THE RELATIONSHIP BETWEEN STUDENT PERCEPTIONS OF SCHOOL EFFECTIVENESS AND STUDENT ACHIEVEMENT: IMPLICATIONS FOR EDUCATIONAL PLANNING

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ABSTRACT

This study was designed to examine relationships between student perceptions of school effectiveness and student achievement in mathematics and reading. Data were collected from over 350 middle school students in a large southeastern school district in the United States. The results revealed statistically significant correlations among the different student perceived aspects of school effectiveness. In addition, a statistically significant correlation between mathematics and reading achievement scores on standardized test was revealed. Data did not yield any statistically significant correlation between the student perceptions of school effectiveness and student achievement. These findings are contradictory to empirical research on school effectiveness and student achievement. Notwithstanding these contradictions, the results of the study provided a foundation for discussion of educational planning issues and implications for educational planning practices.

INTRODUCTION

Public educators across the nation are facing increasing pressure to reduce the achievement gap and find innovative ways to improve student achievement. Scores of initiatives, policies, laws, school and school district reorganizations, and school improvement documents reveal this pressure. Many Americans simply feel that public educators are not doing an acceptable job of educating children. Hess (2015) contributed to this belief with this statement, "The United States boasts the world's highest per capita income and one of the best-funded school systems, yet our children fall below international norms in graduation rates and test performance" (p. 1). Statements and feelings similar to these stimulate research and inquiry into variables that are related to student achievement.

One of the original drives for increased student achievement came from the No Child Left Behind Act (2002). This act, signed into law in 2002, mandates that all students receive quality educational services and that schools show adequate yearly academic progress (Munich & Testani, 2005). However, this law has been replaced with the 2015 Every Student Succeeds Act. The Every Student Succeeds Act maintains the fundamentals of the No Child Left Behind Act including high educational standards, accountability, and closing the achievement gap. The new law is designed to provide more flexibility to states and local school districts by considering the unique needs of the community (Klein, 2015).

RATIONALE

Research on effective schools can help educators and legislators better understand what relationships exist between effective school practices and student achievement. Research in this area could reveal advantageous findings for educators and be conducive to meeting some of the goals of the Every Student Succeeds Act. The use of federal policy to improve student achievement underscores the need and significance of research in this area (Hargreaves et. al., 2014). Research providing explanations that may help educators and legislators solve some of the achievement problems in our country must be supported and encouraged.

BACKGROUND OF THE STUDY

A large majority of the research on effective schools began approximately 40 years ago. Understanding the historical foundations of educational can assist in handling the complex changes and issues faced today. Several seminal studies provide the historical framework for understanding of effective schools. The Coleman Report (1966) examined the relationships between many individual and social factors and school learning. The report concluded that other factors, not the school quality, were the primary determinants of academic achievement (Lezotte, 1991). These factors were family background, socioeconomic status, school demographics, student perceptions of environmental control, teacher's literacy level, and student background. This is possibly the report that spawned the effective schools movement, as these findings were the catalyst for many research studies on improving student achievement and school effectiveness (Hargreaves et. al., 2014).

A major historical report that influenced effective schools research was A Nation at Risk, published in 1983 (National Commission on Excellence in Education). This report changed many perceptions about education in America. It suggested that there was a need for a more challenging school curriculum in the United States. This was due to research findings that revealed students in the United States were falling behind foreign counterparts in many academic areas. This report suggested that America's dominance as the world leader in education, commerce, industry, science, and other areas was being surpassed by counterparts across the globe. This report was based on documented research that concluded the following dreadful results: When compared to other developed nations, American students were not first or second on 19 academic tests. Almost 23 million Americans were illiterate. The average achievement level of high school students in the United States on standardized tests was lower than when Sputnik was launched in 1957. There was a steady decline in science achievement scores as measured by national assessments of science in 1969, 1973, and 1977. Many other disturbing conclusions were revealed in this report. This report and other studies further invigorated the pursuit of marked improvements in academic achievement and the creation of more effective schools in America.

