THE IMPACT OF ADVANCEMENT VIA INDIVIDUAL DETERMINATION (AVID) ON THE ACHIEVEMENT OF EIGHTH-GRADE STUDENTS

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The Advancement Via Individual Determination (AVID) program has been preparing students who are first generation. college-going students from subgroups traditionally underrepresented in higher education, and students from lower socioeconomic families for college and careers since 1980. The present study investigated the success of middle school AVID programs in 6 schools in 1 large district on the east coast. We hypothesized that the students from School District XY who participated in AVID in the eighth-grade during the 2013–2014 school year would meet with greater achievement than those who did not participate in AVID. Achievement was defined in 2 broad categories; cognitive and noncognitive outcomes. Cognitive outcomes were defined as having higher scores on the College Board's ReadiSTEP test, and higher grade point averages in the fourth quarter. Noncognitive outcomes were defined as having better attendance and lower suspension rates. Results were mixed. Students who participated in the AVID program during the 2013–2014 school year performed at a higher level than their non-AVID peers on the cognitive, academic-based hypotheses. They scored higher, on average, on the ReadieSTEP test than their colleagues; they also had higher fourth-quarter grade point averages than their non-AVID colleagues. In addition, it was found that AVID students showed a statistically significant difference in one of the 2 noncognitive hypotheses—suspension rates—than their non-AVID colleagues. However, AVID participants did not show a statistically significant difference in their attendance rates than their non-AVID peers.

The call to ensure that all American students graduate college and are career ready in the 21st century is gaining momentum (Conley, 2014; Schaefer & Rivera, 2012; Varee, 2008). School districts across the nation are searching for effective ways to help students acquire the skills and knowledge they will need in postsecondary education and workforce environments (Schaefer & Rivera, 2012). However, a particular focus on skill preparation is being placed

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on students from lower socioeconomic backgrounds, students from subgroups that are traditionally underrepresented in higher education, and first generation college-going students.

To produce college and career ready graduates, American public high schools are attempting to find ways to provide individualized instruction and support for all in order to help students overcome demographics and economic hardships and to meet with academic success (McKenna, 2011). To attain this goal, educational programs must provide rigorous instruction, student-specific interventions, and exposure to the high expectations held by universities and employers, especially for students who are labeled "at risk" (Conley, 2014; Franklin, 2011; McKenna, 2011; Mora 2009; Ruenzel, 1997; Varee, 2008; Watt, Huerta, & Lozano, 2007).

Studies have shown that there are educational programs on the high school level that can increase the academic achievement of underperforming students and effectively prepare them for college, and by extension, careers (Beer, Le Blanc, & Miller, 2008; Bernhardt, 2013: Bosworth, Convertino, & Hurwitz, 2014; Campbell, 2010; Ghazzawi & Jagannathan, 2011; Mendoza, 2014). The success of the high school programs in aiding students in the preparation for and transition to college suggests that the addition of similar college preparatory programs in middle schools will aid in students' preparation for, and transition to high school. With earlier access to the supports that have proved successful on the high school level, student achievement and the rate of college readiness might improve.

PURPOSE AND SIGNIFICANCE OF THE STUDY

The Advancement Via Individual Determination (AVID) program, started in 1980 by Mary Catherine Swanson in California, has grown into America's largest college preparatory program (Franklin, 2011; Matthews, 2015; McKenna, 2011; Mora, 2009; Ruenzel, 1997; Varee, 2008; Watt et al., 2007). "Today, AVID is implemented in more than 5,000 schools including K–12 and postsecondary schools in 47 states and 16 countries/territories" (AVID Center, 2016, p. 3). AVID has supported hundreds of thousands of first generation students, students from lower socioeconomic families, and students from subgroups traditionally underrepresented in higher education in their quest to improve their academic success rates and to attain the skills they need to apply to, enroll in, and thrive in 4-year colleges and universities (Matthews, 2015).

