Access, Achievement, and Academic Resilience: The Relationship between AVID and Black Student Participation in Advanced Placement Courses

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Student Participation in Advanced Placement Courses

The successful completion of Advanced Placement (AP) courses is an essential

component to college readiness. Reports suggest that often students that do not take AP courses

are not adequately prepared for college (ACT, 2007; Le, Mariano, & Faxon-Mills, 2016).

Additionally, students that complete AP courses tend to graduate from college on time and with a

higher college grade point averages (GPA) than their peers (Mattern, Marini, & Shaw, 2013).

Given these results it is imperative that all college bound students have access to AP coursework.

Unfortunately, Black students do not participate in AP courses at the same rate as their peers. For

example, only 20% of Black students are prepared for college after high school graduation

(Greene & Forster, 2003). In order to increase the number of Black college graduates, enrollment

and completion of AP courses is an essential consideration for researchers, educators, and

parents.

A national survey of universities shows that the most important factors considered in

admissions decisions are "high school GPA [and] class rank" (Klopfenstein & Thomas, 2005, p.

2). Class rank is an even bigger deal in states such as Texas, Florida, and California all of which

have automatic admission for the top 4-10% percent of their public high school graduates. These

states created automatic admission policies to give underrepresented populations of students a

higher likelihood of being accepted to universities following the Hopwood case, a trial that

ended admission policies based on affirmative action (Young & Young, 2016b). However, due in

part to GPA incentives given to students who participate in AP courses, the automatic admission

advantage fails to diversify many public schools.

Many public high schools give grade point incentives to students who participate in Pre-AP/AP courses in high school. These incentives make participation in AP courses more important for students seeking to earn competitive GPAs. For example, if two students are taking U.S. History, one in a regular classroom and the other in Pre-AP, and they both make an "A" in their respective classes, the student in the Pre-AP course will receive more grade points for the course as the class is designed to be inherently more difficult. Advocates of automatic admission policies contend that automatic admission increases representation of underrepresented groups in public colleges and universities (Geiser & Santelices, 2006; Long, Saenz, & Tienda, 2010). However, many underrepresented groups of students are unaware of the grade point incentives available for Pre-AP/AP courses. Hence, many of these students choose not to take Pre-AP/AP courses. These students opt out of the Pre-AP/AP course because these courses are typically more rigorous, and taking an easier course is a logical method to conserve their GPA, which inadvertently puts them at a disadvantage (Ndura, Robinson, & Ochs, 2003; Speroni, 2011).

Further, the academic rigor and "hidden curriculum" presented in Pre-AP/AP courses develops academic resilience, which many underrepresented students do not develop in high school. Academic resilience can be defined as "the heightened likelihood of educational success despite adversities brought about by environmental conditions and experiences" (Wang, Haretal, & Walberg, 1997, p. 4). Many Black students are exposed to conditions and experiences that can adversely affect their academic performance. For instance, a low socioeconomic status (SES) is consistently cited as a predictor of unfavorable academic and subsequent adult outcomes (Duncan & Brooks-Gunn, 2000; Schoon & Parsons, 2002). Although not all Black students have this shared experience, this is the reality of many first generation college bound Black students.

Conditions such as low SES are often referred to as academic risk factors that academically resilient underrepresented students have to overcome to earn a college degree. According to Perez, Espinoza, Ramos, Coronado, and Cortes (2009), two academic risk factors are well established: (a) being a student of color or underrepresented student attending an inner city school, or (b) coming from a low income home where English is not the primary language. A substantial number of Black students exhibit one or both of the aforementioned academic risk factors. Thus, not developing their academic resilience in high school can prohibit them from being competitive at the postsecondary level. Taking rigorous AP courses prepares Black students mentally and emotionally for the many eventualities of colleges and universities. However, without the proper support mechanisms in place many Black students will not consider AP course participation.

