The Effect of AVID and Non-AVID Programs on College Readiness

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Abstract

The purpose of this study was to examine whether or not the Advancement Via Individual Determination (AVID) program more adequately prepared high school students for college and career by comparing the High School Assessment (HSA) scores of AVID and non-AVID student groups. The measurement tool was the English portion of the Maryland State Department of Education’s HSAs. There was a significantly higher achievement rate among all students in the AVID group. However, when scores were compared by gender, there was not a significant difference in the scores of the AVID and non-AVID females, while there was a significant difference in the scores of the AVID and non-AVID males. Analysis of the data from this study indicates that the AVID program is effective at enhancing student literacy skills and preparing students for meeting graduation requirements, which are necessary for college and success in the workforce.
CHAPTER I
INTRODUCTION

Overview

In 2010, the Maryland State Department of Public Schools adopted the Common Core State Standards (CCSS) in order to raise academic standards throughout the state (Maryland State Department of Education, 2013). The Maryland Public School System wanted to raise graduation rates as well as college and career preparedness. Too many of Maryland’s graduates were not prepared for the rigors of college. A survey conducted by Achieve (an independent, nonpartisan, nonprofit education reform organization) found that a large number of students in Maryland who attend college need academic remediation: 48% of Maryland students in four-year college programs and 66% of Maryland students in two-year colleges (Achieve, 2013).

Another noteworthy statistic reported by the Alliance for Excellent Education is that over “two thirds of all eight and twelfth graders read at less than a proficient level,” so much that “half of those students are so far behind that they drop off the scale entirely, scoring below what the U.S. Department of Education defines as its most basic level” (Heller & Greenleaf, 2007, p. 2).

For the graduating class of 2015, passing the Maryland High School Assessments (HSA) was a graduation requirement. The HSAs contain multiple choice questions as well as extended and brief constructed response answers. Students were required to take tests in English, Algebra, Government, and Biology after they completed the corresponding required high school course. If students did not earn the passing score on each section of the test, they had to retake the assessment each year until they passed or earned a specific combined score. Another option for students who could not successfully pass the HSAs was to complete an alternative Bridge Plan project for each section of the HSA that they were unable to pass. The Bridge Plan is an alternative intervention that ultimately took more time for students to complete; however,
students were able to work on the project in school and at home. The Bridge Plan enabled students to have more time and access to material and human resources to assist them in meeting the necessary requirements (mdk12.org, 2014).

As a Family and Consumer Sciences high school teacher, the researcher never expected to have to teach and grade assignments like an English teacher. Over a decade ago when the researcher began teaching, it was assumed that the majority of high school students would come to class with a basic set of reading and writing skills. However, the researcher soon discovered that many students lacked the skills necessary for more in-depth reading and writing assignments. Some of these students even struggled with comprehending grade-level materials. However, some of these students always performed above average. These students were part of the Advancement Via Individual Determination (AVID) program. Students who participate in the AVID program are much more prepared for college than non-AVID students. In 2014 high school seniors in the AVID program were two times more successful in meeting their college entrance requirements than non-AVID students of the national average (AVID, 2015a).

A 2007 report from Alliance for Excellent Education stated that if “students are to be truly prepared for college, work, and citizenship, they cannot settle for a modest level of proficiency in reading and writing. Rather, they will need to develop the advanced literacy skills that are required in order to master the academic content areas—particularly in the areas of math, science, English and history” (Heller & Greenleaf, 2007, p. 1). It is extremely important for all content area teachers, even elective teachers, to focus more on developing lessons that integrate more rigorous reading and writing requirements. For this reason, many schools are adopting AVID programs, and many non-AVID teachers of all content areas are utilizing AVID curriculum and teaching strategies in hopes that their students will excel like those in the AVID
program.

**Statement of Problem**

The purpose of this study was to examine whether or not the AVID program more adequately prepared high school students for college and career by comparing the HSA scores of AVID and non-AVID student groups.

**Hypothesis**

The HSA scores of high school seniors in the AVID program will not be significantly different than the HSA scores of those who completed the general high school curriculum.

