The Effects of the AVID Program on the School Performance of Students

by

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Submitted in Partial Fulfillment of the requirements for the Degree of Master of Education

July 2015

Graduate Programs in Education

Goucher College
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Abstract

The purpose of this study was to explore the differences in the school performance of students enrolled in the AVID program versus those students who are not enrolled in the program. The causal-comparative study utilized AVID students in a secondary program and investigated student enrollment and academic data such as attendance, GPA, and SAT scores compared to an Honors group of English 12 students. The study retained the null hypothesis of no statistically significant differences between the groups.
CHAPTER I

INTRODUCTION

Overview

The U.S. Department of Labor estimated that 70% of America’s fastest growing occupations will require some form of postsecondary education (2011). Therefore, post-secondary training must be a priority for students and teachers alike. Students must undertake rigorous coursework and preparation for the demanding challenges of college, technical or post-secondary plans, while teachers must prepare rigorous curricula and assume the responsibility of helping their students graduate from high school prepared for the demands of the real world.

Many students decide they want to complete high school and attend college or a post-secondary trade; however, there are many challenges and obstacles, which cause students to fail at reaching this goal. Some barriers that were identified included limited access to college relevant information and courses that facilitated academic preparation (Griffin & Allen, 2006).

It is no secret that college graduates earn a significantly greater amount of income compared to those without a college degree. A report from the U.S. Census Bureau titled, "The Big Payoff: Educational Attainment and Synthetic Estimates of Work-Life Earnings” reveals that over an adult's working life, high school graduates can expect, on average, to earn $1.2 million; those with a bachelor's degree, $2.1 million; and people with a master's degree, $2.5 million. Persons with doctoral degrees earn an average of $3.4 million during their working life, while those with professional degrees do best at $4.4 million (US Census Bureau, 2012). This data clearly indicates the value of completing college and pursuing a career.
Many students lack the academic, time management and study skills necessary to be successful in post-secondary training and education. One program that has been specifically designed to address many of the challenges facing non-traditional students seeking post-secondary education is AVID (Advancement via Individual Determination). AVID or Advancement via Individual Determination is a college readiness system for elementary through higher education that is designed to increase school-wide learning and performance and increase the enrollment of students in post-secondary education. The AVID College Readiness System accelerates student learning, uses research-based methods of effective instruction, provides meaningful and motivational professional learning, and acts as a catalyst for systemic reform and change (AVID). At the secondary grade levels, AVID is an approved elective course taken during the school day. Students are usually selected to enroll in an AVID class after an application process. For one class period a day, they learn organizational and study skills, work on critical thinking and asking probing questions, get academic help from peers and college tutors, and participate in enrichment and motivational activities that make college seem attainable. Students enrolled in AVID are typically required to enroll in at least one of their school's toughest classes, such as honors or Advanced Placement, in addition to the AVID elective. As students’ progress in AVID, their self-images improve, and they become academically successful leaders and role models for other students.

As a high school teacher of AVID for the last four years, the researcher has observed that many of her students lack the academic knowledge, time management skills, and study habits necessary to their success in post-secondary education. The AVID program is designed to assist academically average students, who are often first generation college students, to prepare for success. The AVID program has been successfully implemented across the nation in school
systems like Montebello Unified School District, California; Austin, Texas; Newport News, Virginia; and Baltimore County, Maryland where the researcher teaches. The effects of AVID on the performance of a group of 12th grade students taught by the researcher will be explored in this study.

Statement of the Problem

The purpose of this study was to analyze effects of the AVID program on school performance by comparing AVID and similar non-AVID students on selected indicators of academic achievement and preparedness for post-secondary education.

Hypothesis

There will be no significant differences between AVID prepared students and a control group of similar students on SAT scores, grade point averages, and daily attendance.