Problem Statement

A lack of academic preparation helps to explain some of the underrepresentation of Black students in colleges and universities (Capraro, Young, Lewis, Yetkiner, & Woods, 2009; Higher Education Review, 2005; Larke, Larke, Jones, & Lea, 2012). Planning and preparation are vital components of making the transition to postsecondary education. Martinez and Klopott (2003) suggest students of color are less likely to plan for postsecondary education. AP courses are an important consideration for college preparation and success. Many AP courses require counselor or teacher recommendation thus it is important that Black students plan ahead because requisite knowledge and exposure are necessary to gain access to these courses. Yet, many parents of color are under informed by schools and often are unaware of the importance of AP courses until is too late (Larke, Easterly, Irby, Jones, & Lea, 2009). Systematic programs that provide inroads to accessing AP courses and the hidden curriculum necessary for college readiness can support

Black students on their academic journey. The Achievement via Individual Determination (AVID) program is an academic support program designed to assist "average" students by providing academic and social support in the form of a required elective that features college tutors and a highly trained team of teachers (Mendiola, Watt, & Huerta, 2010; Watt, Huerta, & Mills, 2010). The results of several studies indicate that AVID is a good medium to facilitate the transition of traditionally marginalized students to colleges and universities (Lozano, Watt, & Huerta, 2009; Watt, Johnston, Huerta, Mendiola, & Alkan, 2008). Based on AVID's support system, it is hypothesized that AVID may serve as an ideal mechanism to increase participation of Black students in AP courses. However, assessments of the effects of AVID participation on Black student access to AP courses remains relatively absent from the current literature compared to studies of other culturally and linguistically diverse students. The purpose of this study was to examine the association between participation in the AVID program and Black student participation in AP courses.

AVID Program Structure

The AVID program contains several components that are conducive to the recruitment and retention of Black students in AP courses. One of AVID's primary goals is to increase the number of underrepresented students in advance courses (Swanson, 1993). AVID was founded in 1980 and serves two purposes: 1) to increase college participation among Black, Alaskan/Native American, Latinx, and low income students who are the most underrepresented in postsecondary education; and 2) to restructure secondary school teaching methodologies to allow college preparatory curricula to be accessible to all students (Swanson, 1993). To fulfill these goals the AVID program employs rigorous and relevant curriculum, as well as academic and social

support from an elective class (Watt, 2004, p. 242). These features can help to make AP courses more accessible and manageable for Black high school students.

Since its inception, the AVID program has become one of the most successful school reform models to increase underrepresented student achievement. AVID has sustained substantial success and growth and is available in 15 different countries, serves 45 of the 50 states in the United States, and assist nearly 300,000 K-12 students (AVID Data Center, 2009).

One major contributor to the success of the AVID program is its commitment to teaching students about the hidden school curriculum. The hidden curriculum includes special ways of talking, thinking, and acting that are demanded by the school, but seldom discussed openly by the school (Swanson, 1993, p. 21). Other research on the effectiveness of the AVID program suggest that AVID increases underrepresented student achievement, and develops relationships between underrepresented students and similar students enrolled in college (Guthrie & Guthrie, 2000; Mehan, Villanueva, Hubbard, & Lintz, 1996). Despite the many benefits of the AVID program, for the purpose of this study the focus is placed on AVID as a mechanism to increase Black student participation in AP courses.

Research on the Effectiveness of AVID

In an early study of AVID as a comprehensive school reform model, Watt, Yanez, and Cossio (2003) investigated: (a) AVID as mechanism to increase access to rigorous coursework [AP and honors courses], (b) changes in school policy and culture in response to the AVID program, (c) differences in student achievement, and (d) college preparation of AVID students. According to the researchers, the AVID program yielded favorable outcomes across the research questions investigated. The area pertinent to this study was the access to rigorous coursework. Over 90% of the participants in this sample were placed in rigorous coursework for the first time (p. 56).

Yet, academic achievement remained consistently high or increased. Thus, Watt, Yanez, and Cossio (2003) concluded that AVID is a pathway to increasing access to AP courses for underrepresented students. In a similar study, Watt (2004) examined AVID's affect on AP class enrollment and other school performance ratings.

By examining the data reported in rigorous coursework, the researcher found that 87% of all AVID students in 2000-2001 were enrolled in some type of college preparatory class, however few of which were AP classes (Watt, 2004). In addition, of all the 11th and 12th grade AVID students, none were enrolled in an AP math class, 7.7% were enrolled in AP English, .5% in AP science class, and 4.9% in an AP social studies class. However increases in AP enrollment were made during the 2002-2003 school year (Watt, 2005). The data listed above is not a good indication of the percentage of AVID students enrolled in AP classes compared to that of non-AVID student enrollment in AP classes partially because Pre-AP class enrollment was not considered in this study.