**Operational Definitions**

For this study the independent variable was the AVID program. This includes the AVID curriculum, teacher training, teaching strategies, and various social supports. The dependent variable in this study was student achievement. Student achievement was measured via HSA scores.
CHAPTER II

REVIEW OF THE LITERATURE

Overview

The first goal of the U.S. Department of Education is to increase American college graduation rates. This means that “We must work to ensure that all children and adults in America receive a world-class education that will prepare them to succeed in college and careers for rich and fulfilling lives in a vibrant and prosperous democracy” (U.S. Department of Education, 2012, p. 1). Unfortunately for students who struggle through high school, making it through college and maintaining a well-paying job may be very difficult. Today, adults need a range of complex reading and writing skills to successfully navigate our modern social, economic, and political structures (Murnane, Sawhill, & Snow, 2012). High school teachers of all content areas should be thinking about ways to help their students prepare for life after graduation; this means helping students enhance their literacy skills.

The purpose of this literature review is to examine why many high school students struggle with reading and writing skills and possible solutions. Section one outlines skills of proficient secondary level readers. Section two discusses the specific challenges that secondary level readers face. Section three focuses on writing at the secondary level, and, finally, section four outlines interventions, targeting one—AVID—in particular.

What Good Secondary Level Readers Do

At the secondary level, successful readers are able to read fluently, have a wide range of strategies that they have learned, and can retrieve automatically to decode and comprehend new concepts and problem-solve as they read. These students engage with the text and are able to use the text to learn. They use higher-level thinking skills to examine, evaluate, make inferences,
and synthesize what they read. Good readers are able to interpret, analyze, and utilize text for a variety of purposes. They can also apply these skills to a range of texts to suit many purposes as well as connect and evaluate information from different sources (Goldman, 2012). At the secondary level, students should be able to purposefully interact with a variety of texts and integrate the new information with their existing schema. High school students may still be learning new ways to do this, but they usually have some strategies that they can use in order to learn new vocabulary and content in all texts, especially expository texts (Murnane et al., 2012).

Evidence-based instruction is critical for students who continue to struggle with reading in late elementary, middle, and high school. The areas critical to the developing literacy skills of older struggling readers are: (1) word study, (2) fluency, (3) vocabulary, (4) comprehension, and (5) motivation (Roberts, Torgesend, Boardman, & Scammacca, 2008).

**Literacy Challenges for Secondary Level Readers**

The National Center for Educational Statistics (NCES) 2008 report shows that the average reading score for 17-year-olds has not changed significantly from the average score in 1971 (as cited in Rampey, Dion, Donahue, & NCES, 2009). This is of national concern in the United States and so has led to a large focus on developing early childhood literacy. A variety of early childhood programs have been created that are designed to help ensure that children leave elementary school knowing how to read and write. However, once students make it to high school, the assumption is that these older students now know how to read (to learn); as such, there is far less time dedicated to helping students learn to read. Unfortunately, many high school students lag behind and lack the basic reading and writing skills necessary to find gainful employment or succeed in college (Wendt, 2013).
Many high school students with lower level literacy skills may be able to retrieve information, summarize main ideas, paraphrase, and obtain general details from text. The struggle most often occurs with more complicated tasks such as making inferences, understanding the author’s purpose, extending the information to other areas, and providing specific detail about what they have read (NCES, 2013). Some high school students even struggle with basic decoding and fluency skills, which means that their ability to understand what they are reading is severely limited (Franzak, 2008). If a student struggles with decoding and encoding, then naturally he or she will have difficulty with writing as well. Therefore, it is important for educators to realize that helping teenagers who are struggling with basic reading and writing skills is much different than helping students in elementary grades.

