experience 0: 0-5 years 1:6-10 years 2:11-15 years 3: 16 years or more	

3.4 Research Questions

A comprehensive review of the literature resulted in the development of the research questions. Mary C. Swanson contends AVID is a catalyst for school-wide change (2002). However, research has not evaluated the impact that AVID instructional practices have on academic achievement.

Furthermore, the research discusses the theoretical concept of cultural capital, but it is mainly anecdotal. There has not been any research quantifying AVID student possession of cultural capital. The research questions were developed to give insight into these relationships and would potentially lead to the development of hypotheses. The research questions were organized around the dependent variables (academic performance, behavioral skills, disposition, math grades, English grades, GPA, and TAKS results). The questions are as follows:

1. Does participation in the AVID program increase student academic achievement? Student achievement is measured by
 - Math and English grades
 - GPA
 - Texas Assessment of Knowledge and Skills (TAKS) test results

2. Does participation in the AVID program impact AVID student possession of the cultural capital of the dominant society? Cultural capital is measured by cultural capital factors, the

academic performance factor, behavioral skills factor, and disposition factor.

3.5 Summary

Many contend that students from disadvantaged backgrounds seem destined to face obstacles in education (Kozol, 2005; Noguera, 2008). Therefore, these students must be exposed to strategies to facilitate academic success (Delpit, 2006; Mehan, et al., 1996; Stanton-Salazar, 2001). AVID with a strong emphasis on instruction, staff development, and academic survival skills has proven to increase academic success of the students in the program (Mehan et al., 1996; Watt et al., 2006; Watt et al., 2007). However, with a strong focus on the AVID curricular concepts school wide, there can be a much greater impact on students who are not in the program. This is particularly important in view of the changing demographics of the school population. The necessity to provide students access to the culture of the dominant society or hidden curriculum is imperative. The two research questions examine the curricular impact of AVID curricular and pedagogical practices on academic achievement and student possession of cultural capital. Independent samples t-tests, ANOVA tests, and chi square statistics are used to analyze the data and draw conclusions about the impact the AVID program has on school wide student achievement in an effort to discover viable mechanisms to close the academic achievement gap.

CHAPTER 4

FINDINGS

This research project focuses on the impact of AVID, a well regarded educational intervention program, as a tool for closing the achievement gap. Other researchers have demonstrated the success of AVID curricular and instructional practices in helping students from underserved communities achieve their goal of admission to college (Mehan et al., 1996; Freedman, 2000; Watt et al., 2006; Watt et al., 2007). But little is known about the impact of AVID instructional and curricular strategies as a campus-wide effort to close the ever-present academic achievement gap.

4.1 Participation in the Advancement Via Individual Determination (AVID) program

4.1.1 *Student Academic Achievement*

Some educators contend that being in the AVID program exposes students to the 'hidden curriculum' – the ways of thinking, talking, and behaving necessary to be successful in the culture of schooling, and the AVID elective teacher teaches AVID students important strategies for navigating the educational system effectively (Mehan et al., 1996; Stanton-Salazar, 2001). One of the key research questions for this study focuses on the impact that participation in the AVID program has on student academic achievement in

an effort to find instructional and curricular practices that bridge the achievement gap.

4.1.1.1 Course Grades and GPA

The first research question asks: Does participation in the AVID program significantly impact academic achievement (measured as the end of course math and English grades as well as GPA and TAKS scores) of students?

An independent samples t-test was conducted to determine if there was a significant difference in academic achievement between the two groups (AVID/non-AVID). The t-test shows that a significant difference existed in academic achievement between the two groups but in the opposite direction than the one expected (see Table 9). The non-AVID students received approximately four points higher in English grades and three points higher in math grades; they also had an average of 0.2 points higher GPAs than the AVID students.

Table 9. Independent samples t-test comparison of English Grades, Math Grades, and GPA between AVID and non-AVID students.

Dependent Variable ^a	<i>N</i>	AVID		Non-AVID			<i>t</i> ^b
		<i>M</i>	<i>SD</i>	<i>N</i>	<i>M</i>	<i>SD</i>	
English Grade	198	81.5	8.4	198	85.2	9.7	4.1*
Math Grade	194	78.1	9.7	186	81.1	12.4	2.6**
GPA	201	2.9	0.5	198	3.1	0.8	2.5***

a. English grades, math grades, and GPA are weighted. For advanced classes (pre-AP, IB, AP, and second semester of accelerated classes),

- an A (90-100) receives 5 points; a B (80-89) receives 4 points, and a C (70-79) receives 3 points. No points are given for grades below a 70.
- b. a. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

4.1.1.2 TAKS Analysis

The TAKS exam was also used by the researcher to measure student academic achievement. The Reading and math TAKS exams were taken in grade 9; English/Language Arts, social studies, science, and math TAKS tests were taken in grades 10 and 11. The statistical analyses indicated there was no statistically significant difference in TAKS results (pass v no pass) between AVID and non-AVID students for any of the TAKS tests. The lack of variation may be a result of incentives which were used to motivate students to pass. The administrative staff encouraged the 9th grade math and English teachers to offer rewards for those students who passed the TAKS test. Also, the school district in which the study site exists exempted sophmores who passed all four sections of the test from their final exams. All public school students must pass the exit level TAKS tests in grade 11 in order to have received a high school diploma in the state of Texas.

4.1.2 *Cultural Capital*

The second research question investigates the impact of the AVID program on student possession of the cultural codes-cultural capital-that can increase student achievement and possibly mitigate factors that contribute to the academic achievement gap. The research question posits: Does participation in the AVID program significantly impact student possession of

cultural capital as measured by the academic performance, behavior skills, and disposition variables?

Students from different cultural, economic, and racial backgrounds enter school with different socialization and styles of communication. Researchers contend educationally underrepresented students – ethnic/linguistic minorities and low-income students -do not enter schools with the same cultural knowledge as the students from middle- and high-income families (Bourdieu, 1986; Ladson-Billings, 1998; Dumais, 2002; Lareau, 2003; Wing & Noguera, 2008). However, possession of these cultural codes, such as ways of behaving, talking, and thinking, positively impact academic achievement.

The student possession of cultural capital was determined based on results from the Student Behavioral Skills survey that was given to the teachers. Unfortunately, the researcher was not given permission to survey the students. Consequently, she had to rely on the teacher perception of whether a student possessed the cultural capital that positively influenced academic success. A factorial analysis of teacher responses to the survey produced three cultural capital factors-academic performance, behavioral skills, and disposition (see Table 6).

One-way ANOVA tests were performed to determine if there was a significant difference in the possession of cultural capital between the two groups (AVID/non-AVID). According to the ANOVA results, there was no statistically significant difference in the behavioral skills and disposition

variables between AVID and non-AVID students (see Table 10). However, there was a significant difference in the possession of academic performance skills between AVID and non-AVID students. According to the ANOVA table, the teacher’s perception was that the non-AVID students possessed the cultural capital that positively impacted academic performance more than the AVID students.

Table 10. One-way ANOVA of the difference in cultural capital factors between AVID and non-AVID students.

Dependent Variable	AVID			Non-AVID			F
	N	M	SD	N	M	SD	
Academic performance	185	42.5	8.7	173	44.55	9.8	4.40*
Behavioral skills	177	18.0	3.9	170	18.1	4.3	0.04
Disposition	186	14.7	1.7	173	14.6	2.0	0.05

* $p < 0.05$; N= number of students

4.1.3 The impact of AVID at JBHS

The purpose of the case study was to evaluate the impact on academic achievement of the AVID curricular and pedagogical practices (writing, inquiry, collaboration, and reading) and academic survival skills (time management and organization). The results indicate that the implementation of the AVID program, as a school-wide initiative to close the achievement gap, was not very successful at JBHS. The non-AVID students outperformed the AVID students. Although there was not a statistically significant difference

in TAKS results, student possession of behavioral skills, and disposition between the two student groups, the non-AVID students had higher math grades, English grades, and GPAs than the AVID students. Also, the non-AVID students possessed more cultural capital that positively impacts student achievement, such as 'complete assignments on time', 'organization', 'put forth effort', and 'reached academic potential', than the AVID students.

Previous research on the AVID program report positive program effects in the areas of student achievement, such as performance on standardized tests, GPA, and course grades (Black et al., 2008; Gandara et al., 1998; Guthrie & Guthrie, 2000; Hubard & Mehan, 1999; Mehan, et al., 1996; Swanson et al., 1993; Watt et al., 2006) and positive aspects of the socialization process that occurs in the AVID elective class that facilitate AVID student possession of the cultural capital required to be successful in academically rigorous courses (Luper, 2005; Mehan et al., 1996). The results presented in previous research efforts are not congruent with those in this case study. However, the results from the JBHS case study are not necessarily an indication of the ineffectiveness of the AVID program. Other factors can contribute to the differences in student achievement and student possession of cultural capital as well. Therefore, more analyses are conducted to examine other variables that contribute to the differences in the outcome measures between AVID and non-AVID students.

4.2 Factors Contributing to the Differences in Academic Achievement Between AVID and non-AVID Students

The results indicated the non-AVID students outperformed the AVID students. Since these results were in the opposite direction of what was expected, factors that contributed to the differences in academic achievement between AVID and non-AVID students and to the underperformance of AVID students were evaluated. Statistical analyses were performed to evaluate the impact of teacher characteristics (race, years of experience, socioeconomic level during school), teacher use of AVID instructional strategies, and course rigor on achievement and possession of cultural capital differences between the two groups.

4.2.1 *Teacher Characteristics*

To evaluate the effect that the teachers' years of experience in the profession had on course grades and student possession of the cultural capital factors (academic performance, behavioral skills, and disposition), 4x2 factorial ANOVAs were performed. The interaction effect of AVID with English teacher years of experience was almost significant at the 0.05 level, $F(3,398) = 2.2$, $p = 0.054$, for weighted English course grades. The student English course grades were impacted by the length of time the English teacher taught and whether the student was in the AVID program. As shown in Figure 1, there was a difference in English course grades between AVID and non-AVID students for teachers who taught for 16 years or more; the non-AVID students

who were taught by these teachers received higher course grades than AVID students who were taught by the same teachers.

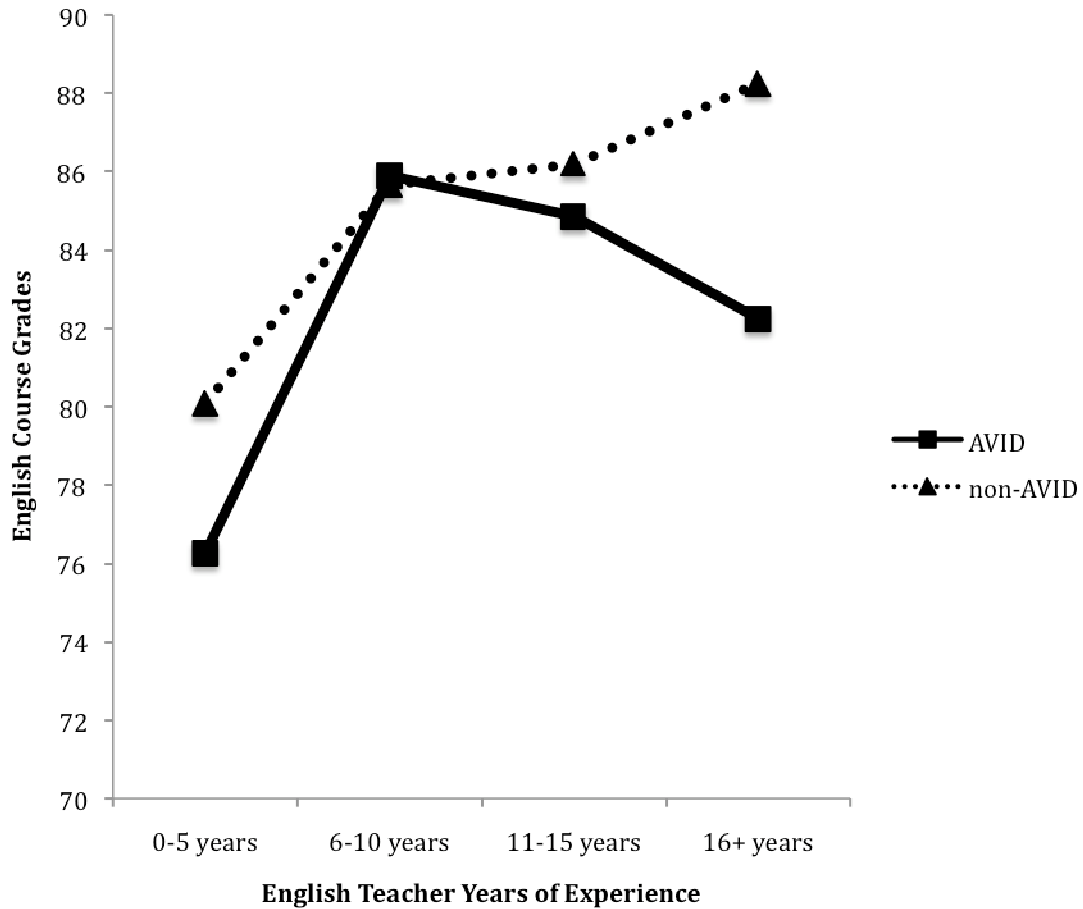


Figure 1. Graphic representation of the AVID with English teacher years of experience interaction effect for weighted English course grades.

The interaction effect of AVID with English teacher years of experience was statistically significant, $F(3, 398)=2.7, p < 0.05$, for academic performance. Teacher perception of student skills that positively impacted academic performance depended on whether the student was in AVID and the amount of time the teacher was in the profession. There was a difference in student possession of cultural capital, as measured by the academic

performance variable, between AVID and non-AVID students for teachers who have taught for 16 years or more (see Figure 2). These teachers perceived the non-AVID students as possessing more cultural capital that positively impacted academic performance than the AVID students.

