

# **School Climate, Connectedness and Academic Achievement: Examining Positive Impacts from High School Mentoring Services**

This manuscript has been peer-reviewed, accepted, and endorsed by the National Council of Professors of Educational Administration (NCPEA) as a significant contribution to the scholarship and practice of school administration and K-12 education.



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*Schools regularly implement numerous programs to satisfy widespread expectations. Often, implementation is carried out with little follow-up examining data that could help refine or determine the ultimate worth of the intervention. Through utilization of both descriptive and empirical methods, this study delved into the long-term effectiveness of a locally developed mentoring program implemented within a large Southwest Urban School District. Findings from the study support the success of the local efforts. Additionally, they reveal several factors that could help guide future research while also contributing to the success of mentoring efforts being implemented within our nation's schools.*

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According to the U.S. Department of Education (USDoE), graduation rates for American public schools have been in decline for the past 40 years (USDoE, 2012). During this period of decline, Berv (2002) reported student interests and self-perceived needs are rarely considered or weighed into decision making about potential school reforms. Instead of acknowledging unique attitudes and learner needs, schools are continuously engineered to satisfy demands put in place by a society increasingly inclined to dictate more highly uniform target outcomes. Of little surprise then, considering these conditions, the USDoE confirmed that minimal sustained effort has been directed toward discovering reasons students themselves would give for their decision not to finish school (USDoE, 2012).

Acknowledging the contributions of Fullan (2005) and later Dynarski, Clarke, Cobb, Finn, Rumberger and Smink (2008), who speak to continued concerns over student disengagement, this study sought to delve more deeply into student perceptions and attitudes related to the declining graduation rates just cited. Building on the work of Bridgeland, Dilulio, and Morison (2006) who did actually directly investigate student attitudes, this study aimed to uncover and examine key factors and attitudes that could well prove beneficial for efforts to keep students more thoroughly engaged in completing their education as result of locally developed mentoring programming.

### **Focus and Significance of the Study**

Schools are constantly scrutinized and regularly subjected to recommended fixes of all types and design. Bridgeland et al. (2006) spoke to the perceived benefits of many improvements, including enhancing the connection between school and work, increasing relevance, along with providing real-world learning experiences. This “getting real” point of view has been supported by others including Voight, Austin and Hanson (2013) as well as Washor and Mojkowski (2014) who find schools rarely attempt to adapt to student needs and future ambitions, let alone attempt to learn what students even want. Tying into these proactive strategies, and even more specifically into mentoring efforts represented by Sparks (2002), this investigation focused on the impacts locally developed mentoring efforts had in three very specific areas. These areas, all believed critical to student success were school climate, school connectedness, and finally academics.

Mentoring in some fashion has been utilized since the start of recorded time (Hughes and Mouw, 2016) and the broad overarching impact of mentoring programs designed to encourage students to complete high school has been well supported (Child Trends, 2013). This investigation targeted the personal perceptions of students who had participated in a locally developed program known as the Advisory Mentoring Program (AMP), which is in operation in several schools within an Urban High School District in the Southwest United States. This study was designed to explore student perceptions and to determine whether or not there were statistically significant contributions linked between the AMP intervention being utilized, and positive feelings toward school climate, school connectedness in addition to any indicators of academic success.

While local demographics certainly factor into the ability to generalize findings (Voight et al., 2013), information derived from this study can be considered unique and should be considered significant as it provides insights into student viewpoints on the effectiveness of a fairly popular intervention practice. In all, the findings from the study revealed both expected and unexpected insights that touch directly upon educational practice,

program assessment efforts, and even upon continued research efforts in this area. It is believed that students who participated in this study did so willingly, and honestly. As such, allowing their voices to be heard is also a significant outcome from this study, since increased attention clearly need be directed toward the viewpoints of these direct consumers of educational services. Without a doubt, educational mentoring stands out as one of the most important and highly recognized services being utilized across the nation. Additional information on this highly successful approach follows.