**What Good Secondary Level Writers Do**

Reading and writing are vital components for communicating and learning in the 21st century. Writing is a major form of communication that all social systems around the world use to pass on and evaluate information. Teachers constantly ask students to write in order to demonstrate what they have learned. Writing is also a tool that good readers use for organizing, examining, and reevaluating ideas about what they have read (Harris, Graham, Friedlander, & Laud, 2013). The Common Core State Standards (CCSS) established that the following skills are necessary foundations for writing: “(1) writing for multiple purposes, (2) producing and publishing well organized text appropriate to task and purpose by increasingly applying processes involving planning, revising, editing, and collaborating with others, (3) using writing to build knowledge about specific topics or materials read, and (4) applying writing to extend and facilitate learning in a range of discipline-specific subjects as well as across purposes and audiences” (Ganske, 2014, p. 89). These are all skills which take years to learn and cultivate. It
can be difficult, even for advanced learners, to thoroughly develop these skills within the constraints of a four-year high school program.

Peel (2014), who conducted a case study on academic writing disengagement, compiled three examples of strategies that effectively increase writing engagement. First, she reports that “incorporating new modes of writing” is essential (p. 66). “Designing more authentic writing tasks and contexts” (p. 66) is also important. Finally, encouraging peer interaction through writing is effective as well. Peel’s study exemplifies the fact that even students who don’t have difficulties in reading or writing may struggle when they lack motivation or are unengaged. In order for teachers to make sure students are engaged, they must use current, relevant material. However, teachers can also help ensure that students become successful by teaching them how to find their own purpose and motivation, as the student in Peel’s study was able to do.

One approach that is well established as an effective way to develop better writing skills is known as Self-Regulated Strategy Development (SRSD) (Harris et al., 2013). Good writers intuitively use these self-regulating strategies. The SRSD model enhances self-regulation, which, in turn, increases self-efficacy and self-determination, two important factors that improve student writing skills (Cuenca-Carlinon & Mustian, 2013).

**Current Needs and Interventions**

**Critical Literacy**

 Compared to the research for students on the elementary level, there is limited information on effective literacy strategies and interventions for high school students. Teachers need more information about specific strategies that they can use to help improve the literacy skills of high school students. High school students not only need to learn how to read complex texts, but they also must understand that there are different ways to approach different types of
text (Murnane et al., 2012). For instance, a person will thoroughly read a novel in order to fully understand the author’s purpose and meaning. However, when reading a newspaper article about a local event, a person may only skim through the paragraphs to find key information about the event. In either case, it is always important for the reader to be able to engage with the text through questioning and reflecting upon the author’s purpose. This concept is known as critical literacy. McLaughlin (2011) points out that it is important for teachers to design lessons that help students develop critical literacy. Students need to be able to examine and evaluate what they are reading so that they can integrate what they’re learning into their background knowledge and take a stance. Enabling students to think critically helps them feel empowered and motivated because they have a role in the process.

Student and teacher expectations also have a major impact on student achievement. Low expectations can lead to a self-fulfilling prophecy of low achievement for many students (Hooley, Tysseling, & Ray, 2013). Therefore, it is important for teachers to find new and relevant ways to engage and motivate students (of this digital age) so that students develop the literacy skills necessary to become successful in 21st century (Elish-Piper, Wold, & Schwingendorf, 2014). Many reading programs utilize repeated readings because reading a text over and over again is one way to improve fluency. However, most high school students are not going to enjoy reading one passage over and over again. Motivating high school students to read anything at all can be challenging. Franzak (2008) points out that it is important for teachers to motivate students and foster a sense of self-efficacy because students need to have “confidence in their ability to apply the skills and strategies to their reading” (p. 1-328). This is why giving students a chance to select their own readings is an important way to engage them and help them find their own purpose for reading.
AVID

The Advancement Via Individual Determination (AVID) program prepares students who may not otherwise be able to adequately prepare for college on their own for college (What Works Clearinghouse, 2010). AVID teachers are trained to deliver curriculum and methodologies so that they can effectively implement the evidence-based program. Examining why students in the AVID program are successful can help other teachers transfer these concepts into other content-area classes (Franklin, 2011).