Operational Definitions

The following operational definitions will be used throughout the paper. School performance is the combination of grade point average, SAT scores and daily attendance. Daily attendance is the student’s average obtained by dividing the total number of grade points earned by the total number of credits attempted. Attendance is the amount of days a student was absent for the school year. SAT scores are the combined highest score a student received in Math and Critical Reading. The AVID curriculum, based on rigorous standards, was developed by middle and senior high school teachers in collaboration with college professors. It is driven by the WICOR method, which stands for writing, inquiry, collaboration, organization and reading. AVID curriculum is used in AVID elective classes. The English 12 curriculum, designed by the
English Language Arts Department of Baltimore County, meets rigorous state standards and also adapts to the school system’s move to digital instruction in the classroom.
CHAPTER II

REVIEW OF THE LITERATURE

This review of the literature explores the differences in the school performance of students enrolled in the AVID program versus those students who are not enrolled in the program. Section one explains the importance of high academic achievement of minority students. Section two provides reasons for low academic achievement. Section three discusses ways to ameliorate low academic achievement. Section four discusses the AVID Program, and a summary is provided in section five.

The Importance of High Academic Achievement of Minority Students

High academic achievement has become increasingly important due to the alarming statistics surrounding the job market, and educational outlook in the world today. By 2018, it is estimated that 62% of jobs in the United States will require a college education, and that over half of those jobs will require a four-year degree (Moore, Bridgeland & Dilulio, 2010). If the U.S. maintains its current college graduate production rate, the country will face a shortage of 16 to 23 million college educated adults in the workforce by 2025 (Lumina Foundation 2009). Studies indicate that low income, first generation, minority students are poorly prepared academically, lack the resources necessary for achievement, and the educational gaps are widening between the nation’s underserved students and other students. While over 30% of Euro-American (white) adults have completed at least four year of college, only 18% of African Americans and 12% of Hispanics/Latinos have completed at least 4 years of college (Lumina Foundation 2009). Addressing the challenges low income, first generation, minority students’ face is critical not only
to the nation’s educational system, but also the ever changing global economy students will encounter.

Based on the National Assessment of Educational Progress national assessments of mathematics and reading, the achievement gaps have narrowed significantly; however, they do still exist. Some of the most significant gaps in student achievement across the country are between white students and their African-American counterparts (Pugh, 2013). Based on test score averages, the gap between grade 8 African American and white students in mathematics and reading is 29 and 24 points respectively. Among white and Hispanic students, the gap in reading and mathematics by grade 8 is 24 and 26 points (National Center of Education Statistics, 2012).

In 2008, for African Americans without a high school diploma, the unemployment rate was 225 (Aud, 2010). For those with a high school diploma only, the unemployment rate was 11% and for those with at least a Bachelor’s degree the unemployment rate was 4% (Aud, 2010). A head of household without a college degree is over eight times more likely to live below the poverty line than a peer with a college degree (Moore et al., 2010).

According to the Pell Institute for the Study of Opportunity in Higher Education (2004), when family income is under $25,000, young people have less than a 6% chance of earning a four-year college degree. Sadly enough, this is also the case even when students achieve the same high test scores as peers from higher socio-economic groups. Addressing the education gap and the challenges low-income, first-generation, and minority students face in their quest to attend college is critical. For students, the intervention of college access and preparatory programs have become a stimulus for academic achievement and college success in order to obtain a career and become a successful, contributing member of society.
Reasons for Low Achievement

For decades of legislation, the government and school systems across the country have been trying to address the inequities in education among ethnic minorities and socio-economically disadvantaged students by closing the achievement gap. With President Johnson’s ‘War on Poverty,’ the federal government attempted to address these gaps through the Elementary and Secondary Education Act of 1965. The Bush Administration updated the ESEA with the No Child Left Behind Act of 2001, which held states accountable for educational improvement and reduction of the academic achievement gaps. States were now required to show improvement of all subgroups of the population by disaggregating student performance data by ethnicity, socio-economic status and other characteristics to highlight the achievement of all students (Pugh, 2013). In 2009, the Obama Administration introduced Race to the Top, a competitive grant initiative which provided states who were implementing reform strategies with government funding and incentives. The purpose was the same: to increase student achievement and decrease the achievement gap. Before these initiatives were in place, there wasn’t any accountability among states and school systems.