### **Educational Mentoring Programs**

While mentoring originally received greater initial notoriety for contributions in the business community, the practice also includes applications in the educational arena. Peer mentoring was promoted from the 1960s forward, and eventually the focus of mentoring activities evolved to include students along with adults. Most formal one-on-one mentoring programs considered in the educational literature are either community-based or school-based (Herrera, Vang and Gale, 2002). Community-based programs typically focus on social behaviors, while school-based programs have a greater emphasis on academics. Often, youth in community-based programs have greater contact with their mentors and form stronger relationships according to Herrera et al. (2002). Group mentoring programs, which are often conducted by schools or youth service organizations, can serve a larger number of youth, and often at a lower expense, but often do so at the cost of less individual contact between mentors and mentees (Herrera et al., 2002). There are several models to choose from across the nation, and a few of the popular and more successful options are considered next.

#### **Big Brothers Big Sisters**

Founded in 1904, Big Brothers Big Sisters (BBBS) is the oldest and largest youth focused mentoring organization in the United States. BBBS serves over 5,000 communities across all 50 states, and has been studied perhaps more than any other mentoring focused undertaking in the business (BBBS of New York, 2015). Public/Private Ventures, an independent Philadelphia-based national research organization, compared children who received community centered services with those who were without services. After surveying the children at the beginning of the study, and again after 18 months, the researchers found that the Little Brothers and Little Sisters, when compared with those children not in the program were: 46% less likely to begin using illegal drugs, 27% less likely to begin using alcohol, 52% less likely to skip school, 37% less likely to skip a class, and 33% less likely to hit someone. They also confirmed that the Little Brothers and Little Sisters were more confident of their performance in schoolwork and got along better with their families (BBBS of New York, 2015).

Public/Private Ventures conducted another study in 2011 that next targeted the school-based BBBS Program. Unlike the conventional community-based BBBS in which Bigs and Littles can engage in their activities in any setting, some BBBS agencies offer opportunities for school-based mentoring. In this type of mentoring, the Bigs meet with their Littles at their schools – whether in the classroom or on the playground (BBBS of America, 2015). The outcomes that the researchers measured fell into three broad categories: school-related performance and attitudes, problem behaviors, and social and personal well-being. At the end

of the first school year, Herrera, Grossman, Kauh and McMaken (2011) noted, that, when compared to the control group, the youth who received mentoring performed better academically, had more positive perceptions of their own academic abilities, and were more likely to report having a “special adult” in their lives.

### **Juvenile Mentoring Program**

JUMP has been in operation for in excess of 20 years having originated in 1992. Since its inception, JUMP has been developing a valuable database from over 200 projects to support youth on probation, first-time juvenile offenders, court involved youth, immigrants, disabled youth, children of incarcerated parents, abused and neglected youth, and youth in detention facilities (Office of Juvenile Justice and Delinquency Prevention, 2000). The Office of Juvenile Justice and Delinquency Prevention (OJJDP) implemented several BBBS strategies in order to streamline the implementation of JUMP. JUMP is a one-on-one mentoring program between an adult and a juvenile, that is designed and intended to reduce juvenile delinquency and gang participation, improve academic performance, and reduce school dropout rates. Some of the 200 cataloged programs in existence also emphasize tutoring and academic assistance, while others stress vocational counseling and training.

Public/Private Ventures undertook another study in 1995 where results were examined and actually prompted OJJDP to modify the project design guidelines in its 1996 JUMP solicitation to reflect the latest knowledge about successful mentoring. Based upon the study, OJJDP expanded the guideline on mentor support and training, emphasizing that the program coordinator should have frequent contact with parents or guardians, volunteers, and youth. Further it was noted that assistance needed to be provided more promptly when requested or when problems would arise. OJJDP inserted a guideline on the role of the mentor. The office also added a caution about time limitations that might interfere with the effectiveness of college undergraduate or graduate students as mentors. Finally, it was suggested that parents should have a say in the selection of mentors, they called for screening mechanisms to weed out noncommittal volunteers, and ultimately established minimum expectations for the time mentors should spend with youth (OJJDP, 2000).

### **Coca-Cola Valued Youth Program**

The Coca-Cola Valued Youth Program is designed to offer secondary school students, who are themselves considered at risk of dropping out, the rare mentoring opportunity to serve as tutors in elementary schools. By having these at-risk students serve as tutors, the program aims to improve both their basic academic skills and self-esteem, with the ultimate goal of helping to keep them enrolled in school so they may successfully complete their education. Participants tutor elementary school students four days a week during regular school hours. During the 2003 program year, records indicate that the Coca-Cola Valued Youth Program was in 96 middle and elementary schools across the United States. In the combined states of Arizona, California, Florida, Michigan, Oregon and Texas, the overall dropout rate for Valued Youth tutors was reported to be 2.5%. For the program year 2006, the overall dropout rate was down to 0.8% (Montecel, Cortez, and Cortez, 2002).