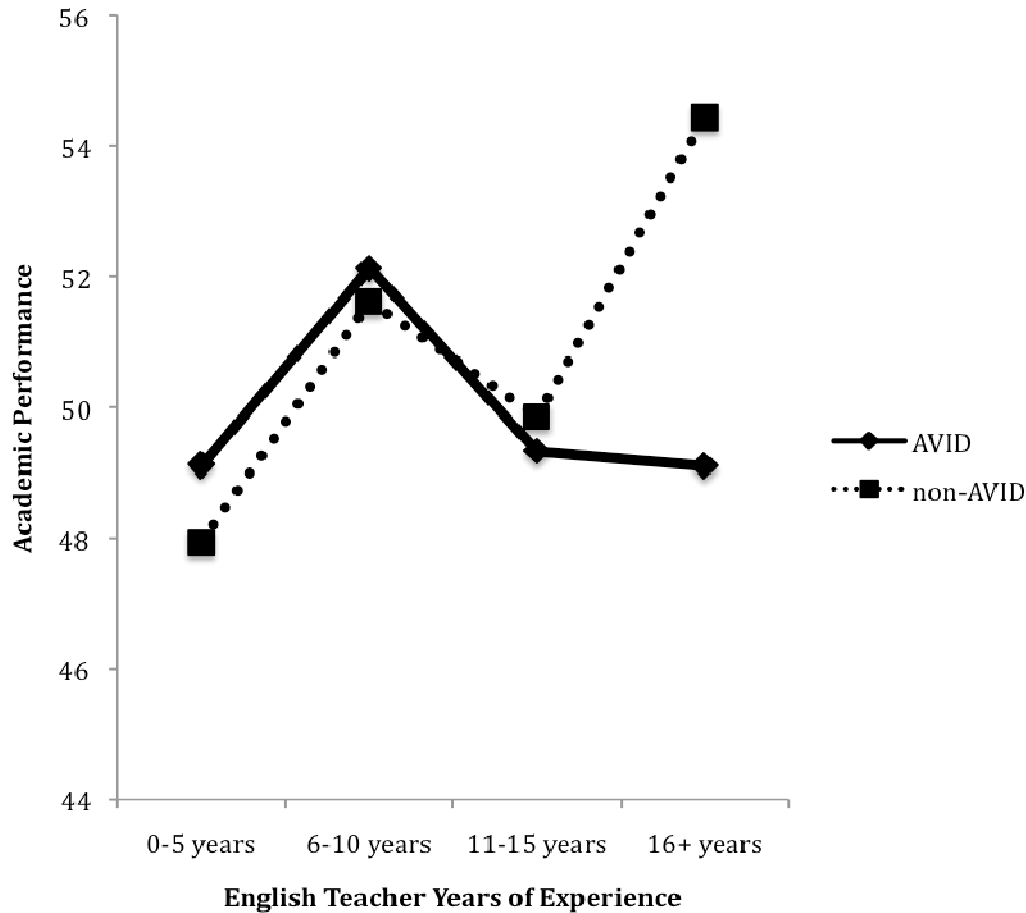


Figure 2. Graphic representation of the AVID with English teacher years of experience interaction effect for academic performance.

The interaction effect of the AVID with English teacher years of experience was statistically significant, $F(3,358)= 4.7, p <0.01$, for disposition. The teacher perception of the student disposition depended on whether the

student was in AVID and the length of time that the teacher taught English. Teachers who taught for ten years or less perceived the AVID students as possessing the dispositions that were rewarded in the public schools more so than the non-AVID students (see Figure 3). However, English teachers who have taught for 16 years or more perceived non-AVID students as possessing more of the same skills as the AVID students.

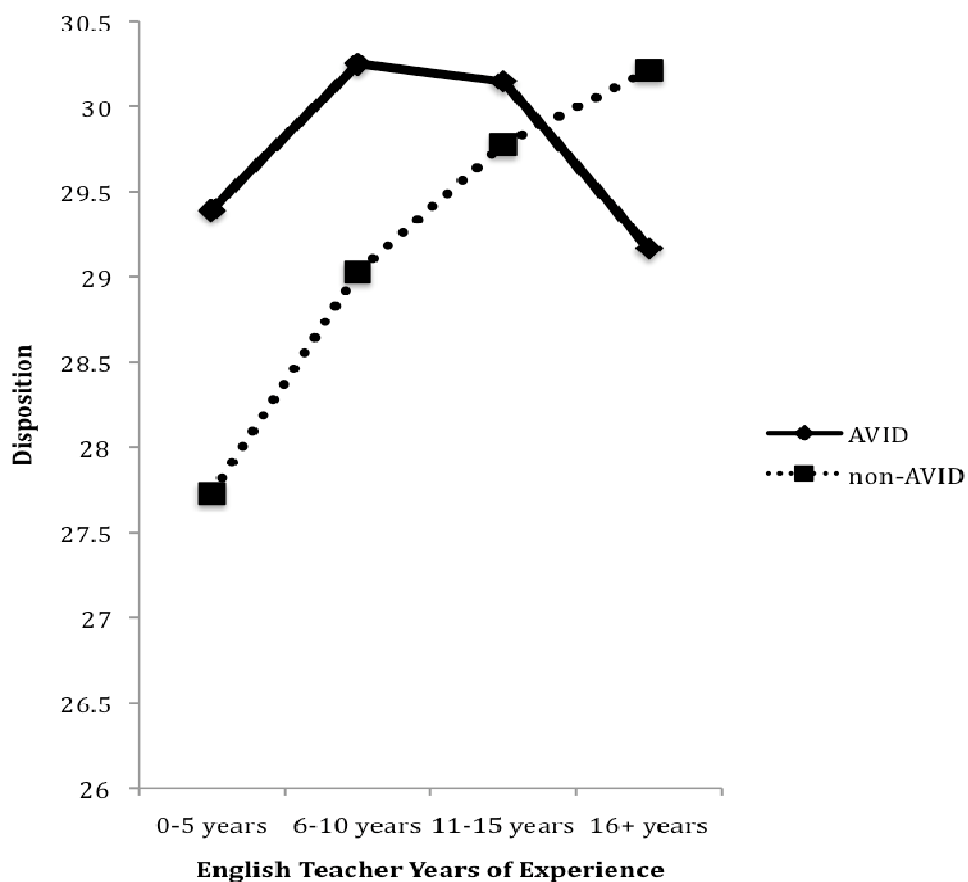


Figure 3. Estimated marginal means of the AVID with English teacher years of experience interaction effect for disposition.

The interaction effect of math teachers' years of experience and AVID did not have a statistically significant difference in academic achievement or

student possession of cultural capital between AVID and non-AVID students. Also, whether an English or math teacher was on free/reduced lunch in high school did not contribute to the difference in academic achievement or student possession of cultural capital between AVID and non-AVID students.

A 2x2 factorial ANOVA was performed to evaluate the effect that teacher race has on academic achievement and cultural capital. The English teachers' race did not contribute to a statistically significant difference in academic achievement and student possession of cultural capital between AVID and non-AVID students. Although math teacher ethnicity did not contribute to the difference in student cultural capital, it did impact student performance in the math class. The ANOVA was significant for the math teacher ethnicity with AVID interaction effect, $F(1, 379) = 9.8, p < 0.01$. Teacher ethnicity did not significantly impact AVID student performance in their math classes. However, it did impact non-AVID student math course averages. African-American math teachers gave non-AVID students lower course averages than they gave AVID students (see Figure 4).

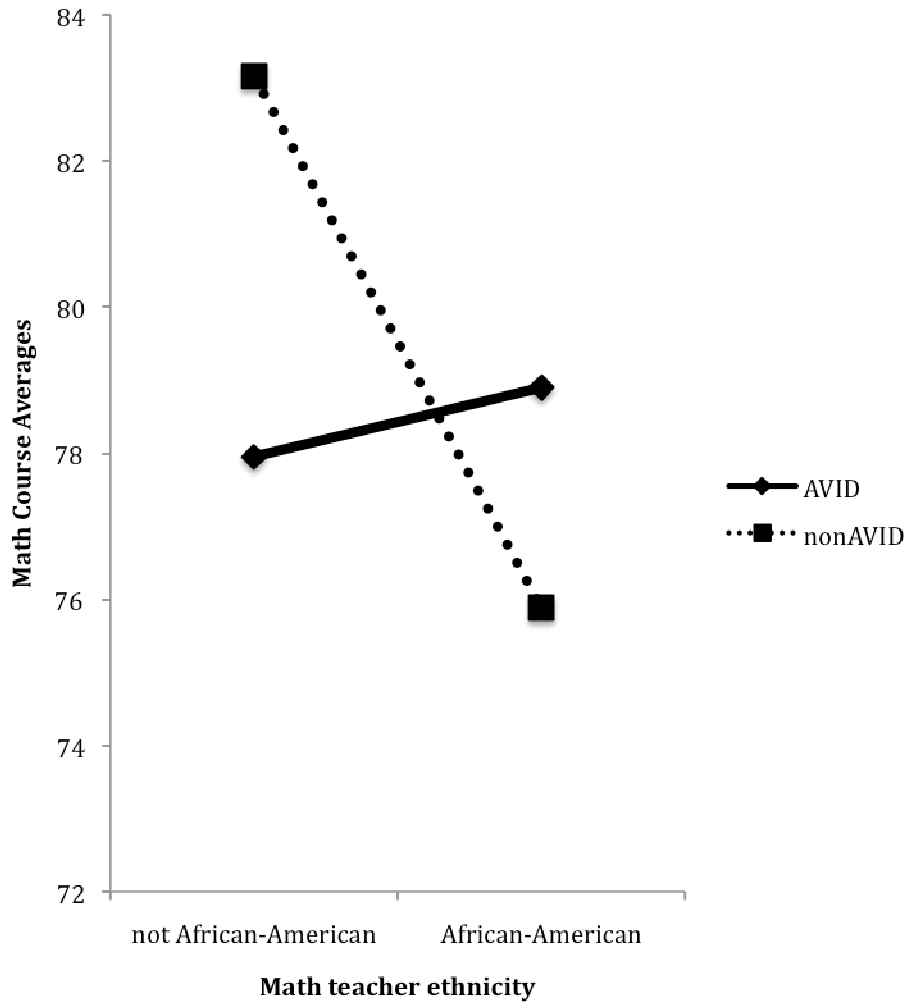


Figure 4. Graphical representation of the AVID with math teacher race interaction effect for weighted math course grades.

4.2.2 *Teacher Use of AVID Instructional Strategies (Writing, Inquiry, Collaboration, and Reading)*

The researcher sought to evaluate the impact of the use of AVID instructional practices in the classroom on course grades and the cultural capital factors. In an effort to further evaluate the factors that contributed to the academic achievement difference between AVID and nonAVID students,

factorial ANOVAS were performed. The math teacher use of AVID instructional strategies did not have a statistically significant impact on the difference in student achievement or cultural capital factors between AVID and non AVID students. Although the frequency in which the English teachers used AVID instructional strategies did not contribute to the differences in the English grades, the level of use did significantly impact the cultural capital factors (academic performance, behavioral skills, and disposition).

The interaction effect of AVID with English teacher use was significant, $F(2,357)=4.2$, $p < 0.05$, for academic performance. The frequency in which an English teacher used AVID instructional strategies impacted their perception of the AVID student's cultural capital. The teachers who rarely used AVID instructional strategies perceived the AVID students to possess more cultural capital than non-AVID students (see Figure 5). However, teachers who used AVID strategies frequently perceived the nonAVID students as possessing more cultural capital.

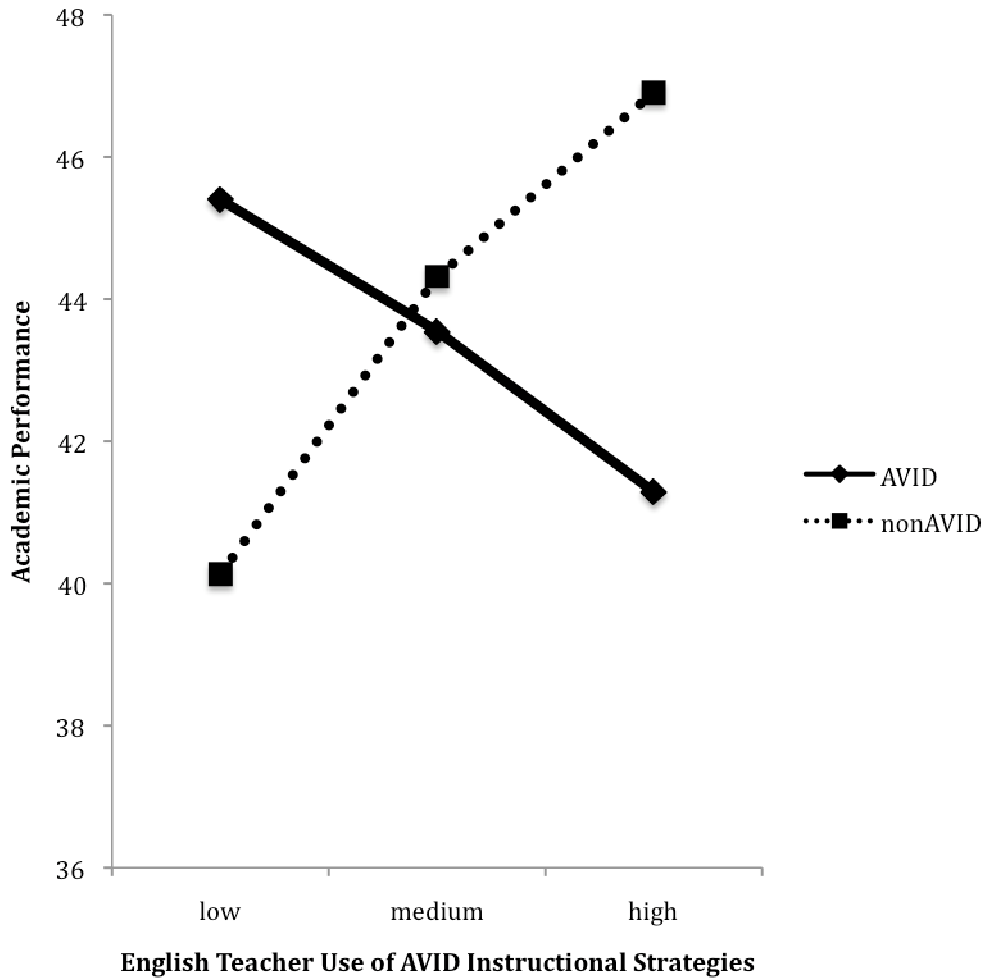


Figure 5. Graphical representation of AVID with English teacher level of use of AVID instructional strategies interaction effect for academic performance.

The interaction effect of AVID with English teacher level of use is almost statistically significant at the 0.05 level, $F(2,346)=2.7$, $p = 0.52$, for behavioral skills. The frequency in which English teachers use AVID instructional strategies impact their perception of AVID student possession of the behavioral skills that positively impact student achievement (see Figure 6). English teachers who rarely use AVID instructional strategies perceive AVID students as possessing more cultural capital, whereas, English

teachers who frequently use AVID strategies perceive the non-AVID students as possessing more cultural capital.