Parental encouragement, student ability, economic status, and lack of motivation are major factors which also contribute to the low or high achievement of students. Hossler and Gallagher proposed a three-phase model of student progression from educational aspirations and achievement to college enrollment. The three stages include: predisposition, search, and choice. Predisposition is characterized by the development of the student’s aspirations to go to college (Bergerson, 2006). This stage is centered between seventh and ninth grades and factors aligned include: parental encouragement, socioeconomic status, student ability and information about college (Cabrera & LaNasa, 2000). Low income students without parental support need to
participate in a college access program because they use a holistic approach to academic achievement and college and career preparation and readiness. The second stage is the search stage where students begin to gather information about college and compartmentalize institution information. The same factors in stage one are prevalent in stages two and three; low income students need parental support and ability. College visits and family conversations about college and expectations need to occur within this step. Step three is occurring which is the student’s selection of institutions and completion of enrollment. Similar to the predisposition, and search stage, the choice stage captures educational and occupational aspirations and is influenced by socioeconomic status, student ability, parental encouragement, and perceived institutional abilities, and perceived ability to pay (Cabrera & La Nasa, 2000).

High school students who earn good grades and score well on standardized tests have increased opportunities and more success at the postsecondary level. It is suggested in research that Advanced Placement courses and exams are a key component of the college readiness process (Dougherty, Mellor & Jion, 2006). Standardized test performance and advanced course enrollment has been found to have a positive impact on a student’s ability to complete college. Advances Placement courses provide students with rigorous coursework necessary in developing the skills for them to complete college coursework successfully. Educators must focus their attention on determining how to increase the potential for underrepresented students to be successful on such tests and in higher level courses. Programs like AVID, Advancement via Individual Determination require students to take rigorous coursework and testing alike. Research studies prove that underrepresented student populations can achieve academic success with appropriate support (Watt, Huerta & Mills, 2011).
An important foundation for the academic success of students is motivation. Studies have identified lack of motivation as a primary reason for underachievement (Scheel, Madabhushi, & Backhaus, 2009). Lack of motivation leads not only to disengagement with school in general, but to underachievement and dropping out of school (Scheel et al., 2009). Motivation can be affected by school climate, educators’ beliefs, and perceptions, and family and social values. These problems in motivation must be spotted and alleviated if we are to keep students successful in school situations.

**How to Ameliorate Low Academic Achievement of Students**

Currently, there are many programs in education to try to ameliorate the low academic achievement of students. Many commonalities exist among college access programs across the country all with the goal of ameliorating low academic achievement. They all provide academic, social, and emotional support, family involvement initiatives, leadership development, and service learning opportunities (Corwin, Colyar & Tierney, 2005). Precollege and college access programs can be funded through federal aid, like Upward Bound and Gear up. There are state supplemental programs like HOPE, Help Outstanding Pupils Educationally and there are non-governmental programs like AVID.

School counselors and their in-school programs become an integral part of preparing students for academic success and the college application process, as well. Counselors provide a framework or four-year plan for high school students that will lead them to success and ultimately to college enrollment. A four-year plan can present a student with a basic structure that includes all graduation requirements along with a suggested sequence of academic courses based on ability, scores, grade reports, and teacher recommendations (Ensor, 2009). Counselors often meet with students to discuss strengths, weaknesses, goals, and interests. In addition, guidance counselors
monitor each student’s academic success in an effort to make appropriate placements, and adjust problems within a student’s schedule. Guidance departments usually provide financial aid and college workshops and seminars for parents and students. These sessions provide parents with an extensive overview of the college planning and preparation process, as well as financial aid opportunities and details about federal, state, and local sources of funding education.