### **Common Features Among Programs**

The three programs just detailed represent only a few of the numerous well intended and successful community-based and school-based mentoring models available for use in schools. Instead of delving in to a comparative study of numerous approaches, they were selected for review as they are representative resources that demonstrate the unique capability mentoring programs have to positively influence the nation’s youth both personally and academically. Programs like these have regularly been shown to discourage at-risk behaviors such as violence, drug abuse, and gang affiliation, while at the same time, encouraging youth to remain in school and find non-violent solutions to their problems. As such, they help set the standard for what a successful mentoring intervention should be about. They also, in combination, contain some of the very same programming targets sought out through the AMP, which is to be detailed next.

### **Development of the Advisory Mentoring Program**

With the general needs of students, and a cross-section of successful mentoring programs already described, the impetus behind the AMP initiative will be addressed next. At the time of its development, local conditions and concerns were largely consistent with national issues, expectations, and perceived opportunities for change. No evidence suggests anyone approached students to learn why they were not succeeding. Further, there is no evidence supporting there ever having been any research at all to frame the need for or the subsequent direction taken in development of the AMP program. Still, those involved with the undertaking made significant investment into their project, and identified both necessary and ambitious objectives for the AMP. Targeted features for AMP can be found in Table 1, and will be detailed next.

Table 1

*Advisory Mentoring Program Targeted Features*

Provide a place for students to grow academically, emotionally, and socially through sustained and meaningful relationships with adults and peers	Personalize the school so that every student is well known through supportive adult-student and peer-to-peer connections
Increase academic achievement in career and college-readiness standards	Build a strong sense of civic-mindedness, personal responsibility, and self-confidence
Provide daily connection/sharing activities with weekly status check-in on grades and attendance	Provide in-room tutoring or travel to receive tutoring from a different highly qualified adult in a specific content
Teachers advocate for the students	Teachers encourage students in

<p>in their AMP classroom so each student feels supported, valued, and “seen” by a caring adult and connected peers</p>	<p>their AMP classroom to share their celebrations and their challenges: academically, personally, and socially</p>
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### **Advisory Mentoring Program Features**

Typically, mentoring programs are developed in a one-on-one format as described early with the historical overview of BBBS (BBBS of New York, 2015), JUMP (OJJDP, 2000), and the Coca-Cola Valued Program (Montecel, Cortez, and Cortez, 2002). The AMP, in contrast, is a cohort mentoring program that is school-based and also locally designed. This school-based mentoring program is quite possibly a more manageable structure for large urban schools. It allows for one mentor (advisor) to work in a blended environment of ninth through twelfth graders over a four-year span. The upperclassmen use their past experiences to mentor the lower classmen. At the end of each year the accomplishments of graduating seniors are celebrated, much the same way freshman are welcomed at the start of the year, into a blended cohort of students in order to help them navigate the newness of high school. The AMP also allows for Advisory cohorts to attain additional goals set by the school sites’ continuous improvement plans.

As Table 1 shows, relationship building is a highly-emphasized component of AMP efforts. The interactions that initiate the relationships are both formal and informal, though all are established intentionally. Students are encouraged to invest in themselves and each other, and to at least attempt to become involved in outside school activities. Instead of establishing a check-in process that is accountability oriented, the AMP approach is to champion student success and have faculty serve as advocates. Without singling out any one aspect of the AMP, it is believed that the advocacy angle established through this endeavor is a difference-maker, and is one that opens the door to developing critical dispositions like personal responsibility and self-confidence.

Student participants involved with the program earn a half credit for the year’s participation in the AMP. The grade is a proficient/not proficient grade determined by the student’s completion of the goals outlined in a student planner. The attainment of that pass/no pass grade has provided the bulk of the scant assessment data for this program to this point. Unfortunately, it merely assesses student compliance and completion of elements of the program, and does not relate to the impact of the program itself. Similarly, without benefit of follow-up evaluation to guide efforts, staff members at schools using the program go through yearly initial training and refresher work on AMP. This training promotes the broader understanding of all staff, and promotes transparency of the program for all stakeholders, whether they are an Advisor (mentor) in AMP or not. The staff member who serves as an Advisor (mentor) in AMP experiences more in-depth training to better be prepared for the many experiences that take place in the AMP during the course of an entire school year. This all occurs through mandatory professional development that takes place during the scheduled contacted professional day (SUHSDPP, 2015).