PURPOSE OF THE RESEARCH

The primary purpose of this research was to determine if a correlation existed between student perceptions of school effectiveness and student achievement. The research question was: What effective school variables, as measured by student perceptions, best correlate with student achievement in mathematics and reading? The correlations between student perceptions of school effectiveness and student achievement provides a rationale for school leaders to transfer more school-wide focus on the specific correlates as a means of improving student achievement (Barber, Whelan, and Clark, 2010; Jacobson, 2011)

SIGNIFICANCE OF THE RESEARCH

One of the major problems today's educators face is determining why student achievement is not improving in all schools and for all students. Trust in public schools has eroded, schools are under extraordinary surveillance, and stakeholders are demanding improvements in student achievement (Tschannen-Moran, 2014). A clear and present example of this pressure is reveal in the Every Student Succeeds Act of 2015. School districts are responsible for delivering improvements in student achievement and educators are held accountable when they do not (Schlechty, 2011). Statewide standardized testing is a primary measure of accountability. This accountability travels directly to the individual teacher via individual student test scores. Test-based accountability places great pressure on administrators and teachers to take appropriate steps to improve student achievement in public schools. The pressure for increased improvements in student achievement and educator accountability illustrates the national significance of research on student achievement. The significance of this study is that the data inform educators on

variables that may have a relationship to student achievement. Data obtained from this research can also yield valuable information to educators in terms of the school effectiveness. The results should have an impact on how administrators interact with students and their staff. This comparative study could guide educators to pursue further, more refined, research on school climate variables and student achievement.

REVIEW OF THE LITERATURE

Definitions

The definition of an effective school may vary depending on a number of factors. Some definitions are single sentences, while others are based on policy or procedures. Some researchers have suggested that there is no agreement on what makes an effective school (Reid, Hopkins, & Holly, 1987). This lack of wide-spread agreement continues in the field of education today.

Trujillo (2013) analyzed school effectiveness over 50 empirical studies to identify frequently referenced correlates of effective schools districts. Results of his analysis indicated that the correlates leading to higher student achievement were: standards-based curriculums, strong instructional leadership, frequent monitoring and evaluation, and focused professional learning. This finding supports some of the seminal studies on effective schools from nearly four decades.

The study of Dobbie and Fryer (2011) on school effectiveness suggested that some of the currently referenced measures of school effectiveness such as class size, student funding, and certification did not have a strong positive relationship with student achievement. In contrast, the research supported some of the research found in the seminal studies on school effectiveness. They found that frequent teacher feedback, data usage to inform instruction, large-scale tutoring, student time on task, and high expectations contributed to nearly half of the effectiveness of schools.

Horng and Loeb (2010) sought to describe effective schools through a new lens of instructional leadership. They reported that traditional ingredients of effective schools centered on the narrow areas of teaching and learning, strong school leadership, and curriculum and instruction. Their research suggests that strong organizational management should define effective schools more than principal participation in daily classroom instruction. The results indicated that strategic hiring, teacher support, and resource allocation had a larger impact on student achievement than the traditional ingredients of instructional leadership. They found that principals who spent more time on organizational management activities had better student achievement results.

Most current definitions are centered on overall student achievement regardless of factors such as ethnicity, socioeconomic status, gender, or other factors. Lezotte (1997) described effective schools as schools that are successful in educating all students regardless of their socioeconomic status or family background.

Many definitions cover pertinent aspects in defining effective schools, and most have valid points that are specific to many schools. Defining an effective school creates controversy because many formulas and definitions currently exist. A definition of an effective school is in many ways dependent upon the specific school in question. For example, schools that serve primarily low-achieving students may define effectiveness in terms of student gains, while schools serving high-achieving students may measure effectiveness through individual student achievement levels. This would be an example of gains versus absolute achievement as a qualifier of school effectiveness. Some schools may measure achievement through whole-school achievement levels, while others measure achievement through student subgroups. An effective

school will be defined differently depending on the faction providing the definition. An important point for educators is that every school has specific needs, and a single set of characteristics cannot be used to measure the effectiveness of every school.

Seminal Studies

Much literature on effective schools extends back to the 1970s. These research studies and findings are among the first commonly known publications and reports which facilitated the start of research into effective schools. This line of research has evolved over time and has contributed valuable findings to educators, policy makers, and the general knowledge base. Many of the classical studies have led to further, more in-depth research which has produced a variety of results. These studies helped establish this major research area.

Odden (1995) reviewed results from effective school research. Odden identified seven common principles that researchers attribute to an effective school. Five of his findings directly support the five correlates of effective schools that Edmonds (1982) identified. Odden identified strong instructional leadership; high, but realistic expectations; a safe and orderly school; monitoring student progress; consensus of school academic goals or mission; instructional teacher engagement; and continuous professional development. Odden's research directly supports the original five correlates and provides support for teacher engagement, one of the characteristics often identified in effective schools research. Other researchers have conducted similar reviews with similar findings.

Wang, Haertel, and Walberg (1995) conducted a review of school effectiveness literature reported over 25 years. The researchers studied over 20 major studies from all the major areas of school effectiveness research: input-output studies, case studies, outlier studies, and process-product studies. They found that most of the studies reported findings that were similar. Based on this review of studies and literature, Wang et al. suggested that the following characteristics could affect student achievement: strong instructional leadership, high expectations, clear academic and behavioral goals, safe and orderly school climates, maximizing student time, and academic emphasis. Their findings align with other studies that have listed common characteristics of an effective school. Their study is significant because it provided a review of many of the classical studies.