Peer tutoring can also assist students who are having difficulty in a particular subject. While parents sometimes hire tutors, many high schools offer free programs through the National Honor Society after school. Tutors are available in programs like AVID to facilitate student access to rigorous curriculum. Tutors who support the AVID elective must be trained in AVID methodologies and are typically college students. The focus of the tutor is to clarify the academic subject through utilizing inquiry as the primary instructional tool. Tutors can often establish a greater rapport with students because they are so close in age and they are proof of college attainment.

Relationship building is another method of school reform which leads to academic success. The goal is to create relationships between teachers and students leading to improved academic outcomes for the students. This recent school reform initiative called New Century Schools can be found in the poorest neighborhoods of New York City. Along with relationship building, culturally responsive teaching strategies were incorporated to increase academic achievement. When teachers respect cultural differences, believe that all students are capable of learning and create a sense of efficacy for students, incorporate students’ cultures into the curriculum, and recognize the cultural resources students bring to class students tend to become more successful (Shiller, 2009).
The AVID Program

AVID, Advancement via Individual Determination, is a college preparatory program for low-income and underachieving students, which provides academic structure to motivated students who strive to achieve success through completing rigorous academic curricula in order to attend college. On the national AVID website, it states, AVID is a college readiness system designed to increase the number of students who enroll in four year colleges (AVID, 2012). The word AVID is derived from the Greek term, avidus, “eager for knowledge” (Swanson, Contreas, Cota, Furgerson & Gira, 2005). New York Professor of Education Pedro Noguera noted, Avid creates a classroom environment where kids are encouraged to take learning seriously, and, secondly, to see themselves as scholars. That notion should expand beyond school, after school, at home. AVID also creates an environment for peer support, and for kids, that’s everything. If one can create an intellectual environment and peer support, it can have long-term effects. (Bernhardt, 2013).

AVID was created by Mary Catherine Swanson, the English Department Chair at Clairemont High School in San Diego. The program was created to assist disadvantaged students in rigorous secondary education courses and college preparation. Since its initiation in 1980, the AVID program has reached more than 4,800 schools in 48 states, the District of Columbia, and 16 countries and serves more than 425,000 students in grades 4-12 (AVID, 2012).

The AVID curriculum strongly emphasizes note-taking, test-taking, study skills, assignment tracking, presentation skills and writing to learn. WIC-R, writing, inquiry, collaboration, and reading is one of the instructional components used by the teacher to engage the student in his/her education. WIC-R incorporates the four main strategies that are instrumental in college preparation and ultimate success. Students are subject to weekly tutorials, binder checks and
progress reports, as well. Within the classroom, WIC-R is used as a strategy for teaching. The W stands for writing. AVID includes a strong writing curriculum which helps students to clarify, order, and communicate their thoughts through Cornell notes (a note taking strategy), journals, tutorials, and learning logs. The I is representative of Inquiry. AVID is built upon the foundation of asking questions, examining information, then synthesizing it for your use. Students are taught questioning skills and higher level order of questioning. The socratic seminar and fish bowl techniques are used to allow students the opportunity to ask questions, respond to others, and think for themselves. C stands for collaboration because students work collaboratively in small groups facilitated by the teacher. The R in reading means instruction is scaffolded, so students are making connections to prior knowledge, understanding the structure of texts, and processing the text for comprehension. These factors promote the student’s ability to read more difficult text, while still maintaining a high level of comprehension (Swanson, et al., 2005).

Another important component of the AVID program is the college students who serve as tutors to work with AVID students on a weekly basis to provide additional support and to serve as models for learning and attending college. Tutors seek to develop a close relationship with their students and hopefully help inspire them to overcome their own personal difficulties and challenges (Swanson et al., 2005). Teachers also strive to develop a close relationship with the students, which is the primary reason, teachers stay with the students as they move grade levels. The tutorial process is also completed among peer groups, as the student who understands the concepts taught in class may be teaching or re-teaching the concepts to other students in the class as a means of support.