One of AVID’s cornerstone concepts is WICOR: Writing, Inquiry, Collaboration, Organization, and Reading to Learn. AVID has a multifaceted program that scaffolds these skills along with social supports to foster student independence and college readiness. The concepts that help students succeed in AVID are concepts that help all students become successful in college and/or a career. For instance, along with strong reading and writing strategies, students in the AVID program are taught self-management and study habits, active learning, questioning, problem-solving, participation, team work, and communication skills (Nelson, 2007). These skills are necessary to succeed in all academic areas as well as in college and any career.

Within the WICOR framework, some of the strategies that are regularly used in the AVID classrooms include Socratic seminar, Cornell notes, philosophical chairs, learning logs, quick writes, peer evaluation, and tutoring. These teaching strategies were not designed by the AVID program curriculum writers. These AVID-adopted concepts had been utilized in high schools and colleges for years before the AVID program was created. AVID teachers are trained on how to effectively implement these strategies, which is part of the reason the AVID program
is so successful. When executed correctly, these strategies promote rigorous learning within the WICOR framework.

An important part of the AVID program success is the fact that the program fosters an environment of student support, student engagement, and family involvement. These components are undoubtedly important for any student’s success. However, it is not just AVID teachers who can use the AVID strategies; non-AVID content area teachers can adopt the methodologies and teaching strategies utilized in the AVID program to help promote literacy and successful academic skills in their classrooms, too.

**Summary**

Students who are exposed to rigorous academics as well as sufficient social support systems are undoubtedly better prepared for college and success after high school (Bernhardt, 2013). In order to ensure that high school students graduate with reading and writing skills necessary for college or a career, there needs to be more research conducted to find out what helps students who are not making the grade.
CHAPTER III

METHODS

Design

This quasi-experimental study examined whether or not the Advancement Via Individual Determination (AVID) program is more effective than the standard high school curriculum at increasing literacy skills of high school students and therefore better preparing them for college. The independent variable in this study is the AVID program (the curriculum, social supports, and teacher training). AVID was administered to one group for four years of high school, and another group did not participate in AVID during the same time period. The dependent variable was student achievement in literacy (reading, comprehension, and writing).

Participants

This study used a convenience sample of 98 seniors from the graduating class of 2016. Forty-nine of the graduates were part of the AVID program, and the other 49 seniors were not in the AVID program. Out of the 49 AVID seniors selected, there were 34 girls and 15 boys between the ages of 17 and 19. Of the non-AVID seniors, there were 34 girls and 15 boys, also between the ages of 17 and 19. All students are from similar demographic backgrounds because the majority of students in this area come from families of lower socioeconomic status. None of the selected students have Individualized Education Plans (IEPs). Although AVID accepts students with IEPs, there were none among this group.

Instrument

The Maryland State Department of Education (MSDE) developed the High School Assessments (HSA) to evaluate student achievement after students had taken specific course work. Passing the HSA is a graduation requirement. Each test question on the HSAs is based on
Maryland’s Core Learning Goals in the four core subjects of Algebra, English, Biology, and Government (MSDE, 2016). MSDE hired Educational Testing Services (ETS), a nonprofit, reputable research and testing organization, to guide in the development of the HSAs. In order to assure validity and reliability of the HSAs, there was a lengthy development process with many checks and balances. Maryland educators as well as content experts were part of review committees who examination and evaluated of every test question. The MSDE utilized another reputable assessment company, Person Educational Measurement, to evaluate the reliability and validity of test (MSDE, 2005).

The English HSA consists of multiple choice questions, brief constructed response (BCR) items, and extended constructed response (ECR) items (MSDE, 2005). Each question is based off of the Core Learning Goals developed by the state of Maryland. The core learning goals for English include: a) reading, reviewing, and responding to texts, b) composing in a variety of modes, c) controlling language, d) evaluating the content, organization, and e) language use of texts (MSDE, 2004).