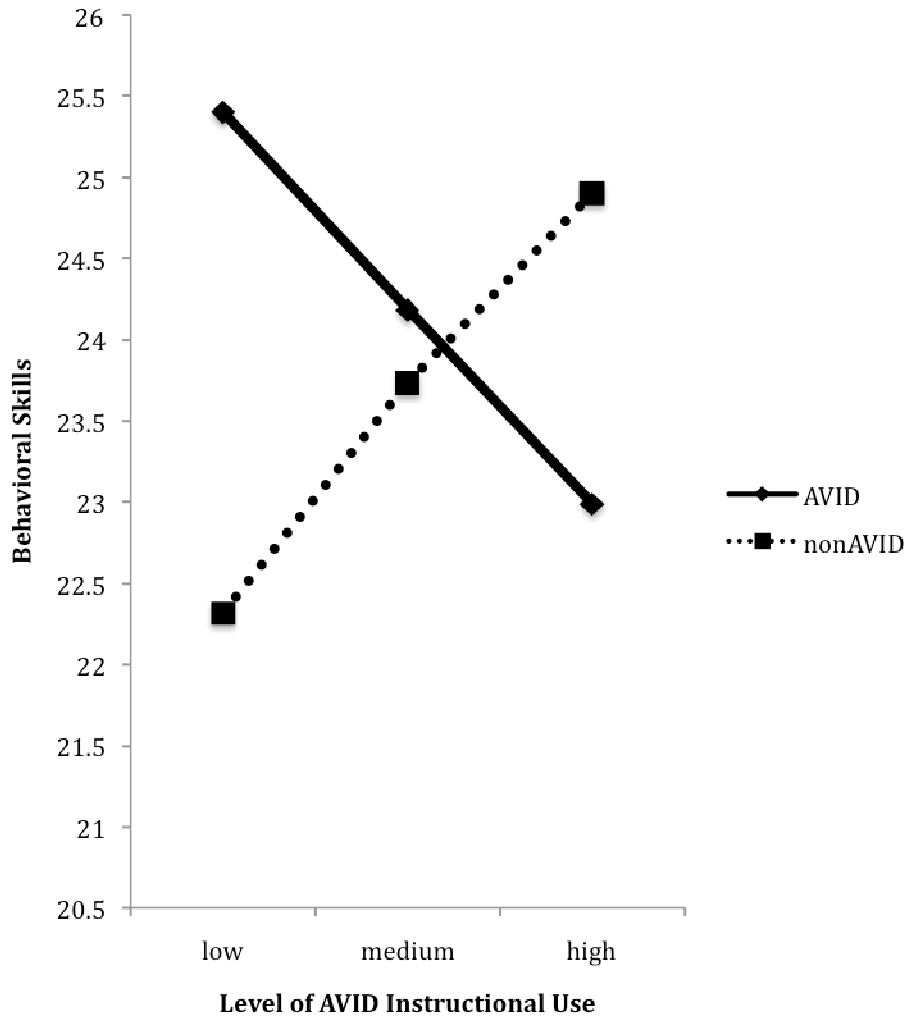


Figure 6. AVID with English teacher level of use of AVID instructional strategies interaction effect for behavioral skills.

The AVID with English level of use interaction effect was significant, $F(2, 358) = 4.3, p < 0.01$ for disposition. The frequency in which the English teachers used AVID strategies impacted their perception of whether the AVID students demonstrated the skills that maintain the disposition that is rewarded

in the public school system (see Figure 7). English teachers who rarely use AVID strategies perceive the AVID students as maintaining an acceptable disposition more so than non-AVID students.

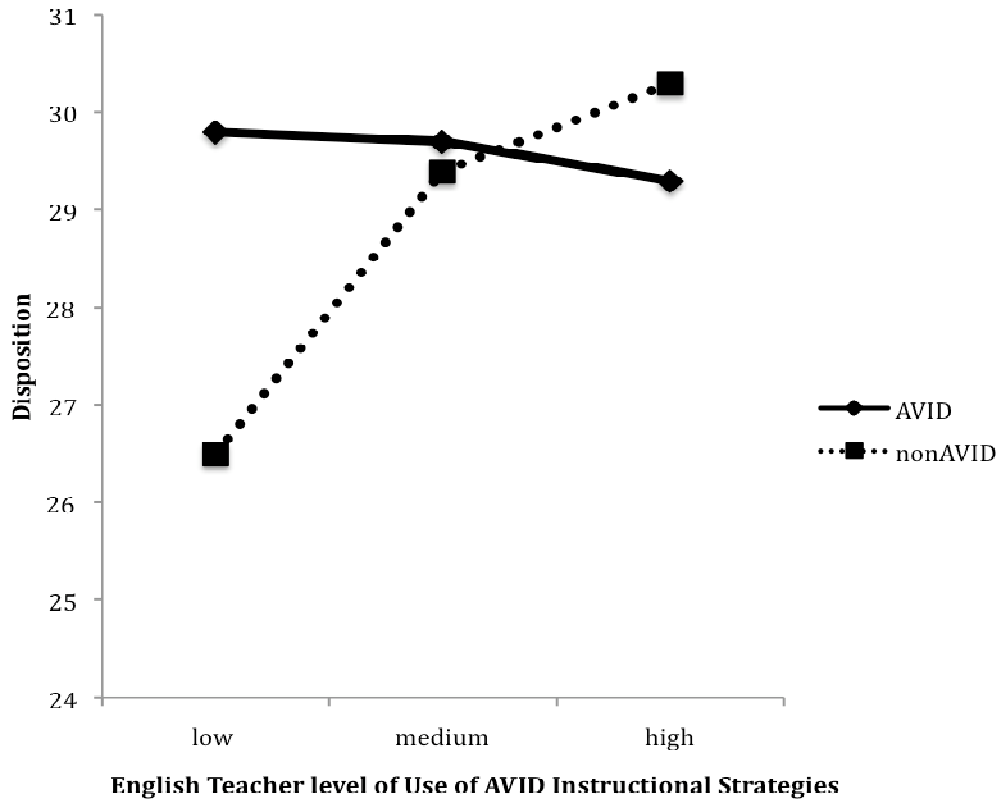


Figure 7. Graphical representation of the AVID with English level of instructional use interaction effect for disposition.

4.2.3 Course Rigor

To further evaluate the cause for the discrepancy in academic achievement measures between the two groups, the researcher examined the difference in the level of academic rigor (on-level, accelerated, and pre-

AP, AP, or IB) of the courses in which the AVID and non-AVID students were enrolled. Pearson's Chi-square tests were performed to evaluate the existence of a statistically significant relationship between participation in the AVID program and academic rigor. The X^2 results revealed there was a significant difference between whether a student is in the AVID program and enrolled in advanced classes. More AVID students were enrolled in advanced math and English courses than non-AVID students (see Table 11). There are 45 more AVID students taking an advanced English class and 4 more AVID students in advanced math classes than non-AVID students.

Table 11. Pearson X^2 test to investigate the relationship between enrollment in advanced English and math classes and student group (AVID or non-AVID)

<i>Content Area</i>	<i>Student Group</i>	<i>On level</i>		<i>Accelerated</i>		<i>Pre-AP, AP, or IB</i>	
		<i>N</i>	<i>%^a</i>	<i>N</i>	<i>%</i>	<i>N</i>	<i>%</i>
English ^b	Non AVID	127	64.5	11	5.6	59	29.9
	AVID	83	41.9	65	32.8	50	25.3
Math ^c	Non AVID	126	67.7	7	3.8	53	28.5
	AVID	128	66.7	27	14.1	37	19.3

a. % is the percent within the student group.

b. Pearson's $X^2(2, N=395) = 48.328, p < 0.01$

c. Pearson's $X^2(2, N=368) = 14.533, p < 0.01$

Advanced classes (accelerated, pre-AP, AP, or IB) are more academically rigorous. Thus, it is presumed that many AVID students may receive lower grades in academically rigorous classes than they may receive in on-level classes (Freedman, 2000; Swanson, 2005). Many of the non-

AVID students were in advanced academic classes for many years, so they were exposed to the skills required to master the hidden curriculum (Mehan et al., 2006). Since there were more AVID students than non-AVID students enrolled in academically rigorous courses, more statistical analyses were performed to evaluate the impact that course rigor had on student achievement and student possession of cultural capital.

4.2.3.1 English Course Rigor

A 3x2 factorial ANOVA was performed to determine the contribution of English course level of rigor to the discrepancy in student achievement and possession of cultural capital between the AVID and non-AVID students. The AVID with English course rigor interaction effect was significant, $F(2,395) = 6.0, p < 0.01$, for weighted English grades. AVID students in pre-AP, AP, and IB English underperformed relative to the non-AVID students in these classes (see Figure 8). However, there was no statistically significant difference in English grades between AVID and non-AVID students in on-level and accelerated classes.

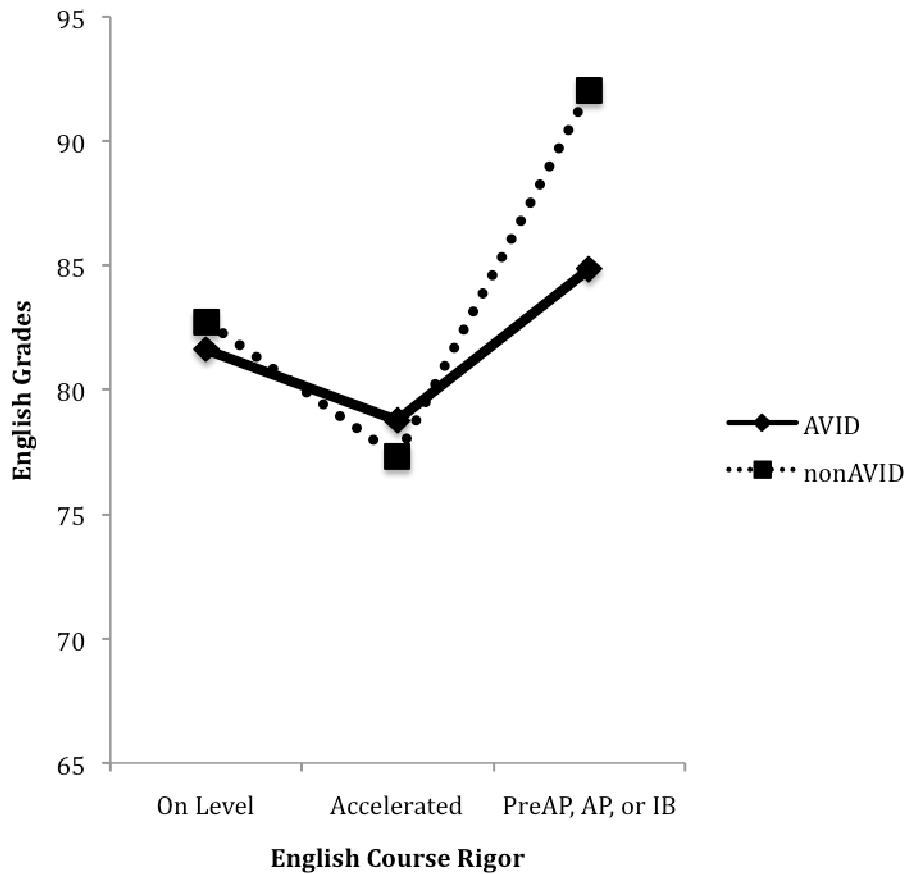


Figure 8. Graphical representation of the AVID with English course rigor interaction effect for weighted English course grades

The level of English course rigor impacted the teacher perception of the possession of AVID student cultural capital skills also. The AVID with English course rigor interaction effect was statistically significant, $F(2, 357)=7.5, p < 0.01$, for academic performance. The teacher perception of AVID student possession cultural capital depended on the level of rigor of the course in which the student was enrolled. The AVID students in academically rigorous courses were perceived to have less cultural capital than non-AVID students (see Figure 9).

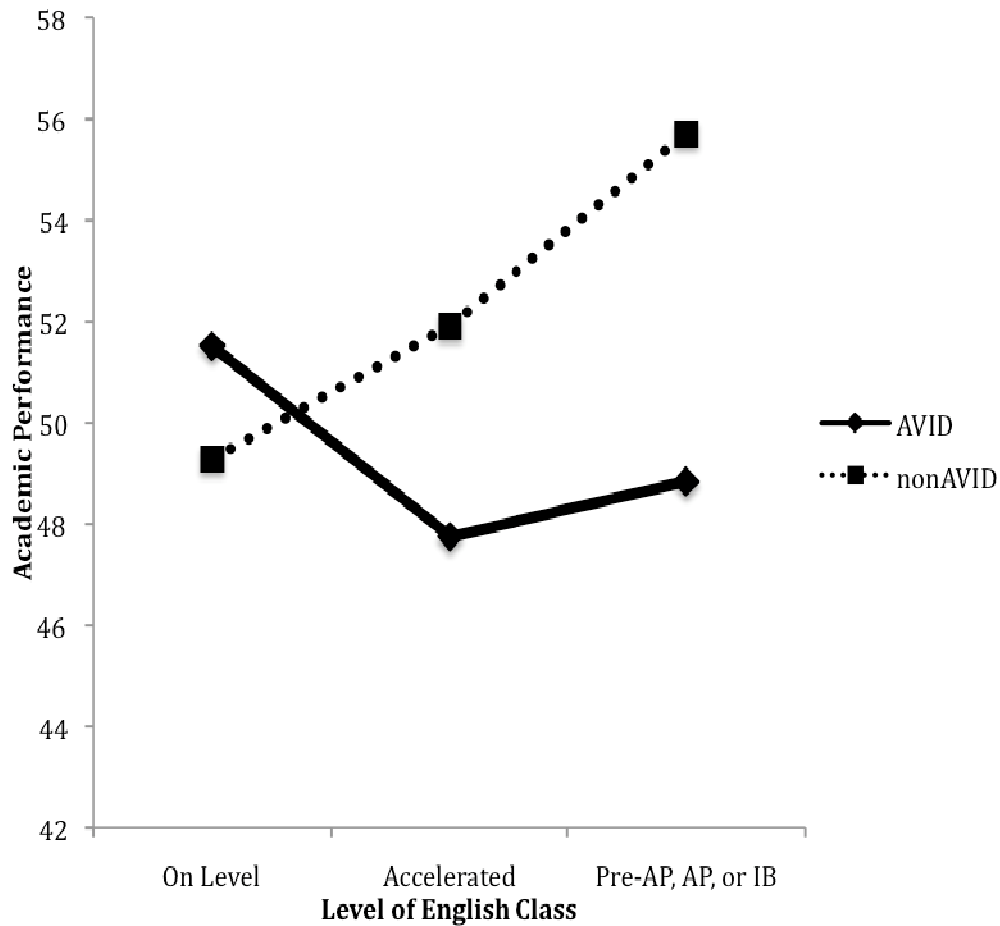


Figure 9. Graph of AVID with English course rigor interaction effect for academic performance.

The level of English course rigor also impacted the teachers' perception of the AVID students' possession of behavioral skills. The level of course rigor with AVID interaction effect was significant, $F(2,346)=2.9$, $p < 0.05$, for behavioral skills. The AVID students in accelerated and on-level English classes demonstrated the behavioral skills more so than non-AVID students in the same classes. However, AVID students possessed less

cultural capital than non-AVID students in pre-AP, AP, and IB courses. On the contrary, English teachers who teach on-level classes perceive the AVID students as displaying the behavioral skills that positively impact academic achievement in on-level classes more so than non-AVID students (see Figure 10).