The importance of organization is taught along with a binder check system. Students must carry their binders with them at all times and within their binders maintain a calendar, classroom
notes, handouts, and assignments. The utilization of binders has been found to have a positive impact on organization (Black, McCoach, Purcell & Siegle, 2008). These binders are graded weekly by the AVID teacher and/or tutor.

Teachers and parents alike are also integral components of the success of the program and its students. The teacher primarily serves as student advocate, providing support to students as needed when dealing with other teachers, administrators, and college admissions personnel (Gandara et al.). The parent also serves as a support system for the student and the AVID program of study.

While AVID provides educational support, it also provides social skills and opportunities to each student served. The benefits that students derive from participating in the AVID program compared to those who are not enrolled, are many. Students develop leadership skills far beyond those not enrolled. The curriculum allows for students to exploit their talents and skills. The AVID student becomes a role model to his or her peer group. When thinking about being a role model and being supported as one by fellow peers and teachers, one assumes the role. Students that are not enrolled for the AVID program lack the opportunity to fully exploit their talents and different gifts; this implies that their chances of developing leadership skills as compared to AVID students are quite minimal (Lake, 2008). Since the AVID program was founded on closing the educational gap, students who may not normally have an equal opportunity are now afforded equality in education through their enrollment. Unfortunately, students who fail to enroll continue to be limited due to economic status and race. Communication is a key tenet of the success of the AVID program. Writing, reading and presenting are integrated into the AVID program for the benefit of communication skill advancement. In addition, students are afforded the opportunities to participate in discussions and forums as a way of exchanging and sharing ideas with peers. As opposed to the AVID student that gains important communication skills through the Advancement
via Individual Determination system, the non-AVID student remains confined to his or her traditional way of communication and hence the social oratory skills are not developed efficiently (Gay, 2000). Lastly, students are trained to manage their time through a strict regime taught and checked by the AVID tutors and teachers alike, while a student not enrolled in AVID will have to develop their own time management system and stick to the regime themselves to receive the benefits.

While the educational and social benefits are many, the AVID program also has many psychological benefits such as increased confidence, motivation, and positive behavioral effects. Confidence in the AVID student occurs through the open communication in the classroom and the ability to easily express ideas to his or her AVID family. The discussion forums that involve the AVID student and other peers enable the student to appreciate his or her strengths and weaknesses (Varee, 2008). This builds self-confidence in every AVID student. Research has consistently found that academically motivated students tend to perceive school and learning as valuable, like to learn, and enjoy learning-related activities (Zimmerman, 2008). The AVID tutor and teacher serve as a motivational role model to the AVID students encouraging not only confidence, but also motivation. The AVID student highly respects both the tutor and the teacher. This respect and motivation enables the student to perform better improving the overall learning process. The AVID curriculum strongly emphasizes on the need to instill aspects such as cognitive development in a student; this consequently benefits them psychologically in that they develop a new approach towards education and the entire process in general (Bial & Gandara, 2001). The behavior of an AVID student changes positively because they are looked upon as a role model to others.
Summary

The AVID program is a model for schools who wish to empower students challenged with lower socioeconomic status, lack of parental support, and the lack of ability to reach high academic achievement. The AVID curriculum teaches students how to develop autonomy and think for themselves, navigate social and academic challenges that may arise, and succeed in rigorous work in an effort to prepare, enroll and attend college. Through the AVID program, hundreds of thousands of students have realized improved academic performance and college acceptance due to the AVID tenets. Successfully preparing all high school students for college is a major challenge for educators alike, but it is a challenge which must be faced and conquered. Students need the academic preparation and the future depends on it.
CHAPTER III

METHODS

This study examines the impact of AVID on SAT scores, grade point average, and daily attendance.

Design

A causal comparative design was used in this study to compare the school performance of AVID versus non-AVID students. Data were gathered via Naviance and STARS, two programs used by Baltimore County Schools to record student data.