There is a plethora of evidence that AVID works on the high school level, particularly in schools on the west coast, where the program began, and where the program has been embraced as part of massive statewide school reforms (Bernhardt, 2013; Black, Little, McCoach, & Purcell, 2008; Llamas, Lopez, & Quirk, 2014; Matthews, 2015; McKenna, 2011; Mora, 2009; Nguyen, 2011; Parker, Eliot, & Tart, 2013; Protas, 2010; Varee, 2008; Ward, 2008; Watt et al., 2007). The challenge is to bring this type of success to the middle school level.

To this end, the present study was purposed to determine if the AVID program can be as successful in improving the academic achievement of middle school students, particularly those in the eighth grade, as it has been in improving the academic achievement of high school students.

THEORETICAL FRAMEWORK

The college-going rate in the United States has long been a cause for concern (Conley, 2012; Dyce, Albold, & Long, 2013; Gandara, 2002). Over the last 10 years only 64% of high school graduates, on average, transitioned to college immediately following their senior year of high school. Approximately 22% enrolled in 2-year colleges; approximately 42% enrolled in 4-year colleges (National Center for Educa-

tion Statistics, 2016). If this trend continues, the United States may experience a shortage of adults who have the higher education necessary to fill the estimated 62% of jobs that will require a college education by the year 2025 (Dyce et al., 2013). Over half of those jobs are predicted to require a 4-year college degree.

Of students who do graduate from high school and enroll in college, approximately one third require at least one remedial course before they can access first-year college-level courses (Sparks & Malkus, 2013). These courses add to the financial burden the students must shoulder and extend the amount of time it takes them to earn their degrees. For these reasons and more, many students' college aspirations are derailed early in their college careers. One fourth of college freshmen at 4-year colleges and universities fail to matriculate to their sophomore year; one half of students who start at 2-year colleges fail to matriculate to their second year (Stein, Robinson, Haycock, Vitale, & Schmeiser, 2005). Only a third of 4-year college students complete their degree in four years; less than two thirds complete their degree in 6 years (Stein, et al., 2005).

To improve the college-going and college-completing culture in America, high schools have targeted at-risk students via specific subgroups. Many high schools have targeted low-income, Native American, Hispanic, and African American students, as well as those who are from lower socioeconomic backgrounds and/or will be first generation college students, for extra supports in order to ensure they are graduating high school, and graduating high school college ready.

Several college preparatory programs have been developed to specifically support students from these subgroups. Gear Up, Upward Bound, and AVID are just three examples of college preparatory programs for minorities, first generation college-going students, and students from lower socioeconomic families. These programs focus on helping students develop executive functioning skills and study skills, an understanding of the college application and scholarship application processes, and the ability to advocate for themselves (Beer et al., 2008; Bernhardt, 2013: Bosworth et al., 2014; Campbell, 2010; Ghazzawi & Jagannathan, 2011; Mendoza, 2014). Because these programs have met with success, there is a growing interest in investing in them on the middle school level.

The present study sought to determine if the AVID college preparatory program can increase the academic achievement of eighth-grade students. Perhaps eighth-grade students who develop a foundation in the academic and personal skills necessary for college while in middle school will have a greater chance of completing high school, enrolling in college, and completing a 4-year degree in a timely manner so that they can become effective members of the American workforce.

LITERATURE REVIEW

According to Conley, in his article *A Complete Definition of College and Career Readiness* (2012), "a student who is ready for college and career can qualify for and succeed in entry-level, credit bearing college courses leading to a baccalaureate or certificate, or career pathway-oriented training programs without the need for remedial or developmental coursework" (p. 1). To become college and career ready all students must have well-developed cognitive skills, deep content knowledge, effective executive functioning skills, and an understanding of how to apply for, and adapt to the demands of colleges and/or careers (Conley, 2012; Gersten, 2012; Kay, 2009; Rourke & Mero, 2008; Stein et al., 2005).