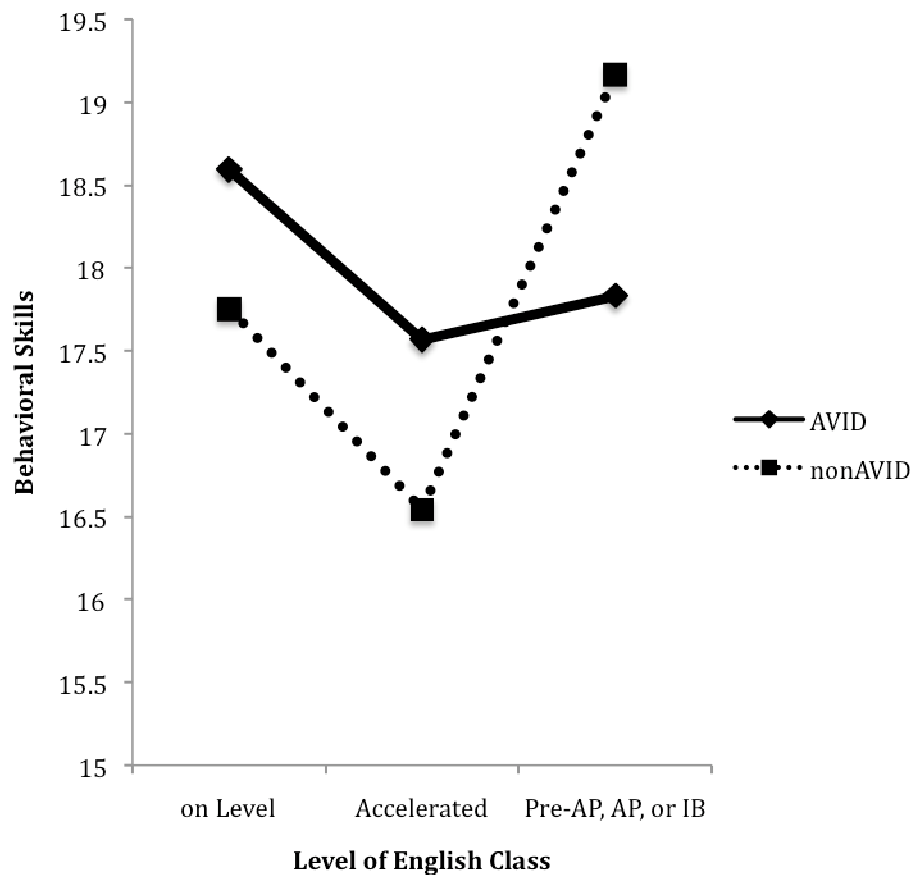


Figure 10. Interaction effect of AVID with English course level of rigor for Behavioral skills.

The level of English course rigor impacted teacher perception of the AVID students possession of skills that comprise the disposition factor. The AVID with English course rigor interaction effect was significant, $F(2,$

358)=10.6, $\rho < 0.001$, for the disposition factor. Teachers in the on-level classes perceived the AVID students as having the dispositions that were rewarded in the education system more so than non-AVID students in on-level classes (see Figure 11). However, pre-AP, AP, or IB English teachers did not perceive the AVID students as having the dispositions required to succeed in academically rigorous environment compared to non-AVID students.

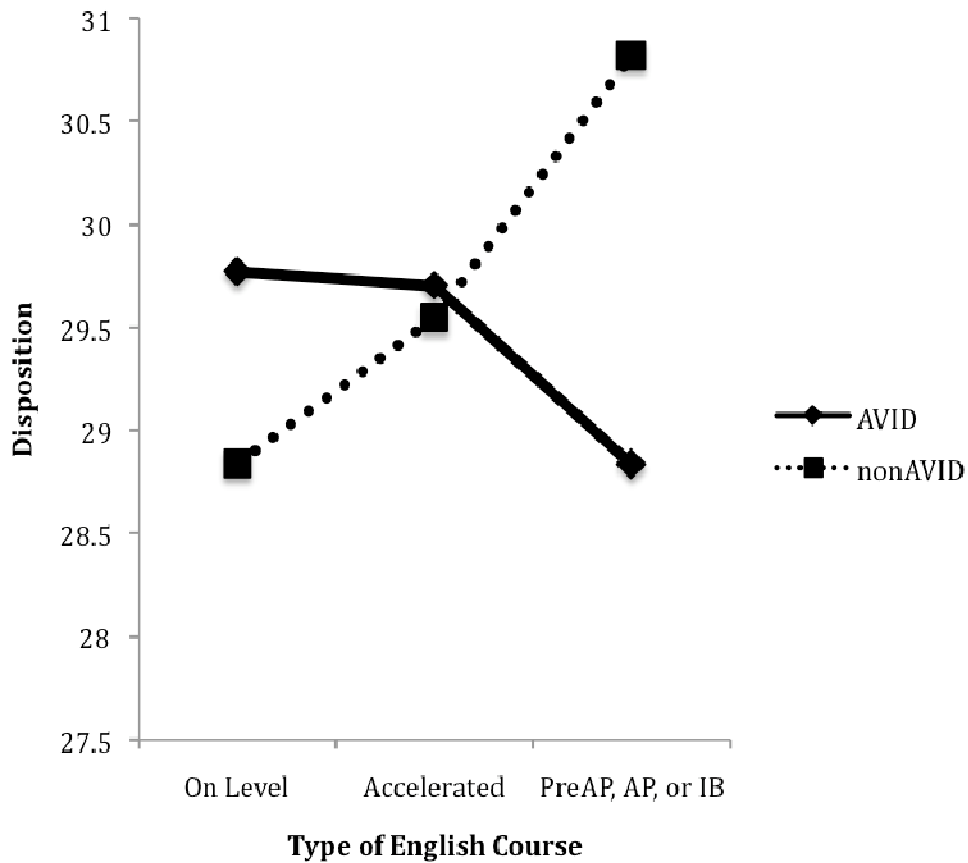


Figure 11. Graphical representation of AVID with English Course Rigor interaction effect for disposition.

4.2.3.2 Math Course Rigor

To investigate the impact of math course rigor on the discrepancy between student achievement and possession of cultural capital between AVID and non-AVID students, 3x2 factorial ANOVAS were performed. The level of rigor caused a difference in student achievement and possession of cultural capital between AVID and non-AVID students.

The interaction effect of AVID with math course rigor was significant, $F(2,395)=6.0, p<0.01$, for weighted math averages. The AVID students had lower math grades than the non-AVID students who are enrolled in pre AP, AP, or IB courses (see Figure 12).

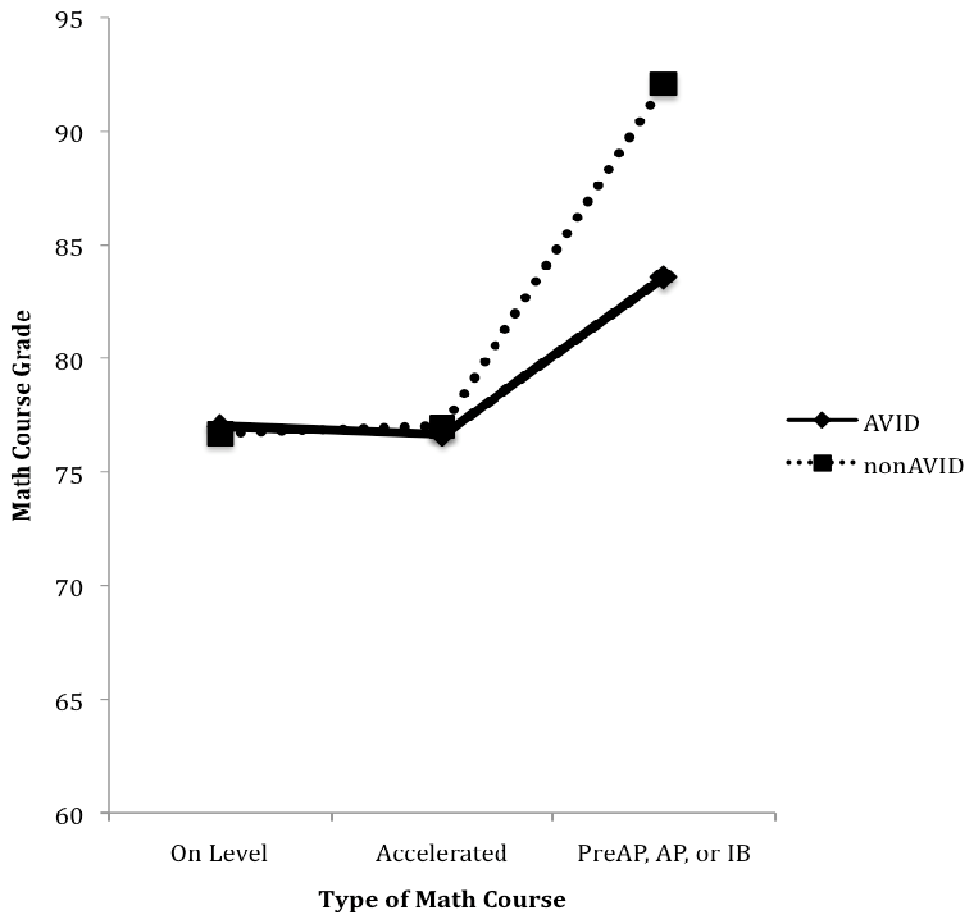


Figure 12. Math course rigor with AVID interaction effect for weighted math course grades.

The type of math course also impacted student possession of cultural capital, such as academic performance skills and disposition. The interaction effect of AVID with math course rigor was statistically significant, $F(2,357)=3.1, p < 0.05$, for academic performance. Teachers did not perceive the AVID students who were enrolled in accelerated, pre-AP, AP, and IB as having the cultural capital that positively impacted academic

performance relative to the non-AVID students (see Figure 13).

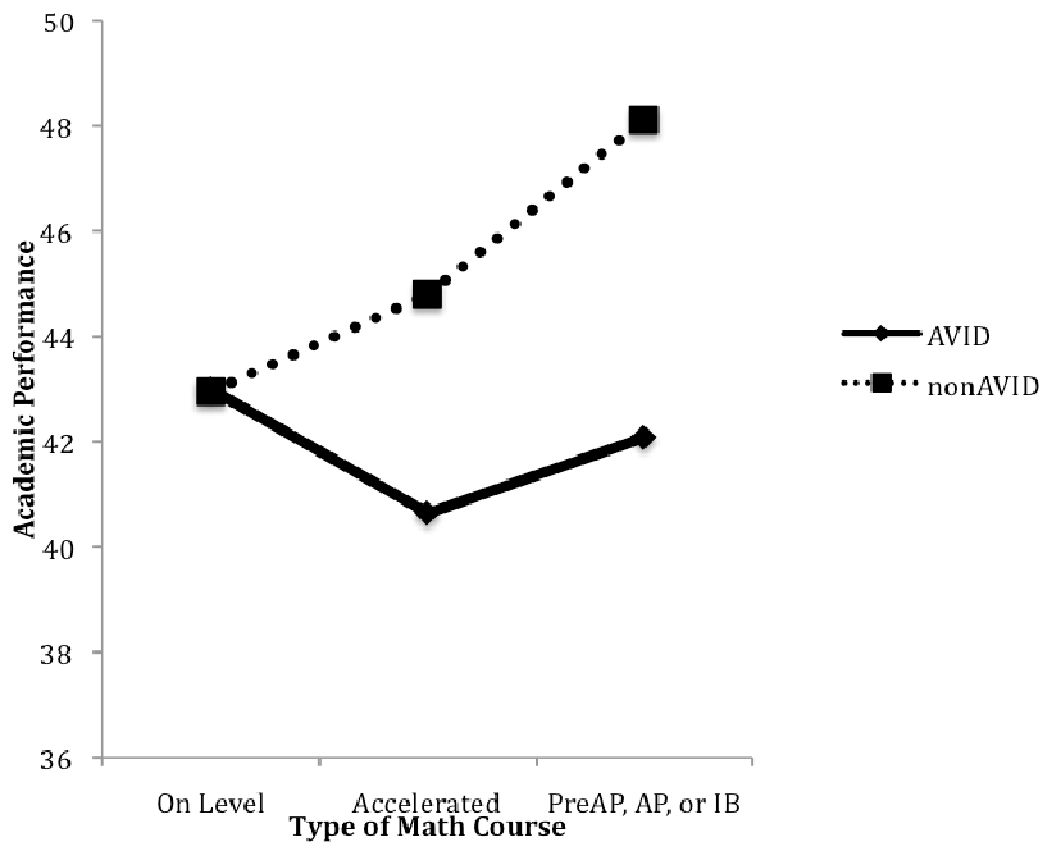


Figure 13. Graphical representation of the math course rigor with AVID interaction effect for academic performance.

The type of math course also impacted a student's disposition. The AVID with math course rigor interaction effect was significant, $F(2,358)=3.0$, $p<0.05$, for disposition. AVID students in on-level and accelerated classes were perceived to have cultural capital more than non-AVID students enrolled in these classes. However, AVID students were not perceived to have cultural capital compared to non-AVID students in pre-AP, AP, or IB classes.

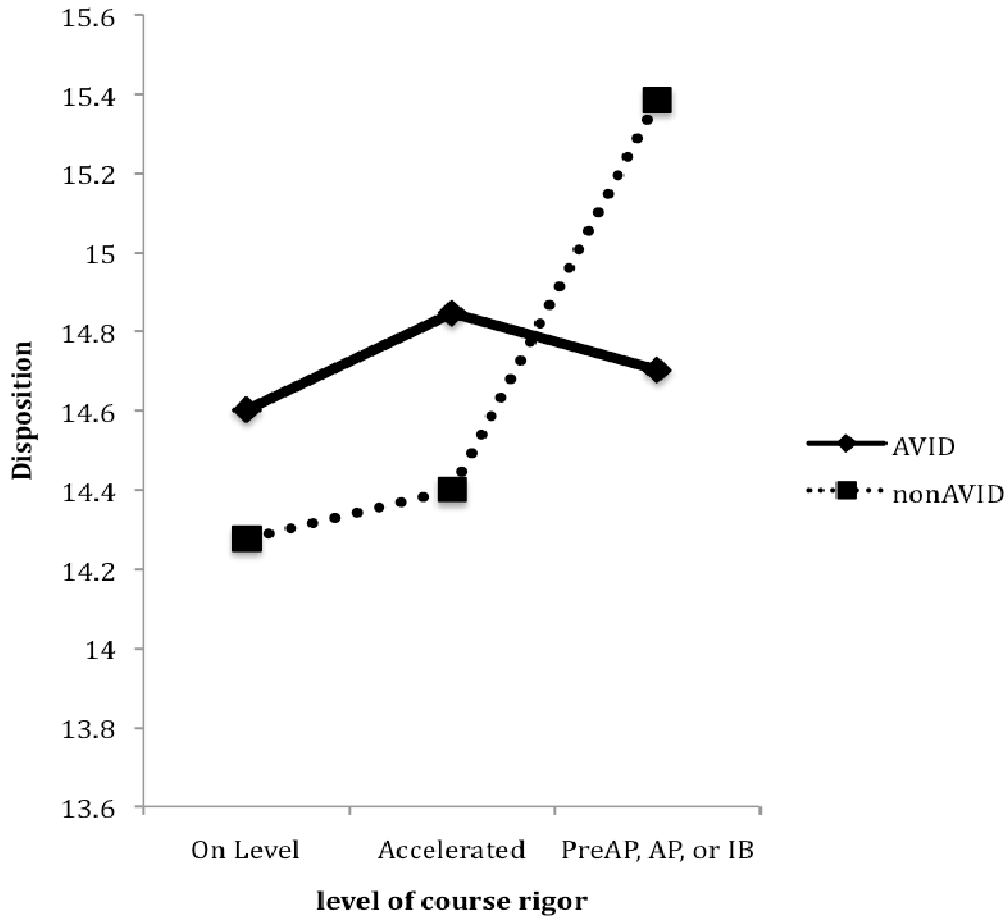


Figure 14. Graphical representation of the math course rigor with AVID interaction effect for disposition.