Participants

The participants for this study included 23 AVID 12 students and 32 honors English 12 students who were not in the AVID program. The AVID class was comprised of 3 males and 20 females, while the honors English class was comprised of 19 males and 13 females. Contreas et al. (2009) wrote “AVID student selection must focus on students in the middle (2.0-3.5 G.P.A. as one indicator) with academic potential who would benefit from AVID support to improve their academic record and begin college preparation.” All of the students selected to be in the AVID program were academically in the middle meaning a 2.0-3.4 GPA in middle school. AVID targets those students in the middle who possess both the desire and ability to succeed in advanced courses and earn a college degree.

AVID identifies low socioeconomic students of any ethnicity who may be first generation college students. Eleven of the AVID students or fifty percent were African American, while
nine of the honors English students or 33 1/3 percent shared the same ethnicity. Three of the AVID students were of Middle Eastern decent, while four of the Honors English students were Middle Eastern. There was one Hispanic student in the AVID class and 3 Hispanics in the honors English class. The rest of the class was white. In addition, they all had average test scores, good attendance with less than 5 absences for 8th grade, good behavior with no office referrals and a desire to attend college and work hard to succeed.

Each submitted an application and each student had an interview with an AVID site team member to determine candidacy. The AVID coordinator can only select 28-30 students to participate because there is only one class offered for each grade level. Many other students could have qualified; however, the program can only accept 28-30 students. The students in Honors English were not selected for AVID due to a variety of reasons which could include: limitations of space, absentee issues, behavior issues, low or higher grade point averages, schedule conflicts, non-first generation college student, high socio-economic status, no aspirations to attend college, lack of motivation to take rigorous coursework or non interest on the part of the student. It really is a choice on the student to want to participate. All of the students attended a middle class, co-ed high school in Baltimore County, Maryland.

**Instruments**

The effectiveness of the AVID Program on the school performance of students was determined by comparing the academic achievement of both groups as measured by the dependent variables of grade point average, attendance, and SAT scores. The SAT examinations have been proven to have good content validity, which is determined by expert judgment and is important for achievement tests because a test score cannot accurately reflect a student’s achievement if it does not measure what was taught. According to the College Board,
publisher of the exams, the SAT “is consistently shown to be a valid predictor of college success for students from all backgrounds.” The SAT is the most widely taken college admissions exam assessing student knowledge in reading, writing, and mathematics. Students may earn a maximum of 800 for each of the 3 areas. If a student’s score is a combined 1150 it indicates they have a 65% likelihood of completing college (College Board). In the category of predictive validity studies, Burton (2001) meta-analysis of studies of classes graduating between 1980 and 2000 found that combined SAT scores accurately predicted many measures of success in college. Internal and external research indicates that each section of the SAT is a valid and reliable measure of student knowledge and skills (College Board). “The SAT has proven to be an important predictor of success in college… SAT scores add significant to prediction” (Camara and Ecternacht, 2000).

**Procedures**

Students were selected from the 12th grade. Participants were not assigned to these 12th grade groupings, as they already existed and were placed in the researcher’s class at the beginning of the year as my teaching assignment. The first group comprised 22 students who applied to be a part of the AVID program and then were selected to be in the AVID Program in 8th grade and have been participants since grade 9. The researcher taught this AVID 12 group of students for the 2014-15 school years. The second group was an English Honors 12 class I also taught for the 2014-15 school year. The study was designed to use data from the 2014-15 school year; however, some data has been used from throughout the four years of their high school experience beginning with their selection into the program in grade 8. The non-AVID group did not receive the benefit of the curriculum, tutors, collaboration or study skills taught within AVID. The two
groups were compared through the dependent variables of grade point average, attendance, and, SAT scores.

CHAPTER IV
RESULTS

This study examines the impact of AVID on student performance in a secondary school program as versus students in an Honors Class. Student performance is defined as grade point average (GPA), SAT Composite Score, and Daily Attendance (number of days absent). A causal comparative methodology was used and the school system data bases served as the source of student data.