Well-developed cognitive skills are essential to student success at the college level. Students must be able to gather sources of information, read critically, analyze text, ask questions, solve problems, reason logically, and connect their learning to real-world scenarios. They must also be able to clearly and effectively present their ideas orally and in writing in a variety of formats (Conley, 2012; Gersten, 2012; Kay, 2009; Rourke & Mero,

2008; Stein et al., 2005). This process of gathering, assessing, and producing cogent information takes practice and refinement. Waiting until high school to teach and reinforce this process may be too late.

Middle schools should potentially take ownership of preparing students for college and careers (Kay, 2009). Students in the middle school level are curious, willing to collaborate, and interested in learning by doing (Kay, 2009). They are also developing their own sense of identity and starting to formulate plans for their futures (Kay, 2009). This makes the middle school years the opportune time to teach students the executive functioning skills they will need to be productive adults; the self-awareness, self-monitoring, and self-advocacy they will need to set, manage, and meet their goals; the self-assessment skills essential to maximizing their preferred learning styles; and the essential skillset of how to read critically, take notes, recognize problems, identify their points of confusion, and organize their writing effectively (Conley, 2012; Gersten, 2012; Kay, 2009; Rourke & Mero, 2008; Stein et al., 2005). Academic and personal success in middle school may set students up for greater success in high school and beyond.

What Is AVID?

The AVID Program is a college preparatory program that has a mission to "close the achievement gap by preparing all students for college readiness and success in a global society" (AVID Center, 2014, p. viii). AVID was developed by Mary Catherine Swanson in 1980. Swanson was a high school English teacher in California who sought to provide academic, social, and emotional support to her underperforming Hispanic students. She created the "11 essentials" that form the foundation of the AVID program.

AVID's 11 Essentials

AVID targets students who are members of subgroups that are traditionally underrepresented in higher education, including students from lower socioeconomic families and students who will be first generation college-going students. AVID programs evaluate schoolwide data to ensure that the demographic makeup of the students in their programs are similar to the demographic makeup of the students in their schools. The first two AVID essentials work in tandem. The first essential states, "AVID student selection must focus on students in the middle, with academic potential, who would benefit from AVID support to improve their academic record and begin college preparation" (AVID Center, 2014, p. 4). The second essential states, "AVID program participants, both students and staff, must choose to participate in the AVID program" (AVID Center, 2014, p. 36). The fact that the students, the AVID elective teachers, and all other site team members volunteer to participate in AVID helps to motivate all to work together to meet the goals of the AVID program. Together, these two essentials drive the recruitment process for both site team members and students. The recruitment process involves information sessions, a written application, a formal interview, and a review of all appropriate data. The recruitment process is the start of ensuring that AVID programs are implemented with fidelity.

The third and fourth essentials are guidelines for scheduling the AVID elective and the students' courses of study. Essential three states, "The school must be committed to full implementation of AVID, with students enrolled in an AVID year-long, grade-appropriate elective class scheduled within the regular academic school day" (AVID Center, 2014, p. 60). Once selected, AVID students are required to enroll in the AVID elective every year until they graduate from high school. They are also required to enroll in increasingly rigorous courses each year, with the ultimate goal of having all juniors and seniors taking at least one Advanced Placement, International Baccalaureate, Advanced International Certificate of Education, or Dual Enrollment course. Essential four reads, "AVID students must be

enrolled in a rigorous course of study that will enable them to meet requirements for university enrollment" (AVID Center, 2014, p. 76).

Essentials 5, 6, and 7 highlight the required elements of the AVID elective instructional program. These essentials are as follows:

- Essential 5: Instructional strategies are taught in the AVID elective class to develop students' organizational skills that promote academic self-management.
- Essential 6: A strong relevant writing and reading curriculum provides a basis for instruction in the AVID elective class.
- Essential 7: Inquiry and collaboration are used as a basis for instruction in the AVID elective class and to promote critical thinking (AVID Center, 2014, pp. 90, 144, & 176).