Prior research documented the success of the AVID program as a support program that increased linguistic/ethnic minority and low-income students' academic achievement (Mehan et al., 1996; Luper, 2005; Hale, 2006; Watt et al., 2006). However, statistical analyses from this case study indicated the AVID students underperformed compared to the non-AVID students, and the teachers did not perceive the AVID students as possessing desirable cultural capital compared to the non-AVID students. Therefore, the

researcher sought to evaluate factors contributing to the differences described above in an effort to discover factors that positively influence AVID student achievement. AVID students who were enrolled in on-level classes and in English classes with teachers who rarely used AVID strategies possessed more cultural capital than non-AVID students, but none of the factors evaluated contributed to a statistically significant difference in academic achievement in which the AVID students outperformed the non-AVID students.

4.3 AVID Student Characteristics that Facilitate Success in Schools

The results were not in the direction the researcher expected; consequently, she evaluated factors that contributed to the academic success and possession of cultural capital of the AVID students in an effort to discover student characteristics that facilitated an increase in student achievement and possession of cultural capital for these students.

4.3.1 *Number of years in AVID*

One-way ANOVA tests were performed to expose any difference in academic achievement due to the number of years in AVID. It was important to note the number of years in AVID did not correspond to grade level. BHS students were allowed to enter AVID the beginning of their 10th grade year, but students were not allowed to enter the AVID program beyond this point. The ANOVA results showed that the students in their first year of AVID had

lower academic achievement than students who was in AVID for at least two years (see Table 12).

Table 12. One-way ANOVA of English grades, math grades, and GPA for AVID students according to number of years in AVID. The grades and GPA were weighted.

Achievement Measure	Years in AVID	Number of students	<i>M</i>	<i>SD</i>	<i>F</i>	ρ
English grades	1	80	79.9	1.0	5.8	0.001
	2	61	80.3	1.0		
	3	39	86.0	.96		
	4	18	82.3	1.4		
Math Grades	1	80	76.2	1.0	3.0	0.030
	2	61	78.2	1.3		
	3	36	81.9	1.6		
	4	17	79.0	2.2		
GPA(weighted)	1	80	2.95	.05	4.0	0.008
	2	61	2.78	.07		
	3	40	3.14	.08		
	4	20	2.96	.12		

Tukey's HSD tests were performed to test the significance of the difference in academic achievement between the groups of AVID students. The Tukey's HSD test indicated there was a statistically significant difference in English grades between students who were in AVID for one year and those in AVID for three years ($\rho < 0.001$) as well as between those in AVID for two years and those in AVID for three years ($\rho < 0.01$). The students who were in AVID for three years had higher grades than the first year AVID students (difference = 6.2) and the second year AVID students (difference = 5.7). Their grades were also higher than the fourth year AVID students, but the difference (3.2) did not reach significance. Furthermore, the Tukey's test

revealed there was a significant difference in math grades between students who were in AVID for one year and those in AVID for three years ($p < 0.05$). The students who were in AVID for three years had higher math grades than first year AVID students (difference =5.7). Third year AVID students also had higher grades than the second year AVID students (difference =3.7) and the fourth year AVID students (difference = 2.4), but these differences were not statistically significant. Additionally, Tukey's test indicated there was a significant difference in means between the GPA of students who were in AVID for two years and those in AVID for three years ($p < 0.01$). The third year AVID students' weighted GPA was 0.36 points higher than the second year AVID students. Their GPA was also higher than the first year students (difference =.19) and the fourth year students (difference =0.18), but these differences were not statistically significant.

The students who were in AVID for at least three years had the highest math grades, English grades, and GPA of all four groups. One-way ANOVA tests were performed to assess the relationship between the number of years in high school and achievement. The results of non-AVID student achievement reveal there is no statistically significant difference in grades based on the number of years in school. Thus, the results described above suggest that the increase in academic achievement of the AVID students seems more likely due to being in the AVID program, than merely attending high school.

One-way ANOVA tests were performed to explore the relationship between the number of years in AVID and the possession of the three cultural capital factors. Although the ANOVA results showed there was no statistically significant difference in the behavioral skills and disposition factors, there was a statistically significant difference in student possession of the cultural capital that positively impacted academic performance in relationship to the number of years in AVID (see Table 13).

Table 13. One-way ANOVA of AVID student possession of cultural capital that positively impact academic achievement based on number of years in AVID

Number of years in AVID	Number of students	<i>M</i>	<i>SD</i>	<i>F</i>
1	14	41.27	1.035	3.375
2	60	41.32	1.213	
3	35	46.23	1.103	
4	16	44.44	1.806	

Tukey's HSD test were performed to examine the relationship between student possession of cultural capital and the number of years in AVID. The test revealed there was a statistically significant difference between student possessions of cultural capital based on the number of years these students were in the AVID program. The third year AVID students were perceived as possessing more cultural capital than the second year AVID students (difference = 5.5, $p < .05$). They were also perceived as possessing more

cultural capital than the first year students (difference =4.3) and the fourth year students (difference = 1.4), but these differences are not statistically significant.

The results were congruent with the one-way ANOVA of course grades and GPA. The students who were in AVID for three years possessed more cultural capital that positively impact student achievement than any other group of AVID students. This group of students also had the highest course grades and GPA, whereby, the first year AVID students not only have the lowest course grades and GPA, and they also possessed the least amount of cultural capital.

4.3.2 Gender

An one-way ANOVA was used to analyze the differences in academic achievement and possession of cultural capital due to gender. There was no statistically significance in math and English grades, or cultural capital as measured by the behavioral skills and disposition variables. However, the results showed there was a statistically significant difference in GPA and possession of cultural capital (as measure by academic performance) between male and female AVID students (see Table 14). The female AVID students had higher GPAs and possessed more cultural capital than the male AVID students.

Table 14. One-way ANOVA of GPA and academic performance based on the AVID students' gender.

Dependent Variable	Male			Female			F
	N	M	SD	N	M	SD	
GPA	89	2.8	.47	112	3.0	.52	8.9**
Academic performance	82	40.1	7.9	103	44.3	9.0	11.4***

** $p < 0.01$, *** $p < 0.001$

4.3.3 Race

An one-way ANOVA test was used to analyze the differences in academic achievement and possession of cultural capital due to the AVID students' race. There was not a statistical significance in math grades, GPA, or cultural capital as measured by the behavioral skills and disposition variables due to race. However, the results indicated there was a statistically significant difference in English grades and possession of cultural capital, as measure by academic performance (see Table 15). Tukey's tests were conducted to determine differences among the groups. The results revealed there was a significant difference in English grades between African-American students and white students ($p < 0.05$) as well as between African-American and Latino students ($p < 0.01$). The one-way ANOVA results indicated African-American students outperformed the white students and the Latino students, by approximately five points. Tukey's tests also indicated

there was a statistically significant difference between possession of cultural capital between African-American and Latino students (difference = 4.0). The teachers believed the African- American students possessed more cultural capital rewarded in the public school system than the Latino students.

Table 15. One –Way ANOVA of English Grades and cultural capital of the AVID students according to race.

Dependent Variable	Race	<i>N</i> (students)	<i>M</i>	<i>SD</i>	<i>F</i>
English Grade	White	23	75.8	9.3	6.4***
	Asian	14	79.5	10.6	
	African-American	88	80.4	6.5	
	Latino	73	75.6	7.2	
Academic Performance	White	23	42.4	9.4	2.6*
	Asian	13	44.8	10.4	
	African-American	81	44.01	8.0	
	Latino	68	40.3	8.7	

* $\rho < 0.05$, *** $\rho < 0.001$

4.3.4 Academic Rigor

One-way ANOVA tests were used to analyze the differences in academic achievement and possession of cultural capital due to the academic rigor of the English and math courses. Math course rigor did not impact teacher perception of AVID student possession of cultural capital.

However, the results reveal there is a statistically significant difference, $F(2, 189)=7.4, \rho < 0.01$, in math grades due to math course rigor. The AVID students in on-level math classes ($M=77.0, SD=8.7$) received higher grades than students in accelerated ($M=72.8, SD=7.5$) and pre-AP, AP, or IB math classes ($M=75.6, SD=9.5$). The level of academic rigor of the English courses in which the AVID students were enrolled impacted the English grades and the teacher perception of AVID student possession of cultural capital (see Table 16). The AVID students in on-level English classes received higher grades than the students in accelerated, pre-AP, AP, and IB English classes. The on-level AVID students were also perceived as possessing more cultural capital than the AVID students enrolled in more academically rigorous courses.

Table 16. One-way ANOVA of grade and student possession of cultural capital comparison based on the type of English course in which the AVID students are enrolled.

Dependent Variable	On-level		Accelerated		Pre-AP, AP, or IB		<i>F</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
English grade	81.6	7.2	74.6	6.9	76.5	7.1	19.6***
Academic Performance	44.4	8	40.9	9.1	41.7	8.9	3.0*
Disposition	14.9	1.6	14.8	1.5	14.0	2.0	4.4**

* $\rho < 0.05$, ** $\rho < 0.01$, *** $\rho < 0.001$

4.3.5 Teacher Characteristics

One-way ANOVA tests were conducted to evaluate the impact of teacher characteristics on student achievement and student the possession of cultural capital of the AVID students.

4.3.5.1 Teacher years of experience

One-way ANOVA results indicated the math teacher years of experience did not significantly impact student achievement or possession of cultural capital. The English teachers' years of service did not impact student possession of cultural capital; however, ANOVA results revealed there was a statistically significant difference in English grades, $F(3,193) = 16.9, p < 0.01$, based on the number of years the AVID student's English teacher was in the profession (see Table 17). English teachers who taught for at least six years but less than 10 gave the AVID students the highest grades.

Table 17. One-way ANOVA of English grade comparison based on English teacher years of service.

Dependent Variable	Yrs of Exp	Number of students	<i>M</i>	<i>SD</i>	<i>F</i>
English grade	0-5	51	74.7	8.3	16.9
	6-10	25	85.7	6.0	
	11-15	29	81.2	5.8	
	16+	93	76.7	6.6	

4.3.5.2 Teacher Use of AVID Instructional Practices

The frequency in which the math teachers used AVID instructional strategies did not cause a statistically significant difference in student achievement or student possession of cultural capital. The English teacher instructional use of AVID strategies did not contribute to a statistically significance in student possession of cultural capital, but the instructional use did impact the weighted English grades the student received. The one-way ANOVA results indicated the teachers who rarely used AVID strategies gave the AVID students higher course grades than those who moderately or frequently used AVID strategies (see Table 18).

Table 18. One-way ANOVA comparison of weighted English course grades based on the frequency in which the English teachers used AVID instructional strategies.

Teacher level of AVID use	Number of AVID students	<i>M</i> English grade	<i>SD</i>	<i>F</i>
Low use	6	86.5	4.1	5.0**
Medium use	91	80.1	8.8	
High Use	96	82.7	6.6	

** $\rho < 0.01$

4.4 Student Academic Achievement and Cultural Capital at JBHS

Trends in the data as well as the literature review reveal there is a relationship between student possession of cultural capital and academic performance. To further evaluate the impact that student possession of cultural capital has on academic achievement in this research project, bivariate correlation statistics were performed. The results revealed there is a statistically significant correlation between the academic achievement measures and the cultural capital factors (see Table 19). All correlation coefficients are significant at the 0.001 level. The results indicate the academic performance factor is strongly correlated to weighted English grades, math grades, and GPA. The behavioral skills and disposition factors are moderately correlated to the student achievement measures.

Table 19. Correlations Between Outcome Measures

Outcome measures	English grades	Math grades	GPA
Academic performance	0.58	0.65	0.63
Behavioral skills	0.41	0.43	0.36
Disposition	0.35	0.39	0.37

4.5 Discussion of Findings

The AVID program is considered to be a catalyst for school-wide change by providing teachers the skills to improve teaching and learning throughout the system (Freedman, 2000; Swanson, 2005). Also, the AVID program directors contend that the AVID instructional and curricular practices engage AVID students in the learning process and expose them to all facets of the culture of power (Mehan et al., 1996; Stanton-Salazar, 2001). As a result of the contentions made by proponents of the AVID program, this case study examines the program as an academic intervention that positively influence academic performance. The researcher evaluates the impact that student participation in the AVID program has on academic achievement and student possession of cultural capital at an urban high school in northeast Texas in an effort to discover factors that mitigate educational inequality in public schools and close the gap in academic achievement.

Implementation of the AVID program has increased minority and low-income presence in academically rigorous courses and has provided the AVID students the support they need through the AVID elective classes. However, the major findings indicate that differences exist in the academic achievement and student possession of cultural capital between AVID and non-AVID student groups. The non-AVID students have higher math ($M = 81.1$, $SD = 12.4$) and English grades ($M=85.2$, $SD = 9.7$) as well as a higher average GPA ($M=3.1$, $SD=.8$) than the AVID students' math grades ($M=78.1$, $SD=9.7$), English grades ($M=81.5$, $SD=8.4$), and average GPA ($M=2.9$,

$SD=.5$). Also, the teachers perceive the non-AVID students as possessing the cultural capital that is positively rewarded in the classroom ($M=44.6$, $SD=9.8$) more so than the AVID students ($M=42.5$, $SD=8.7$). These results are puzzling because previous studies report positive program effects on student academic achievement in the areas of standardized tests and GPA (Gandara et al., 1998; Guthrie & Guthrie, 2000; Hubbard & Mehan, 1999; Mehan et al., 1996; Oswald, 2002; Sawson et al., 1993; Watt et al., 2006). However in these studies, the AVID students' performance is compared to (a) their performance prior to enrollment in AVID (Watt et al., 2002-2003), (b) the average for all students in the schools containing AVID programs in south Texas (Oswald, 2002; Watt et al., 2007) and in the schools without AVID programs (Watt et al., 2006), as well as, (d) local and national averages (Gandara et al., 1998; Mehan et al., 1992; Swanson et al., 1993). This case study is different as it compares AVID student performance to a non-AVID student sample with similar characteristics from the same campus. The differences in academic achievement may be attributed to the possibility that the non-AVID students also receive AVID curricular and instructional strategies in the classroom that may build on prior knowledge and skills as well as academic support through other networks not evaluated in this study such as peer groups, extra-curricular activities, and their families. Also, the teachers perceive the non-AVID students as possessing more cultural capital. Non-AVID students may come from more culturally advantaged families that transmit the cultural codes required to be academically successful or have

been taught the skills prior to entering high school by agents from their other schools.