Data were analyzed using the independent t test within the Statistical Package for the Social Sciences. The independent t test was chosen over Analysis of Variance as a simpler statistic and a more permissive statistic. As such if significant findings were found using the independent t test then it would be necessary to run Analysis of Variance due to the permissive nature of the independent t test. If no such findings were to be found, however, then the more complicated and conservative Analysis of Variance could be avoided.

Table 1 below displays the measures of central tendency for the data and Table 2 displays the results of the statistical analysis. The null hypothesis that there would be no significant differences between the two groups on the various measures of school performance was retained. Thus, the need to do further analysis utilizing Analysis of Variance was not needed.
Table 1
Measures of Central Tendency

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Table 2
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<td>.198</td>
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CHAPTER V
DISCUSSION

This study examines the impact of AVID on student performance in a secondary school program as versus students in an Honors Class. The null hypothesis that there would be no significant differences between the two groups on the various measures of school performance was retained.

Implications

In this study, a purposive sample of small size was used which implies that the results may be subject to researcher bias and may not be projected onto the entire population. Instead, the purpose is to determine if a phenomenon exists that will suggest the need for further research, as the sample is not representative of the entire AVID program. The larger the sample, the more likely the results are to represent the population.

Theoretical Consequences

The theory undergirding the AVID program is that “average” students whose parents did not attend college and who do not consider themselves “college bound” will be more likely to attend college and be successful if they are provided sufficient and appropriate academic, social, and emotional support in high school. AVID has been implemented in high schools throughout the nation; evidence of its success is still ambiguous. In this study, a high school teacher in an AVID-adopting school is looking at her own students, some of whom have completed the AVID program and others not, to see whether there are actual differences in their levels of readiness for success in college. That readiness includes academics, measured by the SAT, the students’ own high school grades, and their attendance. The theory that academic readiness—and the
likelihood of attending college-- improves as a result of participation in AVID was not supported by SAT scores or grades in this study. It is hard to test the theory that AVID support leads to improved success if one doesn’t know how much support was actually provided.

**Threats to Validity**

This study utilized a Causal Comparative Methodology. A weakness of causal comparative studies is that, because the cause under study has already occurred, the researcher has no control over it. As explained in Gay (2000), the possibility exists that the groups are not equivalent on one or more of the variables before the research is conducted. Two weaknesses in causal-comparative research are lack of randomization and inability to manipulate an independent variable. A major threat to the internal validity of a causal-comparative study is the possibility of a subject selection bias. The chief procedures that a researcher can use to reduce this threat include matching subjects on a related variable or creating homogeneous subgroups, and the technique of statistical matching. Other threats to internal validity in causal-comparative studies include location, instrumentation, and loss of subjects. In addition, type 3 studies are subject to implementation, history, maturation, attitude of subjects, regression, and testing threats. A threat to external validity is an explanation of how you might be wrong in making a generalization. The success of the implementation of the AVID program varies across Baltimore County high schools. Components of the AVID program implementation vary from high school to high school and teacher to teacher. In Baltimore County, each high school has an administrator or counselor who might interpret and adapt the guidelines for the AVID student identification process differently. Some teachers assigned to teach AVID classes have changed from year to year. AVID teachers receive different initial and ongoing professional development and training. The AVID students who attend the researcher’s high school do not fit the criteria for admission into the AVID program.
Connections to Previous Studies/Existing Literature

There are many studies which exist and provide mixed results and evidence that AVID was at least partially fulfilling Baltimore County’s goal of increasing the participants’ college readiness, which supported the research that AVID “addresses the predictors or college going behaviors [non-academic facets]…and achieves its goals by providing students with tremendous amounts of…support” (Martinez & Klopott, 2005).

Rorie (2007) studied the impact on high school achievement of AVID students in a suburban Colorado district with demographics similar to District X. Results of Rorie’s (2007) study varied depending on the measure used to determine academic impact and program effectiveness. A major similarity between Rorie’s (2007) study and the current study was that while marginally or no statistically significant differences existed between scores on the SAT examinations.