In a study of 42 Mexican American students attending college after completing the AVID program, Mendiola, Watt, and Huerta (2010) concluded that the AVID program successfully prepared the students not only to enroll in college, but to effectively pursue a degree. As part of the research study the researchers collected several pieces of apposite information related to the success of the AVID program. One source of particular importance to this study was the student AP enrollment and completion pattern data. The study results revealed 73% of the participants took at least two AP courses, further some took and passed the AP exam with scores of 3 or better. The exact percentages of students that successfully passed the AP examine were not presented, but the results do indicate that a substantial amount of students took AP courses in the

AVID program. The results of the aforementioned studies are indicative of the effect AVID has on underrepresented students ability to enroll and complete advanced high school coursework.

AVID as Mechanism to Foster Academic Resilience

The foundation of the AVID program is built on the prescience that students will rise to the expectations placed before them given the proper skills and support. This notion makes AVID unique because the program targets academically "average" students and places them in academically rigorous courses while providing the needed skills and support (Contreras, 2011). The AVID program by design is a mechanism to foster academic resilience. Specifically, the AVID program: (a) solicits "academically average" students, many from low-income households and inner city schools which are academic risk factors, (b) places them in rigorous AP/IB courses that create an adverse or stressful situation, and (c) requires positive outcomes in terms of student enrollment and completion of these AP/IB courses.

The AVID program is successful because the instructional framework provides students with the necessary tools to remain or become academically resilient. Academically successful students need access to a supportive network of family members, friends, and teachers that provide advice and counsel in stressful or adverse situations (Perez, Espinoza, Ramos, Coronado, & Cortes, 2009). The AVID program connects students, teachers, and parents as a united academic entity by requiring parental involvement for participation in the program. This creates a conduit for the flow of academic information that is not present in many traditional academic settings. The AVID program also suggests students enroll in courses with other students in AVID to create small cadres within the program. These cadres create study partners and groups during the allocated tutoring sessions provided in the AVID program. Aside from a firm parental and peer

support system, academically resilient students are described by certain characteristics that serve as affordances in stressful situations.

Resilient children typically exhibit several characteristics that lead to their success: (a) good communication skills, (b) achievement orientation, (c) caring attitudes, (d) an internal locus of control, (e) positive self-concept, and (f) a belief in self-help (Werner & Smith, 1992). The characteristics mentioned above are not part of the traditional K-12 curriculum, but rather students typically either develop the skills on their own or gain them from parents or mentors. Many of these characteristics are covered as part of the "hidden curriculum" taught in AVID. The AVID program provides students with valuable insight onto the unspoken rules of the traditional education system. For example, AVID teachers suggest that students choose to sit on the front row or near the front row in class. AVID teachers also teach student to take responsibility for their academic performance and provide appropriate examples of how to respectfully address a grade concern. These skills are essential for successful completion of rigorous academic courses in traditional classrooms (Mendiola, Watt, & Heurta, 2010; Nelson, 2007; Swanson, Marcus, & Elliott, 2000). Although the AVID program provides a plethora of resources and support for underrepresented students, the AVID program does not ensure academic success for all students. Access to more resources in times of adversity increases the chances that young people deal with stress effectively (Luthar & Zelazo, 2003). However, the provision of support from risk does not mean that the risk is completely avoided; a resilient student is still forced to engage in the risk and overcome the situation (Rutter, 1979).

Method

This study employed a quasi-experimental design to evaluate the effectiveness of the AVID program as a means to foster academic resilience in underrepresented populations. As noted in

the literature review many underrepresented students contend that rigorous courses such as pre-AP/AP and international baccalaureate courses are insurmountable. Thus, enrollment and successful completion patterns were chosen as the unit of analysis because they represent a student's ability to overcome a seemingly difficult task, and emerge more resilient.

Participants

The participants in the present sample were 9th grade Black students ($N = 2,267$) that participated in the High School Longitudinal Study of 2009/2012 (HSLS:09/12). The sample was 49.6% female and the students were drawn from diverse socioeconomic backgrounds. Students were randomly selected from a pool of over 21,000 students from 944 public, charter, and private schools in the United States. The base year data collection included online surveys administered to students, parents, math teachers, and administrators. In subsequent administrations, similar online surveys were administered to parents and students. These variables represent the independent and dependent variables examined in the present study.