The researcher examined teacher characteristics and academic course rigor to find any factors that may contribute to the discrepancy between the AVID and non-AVID students groups at JBHS. χ^2 results indicate that there are more AVID students taking academically rigorous math courses, $\chi^2 (2, N=368) = 14.5, p=0.000$, and English courses, $\chi^2 (2, 395) = 48.3, p=0.000$, than non-AVID students. The AVID program's approach involves placing students in an advanced curriculum that will ensure that the AVID students graduate with the requirements for entrance into four-year colleges and universities (Freedman, 2000; Mehan et al., 1996; Swanson, et al., 1993). Therefore, all AVID students at JBHS are enrolled in one or more advanced academic courses. The majority of the AVID students have not been in advanced academic courses prior to high school. Therefore, they face obstacles to the pursuit of advanced work. For instance, many pre-AP, AP, and IB teachers reward habits, skills, and styles –cultural capital- of the dominant society (Mehan et al., 1992; Noguera, 2008; Noguera & Wing, 2008). Mehan and colleagues (1996) note that many teachers do not believe the AVID students are ready for advanced courses because teachers perceive the AVID students as lacking the skills – cultural capital- required to gain academic success in these classes. Similarly, teachers are resistant to AVID students being enrolled in pre-AP and AP classes at JBHS. As a compromise, many AVID students are enrolled in accelerated classes, which

are designed to teach the students the cultural capital required to be successful in rigorous math, English, and science classes. Contrary to the AVID students, the majority of the non-AVID students at JBHS who are enrolled in advanced academic courses have been enrolled in rigorous classes prior to entering high school. Since the AVID students are not perceived as possessing the cultural capital that is rewarded in the classroom, they receive lower grades in the rigorous courses than non-AVID students who have been taught the rules of the game by their families or teachers. Additionally, research shows academic outcomes correlate to the students' perception of the climate in the classroom (Watt et al., 2006; Hale, 2006; Mehan et al., 1996). Many AVID students in advanced academic courses perceive the learning environment to be uncomfortable and unsupportive (Freedman, 2000; Watt et al., 2007). Research shows a negative perception of the learning environment causes students to have lower academic self-confidence and lower course interest, which results in minimal student effort and motivation. As a result, the students receive low course grades (Riegle-Crumb, Farkas, & Muller, 2006). In this case study, AVID students' weighted course averages and GPAs are lower than the non-AVID students, possibly as a result of the teacher perception of AVID students' cultural capital and the student perception of the climate in academically rigorous classrooms.

Research also suggests that many teachers are reluctant to adopt AVID strategies in their classrooms even after continuous staff development

(Mehan et al., 1996; Watt et al., 2004). This is congruent with the teachers at JBHS. Many of the math teachers rarely use AVID strategies. Therefore, there is no statistically significant difference in student achievement as a result of math teacher use of AVID strategies. However, there is a difference in achievement due to English teacher use. The differential implementation of AVID strategies in English and math classes is consistent with the AVID program's specific emphasis on writing and reading, which are currently part of the English curriculum (Black, et al., 2008). However, those English teachers who frequently use AVID strategies perceive AVID students as possessing less cultural capital than non-AVID students and give AVID students lower course grades. This is in the opposite direction of what is expected because the use of AVID strategies is supposed to positively impact AVID student achievement. As stated previously, AVID students are being taught specific skills for navigating the educational system and play the game of school in their AVID elective classes; however, many have not fully acquired the skills required to master the hidden curriculum in public schools. Since these are the skills that positively impact academic performance, this gap in skills may explain the reason AVID students receive lower course grades than the non-AVID students who have acquired the skills prior to high school.

Research indicates that students' academic outcomes are related to teacher characteristics (Farkas et al., 1996; Wayne & Youngs, 2003). Therefore, the impact of teacher race and years of experience is also

explored as factors that contribute to the differences in academic outcomes between AVID and non-AVID students. Teachers who have been in the profession for 16 years or more perceive AVID students as possessing less cultural capital than the non-AVID students, and they give AVID students lower grades. Historically, teachers who have been in the profession longer are the ones who teach advanced academic courses (Kozol, 1991, 2005). All pre-AP, AP, and IB English teachers at JBHS have been in the profession for at least 11 years. As stated previously, the pre-AP, AP, and IB English teachers perceive the AVID students to have fewer skills that positively impact academic performance relative to the non-AVID students. Kulka-Acevedo (2009) suggests teacher experience has a profound effect on student achievement. She contends that the positive effects of experience peaks at 14 years and then begins to negatively influence student learning especially for minority groups. Since AVID students are predominantly minority, teacher experience may have an adverse effect on AVID student achievement. Additionally, African-American math teachers give non-AVID students lower grades than non-African –American teachers. Research suggests that African-American teachers have high expectation of minority students and work with them to ensure academic success (Delpit, 2006; Farkas et al., 1990). Therefore, these teachers may work more diligently with AVID students.

In an effort to discover additional factors that may contribute to the academic success of AVID students, teacher characteristics, AVID student

characteristics, and academic course rigor were also examined using only AVID student data. Many of the results were consistent with the comparison study between AVID and non-AVID students. However, the length of time a student was in AVID, race, and gender significantly impact AVID student achievement and possession of cultural capital. Students in AVID for only one year had the lowest math ($M=76.2$, $SD=1.0$) and English ($M=79.9$, $SD=1.0$) course grades and GPA ($M=2.95$, $SD=.05$) as well as possessed the least cultural capital that positively impact academic performance ($M=41.2$, $SD=.96$). On the contrary, the third year students have the highest math ($M=81.9$, $SD=1.6$) and English ($M=86.0$, $SD=.96$) course grades and GPA ($M=3.14$, $SD=.08$), as well as possess more cultural capital that positively impact academic performance ($M=46.2$, $SD=1.1$). There is not a statistically significant difference between third and fourth year students. Research suggests AVID student achievement increases the longer they are in the AVID program (Mehan et al., 1996; Oswald, 2002; Watt et al., 2006, 2007). Studies indicate the AVID impact on student achievement outcomes is not measurable during the first year because of student inexperience with AVID pedagogy (Mehan & Hubbard, 1999; Black et al., 2006). Therefore, the first year AVID students' grades may be lower. However, the full impact of participation in the AVID program may not be realized until year three (Mehan et al., 1996; Oswald, 2002).

The fourth year AVID students' achievement was not statistically significant from the third year AVID students'. This may be a result of the

AVID implementation process during the first two years. Their freshman year was the first year of AVID implementation at JBHS. Due to the AVID site team inexperience with the AVID implementation process, the AVID students did not complete the recruitment process and begin the AVID elective class until the second six weeks of school. Also, the AVID elective teachers were well versed on the AVID instructional pedagogy; therefore, the impact of the instructional strategies on achievement outcomes the first year was not noticeable. Also, many pre-AP teachers resented the fact that students without prerequisite skills were placed into their classes. Consequently, these students were faced with the same challenges their sophomore year. Therefore, the full impact of the AVID program on academic performance of these fourth year students could not be substantiated during the first two years of AVID implementation.

Gender appears to make a difference in acquisition of AVID skills. Results show that the female AVID students have higher GPAs ($M=3.0$, $SD=.52$) than the male AVID students ($M=2.8$, $SD=.47$) as well as possess more cultural capital that positively impact academic performance ($M=44.3$, $SD=9.0$) than the male AVID students ($M=40.1$, $SD=7.9$). Many researchers have documented the underachievement of boys compared with girls in the classroom (Lindsay & Muijs, 2006; Salisbury, Rees, & Gorard, 1999). Male students continue to lag behind their female counterparts on a number of important indicators of school success such as standardized test scores, grades, and dropout rates (U.S. Department of Education, 2004). Research

on Latino and black boys suggest peer group dynamics negatively influence academic success (Fordham, 1996; Noguero, 2003; Ogbu, 1978; Stuht, 2009). These studies suggest adolescent males become clearer about gender identities through peer group socialization processes. In high school, these identities are typically determined by student participation in extracurricular activities such as sports or stereotypical male behaviors that marginalize the importance of academics. Also, the boys' friends place them under considerable scrutiny if they deviate from the established patterns required to 'fit in'. Often times, the desire to 'fit in' facilitates a decrease in academic success in the classroom. Previous studies also indicate the culture of schooling reinforces the peer group perceptions of male behavior (Noguera, 2003; Alfaro, 2009). Teacher perception of Latino and black male academic ability is lower and their behavior is unacceptable compared to white male and female academic ability and behavior. As a result, many minority male students contend they are not going to be rewarded for their hard work and diligence; therefore, they do not maximize their academic potential (Alfaro, 2009; Noguera, 2003; Stuht, 2009).

A surprising finding that counters the literature, is the achievement of African-American students. African-American AVID students have higher English grades ($M=80.4$, $SD=6.5$) than white ($M=75.8$, $SD=9.3$) and Latino students ($M=75.6$, $SD=7.2$), and possess more cultural capital that positively impact academic performance ($M=44$, $SD=8$) than the Latino students ($M=40$, $SD=8.7$). This result is not congruent with the achievement gap research

(National Commission on Excellence in Education, 1983; NCES, 2006, 2007; Rothstein, 2004). Achievement gap research contends African-American students lag behind Asian and white students in standardized test scores and GPA. Research also suggests that students from minority groups do not possess the cultural capital that is positively rewarded in the classroom (Bourdieu, 1977, 1984, 1985; Carter, 2003; Delpit, 2006; Dimaggio, 1982; Dumais, 2002, Noguera, 2003, 2008). However, the African-American AVID students are successful. These findings suggest that AVID mitigates the influence of race as a predictor of achievement for African-American students.

Great strides have been made through the implementation of the AVID program at JBHS although the results are not yet showing a substantial impact on academic achievement. At JBHS, more ethnic and linguistic minorities are enrolled in advanced academic classes than before AVID implementation, and these students are performing well. Many of these underserved students were not enrolled in advanced level courses prior to entering the AVID program in their freshman year of high school. The previously 'low achieving' students are maintaining an average GPA of between 2.5 and 3.5, while taking more advanced and rigorous courses. Also, the staff development process is providing teachers with more instructional strategies to actively engage all students in the learning process. Although the findings offer a mixed message, the results of this research project offers support for the continued use of AVID strategies as part of a comprehensive campus-wide effort to close the achievement gap.

CHAPTER 5

CONCLUSION

5.1 Review of Study Purpose

The purpose of this case study is to evaluate the AVID program as an academic intervention to bridge the achievement gap. The relationship between academic achievement, as well as student possession of cultural capital, and participation in the AVID program is explored. Existing studies on cultural capital and educational success propose that minority and low income students do not have access to the dominant cultural capital rewarded by schools. As a result, they come to school with substantial educational disadvantages (Apple, 1982; Bourdieu, 1977, 1984, 1985; Carter, 2003; Delpit, 2006; Dimaggio, 1982; Dumais, 2002; Jaeger, 2009; Mehan et al., 1996; Noguera, 2003, 2008). The lack of dominant cultural capital by ethnically diverse, low-income families, and first generation college students continues to be an impediment to academic success particularly in academically rigorous classes such as pre-AP, AP, and IB, thereby, exacerbating the academic achievement gap. A review of the educational literature indicates that a major problem facing public education is the consistent differential academic achievement between Asian and Caucasian students on the one hand and African-American and Latino students on the other (Hirsch, 2006; Kozol, 2005; National Commission on Excellence in

Education, 1983; Rothstein, 2004). Therefore, access to learning is critical to all students, but particularly imperative for the poor and students of color. Consequently, it is important to evaluate programs that promote teaching and learning that influence school-wide student achievement.

The AVID program and its success are well documented (Guthrie & Guthrie 2000; Hubbard & Mehan, 1999; Mehan et al., 1996; Oswald, 2002; Watt et al., 2006). A significant amount of research exists quantifying the significance of AVID program implementation, as well as student entrance and success in academically rigorous courses, such as Pre-AP, IB, and AP courses (Mehan et al., 1996; Guthrie & Guthrie, 2000; Guthrie & Guthrie, 2002). Furthermore, AVID's effectiveness in increasing college attendance rates of ethnic and linguistic minority and economically disadvantaged students is well documented (Freedman, 2000; Mehan et al., 1996; Stanton-Salazar, 2001). However, there is no systematic research quantifying the efficacy of the instructional and curricular practices the AVID program advocates as a school-wide effort to close the achievement gap. Most of the research supporting the AVID program compares AVID students' academic achievement to the entire school population (Watt et al., 2006; Luper, 2005) or local and national averages (Gandara et al., 1998; Swanson et al., 1993), but this case study compares the AVID students' academic achievement to that of a sample of non-AVID students at JBHS.

Mehan and colleagues (1996) suggest the AVID elective class exposes the AVID students to the cultural capital of the dominant class. However, their

research is purely anecdotal. There is no quantifiable research exploring this concept.

Due to the contentions made by previous studies, the researcher chose to evaluate the instructional and curricular practices that the AVID program advocates as a school-wide effort to close the academic achievement gap. The following research questions were addressed by this research project:

1. Does participation in the AVID program contribute to an increase in student academic achievement as measured by English and math grades, GPA, and TAKS scores?
2. Does participation in the AVID program impact AVID student possession of the cultural capital of the dominant society?

5.2 Discussion of Findings

AVID, with a strong emphasis on instruction, staff development, and academic survival skills, has proven to increase the academic success of students in its program (Black et al., 2008; Guthrie & Guthrie, 2000; Mehan et al., 1996; Oswald, 2002; Watt et al., 2006, 20067). However by implementing AVID curricular concepts school-wide, there can be a much greater impact on students who are not in the program. To evaluate the impact of AVID

implementation on student achievement at the case study school, JBHS, the following questions are examined:

Research Question 1: Does participation in the AVID program contribute to an increase in student academic achievement measured by math and English grades, GPA, and TAKS test results?

The JBHS AVID students were not as academically successful as the non-AVID students. The AVID students received lower math grades, English grades, and GPA than the non-AVID students' math grades, English grades, and GPA. However, the results indicated there was not a statistical difference between AVID and non-AVID students TAKS test results. These results were in the opposite direction of what was expected. Previous studies indicated that AVID students' achievement, as measured by GPA and test scores, was higher than the comparison groups (Mehan et al., 1996; Oswald, 2002; Swanson et al., 1993; Watt et al., 2006, 2007). On the contrary, the AVID students' achievement, as measured by GPA and course grades, was lower than the comparison group in this case study. Therefore, statistical analyses were performed to determine factors that contributed to the differences in academic achievement between the AVID and non-AVID students at JBHS.

Factorial ANOVA results indicate factors that contributed to the differences in academic achievement included teachers' years of experience, the frequency in which the teachers use content specific AVID strategies, and course rigor. The AVID students do not perform as well as non-AVID students in English classes with teachers who have taught for sixteen years

or more. Research suggests that years of teaching experience impact student achievement, and the impact varies according to student characteristics, such as race and socioeconomic status (Farkas et al., 1990; Goldhaber & Anthony, 2007; Jepsen, 2005; Kukla-Acevedo, 2009). Kukla-Acevedo (2009) contends that positive effects of teaching experience on student achievement peaks at 14 years. After this point, teaching experience negatively influences student learning particularly for minority students and those who receive subsidized lunches. These results are important because AVID students are predominantly minority and low-income.