## **Critical Mentoring Components**

Having introduced many of the general needs widely responsible for prompting implementation of mentoring programs across the country, and having represented a sampling of both national and local responses to this calling, it is time to focus results. As was reported already, the national programs just summarized each collected extensive performance data. This data was used not only to report successes, but also utilized to make program improvements. What follows are the descriptors of the primary components of the program targeted in this study. Understanding of these concepts leads the way to discussion of the results of this study.

### **Focus on Climate**

School Climate has been recognized as a vital component for student achievement (Voight et al., 2013) and is the first critical mentoring focus being detailed. According to Simons-Morton and Crump (2003), from a student perspective, the school climate refers to the extent to which students feel that teachers will help them, that school rules are fairly enforced, and that teachers are supportive. Voight, Austin and Hanson (2013) include safety and school connectedness as a recurring theme as well. While they indicate there is no universally agreed upon definition, Child Trends (2013) suggested mentoring programs work to improve school climate in a variety of ways. Much of this can result from nurturing personal qualities such as creativity, critical thinking and problem solving skills, as well as communication and collaborative skills. These skills, along with dispositions such as flexibility and adaptability, initiative, productivity and accountability are all perceived as potential program outcomes that could clearly benefit a positive school climate.

In contrast to a positive setting, a negative school climate has been shown to create resistance in students and elicit difficulties for student interaction. Examples of negative climates include teacher-centered classrooms and settings where student discrimination, harassment and even racism are experienced. These difficulties can limit advancement in education and often contribute to a discouraging state of learned helplessness where a feeling of perpetual failure ensues, and consequently many students will dropout (MENTOR, 2006). Clearly, a positive school climate is far more desirable and more highly indicative of a successful school.

### **Focus on Connectedness**

School Connectedness makes more specific reference to an academic environment in which students believe that adults in the school care about their learning and about them as individuals (Goodenow, 1993). Connectedness represents the students' sense of belonging in the school or classroom, or the extent to which they feel personally accepted, respected, included, and supported by others in the school climate, particularly teachers and other adults (Goodenow, 1993). In addition, students who are connected to school often reveal greater respect and trust for teachers, more thoroughly enjoy the learning process, show a deeper concern for others, and are more likely to employ the techniques of conflict resolution (Blum, McNeely, & Rinehart, 2005). Connectedness and resulting engagement are also highly critical in reducing alienation according to Blondal and Adalbjarnardottir (2012).

For decades, research has demonstrated that students who report feeling a sense of connectedness in school also exhibit fewer at-risk behaviors (Catalano, Haggerty, Oesterle,

Fleming, and Hawkins, 2004). For modern students, this means a decreased probability to: experiment with illegal substances, carry or use a weapon, smoke cigarettes, experience emotional distress, drink to the point of getting drunk, consider or attempt suicide, or engage in early-age sexual intercourse, among other behaviors (Catalano et al., 2004; Watson, Battistich, and Solomon, 2000). Research also demonstrates that connectedness essentially promotes positive social interaction, which in themselves are incompatible with aforementioned problem areas.

Several schools have implemented strategies to combat low student connectedness and promote a respectful and caring school environment. These strategies include changing school structures, hiring effective teachers, and empowering family and community members (MENTOR, 2006). In changing school structures to increase student connectedness, some schools have created small learning groups with a low student-to-teacher ratio to enhance interaction. Others have implemented block scheduling with longer classes that also attempt to encourage better interaction, or they have looped teachers with the same group of students for more than a year. These strategies are among those believed to enable the students to build and develop emotional and social competencies, self-management, self-awareness, social awareness, decision making, and relationship skills (Osterman, 2004). These skills, then in turn, are thought to advance the ability of a child to learn and solve problems without violence (Blum, 2005).

### **Focus on Academics**

Academic achievement should be a commonly understood concept, but for purposes of this comparison, it will be operationally be defined as good grades (e.g., mostly As and Bs), planning to graduate from high school, and for many even the pursuit of a post-secondary education. This more end-result oriented construct addresses the extent to which students are motivated to learn and do well in school more so than focus on specific data points like standardized test scores.