"WICOR" is the acronym used to identify the five key components of the AVID elective instructional program: writing, inquiry, collaboration, organization, and reading. The AVID program does not simply teach these skills in the AVID elective class, but seeks to reinforce these skills schoolwide in all content areas (Mathews, 2015).

Perhaps one of the most unique requirements of the AVID program is its tutoring component. All tutors undergo 16 hours of training, and then work in the AVID elective classes to facilitate "tutorology" (Mathews, 2015). College-aged tutors are preferred; however, peer-aged tutors and teacher-tutors are also utilized. Twice a week, during *tutorology*, students are placed into groups based on their "points of confusion" from their core academic classes. These groups are limited to seven students each. One at a time, the students present their point of confusion to their peers, work through what they know about their problem, and then field questions from their peers designed to help the presenter come to his/her own solution to the problem. The tutor facilitates the discussion, ensuring the presenter is not given the answer by a peer, and takes notes for the presenter (Daws & Schiro, 2012, p. 43). The goal of tutorology is to let the student understand his/her points of confusion and not simply be given the answer by the other students. Essential eight specifies that "a sufficient number of tutors must be available in the AVID elective class(es) to facilitate student access to rigorous curriculum" (AVID Center, 2014, p. 206).

Essential nine dictates that the "AVID program implementation and student process must be monitored through the AVID Center Data System, and results must be analyzed to ensure success" (AVID Center, 2014, p. 236). Although the certification process is a self-study conducted by each site team, the data collected is quantitative. Data points include students' grade point averages (GPAs), quality point averages, attendance rates, suspension rates, and number of rigorous courses taken to mention some of the more pertinent indicators (AVID Center, 2014). There are even more data points collected for seniors. These include, but are not limited to, the number of college applications completed, the number of college acceptances received, and the amount of scholarship money offered (AVID Center, 2016). These data points, when compared to data points of similar students who did not participate in AVID, have provided a wealth of evidence that the AVID system works (Dean, 2009; Franklin, 2011, Mathews, 2015; Mora, 2009).

Essential ten necessitates that "the school or district has identified resources for program costs and has agreed to implement all AVID Essentials and to participate in AVID Certification. It has committed to ongoing participation in AVID professional learning" (AVID Center, 2014, p. 270). This is a key element of the program because AVID is not inexpensive and it does require that the AVID elective teachers are trained in the WICOR strategies and AVID methodologies.

The final essential, essential eleven, stresses the importance of a team approach to implementing AVID with fidelity. "An active, interdisciplinary AVID site team collaborates on issues of student access to and success in

rigorous college preparatory courses" (AVID Center, 2014, p. 286). In order to ensure active participation of all site team members, AVID not only requires that there is a site team plan, but also that each member of the team completes an individual action plan (IAP) each year. The individual action plans help teammates to map out who will be responsible for implementing each essential, as well as collecting the data and artifacts to demonstrate the implementation (AVID Center, 2016).

AVID and High Schools

There have been a wealth of studies conducted to evaluate the success of the AVID program since its inception in 1980 (Campbell, 2010; Ford, 2010; Franklin, 2011; Mora, 2009; Swanson, 1989; Varee, 2008; Ward, 2008; Watt et al., 2007). Study results consistently find that minority high school students are more successful in college-bound classes when supported by the AVID program (Swanson, Marcus, & Elliot, 2000). High school AVID students outperform their non-AVID colleagues on test scores, GPA, and many other data points (Franklin, 2011; McKenna, 2011; Mora, 2009; Protas, 2010; Ruenzel, 1997; Varee, 2008; Watt et al., 2007).

Franklin sought to evaluate the college readiness of AVID and non-AVID students in her 2011 qualitative study of 27 Texas high schools, with a total of 152,727 students, which had high levels of AVID certification for at least 2 years. Franklin found that "attendance, participation in Advanced Placement course enrollment, and college readiness Language Arts and Mathematics rates of AVID students were higher than non-AVID students" (pp. v–vi).