The traditional pathway to teaching pedagogy and content in teacher preparatory programs focuses on the status quo, whereas, more recent teacher preparatory programs focus on the variation of learning strategies to meet the needs of a diverse student population in an effort to increase academic achievement for all students (Cochran-Smith & Fries, 2005; Delpit, 2006, Mosely, 2006). Those teachers who have been in the profession longer have been taught the traditional instructional and pedagogical practices, and may not be as receptive to diversifying their instructional delivery processes to meet the needs of all students in their classroom, thereby, negatively impacting the academic achievement of many minority and low-income students.

The results also reveal academically rigorous classes adversely impact AVID student performance; AVID students receive lower grades than the non-AVID students in pre-AP, AP, and IB classes. As a result of AVID

implementation at JBHS, students are able to take pre-AP, AP, and IB courses without being enrolled in advanced academic classes in the previous years.

Pre-AP, AP, and IB teachers at JBHS used gatekeeper strategies prior to AVID implementation. Teacher recommendations determined which students were allowed to enroll in these more advanced levels of academic study. Literature indicated that teacher considerations of student cognitive and non-cognitive skills were used to determine who was qualified to take academically rigorous courses (Freedman, 2000; Moseley, 2006; Sternberg & Zhang, 1995). As indicated by the results, the teachers at JBHS perceived the AVID students as not possessing the cultural capital that positively impacts student achievement, and the teacher perception of AVID students' skill deficit resulted in low grades as compared to those students who have been in advanced courses for years. The majority of the AVID students were not in honors classes prior to high school. Therefore, they did not acquire the knowledge, skills, and abilities required to be successful in rigorous classes as indicated by their course grades.

Barber and Torney-Purta (2008) contend the problem with minority and low-income student success in academically rigorous courses is not skill acquisition, but problems with acquiring access to the curriculum to build the skills needed to be successful in these classes. Gatekeeper practices impede entrance into rigorous courses, thereby, preventing many minority and low-income students from acquiring cultural capital. Consequently, the AVID

students underperformance in pre-AP, AP, and IB classes is a result of not having access to advanced courses in the previous years to acquire the behaviors and foundational knowledge that positively impacts course averages. On the other hand, the non-AVID students who have been in pre-AP classes prior to high school have the skills to master the hidden curriculum, so their weighted English grades, math grades, and GPAs are higher than the AVID students.

In addition to years of experience and course rigor, the frequency in which the English teachers use AVID instructional strategies contributed to the academic achievement differences between AVID and non-AVID students. The majority of the math and English teachers at JBHS do not regularly use AVID strategies in the classroom. Although there was no difference in student achievement between AVID and non-AVID students due to math teacher use of AVID strategies, there was a clear difference in English course averages as a result of the use of AVID strategies in the English classes. AVID students outperformed non-AVID students in English classes whose teachers rarely used AVID instructional strategies at least three times a month. The expectation is that the more frequently the AVID strategies are used, the more skills the students acquire that positively impact academic achievement (Black et al., 2008; Watt et al., 2006, 2007). Since the AVID students are receiving the strategies in the AVID elective class as well as the classroom, they outperform students who are rarely receiving the strategies in class.

In an effort to discover factors that mitigate the discrepancy in academic achievement between AVID and non-AVID students, statistical analyses were performed to evaluate factors that contributed to academic success of the AVID students. These analyses were conducted using AVID student data only. Many of the results are congruent with those mentioned previously. For instance academic rigor and teacher experience negatively impact academic achievement. The length of time the student was in AVID, race, gender, and the frequency in which English teachers use AVID strategies also impact AVID student academic achievement.

One-way ANOVA results with Tukey's post Hoc tests indicate the first year AVID students and second year AVID students have lower math grades, English grades, and GPA than the third year AVID students (see Table 12). However, there was no statistically significant difference between the fourth year AVID students and third year AVID students. According to previous studies, the maximum effectiveness of the AVID program is not realized until the third year (Mehan et al., 1996; Oswald, 2002). The first year AVID students have yet to understand the AVID concept, so being in the AVID program may not impact achievement outcomes the first year the students are in AVID (Black et al., 2006; Oswald, 2002; Watt, 2006,2007). As the years in AVID progress, the students' academic focus and their initiative to engage in school- work increases. Therefore, the third year AVID students outperform first and second year AVID students. The fourth year AVID students' academic achievement is not statistically different from any of the AVID

students' from the previous years. These students were in AVID since its inception, and research suggests the impact of AVID on academic performance variables is not accurate during the first year of AVID implementation as a result of teacher inexperience with the AVID curricular and instructional practices (Black et al., 2008; Oswald, 2002). Also, teacher buy-in to the AVID philosophy impedes academic progress of AVID students during the first year of implementation as well (Black et al., 2008; Watt et al., 2008). Additionally, 'senioritis', which characterizes the lack of motivation and effort on the part of high school seniors, is a common threat to the work ethic of high school seniors, which causes them to have lower grades than in the previous years (Watt et al., 2008).

One-way ANOVA results also reveal female AVID students have higher GPAs than male AVID students. The underachievement of boys is well-documented (National Center for Education Statistics, 2006, 2007; Noguera, 2008; Riegle-Crumb et al., 2006; Rothstein, 2004). John Ogbu (1978) and Signithia Fordham (1996) have attributed the marginality of students to oppositional behavior due to the students' fear of being ostracized by their peers. Boys' attitudes and actions are extremely responsive to how their male friends view them. Because academic success is equated with acting white, minority students, especially boys, do poorly to fit in with their peer groups.

The race of the AVID students impacts academic success. One-way ANOVA results with Tukey's post Hoc tests reveal African-American students

have higher English grades than Latino students and white students, but there was no statistically significant difference in math grades due to race. This is of particular importance because the academic achievement gap research suggests African-American students achieve at lower levels than White and Asian students on indices such as standardized testing, grades, course taking, and tracking (Jencks & Phillips, 1998; NCES, 206; 2007). The purpose of the AVID program is to enable minority and low-income students the opportunity to go to college by taking academically rigorous courses and providing support for these classes. In the process, the AVID instructional and pedagogical practices are increasing the achievement levels of these traditionally underserved students, particularly African-American students. Therefore, the AVID program mitigates race as an indicator for academic success and has the potential for closing the black/white achievement gap in gatekeeping subjects.

One-way ANOVA results showed the AVID students performed better in English classes who were taught by teachers with at least six but no more than fifteen years experience. Clotfelter et al. (2008) suggest teachers with more experience are more effective in raising student achievement than those with less experience. New teachers typically focus on classroom management and familiarizing themselves with content. Therefore, teacher inexperience (0-5 years) has an adverse impact on academic outcomes (Clotfelter, Ladd, & Vigor, 2007). However, Kukla – Acevedo (2009) contends teacher experience negatively impacts academic outcomes after 14 years of

experience particularly for minority and low-income students. This is of particular importance for schools considering AVID programs. These schools should consider offering additional support for inexperienced, as well as for veteran teachers, to assist with the incorporation of the AVID instructional practices in the classroom instruction to increase academic outcomes for traditionally underserved student populations.

Research question 2: academically rigorous classes adversely impacted AVID student performance?

The math and English teachers at JBHS do not perceive the AVID students as possessing dominant cultural capital, as measured by academic performance, behavioral skills, and dispositions, relative to the non-AVID students. One-way ANOVA results showed there was a significant difference in possession of the cultural capital that positively impact academic performance in the classroom, such as 'organized', 'put forth effort', and 'complete homework in a time fashion', between the AVID and non-AVID student groups. Student possession of cultural capital signifies knowing the rules of the game and displaying ones dispositions through habitus to gain academic success in the classroom. Since the AVID students are not perceived as possessing the cultural capital evident in the non-AVID students, their grades are lower than the non-AVID students.

The findings of this research also indicate that the level of academic rigor of the math and English classes contribute to the differences in cultural

capital between AVID and non-AVID students. Previous studies show there are gatekeeping practices that occur to keep some students from taking advanced courses (Farkas et al., 1990; Mehan et al., 1996). JBHS has an open access policy to advanced courses as a result of AVID implementation, but there are gatekeepers on the JBHS staff, including teachers and counselors. Gatekeepers recognize a broad list of student characteristics including student habits, skills, and styles that are characteristic of 'honor students', and gatekeeper judgments of student cognitive and non-cognitive traits are powerful determinants of course grades which directly impact GPA.

The number of years that the English teachers were in the profession as well as the frequency in which English used AVID instructional strategies in the classroom impact teacher perception of AVID students' possession of cultural capital. The teachers who are in the profession for 16 years or more perceive non-AVID students as possessing more cultural capital. Research suggests the more experienced teachers teach the advanced academic courses (Kozol 1991, 2005; Rothstein, 2004). Similarly, the more experienced teachers teach all of the pre-AP, AP, and IB English courses at JBHS. Therefore, the impact of teaching experience on the teacher perception of AVID student possession of cultural capital is congruent with that of academic course rigor. Additionally, the AVID students who were enrolled in English classes with teachers who used AVID strategies frequently were perceived as possessing less cultural capital than the non-AVID students. All of the English teachers who use AVID strategies frequently teach advanced academic

classes. Therefore, the perception of AVID student possession of cultural capital is due to the English teachers' judgment of the cognitive and non-cognitive traits that a student should possess to be academically successful in rigorous courses.

Statistical analyses were performed to discover the factors that contributed to student possession of cultural capital among the AVID students. One-way ANOVA results indicated the students who were in AVID three years possessed more cultural capital than first year and second year AVID students. As with academic achievement, it takes three years to realize the full impact that AVID has on students. Prior to entering the AVID program, the students were not taught the cognitive and non-cognitive skills required to be academically successful in rigorous courses; therefore, teachers perceived them to have a skill deficit. However, the students have not been given the opportunity to acquire the skills until entering the AVID program. Previous studies on the AVID programs suggest the impact that AVID has on student academic performance is not realized the first year (Mehan et al., 1996; Black et al., 2006; Oswald, 2002; Watt et al., 2006, 2007) the same applies to the acquisition of the cultural codes that are rewarded in the classroom. Therefore, as the student continues in the AVID program, the student acquired more cultural capital that is positively rewarded in the classroom.

A finding that merits additional discussion is that related to African-American students, a key population addressing the achievement gap.

African-American AVID students possessed more cultural capital that positively impact academic performance than Latino or white AVID students. There is no statistically significant difference between Latino, white, and Asian AVID students' possession of cultural capital as perceived by the teachers. This result is very important because cultural capital research suggests minority and low-income students do not have the cultural codes -skills, habits, and styles- required to be academically successful in the classroom (Apple, 1982; Bourdieu, 1977, 1984, 1985; Carter, 2003; Delpit, 2006; Dimaggio, 1982; Dumais, 2002; Jaeger, 2009; Mehan et al., 1996; Noguera, 2003, 2008). Since AVID targets minorities and low-income students, the lack of race as an indicator for possession of cognitive and non-cognitive skills that impact academic performance for AVID students is profound.

Female AVID students are perceived as possessing more cultural capital that positively impact academic performance than male AVID students. Previous studies suggest peer groups play a powerful role in male underachievement (Alfaro et al., 2009; Fordham, 1996; Mehan et al., 1996; Noguera, 2001, 2008; Ogbu, 1978; Stanton-Salazar, 1997; Stuht, 2009). Peer groups play a powerful role in shaping identity of students, especially boys. Boys become clearer about the nature and gender identities through peer groups that impose negative sanctions on those who violate what are perceived to be normative forms of behavior. Any deviation from the patterns established by the peer group often places the boys under considerable scrutiny from their peers. Also, the culture of school reinforces the influence of

peer groups. Traditionally, teachers have low expectations of minority male students and perceive them to exhibit behaviors that are perceived to be unacceptable based on dominant cultural codes (Alfaro et al., 2009; Noguero, 2003). These teacher perceptions lead to the marginality of black and Latino students. Thus, minority male students do not display the cognitive traits or behaviors that are positively rewarded in the classroom.

Although the results of this research do not show that the implementation of AVID at JBHS had made a substantial impact on student achievement, great strides are evident as a result of the implementation of the program. Many of the AVID students had not taken an academically rigorous course load prior to participation in AVID; now with support from the AVID elective class, many are successfully completing courses that place them on the college track.

This case study reveals there is a strong relationship between cultural capital and educational attainment. Holding constant socioeconomic background and academic ability, possessing cultural capital increases the likelihood of receiving preferential treatment by teachers, getting higher grades, and generally performing better in the educational system. For the AVID students, mastery of assigned course work is dependent upon teacher perception of the students' possession of cultural capital, which may be partially summarized by the extent to which the student's strategy involves a positive habitus toward schooling. This confirms the notion that teacher judgments of student characteristics are a powerful determinant of academic

success. Therefore, students knowledge of the rules of the game and displaying one's dispositions through habitus of academically successful behaviors and skills can serve as mechanisms to closing the academic achievement gap.

5.3 Limitations of study

The population of interest consists of AVID students in grades 9-12 and randomly selected non-AVID students in grades 9-12. Some students may have teachers who have attended AVID summer institute, a weeklong intensive training process, while others may have teachers trained by the campus pull-out/staff development process, which is approximately two hours of training. Due to the nature of the sampling and teacher training process, there are several limitations to this research project. AVID students are selected based on well-defined characteristics. Therefore, the number of students accepted in the AVID program limits the sample size, and all students meeting the qualifications of AVID did not apply to be in the program. Also, teachers may not have used AVID instructional strategies to the full extent noted although they may profess to practice the methodologies. Moreover, the focus of the study involves the students' current English and math teachers; however, teachers who use AVID methodologies more or less frequently in the years prior to this study may have taught many students. Therefore, prior exposure to AVID curricular and pedagogical practices may impact the students' academic achievement. Furthermore, the student possession of cultural capital is based on teacher perception of student

possession of cultural capital. To truly evaluate the impact that AVID has on student possession of cultural capital skills, a survey of skills before participation in the AVID program must be compared with those acquired as a result of participating in the program.

5.4 Recommendations for Further Study

The research in this project is by no means exhaustive. The case study takes place in one of six comprehensive high schools in an urban school district. Furthermore, only English and math teachers are evaluated on one campus. Since all teachers are expected to use the strategies, all teachers have to be surveyed to evaluate effective implementation of AVID instructional strategies in the classrooms and the impact that instruction has on student achievement.

The findings on the lack of consistent use of AVID strategies suggest that there has to be more dialogue with the teachers to evaluate why they are not using the teaching strategies more frequently, and more actual classroom observations are needed to evaluate the use of the AVID strategies during instructional delivery. Providing increased training for teachers, giving them direct instruction focused on the hidden curriculum, the culture of schooling, and cultural capital can be helpful in fighting institutionalized inequalities due to social class. Student input is also critical to evaluate the actual impact that the program has on the students' possession of cultural capital as well as their academic achievement.