Research findings directly linking academic achievement and mentoring programs were scarce until 1999. Earlier studies in the literature reported that “there was only limited evidence of increased academic achievement for mentees” (Westerman, 2002, p. 3). According to Aiello and Gatewood (1989), increasing academic achievement is critical for at least two reasons: (a) school performance is an increasingly important predictor of students’ self-concepts as they get older (Harter, 1985) and (b) poor academic performance, especially grades, has been consistently associated with students’ dropping out of school (Ekstrom, Goetz, Pollack, & Rock, 1986). Blum et al. (2005) added that social problems, such as a lack of parental encouragement or an increased participation in crime, negatively affect students and their potential achievement. As Catalano, et al. (2004) conclude, students in urban schools who have to focus mainly on their basic needs begin their academic career with a significant disadvantage. Information such as this perhaps explains why suburban students, who attend schools in safer surroundings and who are allowed to make learning their priority, tend to out-achieve students in an urban school environment where students are often forced to focus on their immediate needs.

### **Problem**

As has already been advanced, mentoring is a widely-utilized and highly regarded approach to nurturing students in a variety of settings. There is growing interest in best practices for keeping students connected to schools, and mentoring appears to be a viable approach to doing just this.

The problem under investigation in this study centers on determining the tangible benefits of AMP, which is more of an “advisory-based” locally developed approach to promoting student success through mentoring.

### **Purpose and Research Questions**

The purpose of this study was to document the benefits of the AMP by comparing responses of students with and without mentoring. To this end, three research questions were examined. Each research question focused on the perceptions of the AMP students, as reported directly by these students themselves. The first question (RQ 1) examined whether there was a statistically significant difference in the perceptions on improved school climate between students attending a school with the Advisory Mentoring Program and those attending a demographically similar school without any large-scale mentoring services. Following this pattern, the second research question (RQ 2) again statistically examined the significance of perceptions the AMP students had on improving school connectedness in comparison to the control group. Finally, the third question (RQ 3) examined whether there was a statistically significant difference in perceptions on academic achievement between students attending a school with the Advisory Mentoring Program and those attending a school without AMP or any other type of mentoring intervention.

### **Methodology**

#### **Survey Construction**

This quantitative research study used selected sections of a survey instrument originally developed Dr. Donna DiCanno (Urban Public Schools, 2006). This subset of questions was utilized to garner information from students in both the AMP group and the control group receiving no mentoring services. Standard questions concerning demographics, behaviors and general attitudes were retained. Decisions on remaining questions were based on their ability to evaluate the significance of student’s perceptions of school climate, school connectedness, and academic achievement within one school having four years’ experience utilizing AMP, and one school that had not implemented any type of mentoring program at all. Focuses for the survey that were adapted from DiCianno (Urban Public Schools, 2006) are shown in Tables 2, 3 and 4.

Table 2

#### *School Climate Related Focuses*

I feel safe in school	School is fun
Students who break the rules get in trouble	My high school is neat and clean
The student union is a safe environment	I feel protected from harassment
I feel protected from intimidation	I feel protected from discrimination at my school

The school promotes understanding among students from different backgrounds	The school rules are fair
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Table 3

*School Connectedness Related Focuses*

My teachers listen to me when I have a problem	Teachers care about me
I feel like I am part of my school	I do not fit in with most of the students in my high school
I participate in a lot of activities in my high school	If I had to leave I would miss my school
Other students treat me with respect	Attendance to school is important to me
Going to class is important to me	

Table 4

*Achievement Related Focuses*

Getting good grades in school is important to me	I plan to graduate from high school
I plan to drop out of high school	I am aware of the mission and vision of my high school
The work at school is challenging	I get good grades
I don't understand my school work	I do my school work to get better grades
I do my school work but I do not turn it in	I do my school work and turn it in

Although all of the original questions were initially considered and reviewed, ultimately 29 of the original 46 questions developed by Dr. DiCianno were determined to sufficiently relate to one of the three focus areas pertaining to climate, connectedness or achievement. Each question that was retained for the AMP survey was then linked to a 5-point Likert scale question with possible responses ranging from 1 (strongly disagree) to 5 (strongly agree).