The benefits of AVID go beyond attendance and academic achievement. Watt et al. (2007) conducted a study in Texas that compared four groups of students from two separate high schools and their differences in "educational aspirations, expectations and anticipations, knowledge of college entrance requirements, knowledge of financial aid, and academic achievement in mathematics" (p. 185). All 139 participants were in the 10th grade at the time of the study; of these, 39 students participated in AVID, 39 students participated in GEAR UP, 21 students participated in both AVID and GEAR UP, and 40 students did not participate in either AVID or GEAR UP. The results showed that the AVID students were enrolled in more pre-Advanced Placement courses than the rest of the students. AVID students also self-reported higher educational aspirations and had more "college knowledge" than their peers.

Findings suggest that the AVID program on the high school level is successful in empowering minorities, first generation college-going students, and students from lower socioeconomic families (Mora, 2009; Swanson, 1989; Varee, 2008; Ward, 2008). Mora (2009) found that the Hispanic females in one high school in Southern California who were in the AVID program "had higher levels of self-esteem, self-efficacy, motivation, and more positive student-teacher relationships; and they had higher grade point averages than Hispanic students not in AVID" (Mora, 2009, p. vi). Further, AVID students are more likely than their non-AVID high school peers to employ writ WICOR strategies and other AVID methodologies, take ownership of their own education, and meet with academic and personal success, which leads them to pursue, and complete, a 4-year degree (AVID Center, 2016). Perhaps these same WICOR strategies and AVID methodologies can also benefit students on the middle school level.

AVID and Middle Schools

Beane and Lipka (2006) identified characteristics of effective middle grade schools, noting that,

> high-quality middle schools should (1) improve academic achievement for all students, (2) understand adolescence, (3) provide challenging and integrative curriculum, (4) create supportive and safe environments, (5) ensure better teacher preparation for mid-

> dle grades, and (6) improve relationships with families and communities. (pp. 26–27)

The AVID program addresses each of these six criteria, making it consistent with overall strategies to reform and improve middle level schools. However, there is not nearly the body of research about the AVID program on the middle school level as there is about the AVID program on the high school level (Dean, 2009; Peak, 2010). What research is available suggests that AVID can be just as successful on the middle school level as it is on the high school level.

Huerta, Watt, and Butcher (2013) conducted a study of the performance of students in AVID; however, they differentiated students by groups based on which students had participated in AVID in the middle school and which students had only participated in AVID in the high school. Using data from the AVID Center Senior Data Collection Form, they collected the responses of 11,641 seniors who had enrolled in AVID only during high school and another 3,986 seniors who had enrolled in AVID in both middle and high school. The team used a stratified sampling procedures to evaluate the results of 20% of these students. They found that the students who enrolled in AVID during both middle and high school performed better academically while taking more rigorous courses, including more Advanced Placement courses than students who were only enrolled in AVID during high school. Huerta et al. (2013) concluded that AVID may have a positive impact on middle school participants, and their findings support the body of evidence that the greater number of years a student is enrolled in AVID, the greater the academic achievement in high school.

Dean (2009) conducted a mixed-method, quasi-experimental case study in three California middle schools to determine the perceived value of the AVID program from the perspectives of students, teachers, and parents. Dean looked at students' attendance records, GPAs, and state test scores. In addition to these quantitative measures he also conducted focus group interviews.

Dean did not find statistically significant differences between the academic performance of the AVID participants and the non-AVID participants in these three particular AVID middle schools when analyzing students' attendance records, GPAs, and state test scores. He did, however, find that the students and parents in the focus groups overwhelmingly deemed the AVID program successful in helping the student participants to maximize their personal and academic potential.

There are a number of possible explanations for findings of no statistically significant differences between the academic performance of the AVID participants and the non-AVID participants: (a) was the academic performance of the students measured using the most appropriate achievement measures? (b) was the sample size too small? and (c) were participants of the focus group biased in any way? Further research on a wider scale could help clarify the results of Dean's study.