Connors (2010) found when studying AVID and non-AVID students in two central Florida school districts, though no statistically significant differences existed on state AYP math and reading tests, 10th grade AVID students performed significantly higher on the writing portion. Additionally, Connors (2010) concluded that AVID students performed as well on the math and reading portions as regular honors students (Dyce, 2013).

Ford (2010) studied the impact of AVID on closing the achievement gap in one urban Texas high school. Results of Ford’s (2010) study showed non-AVID students were marginally more successful than, or there was no statistical difference between, the subgroups on the study’s academic measures. The current study was consistent with Ford (2010) in showing no statistical difference between the mean scores of participants and non-
participants on the SAT. The results of the current study differed from Ford’s (2010) results by indicating that non-participants’ sample mean on the SAT was statistically significantly higher than the participants’ mean.

Finally, as concluded by Rorie (2007) in her study of AVID in a district with demographics and academic achievement standings similar to those in Baltimore County, the lack of statistical differences on some standardized test scores may “reflect the fact that the students did not fit the AVID student profile’s characteristics of underachieving, low income, and minority group.”

**Implications for Future Research**

The goal of this research was to examine the impact enrollment in AVID had on academic achievement of students compared to those not enrolled in AVID. After the results of this study were analyzed, with thoughtful reflection and consideration given to the findings, the following recommendations for future research needed to address the limitations of this research study are as follows:

Beginning in 2016, the state HSA tests will be replaced with new state assessments, PARCC designed to measure students’ academic achievement of the CCSS, known in Maryland schools as the College and Career Readiness Standards (CCRS). Evaluating all students meeting the AVID enrollment criteria on these new assessments would provide districts valuable and current information regarding AVID’s impact on academic measures of college readiness.

The results of the current research provide the foundation for future studies comparing multiple factors not addressed within this study. Possible combinations of comparative studies include:
Examining the relationship of students’ perceived impact on their college readiness between individual components of the AVID program, and students’ perceived degree of self-improvement related to the specific program.

Comparing the courses in which AVID students enroll to the non-participant students who met the AVID enrollment criteria, but chose not to enroll in the AVID elective course.

Analyzing the change in AVID students’ academic achievement measures as well as their perceptions of the impact Program Components and Program Benefits have on their college readiness before and after enrolling in the AVID program.

Conducting a longitudinal comparative study of AVID students’ academic achievement measures throughout their high school years.

Districts could also collect data to compare college application submissions and subsequent acceptance rates of AVID participants and non-participants. This could occur during the students’ junior and senior years, which is when this process is included in the AVID curriculum Including studies such as those suggested previously, while continuing a comparison of GPAs (including weighted GPAs), would provide school districts with a comprehensive picture of AVID’s academic impact on college readiness and an overall understanding of the program’s effectiveness in a school or district. Districts could strengthen such research by following and collecting data on AVID graduates enrolled in postsecondary institutions. This extended study could provide districts with longitudinal information on AVID’s impact through data such as students' college GPAs and the students’ perceptions of impact on their postsecondary experience.
Lastly, for districts with an AVID program in multiple high schools, which is true of Baltimore County Public Schools, program leaders might consider studying how high schools identify, screen, and invite potential candidates to enroll in an AVID elective class, and how records of this process are kept. A very specific process is laid out by the AVID organization to ensure selection of students with characteristics fitting the ideal AVID candidate.

**Conclusions/Summary**

The findings of this study indicate that there is no significant difference from the academic performance of students in the AVID program to students who are not. It is certain that schools and districts across the United States will continue to strive to meet the demands of CCSS mandates, provide teaching and learning environments that prepare graduates for their postsecondary success as it will exist through the 21st century. As districts do so, it will be critical to continue this research in determining the impact of AVID enrollment on academic achievement and college and career readiness.
References


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