**Procedure**

Participants in the experimental group of AVID students were all participants of the AVID program since their freshman year. Students in the non-AVID group all attended the same high school (and attended standard classes) since their freshman year. Students in this AVID group were recruited for the program during middle school. Middle school teachers recommended students for the program. These students were interviewed by the high school AVID site coordinators prior to the start of their ninth grade year in order to assess whether or not these students were appropriate candidates. Upon entering the AVID program, they became part of a core group of students who are all taught the AVID curriculum, which is comprised of
lessons embedded with rigorous writing, inquiry, collaboration, reading, time management, and organization skills (WICOR). During their freshmen year, AVID students took a class that taught them about the principles and expectations of the AVID program. AVID students engaged in student-centered team building, communication, and trust exercises. This enabled students to develop a sense of purpose and “mutual ownerships in the expectations and learning within the classroom” (Bendall, Bollhoefer, & Koilpillai, 2015, p. 5). Students in the AVID program were taught concepts about self-monitoring and self-reflection that also enabled them to become successful in all of their classes.

The AVID program also teaches students to help one another and provides them with weekly visits with a trained AVID tutor. Therefore, when students in this program came upon a problem that they could not solve by themselves, they knew that they had other people who would help them think through their challenge. AVID is a rigorous program, and students in this program were taught to think critically through a variety of lessons that taught them to analyze, question, and problem-solve. All of the AVID students in this study were required to take honors courses, and, from their freshman year, they begin to prepare for college (Office of School Improvement, 2016). Together all of these components set the stage for student success in all of their other high school classes and better prepared them for college.
CHAPTER IV

RESULTS

The null hypothesis for this study was that the HSA scores of high school seniors in the AVID program would not be significantly different than the HSA scores of those who completed the general high school curriculum. Three two-tailed t-tests were run to determine whether or not there was a significant difference in the test scores between: a) the males in the AVID and non-AVID groups, b) the females in the AVID and non-AVID groups and c) all students in the AVID and non-AVID groups.

The primary focus of this study was to determine whether or not there was a difference in achievement between all students in each group. Figure 1 displays the HSA scores of the AVID and non-AVID groups. Among all students in the AVID group, there was a mean score of 414.37 with a standard deviation of 17.14. Among all students in the non-AVID group, there was a mean score of 404.67 with a standard deviation of 24.29. The overall findings revealed a significant difference between these scores, t(96) = 2.28, p < .05.

The data analysis of the AVID and non-AVID males’ HSA scores revealed a mean test score of 414.20 for the AVID males, while the mean score for the non-AVID males was 390.93, a significantly lower average, t(28) = 2.98, p < .05. Analysis of the HSA scores of the female AVID subgroup presented a mean score of 414.44, and the mean score for the non-AVID group was 410.73. However, there was no significant different between the HSA scores of AVID and non-AVID female students, t(66) = .78, p = .44.
Figure 1

*Mean HSA Scores of AVID & Non-AVID Students*
CHAPTER V

DISCUSSION

The purpose of this study was to examine whether or not the Advancement Via Individual Determination (AVID) program was more effective than the standard high school curriculum at increasing the literacy skills of high school students and therefore better preparing them for college.

The null hypothesis for this study was that the HSA scores of high school seniors in the AVID program would not be significantly different than the HSA scores of those who completed the general high school curriculum. After examining HSA scores of the two groups, the null hypothesis for this study was rejected.

**Research Implications**

A significant number of students who enroll in AVID programs are accepted into college. In 2015, 88% of AVID seniors applied to a four-year college, and 78% of those who applied were accepted (AVID, 2015b). Results of this study revealed that students in the AVID program achieved significantly higher scores on their HSAs than students who completed the general high school curriculum. The difference was more pronounced for male students than for female students. The primary implication that can be derived from the results of this study is that the AVID program better prepares students for college and the workplace.

**Theoretical Consequences**

The research indicates that students who struggle with reading in middle and high school need evidence-based instruction in order to develop their literacy skills (Roberts et al., 2008). Students also need to be taught critical thinking skills to enhance their reading comprehension and writing skills (McCarthey, 2008). AVID is a reputable, 30-year-old, student-centered
program that embeds research-based reading, writing, communication, organization, and study skills into the core curriculum. Reading and writing are the staples of WICOR (Writing, Inquiry, Collaboration, Organization, and Reading to Learn), AVID’s base curriculum framework (AVID, 2016). The AVID program uses a scaffold system to teach students comprehension and writing strategies that are key to meeting graduation requirements and preparing for success in college.