In 2009, Peak studied the mathematical achievement of seventh- and eighth-grade students at one middle school in Colorado. He conducted a quasi-experimental study comparing the results of AVID students' Colorado State Assessment Program scores to the scores of students who were demographically similar to the AVID students and who were enrolled in the same level math classes as the AVID students.

As in other similar studies, the results were mixed: the AVID students showed a statistically significant improvement in their scores. However, when the scores of the students who participated in AVID were compared to the scores of students who did not participate in AVID, but who were in math classes taught by AVID-trained math teachers, there was no statistically significant difference, indicating AVID-trained teachers may outperform other teachers even if the AVID-trained teachers are not using the AVID program. These results highlight the need for additional research, particularly with a larger sample size.

RATIONALE FOR THE STUDY

American students are not graduating from high school college and career ready (Stein et. al. 2005). This is particularly true of minority students, as well as students who are first-generation college-going students, and students from lower socioeconomic families. Research has demonstrated that such students, who participate in the AVID program on the high school level, can and do meet with academic success and are better prepared to face the rigorous demands of postsecondary education. But why wait until high school? Can middle school students, who are deliberately and intentionally taught cognitive strategies, content knowledge, learning skills and techniques, and the skills necessary to transition smoothly to high school and college via a college preparatory program such as AVID also meet with greater academic success—better preparing them for high school and beyond? The present study sought to answer that very question.

HYPOTHESES

Eighth grade students in School District XY who participated in the AVID program during the 2013–2014 school year will outperform their peers not participating in the program by:

H_1: scoring higher on a standardized career assessment test (i.e., the ReadiSTEP test);

H_2: earning a higher GPA in the fourth quarter of the academic year;

H_3: attending school at a higher rate; and

H_4: being suspended at a lower rate.

SAMPLE AND DATA COLLECTION

Participants

Achievement data were collected from 1,649 students from the eighth grade classes at the six middle schools in School District XY with AVID programs. Data from the 2013–2014 school year were used to assess AVID's programmatic effectiveness.

Participation in the AVID Program

Two hundred and twenty-two of the 1,649 students in the six schools with AVID programs participated in AVID during the 2013–2014 school year (13.5%). The other 1,427 students did not participate in the AVID program.

Selection Process for Participation in the AVID Program

The criteria for students to be selected to participate in the AVID program were as follows:

1. The students should be in the "academic middle"—they should start out in the program with a GPA between 2.0 and 3.5.
2. The students should come from demographic subgroups that are traditionally underrepresented in higher education, from lower socioeconomic families, and/or from individuals who will be first generation college-going students.
3. The students must volunteer to participate.

The selection process involved:

1. Attendance at an informational session for students and/or family members.
2. Voluntary completion, by the student, of the written application form.
3. Student, and sometimes parent, participation in a face-to-face interview with an AVID site team member.
4. Verification of teacher recommendations.
5. Ensuring that the overall demographics of the AVID program participants at a particular school were a microcosm of the overall demographics of the school as a whole.

Dependent Variables

Career Readiness (The ReadiSTEP Test)

In October 2013, all eighth-grade middle school students in School District XY were administered the ReadiSTEP test. This College Board assessment was used to gauge the college and career readiness of each individual student. The cut score for students to meet the college and career readiness standard for ReadiSTEP was 11.8.

Grade Point Averages

In this district, GPAs were only calculated in the fourth quarter of the eighth grade year.

Attendance

Attendance was measured as percent of days present. School District XY considered a 96% rate of attendance appropriate for students who are on track to be college and career ready.

Suspensions

Number of suspensions was calculated. School District XY considered students who have been suspended from school in danger of not being on track to graduate high school college and career ready.

Data Sources/Evidence

Administrative data from the six middle schools in this district implementing the AVID program were analyzed. Information on participation in the AVID program, the ReadiSTEP test, fourth quarter GPAs, suspension rates, and attendance rates were accessed through an administrative database. The study was approved by the institution's institutional review board.