To assess the construct validity of the HSLS:09/12, researchers conducted a principle components factor analysis (Ingles et al., 2011). In the present study, we examined the following scales: (1) AVID participation [S1AVID] and (2) AP course participation [S1AP]. The aforementioned scales were dichotomous where 0 represented no participation and 1 represents participation. To control for the influence of demographic over or underrepresentation I also retrieved the following demographic variables: (1) mothers education level [X1MOMEDU], (2) fathers education level [X1DADEDU], and (3) family income [X1FAMINCOME]. These variables were selected based on their inherent possible influence on student participation in AP courses.

Data Analysis

The data were analyzed in a three-step process. First, data were cleaned and weighted to adjust the error variances to account for the complex sampling procedures. The HSLS:09/12 like most NCES sample designs was non-random and incorporated stratification and clustering that should be accounted for in the analytic procedure. Statistical methods such as multilevel structural equation modeling and hierarchical linear modeling (HLM) incorporate clustering, that alleviate the need to adjust for design effects (Thomas & Heck, 2001). The current analysis requires the use of an average design effect based on the WISTUDENT weight. Student weights were normalized and then adjusted to account for design effects. This procedure was conducted to maintain the integrity of the data and to assure that the final error variances were correctly calculated (Hahs, 2003). After data cleaning and weighting the data, a propensity score analysis was conducted.

Student data were analyzed of propensity score matching, which was proposed by Rosenbaum and Rubin (1983) for estimating the effects of non-randomized experiments. Because this was a non-random experiment it is important that the treatment and control group are similar across a multitude of characteristics in order to isolate the treatment effects in this study. To achieve appropriate matching it is important to have as many characteristics as possible to adequately match the treatment and control groups. These characteristics are multidimensional and can include: mother's education, father's education, and family income. Rosenbaum (1998) proposed to reduce these characteristics into a single scalar, or summary score known as the propensity score. The scores were calculated by binary logistic regression and saved to the initial SPSS file.

Binary logistic regression was used to determine the propensity scores within the built-in propensity score module provided by SPSS version 22.0. Logistic regression was chosen over other methods such as discriminant analysis for two reasons. The first reason is because logistic regression is a robust method that is not subject to a plethora of assumptions. Further logistic regression allows the user to utilize both categorical as well as scale variables. The logistic regression covariates were mother's education level, father's education level, and family income. These covariates were used to determine the student's probability of being in the treatment group (AVID participation), thus treatment was the dependent variable in the logistic regression. The overall fit of the binary logistic model was assessed by the Hosmer and Lemeshow chi-square test of goodness of fit. Descriptive statistics for group membership before and after the propensity score matching are provided. These statistics indicated that the final groups are similar on demographic variables.

Propensity scores were used to match students participating in AVID to those who did not on their likelihood (i.e., propensity score) of participating in AVID. An appropriate distance measure (i.e. caliper) was used to inform which pairs were well matched. This distance was specified *a priori* as the standardized mean differences in the logit transformations of the propensity scores. In the present study, a caliper of 0.25 standard deviations ($d = 0.25$) of this score was used. Stuart (2010) suggests that 0.25 is a reasonable distance for reducing bias between groups. Thus, this value was implemented in the current study.

The final step in the analysis was to assess the relationship or association between AVID participation and AP course participation in Black high school students. Given that S1AVID and S1AP were both non-continuous variables Pearson's *r* was not appropriate. Pearson's product–moment correlation coefficient is a continuous parametric measure (Puth, Neuhäuser,

& Ruxton, 2015), but S1AVID and S1AP are both nominal variables. We thus chose the Goodman and Kruskal's lambda (λ) measure of association because it is preferred when both variables are nominally scaled. Lambda represents the degree of reduction in the error of predicting the values (categories) of one variable based on the values (categories) of another variable (Trusty, Thompson, & Petrocelli, 2004). Because SPSS provides output for lambda statistics for the symmetric case (no dependent variable) and both asymmetric cases (each variable as the dependent variable), we interpreted S1AP as the dependent variable and S1AVID as the independent variable.

Results

In order to create empirically similar comparison groups, propensity score matching was performed. Tables 1 though 3 present the before and after matching covariate descriptive characteristics, these characteristics are important predictors of student participation in AVID. As seen from the data presented in Table 1, before matching the majority of participants were located in the control group. Thus, there was an overrepresentation of participants at each level of mother's education before matching. The before and after matching data for father's education parallels the trends presented for mother's education. Again approximately 90% of the original sample did not participate in AVID, but after matching the experimental and control groups were more balanced except at the master's and doctorate level of education.