5.5 Research Recommendations: Policy and Practice

Functionalists contend the best opportunity for our country to achieve social and economic equality is to close the academic achievement gap because educational attainment is associated with life course outcomes, such as employability and income earnings in adulthood (Johnson & Neal, 1998; Leach and Williams 2007; Murnane, Willett, & Levy, 1995). Everyone must be educated properly to perform his or her function in society, which is to maintain America's status as an economic powerhouse. Conflict theorists contend public education promotes social stratification in that the white, middle-class, and upper-class students are academically successful in the classroom because the culture of school is identical to the cultural codes and habits transmitted to them by their families. Regardless of the theoretical approach, it is useful for policy makers at the school district level to evaluate instructional and pedagogical practices that mitigate educational inequities in the classroom that contribute to the achievement gap.

The findings from this study will assist the teachers, schools, and school districts as they search for effective teaching models to help all students to be academically successful. For the majority of African-American, Latino, and Native American youth in the United States, the current teaching practices in the public school system is not meeting their needs. When accountability data is disaggregated by race and/or ethnicity, disparities appear. Meeting

the needs of culturally and linguistic diverse student body is of particular importance due to the changing demographics of public schools and the implementation of statewide standardized testing. The nation's changing demographics have prompted politicians and educators to stress the necessity to close the achievement gap (No Child Left Behind, 2001; Texas Legislative Board, 2007), but current standardized test based accountability efforts set forth by NCLB are not efficient when it comes to closing the ever-present academic achievement gap. From a curricular and pedagogical standpoint, schools that protect the hidden curriculum from all but the brightest students perpetuate a system of stratification. Therefore, it is important for educational leaders to choose programs and interventions that employ good teaching methods to ensure all students are learning and progressing academically. AVID is one of those programs; it can be a catalyst for school wide change by implementing strategies that give the students the ability to reason, write, and decontextualize information in order to be successful in the classroom.

The findings offer a mixed message. The AVID students are not perceived as possessing the cultural capital that positively impacts academic success as the non-AVID students. However, inferential statistics indicate positive program effects occur when using AVID student data only. The difference in student possession of cultural capital and student achievement may be a result of the AVID students' inability to acquire the skills required to master the hidden curriculum prior to entering high school. Therefore, the

results of this case study reveal the necessity to begin teaching students the skills to master the cultural codes implicit in the culture of schooling prior to high school. Consequently, it is suggested AVID strategies be incorporated into school district teacher staff development modules at all levels, kindergarten through 12th grade, so that all teachers can implement the strategies more effectively to increase the opportunity for academic success for all students regardless of their background characteristics, thereby, closing the ever-present academic achievement gap.

APPENDIX A
DEFINITIONS OF KEY TERMS

AVID: Comes from the Latin root avidus meaning “eager for knowledge.” It is a college preparatory program aimed at promoting achievement and college entrance rates of minority and low-income students.

Ethnic Minority Student: Students of Latino, Asian, and African-American backgrounds.

Early Intervention Programs: Programs designed to keep at-risk students in school and to increase the college enrollment rates of educationally and economically disadvantaged students by providing a variety of services, such as tutorials and counseling. These programs include AVID, GEAR-UP, Upward Bound, and 21st Century Scholars

Economically Disadvantaged students: students living in low-income families according to the latest available data from the department of commerce. It is also based upon the eligibility for free or reduced price lunch.

Linguistic Minority Student: Students who may or may not speak English fluently and who predominantly speak a language other than English at home.

Low-income students: Students who qualify for free/reduced lunch. These students typically come from households with earnings of \$25,000 or less annually.

Student achievement: Defined by student performance on state and district proficiency exam, as well as grade point average (GPA)

TAAS: The Texas Assessment of Academic Skills competency test. It was first administered in 1990 and was last administered to students enrolled in grades 3-8 in the spring of 2002. All students were required to take the TAKS test as of spring 2003. The students had to pass 70% of the English/Language Arts (ELA) and math test to be considered proficient in the subject areas.

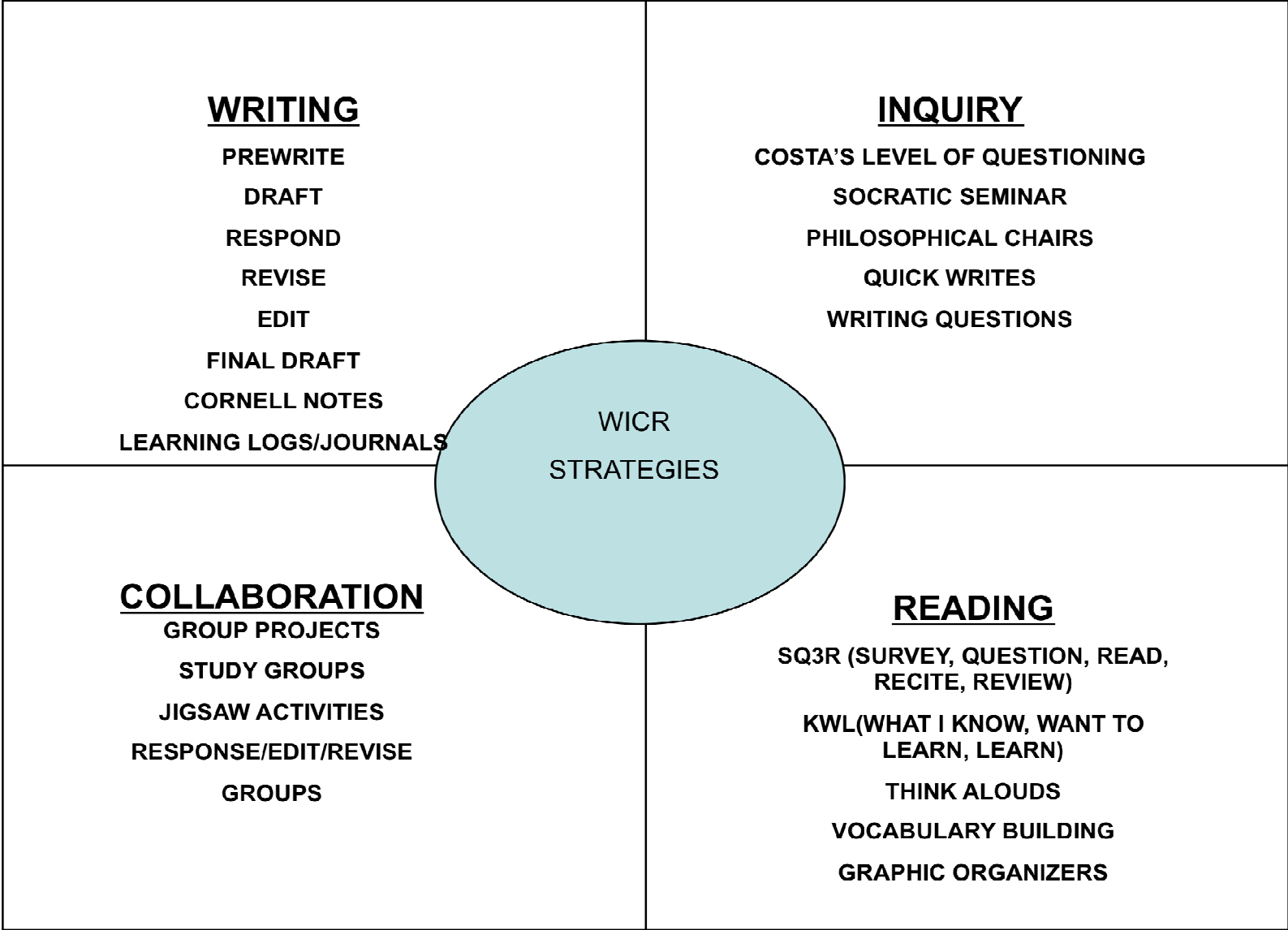
TAKS: The Texas Assessment of Knowledge and Skills competency test is administered to students in grades 3-11 annually in Texas. The students had to pass the following percentages of math and ELA tests to be considered proficient in the subject areas (Texas Education Agency 2009):

Math	9 th grade	60%
	10 th grade	59%
	11 th grade	55%
ELA	9 th grade	62%
	10 th grade	63%
	11 th grade	51%

Grade Point Average: The average grade earned by a student; it is figured by dividing the grade points earned by the number of credits attempted. The GPA is based on a four-point scale on which an 'A', the highest grade, indicates a score of 4. However, the scores are weighted for pre-AP, AP, and IB courses. An 'A' indicates a score of 5 for these courses.

Weighted Average Daily Attendance (WADA): In Texas, students with additional education needs are weighted for funding purposes to help recognize the additional costs of educating those students. Weighted programs include special education, vocational, bilingual, gifted and talented, and compensatory education.

APPENDIX B
AVID INSTRUCTIONAL STRATEGIES
(WRITING, INQUIRY, COLLABORATION, READING)



APPENDIX C
STUDENT ACADEMIC AND BEHAVIORAL SKILLS SURVEY

Student Academic and Behavioral Skills Survey

Thank you very much for your assistance in completing this survey. The information gathered will assist in determining the academic and behavioral skills necessary for achieving academic success in your classes. The result of this survey is solely for the personal use of the researcher. All identifying information on this questionnaire will be destroyed once entered into a statistical analysis program.

Teacher demographic information:

Name: _____

Subjects currently teaching _____

Years of Service _____

Highest level of education completed _____

Race/ ethnicity: _____

Were you on free/reduced lunch when you were in grade school?

Please answer the following questions to the best of your ability.

1. Please describe the academic and behavioral skills that a student should possess to achieve academic success in your class?
2. Which three skills are the most important?
3. Approximately what proportion of your students possesses these qualities?

APPENDIX D

STUDENT BEHAVIORAL SKILLS SURVEY

Student Behavioral Skills Survey

Thank you very much for your assistance in completing this survey. The information gathered will assist in evaluating the impact of the AVID Elective class curriculum on student behavior in all classes and educational attainment. The result of this survey is solely for the personal use of the researcher. All identifying information on this questionnaire will be destroyed once entered into a statistical analysis program.

Student's Name: _____

Your Name: _____

Please answer the following questions regarding student behavior in your classroom. Use the following scale to rate the frequency the child whose is listed above engages in the following behaviors: less than half the time, half of the time, more than half (between 50% and 75%), majority of the time (greater than 75% of the time).

Less than half	Half	More than half	Majority
1	2	3	4
1. Completes homework correctly			1 2 3 4
2. Comes to class on time			1 2 3 4
3. Completes all assignments in a timely manner			1 2 3 4
4. Turns in assignments that are neatly done			1 2 3 4
5. Voluntarily participates in classroom discussions/problem solving activities			1 2 3 4
6. Puts forth effort to be successful in class			1 2 3 4
7. Shows creativity and originality			1 2 3 4
8. Has organization			1 2 3 4
9. Reaches academic potential			1 2 3 4
10. Seeks to understand all material by asking questions			1 2 3 4
11. Challenges questionable grades, policies, or decisions appropriately			1 2 3 4
12. Remains neat in appearance			1 2 3 4
13. Interacts appropriately with classmates			1 2 3 4
14. Stays on task in the classroom			1 2 3 4
15. Uses correct English when communicating/writing			1 2 3 4
16. Speaks eloquently			1 2 3 4

What nonacademic issues, if any, may prevent this student from being academically successful?

APPENDIX E
MATH AND ENGLISH TEACHER SURVEYS

Math Teacher Survey

Thank you very much for your assistance in completing this survey. The information gathered will assist in evaluating the impact of the use of AVID methodologies in the classroom on student achievement and is solely for the personal use of the researcher. All identifying information on this questionnaire will be destroyed once scores are obtained.

Name: _____

Please answer the following questions regarding your use of the following AVID strategies in your classroom. Use the following scale: Very Often(at least once a week), Often (at least three times a month), Average (at least twice a month), Sometimes (at least once a six weeks), and Never.

	Never	Sometimes	Average	Often	Very Often
	1	2	3	4	5
1. Quick writes					1 2 3 4 5
2. Cornell notes					1 2 3 4 5
3. Graphic organizers to organize information into categories					1 2 3 4 5
4. The use of journaling or summaries to reflect on the lessons for the day					1 2 3 4 5
5. Check for understanding by the use of writing prompts					1 2 3 4 5
6. Use of words to explain how to solve the problems					1 2 3 4 5
7. The use of writing to explain common math symbols					1 2 3 4 5
8. Listing for recall					1 2 3 4 5
9. Identification of math vocabulary by reading					1 2 3 4 5
10. Students read to identify the missing steps to the math problems					1 2 3 4 5
11. Answering questions by reading charts and graphs					1 2 3 4 5
12. Listing facts about the charts and graphs prior to answering questions					1 2 3 4 5
13. Use of questioning (inquiry) to assist students with understanding					1 2 3 4 5
14. Have students develop questions using Costa's levels of questioning					1 2 3 4 5
15. The use of Why? What if? And Suppose to make connections between concepts					1 2 3 4 5
16. Cooperative learning groups to allow for discussion with peers to maximize understanding					1 2 3 4 5
17. Group projects and presentations					1 2 3 4 5
18. Use of Socratic seminars					1 2 3 4 5
19. Use of real life activities to explore mathematics					1 2 3 4 5
20. Reading strategies to help students identify what is being asked in a word problem					1 2 3 4 5

English Teacher Survey

Thank you very much for your assistance in completing this survey. The information gathered will assist in evaluating the impact of the use of AVID methodologies in the classroom on student achievement and is solely for the personal use of the researcher. All identifying information on this questionnaire will be destroyed once scores are obtained.

Name _____

Please answer the following questions regarding your use of the following AVID strategies in your classroom. Use the following scale: Very Often(at least once a week), Often (at least three times a month), Average (at least twice a month), Sometimes (at least once a six weeks), and Never.

Never	Sometimes	Average	Often	Very Often
1	2	3	4	5
1. Use of introductory vocabulary prior to reading stories, passages, etc				1 2 3 4 5
2. Cornell notes				1 2 3 4 5
3. Graphic organizers to organize information into categories				1 2 3 4 5
4. The use of journaling or summaries to reflect on the lessons for the day				1 2 3 4 5
5. Check for understanding by the use of writing prompts				1 2 3 4 5
6. Activities requiring students to define words using context clues				1 2 3 4 5
7. Use of writing to analyze poems or reading samples				1 2 3 4 5
8. Listing for recall				1 2 3 4 5
9. Activities identifying theses and support statements				1 2 3 4 5
10. Timed writing				1 2 3 4 5
11. Activities that reinforce student knowledge of the writing process				1 2 3 4 5
12. Use of peer editing process prior to accepting writing assignments				1 2 3 4 5
13. Use of questioning (inquiry) to assist students with understanding				1 2 3 4 5
14. Use of strategies to identify cause and effect while reading				1 2 3 4 5
15. The use of story maps				1 2 3 4 5
16. Cooperative learning groups to allow for discussion with peers to maximize understanding of literature				1 2 3 4 5
17. Group projects and presentations				1 2 3 4 5
18. Use of Socratic seminars				1 2 3 4 5
19. Use of philosophical chairs				1 2 3 4 5
20. Use of strategies to assist students with different types of writing (i.e. expository, persuasive)				1 2 3 4 5

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