RESULTS FOR HYPOTHESIS 1

AVID Versus Non-AVID on the ReadiSTEP test Hypothesis

Eighth-grade AVID students who took the ReadiSTEP test during the 2013–2014 school year scored an average of .357 points higher than those students who were not in the AVID program, as shown in Table 1. The 0.357 difference was statistically significant (t = 3.08, df = 344, $p < .01$). The effect size, 0.19, was considered just below small (i.e., using the benchmark of 0.20) by Cohen's (1988) criteria. Thus, we found support for the AVID versus non-AVID comparison on the ReadiSTEP test hypothesis.

RESULTS FOR HYPOTHESIS 2

AVID Versus Non-AVID for Fourth Quarter GPAs Hypothesis

Eighth-grade students in the AVID program during the 2013–2014 school year earned, on average, a GPA 0.25 points higher than their colleagues not in AVID, as shown in Table 2. The 0.25 difference in GPA was statistically significant (t = 4.06, df = 1645, $p < .001$). The effect size, 0.29, would be considered small by Cohen's (1988) criteria. We found support for the AVID versus non-AVID GPA hypothesis.

RESULTS FOR HYPOTHESIS 3

AVID Versus Non-AVID Attendance Hypothesis

On average, AVID students were absent from school 5.84 days. Their non-AVID peers were absent, on average, 5.96 days, as shown in Table 3. The 0.12 difference in days absent was statistically insignificant (t = .28, df = 1,647, ns). The effect size, as measured by Cohen's d, was 0.02, was considered trivial by Cohen (1988). Thus, we did not find support

TABLE 1
AVID Versus Non-AVID on the ReadiSTEP Test

Variable	*n*	*M*	*SD*	*Std. Error M*
Score				
Non-AVID	1,267	9.784	1.8837	.0529
AVID	219	10.141	1.5218	.1028

TABLE 2
AVID Versus Non-AVID for Fourth Quarter GPAs Hypothesis

Variable	*n*	*M*	*SD*	*Std. Error M*
GPA				
Non-AVID	1,425	2.3885	.86256	.02285
AVID	222	2.6393	.81248	.05453

TABLE 3
AVID Versus Non-AVID Attendance

Variable	*n*	*M*	*SD*	*Std. Error M*
Attendance				
Non-AVID	1,427	5.960	6.0867	.1611
AVID	222	5.838	5.7423	.3854

TABLE 4
AVID Versus Non-AVID Suspension Rates

Variable	*n*	*M*	*SD*	*Std. Error M*
Suspension Rates				
Non-AVID	1,427	.521	1.4596	.0380
AVID	222	.243	.9581	.0643

for the AVID versus non-AVID attendance hypothesis.

RESULTS FOR HYPOTHESIS 4

AVID Versus Non-AVID Suspension Rates Hypothesis

On average, AVID students were suspended from school 0.243 days; their non-AVID peers were suspended, on average, 0.521 days, as shown in Table 4. The 0.278 day difference between the suspension rates of AVID and non-AVID students was statistically significant ($t = 3.71$ $df = 401.3$, $p < .001$). The effect size, Cohen's d, was 0.19, just below the 0.20 level required for a small effect. Thus, we found support for the AVID versus non-AVID suspension rate hypothesis.

DISCUSSION

The results of this study were mixed. The study found support for the two cognitive, achievement-based hypotheses, but only found

support for one of the two noncognitive, behavior-based hypotheses. Discussion of these results and suggestions for further research follow.

AVID Versus Non-AVID on the ReadiSTEP Test Hypothesis

Eighth grade students in School District XY who participated in the AVID program during the 2013–2014 school year scored higher, on average, on the ReadiSTEP test than their colleagues who did not participate in AVID. There are several reasons why this is an important implication of the success of the AVID program. First, part of AVID's mission is to prepare students for entrance into 4-year colleges. To be a serious candidate for admission to many 4-year colleges, students must perform well on standardized tests such as the PSAT/NMSQT, the SAT, and/or the ACT. The results of the test of this hypothesis suggest that the AVID students have the aptitude, based on ReadiSTEP scores, to score well on college admissions tests.