Table 1

Mother's Education Level Characteristics Before and After Matching

	Control_Before	AVID_Before	Control_After	AVID_After
Absent	93.6%	6.4%	60.0%	40.0%
Less than High school	95.8%	4.2%	77.4%	22.6%
High school/GED	94.9%	5.1%	48.4%	51.5%
Associate's	94.2%	5.8%	37.1%	62.9%
Bachelor's	97.6%	2.4%	35.7%	64.3%
Master's	96.6%	3.4%	0%	100%
Ph.D.	93.6%	6.4%	0%	100%

*Before matching $N = 2{,}267$, after matching $N = 216$

Table 2

Father's Education Level Characteristics Before and After Matching

	Control_Before	AVID_Before	Control_After	AVID_After
Absent	95.0%	5.0%	62.1%	37.8%
Less than High school	95.5%	4.5%	61.5%	38.5%
High school/GED	94.2%	5.8%	28.0%	72.0%
Associate's	95.6%	4.4%	20.0%	80.0%
Bachelor's	97.3%	2.7%	25.0%	75.0%
Master's	97.7%	2.3%	0.0%	100.0%
Ph.D.	98.3%	1.7%	0.0%	100.0%

*Before matching $N = 2{,}267$, after matching $N = 216$

The family income covariate was also very disproportionately distributed across the control and AVID group before matching. More than 90% of the participants were in the control group before matching. After matching, 55.4% of the participants in the control group had family incomes of 75,000 or less compared to 44.6% in the experimental group. This is noteworthy because the majority of the sample was drawn from this demographic group. Thus, the sample was drastically more economically balanced after matching.

Table 3

Family Income Characteristics Before and After Matching

	Control$_{Before}$	AVID$_{Before}$	Control$_{After}$	AVID$_{After}$
75,000 or Less	94.9	5.1%	55.4%	44.6%
76,000 to 155,000	95.9%	4.1%	0.0%	100.0%
156,000 to 235,000	98.2%	1.8%	0.0%	100.0%

*Before matching $N = 2,267$, after matching $N = 216$

Propensity scores were calculated for the experimental and control group and then balanced to create empirically similar groups. Table 4 presents the propensity scores for the AVID and control group before and after matching. As seen in table 4, the pre-matching propensity scores (π) were statistically significantly different. However after matching the scores, data no longer yielded statistical significance. This indicates that the experimental and control groups are more empirically similar after matching based on pertinent demographic characteristics.

Table 4

Propensity score Balance Pre- and Post matching

	control	AVID			
	M(SD)	*M(SD)*	*t*	*df*	*p*
Pre-Matching π	0.06(0.11)	0.05(.00)	-10.91	2,265	.000
Post Matching π	0.50(.01)	0.50(.1)	1.90	214	.06

To further substantiate the lack of demographic difference after matching, the covariate balance was examined before and after propensity score matching. Table 5 presents the covariate balance before and after matching. As presented in the table, before matching, the control and control group were significantly different statistically in terms of mother and father's level of education, as well as family income. These three demographic variables are strong predictors of AVID participation, thus balancing the control and experimental groups on these variables is necessary to avoid biasing the association due to overrepresentation across demographic variables. The results further suggest that a statistically significant association exist between AVID participation and Black student AP course participation ($\lambda = .58$, $p < .0001$). According to Fritz, Morris, & Richler (2012) this is considered a large association. This measure of association explicitly suggests that participation in AVID is a statistically significant predictor of approximately 60% of error reduction in predicting Black student AP course participation.

Table 5

Covariate Balance Pre- and Post matching

	χ^2	df	p
Pre-matching			
Mother's Education	22.28	6	.000
Father's Education	28.66	6	.000
Family Income	103.20	2	.000
Post Matching			
Mother's Education	7.89	6	.25
Father's Education	6.32	6	.39
Family Income	7.47	2	.825

Discussion

The purpose of this study was to examine the effectiveness of the AVID program as a mechanism to develop academic resilience in underrepresented populations. The results of this study indicate that AVID students complete AP/IB courses at higher percentages than students that are not members of the AVID program. Several features of the AVID program are conducive to fostering this type of academic success. First, the AVID program encourages AVID teachers to address the "hidden curriculum" present in many schools. For example,

The program gives students explicit instruction addressing the hidden curriculum of the

school (the implicit educational rules and expectations not divulged to the average

student) such as: (a) knowledge about what courses to take for the college-bound, (b)

what teachers to take or avoid, (c) the importance of tests, (d) how to study, and (e) how

to transition to college. (Mehan & Hubbard, 1999, p. 2)

This information is essential for the successful completion of an AP/IB course and subsequent college enrollment. Further, this type of instruction and guidance helps the students to avoid undue stress and experience a higher probability of success. In turn, this develops their academic resilience. Another aspect of the AVID program that supports student completion of AP/IB courses is the student's access to college tutors.