## Sample and Data Collection

One Southwestern Urban High School District in Arizona that had been utilizing the AMP for the past four years in twelve of their sixteen high schools was utilized for this study. The study was completed in order to investigate the differences in responses between students who participated in the AMP and students who did not participate in an AMP or any other structured mentoring program. Two schools were identified, using district data to identify similar free and reduced lunch percentages and like demographics. Both high schools were designated Title I schools based on their free and reduced lunch participation rate, and had similar gender and ethnicity makeups, both having high Hispanic counts. Within the two selected schools, members of the Junior Class were contacted and sought for response. In total, 74 Juniors from the AMP school completed the survey, and 140 students from 11<sup>th</sup> grade in the school without AMP or any type of mentoring services responded to their invitation to participate.

After securing permission from the university IRB and receiving authorization from the cooperating school district, explanatory information was sent to parents and students. Participation in the survey was voluntary, and anonymity was ensured by coding procedures that were spelled out to prospective participants. One week after the “permission” period was completed, students were provided with a paper-based copy of the survey which was administered and subsequently completed in the same English class required of all Juniors.

## Data Analysis Procedures

Preliminary analyses for outliers and nonlinearity included the Levine’s test of equality of variances and homogeneity of variance testing. The data fit into the guidelines of running parametric tests. The ANOVA, a one-way analysis of variance, was run for each outcome variable to determine whether there were any significant differences between the means of the AMP school and the control school. The ANOVA was chosen over the parametric version of the unpaired (independent) *t*-test due to the fact that it allows for multiple outcome variables to be tested within the same test, whereas each time a *t*-test is conducted there is a chance that a Type 1 error will occur. The parametric version of the unpaired *t*-test error causes a 5% error rate. Running three parametric versions of the unpaired *t*-test would cause an unacceptable error rate of 14.3% (Cronbach, 1951). An ANOVA controls for these errors so that the chance for a Type 1 error remains at 5% and any significant result found is not due to chance.

Prior to running the ANOVA, potential effects of ethnicity, race, and gender on the three scales were examined to identify possible co-variates. No significant effects were discovered for ethnicity and race; thus, these variables were not included in further analyses. However, significant effects of gender were found for student’s perceptions of academic achievement. Thus, gender was included in the MANCOVA model. When accounting for gender, a co-variate, the data were analyzed using MANCOVA, a multivariate analysis of co-variance, in order to control for family wise Type I error.

## Research Findings

Analysis of question one (RQ 1) found a statistically significant difference ( $p = .002$ ) in student’s perceptions of school climate between the students who participated in the AMP mentoring program and those who did not. The effect size ( $r^2 = .52$ ) indicated the differences between the

groups were moderate. The students who were mentored were more likely than the students who were not mentored to feel that the school climate was safe, supportive, encouraging, and conducive to their overall well-being. This information is found in Table 5.

Table 5

*ANOVA Analysis on School Climate between Mentored and Non-Mentored Students*

Source	Sum of Squares	<i>df</i>	<i>MS</i>	<i>F</i>	<i>p</i>	$\eta^2$
Gender	29.918	1	29.918	0.3044 <sup>b</sup>	.582	.001
School	988.807	1	988.807	10.037 <sup>b</sup>	.002	.046
Error	20490.663	208	98.513			

Note. <sup>b</sup> – Exact statistic.

Research question two (RQ 2) compared responses from junior students at the AMP school with responses of junior students at the control school in reference to perceptions of school connectedness. Analysis of RQ 2 resulted in a significant difference ( $p = .005$ ) in student’s perceptions of school connectedness between the mentored and non-mentored students. The effect size ( $r^2 = .39$ ) indicated the differences between the groups was small, though the students who were mentored still indicated they felt more connected to school when compared to control students who were not mentored. These results are represented in Table 6.

Table 6

*ANOVA Analysis on Connectedness between Mentored and Non-Mentored Students*

Source	Sum of Squares	<i>df</i>	<i>MS</i>	<i>F</i>	<i>p</i>	$\eta^2$
Gender	0.584	1	0.584	0.008 <sup>b</sup>	.930	<.001
School	596.111	1	596.111	7.974 <sup>b</sup>	.005	.037
Error	15549.142	208	74.755			

Note. <sup>b</sup> – Exact statistic.