Another part of the AVID program's mission is to steadily increase the level and rigor of the courses AVID students are taking. By performing better on the ReadiSTEP test, the AVID students are setting themselves up to be placed in higher level courses their freshman year of high school. This makes it more likely that they will attain the goal of enrolling in at least one Advanced Placement course by their junior year of high school.

Finally, by performing higher than their non-AVID peers on the ReadiSTEP, the AVID students demonstrate that they are more likely to meet the benchmark for College and Career Readiness in the eighth grade than their non-AVID peers. Based on these results, AVID is preparing its eighth grade students for entrance into 4-year colleges and universities.

AVID Versus Non-AVID on the GPAs Hypothesis

This hypothesis was supported with a small statistically significant difference. By the end of their eighth grade year, students in district XY who participated in the AVID program had higher fourth quarter GPAs than their colleagues who did not participate in the AVID program. This result implies that the AVID program is successful in helping students, in the academic middle, from lower socioeconomic families, from subgroups traditionally underrepresented in higher education, and those who will be the first in their families to attend 4-year universities, increase their level of academic achievement.

AVID Versus Non-AVID on the Attendance Hypothesis

AVID students from district XY who were in the eighth grade during the 2013–2014 school year were absent fewer days than their non-AVID peers. However, the difference (0.12 days) was too small to reject the null hypothesis of no effect between the two groups. As middle school students are subject to compulsory attendance laws, this finding is not surprising.

AVID Versus Non-AVID on the Suspension Rates Hypothesis

The students in district XY, who were in the eighth grade during the 2013–2014 school year, were suspended a significant number of fewer days than their non-AVID peers. This finding is in direct opposition to the disturbing trend across the nation which shows minority students, particularly African American males, being suspended at a much higher rate than their White, non-Hispanic colleagues. There are high numbers of minority students, particularly African American students, in the AVID program in District XY. The fact that they are being suspended at a much lower rate than their non-AVID peers may be explained by other qualitative studies. Students who participate in AVID program report higher levels of self-esteem, self-efficacy, and problem-solving skills (Ford, 2010; Mora, 2009; Nguyen, 2011). Students repeatedly comment on the "family" aspect of AVID—with particular

emphasis on the teacher as "in-school parent" (Llamas et al., 2014).

Suggestions for Further Research:

Future research could include a longitudinal study of middle school students and how they fared on the PSAT/NMSQT, SAT, and/or the ACT when they are juniors in high school. Are their scores on the ReadiSTEP early indicators of their future scores on the PSAT/NMSQT, SAT, and/or the ACT? A second future study design might follow middle level AVID participants into their freshman year of high school to see if they indeed do enroll in more higher level courses their freshman year of high school than their non-AVID peers. A third future study could be a replica of the present study on a larger scale, and/or over a longer period of time. Such a study would help identify if AVID students in a particular state, region, or across the country are more likely to perform better on their end-of-eighth-grade assessments than their non-AVID peers, or if this was just the case in district XY during the 2013–2014 school year. A comparison of overall motivation of AVID versus non-AVID students might also be useful. This analysis would help determine if differences in performance of the groups were due more to varying levels of motivation that to actual program effects.

SUMMARY

The results of this study were mixed. The study found support for the two cognitive, achievement-based hypotheses, but only found support for one of the two noncognitive, behavior-based hypotheses. Eighth grade students in School District XY who participated in the AVID program during the 2013–2014 school year scored higher, on average, on the ReadiSTEP test than their colleagues who did not participate in AVID. They also had higher fourth quarter GPA's and fewer suspensions. They did not, however, show any difference in attendance rates than their non-AVID colleagues.

This study is just one of a few that focuses on the AVID middle school program. It targets one school district on the Eastern seaboard. The results of this study do suggest that the use of the AVID program at the middle school level is beneficial to participants. Many more studies are called for to determine whether or not middle school AVID programs can meet with the same success as the high school AVID programs.

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