The tutoring structure of the AVID program is well developed and meticulously organized, which easies the student's academic burden by inculcating the confidence necessary to handle rigorous coursework. AVID program coordinators are directed to maintain a 1:7 tutor to student ratio (Arellanes, Bishop, & Castruita, 2007), which helps to maintain the quality of the tutorial interactions. In addition, the AVID tutors undergo training in AVID instructional methods, and must submit student performance data as a quality control measure. In a study of AVID student retention, researchers found that the tutoring aspect of the program was one of the most attractive features of AVID (Watt, Johnston, Huerta, Mendiola, & Alkan, 2008). The devotion to quality remediation and instruction is key to the success of the tutoring aspect of AVID and helps to retain and prepare AVID participants for AP and IB courses. Despite the strength of the AVID program components, the results of this study suggest that the magnitude of the association between the AVID membership and AP/IB course completion may remain elusive.

The results of this study suggest that the relationship between AVID membership and AP/IB course completion is due to more than chance, the strength of the relationship is relatively large ($\lambda = .58$, $p < .0001$). Several factors may account for the relatively large effect size present in this study. First, the initial sample size for this study was extremely large considering the differences between the number of students in the non-AVID population and the number of students in the

AVID population. Due to the nature of the AVID data collection methods, random samples of students could not be achieved. However, after the propensity score matching, the treatment and control groups were more similar, which helps to better isolate the relationship between the independent and dependent variable. Although the samples were not perfectly matched, the percentages of subpopulations of students were similar enough to achieve a feasible match between the treatment and control groups.

Another possible explanation is that the effects of the AVID program on student AP/IB course completion are differentiated by AP/IB course or by student subpopulation. This would be indicative of different associations between the AVID program and particular AP/IB courses or stronger associations for certain AVID student populations. It is worth noting that the AVID program's target students are considered "average" learners, whereas the general population of students enrolled in AP/IB courses are more representative of the highest achievers in each school. The implications of the results of this study are considerably important due to the strength of association between AVID participation and AP/IB course completion. The results of this study echo the sentiments of Prince and Miller (1992) whom suggest that the context of the study should directly impact the evaluation of the study effect sizes. For example, if the dependent variable in a study is life or death, even a small positive effect size that saves more lives is of practical significance. Vacha-Haase and Thompson (2004) suggest interpreting effect sizes by (a) considering the outcome under investigation, and (b) directly and explicitly comparing effects with those in related prior studies, and not rigidly applying Cohen's benchmarks for effect size magnitude. The dependent variable in this study was whether or not students successfully completed AP/IB courses. The independent variable was group membership: (a) "average" students in the AVID program and their (b) academically gifted or

high achieving peers. From a practical standpoint these results have substantial insinuations for AVID students because their successful completion of AB/IB courses is a major step toward subsequent college enrollment. Furthermore, if the AVID program is associated with the development of academic resilience in "average" students in terms of higher rates of AP/IB course completion than their academically gifted peers even a small association is noteworthy. Similar studies are currently elusive, thus the meta-analytic evaluation and comparison of study effect sizes is not possible. A meta-analytic evaluation of these and other data concerning the achievement of Black students are necessary to build theory and practice (Young, & Young, 2015; Young & Young, 2016b). Therefore, more studies are needed to further substantiate the association between the AVID program and academic resilience in the form of AP/IB course completion.

Conclusion

The results of this study present several implications for practice and research while raising important questions for further investigation. It is thus suggested that researchers begin to collect and report more accounts of the influence of the AVID program on student enrollment and completion of AP/IB courses. The AVID program is essentially the primary reason why many underrepresented students enroll in four year colleges and universities, thus educators and researchers must continue to provide empirical support of this dynamic and life changing program. This study is one step in the right direction, but more investigations are needed to further evaluate the AVID program's effectiveness.

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