Another important theoretical consequence for this research involves the social support systems that are available to students in the AVID program. In order to be prepared for college and success after high school, students need rigorous, sufficient social support systems (Bernhardt, 2013). Students in AVID programs sign contracts when they begin the program. Then throughout the program teachers, administrators, parents, counselors, AVID tutors, and even coaches collaborate to hold students in the AVID program accountable for upholding their grades and model behavior. The findings from this study supports this scaffolding approach.

Threats to Validity

The research for this study only examined student achievement on HSA scores. Consequently, due to the limited nature of this study, there are a few threats to the validity of the study. While this research examined one measure (HSA scores) that is important to consider, there are other academic and social factors that could be analyzed in the future to determine whether or not the AVID program better prepares students for college and the workplace.

This quasi-experimental study used a convenience group of students of similar demographics from one high school in Baltimore County. Although all of these students live in an area that has a high number of families from lower socioeconomic backgrounds, there are some families who may not fit this profile. The AVID program does not promise to turn around
any type of underprivileged student. Students who are selected for AVID are students who have been identified as having a strong drive to succeed and a willingness to work harder than their peers who often take a careless approach to their education (Mathews, 2015). Therefore, when the AVID students were selected during middle school, there may have been a selection bias.

There could also be a threat to the validity of the test and instrumentation because students are allowed to and encouraged to retake their HSAs until they pass. Since AVID students have more social supports, they are more likely to be willing to test and retest to boost their scores. However, non-AVID students may refuse to retake the tests and may not attend school on testing days to avoid retesting. Since this research is retrospective, the researcher was not able to determine how many times each student took the assessments. Factors such as attendance and social supports may have affected how many times each student took each test and, therefore, their overall HSA scores.

**Connections to Existing Literature**

In a study with similar objectives conducted at Tarleton State University, Franklin (2011), examined ninth through twelfth grade students from 77 public high schools to determine whether or not high school graduates in the AVID program are better prepared for college compared to their non-AVID peers. This study analyzed factors such as attendance, student graduation plans, participation in Advanced Placement courses, and language arts and mathematics course work. Franklin found that “when all college readiness variables were considered, non-disadvantaged students had the greatest propensity to reach college readiness levels” (p. vi). The AVID program is designed to help students from disadvantaged populations with college readiness. While this study’s results indicate that non-disadvantaged students may still be better prepared for college than AVID students, the researcher concluded that our
educational systems must further develop programs so that all students have a supportive learning environment, especially for those who are disadvantaged or may not have the appropriate supports for college readiness (Franklin, 2011).

**Implications for Future Research**

The specific purpose of this study was to examine HSA scores to determine whether or not the AVID program better prepares students who may not otherwise be able to adequately prepare for college on their own. However, an underlying objective was to determine what secondary educators can do to help students who struggle with reading and writing at the high school level. To that end, further research is necessary. There is limited information available on effective literacy strategies and interventions for high school students because most research examines difficulties with children who are just learning to read in elementary school. Teachers need more information about specific strategies that they can use to help improve literacy skills at the high school level. Further research into the success of the AVID program could provide researchers and educators with one avenue for development.

Further research is also needed to determine why there was a significant difference between the scores of the AVID and non-AVID males while there was not a significant difference in scores of the AVID and non-AVID females. Further research may reveal information about how the support and standards held for males and females may vary throughout grade school.

**Conclusions**

In conclusion, the results of this study reject the null hypothesis. Graduates in the 2015 AVID program at this particular school in Baltimore County were significantly more successful on the English portion of their HSAs.
Many high school students are lagging behind in basic reading and writing skills necessary to find gainful employment and/or succeed in college (Wendt, 2013). The National Center for Educational Statistics (NCES) 2008 report shows that the average reading score for 17-year-olds has not changed significantly from the average score in 1971 (Rampey et al., 2009). It is important for teachers to find new and relevant ways to engage and motivate students of this digital age so that they develop the literacy skills necessary to become successful in the 21st century (Elish-Piper et al., 2014).
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