In research question three (RQ 3), responses relating to academic achievement were compared from junior students at the AMP school with responses of junior students at the control school. For RQ 3, a significant difference ( $p = .002$ ) in student’s perceptions of academic achievement was found between the mentored and non-mentored students’ responses. The effect size ( $r^2 = .76$ ) indicated the differences between the groups was moderate. The students who were mentored

felt more confident in their academic success than the non-mentored students, as is shown in Table 7. Additionally, it is noteworthy that female students felt more confident in being academically successful as compared to male students.

Table 7

*ANOVA Analysis on Achievement between Mentored and Non-Mentored Students*

Source	Sum of Squares	df	MS	F	Sig.	η <sup>2</sup>
Gender	316.206	1	316.206	5.689	.018	.027
School	560.467	1	560.467	10.084	.002	.046
Error	11561.151	208	55.582			

Note. <sup>b</sup> – Exact statistic.

**Discussion**

Results from the surveys indicate that the AMP approach was successful in achieving its intended outcomes. Students receiving the program were consistently and “significantly” more positive about school climate, connectedness and were more focused on achievement than their non-mentored counterparts. This response was most pronounced with respect to RQ 1 and RQ 3 which related to school climate and achievement respectively. These outcomes are viewed as a testament to the overall initiative that resulted in development and implementation of the AMP and its resulting effectiveness. Less directly, results also appear to provide at least some initial confirmation that locally developed interventions can also be successful in meeting large groups of student needs, and that cohort approaches to mentoring are an effective option in place of one-to-one methods. All of this information was shared with the administration responsible for overseeing the student services in the district allowing the study to take place.

**Implications for Practice**

1. For any school, but certainly for those schools struggling with student attendance, the implementation of an effective mentoring program that addresses student connectedness could prove far more viable than phone calls home and home visits in preventing student drop-outs.
2. Schools would do well to first develop an understanding of the local condition of the school and its surrounding community, prior to developing a large-scale intervention such as the AMP.
3. Greater attention to the initial steps of adopting and implementing a mentoring program, including initial data collection, would make a strong contribution to effective decision-making and likely lead to more productive evaluation and modification of the program following initial implementation.
4. While the literature does not draw particularly strong attention to this next point, it needs to be made here for the benefit of implementation implications, and actually for

future research considerations as well. The AMP model is essentially a “cohort” approach as opposed to one of the traditional 1:1 or small group approaches typically addressed in the literature. It has proven to be adaptable and beneficial, succeeding in the eyes of the students the program serves.

### **Recommendations for Further Research**

1. It is recommended that district and school leadership teams, teachers, and parents investigate opportunities for the voices of the students to be heard during the development of academic interventions. Surveys are but one manner through which to access these voices. To take deeper steps into the investigation, it would be worthwhile to explore additional qualitative research methods that perhaps delve more deeply into the personal nature of this question as one possible next step that could expand on the work that was started here.
2. It is recommended to replicate this study, focusing instead on teachers’ perceptions of school climate, school connectedness of the students, and potential academic achievement of their students. Utilizing a mixed methodology, potential researchers may choose to include rating sheets, Likert-scaled surveys, and personal open-ended interviews to document the teachers’ perceptions.
3. It is recommended to replicate this study, focusing instead on the parents’ perceptions of school climate and school connectedness related to their children’s academic achievement. Utilizing a mixed methodology, potential researchers may choose to include rating sheets, Likert-scaled surveys, and personal open-ended interviews to document the parents’ perceptions.
4. It is recommended to replicate this study with a specific and targeted focus on whether there is a difference in the effectiveness between traditional one-on-one mentoring programs and cohort school-based mentoring program. Instead of merely making a broad brush assessment, which could possibly generate limited comparative information, examination could be directed toward factors including gender difference or with respect to the availability of supportive resources within the school and community. Cohort models may actually prove to be more practical in situations where there is not a sufficient supply of qualified and interested parties to make a long-term commitment to establishing and maintaining a genuine and nurturing mentoring relationship.

### **Concluding Statement**

This study shows the positive impact a mentoring program like the AMP can have, as results show a significant difference between two groups of students (mentored vs. non-mentored), and their perceptions of school climate, school connectedness and academic achievement. While acknowledging the generalization limitations due to the unique urban demographics represented here, findings still serve as a valuable reference point for anyone contemplating implementation of a mentoring program at their school or continued research.

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