Mortimore and Sammons (1987) conducted a study in the United Kingdom on elementary school effectiveness. Researchers wanted to determine if different student intake characteristics were related to school effectiveness. Trained researchers made observations in schools and in classrooms to determine which variables were present in effective schools but not present in ineffective schools. The 10 differences noted in their study were a positive climate, parental involvement, instructional leadership, active involvement of vice principals, work-centered environment, continuity of teachers, involvement of teachers in curriculum planning, sharply focused lessons, frequent communication among children and teachers, and careful record-keeping.

Ronald Edmonds (1982) was one of the first researchers to study characteristics of effective schools. Edmonds' research encouraged other researchers to study the common characteristics of effective schools. Edmonds published Programs of School Improvement, a report based on qualitative research conducted by Edmonds and his associates. Edmonds began by identifying schools that were considered effective schools. These schools were successfully educating students regardless of race, socioeconomic status, and other factors. After identifying these schools, Edmonds and his research team identified the common characteristics in these so-called effective schools. Characteristics such as philosophies, procedures, policies, and practices

were encapsulated and grouped. After close examination, Edmonds found that effective schools had several common characteristics. These characteristics became known as the correlates of effective schools. There were five original characteristics found: strong instructional leadership, a strong instructional focus, teacher behaviors that convey high expectations, frequent monitoring of student achievement, and a safe and orderly school (Lezotte, 1997). The early correlates studies served as a starting point for many other studies that have focused on the characteristics of an effective school.

Brookover and Lezotte (1979) conducted a large study of 68 elementary schools to study expectation levels, academic norms, sense of academic ineffectiveness, and other factors of schools as they related to student achievement. Corollary case studies included a random sample of schools that were effective, but served students from families with a low socioeconomic status. The results yielded that school climate is a strong forecaster of student achievement. In other words, the school climate and students' perception of their education are related to student achievement. In total, climate variables accounted for 73% of the variance in student achievement. The Brookover and Lezotte study was among the first that contributed to the knowledge base of effective schools.

Some reviews may also be considered classical because they provided syntheses of classical studies after they were conducted.

Findings in the studies I have described led the way for further research in the area of effective schools. These seminal studies and reports were pioneering research that recounted the record of how and why effective schools research came into existence. These studies also served as the developmental lens through which the overall construction and evolution of effective schools research is revealed.

Correlate Studies
Shatzer, et. Al. (2014) conducted research to determine the impact of transformational leadership and instructional leadership on student achievement. The results revealed that instructional leadership explained more of the variance in student achievement than transformational leadership. This findings support the correlation between instructional leadership and student achievement.

Romero-Zaldivar, et. Al. (2012) conducted research to observe the relationship between using virtual appliances to frequently monitor student progress and student achievement. Monitoring student progress with virtual appliances involves using computer simulations to monitor student progress. The results revealed a significant correlation between monitoring student progress via virtual appliances and student achievement. These findings are aligned with other empirical research that supports the idea that frequent monitoring of student progress has a positive relationship with student achievement.

Sebastian and Allensworth (2012) used a multilevel structural equation to observe the relationship between principal leadership and student achievement. One of the findings from this study suggests that student achievement was related to principal leadership, but only through the learning climate created. This finding supports research that has suggested that instructional focus is positively related to student achievement. A strong instructional focus is one of the original correlates of effective schools (Edmonds, 1982).

One of the original correlates of effective schools is strong instructional focus. Hallinger (2011) conducted research to identify leadership influences on school improvement over the past

30 years. The researchers examined data from numerous empirical studies and found that leadership impacted school improvement in several ways to include; the principal can influence school improvement by collaborating with others; principal leadership should build capacity for school improvement.

Valentine and Prater (2011) conducted research to examine the relationship between instructional leadership and student achievement. The researchers found that positive principal instructional behaviors were correlated with higher student achievement. The research also suggests that leaders who had a modeled vision had the strongest correlation to student achievement. This research supports the idea that instructional leadership is linked to student achievement.

Delisio and Dunne (2007) explored three effective schools in New York to observe what strategies were used to make the schools effective. The schools in the study all served primarily low-income and minority students. These schools were identified as effective by high standardized test scores despite high poverty levels. The researchers visited all three schools with the intention of identifying common strategies through interview, survey, and observation. The study revealed that there was no panacea that worked for all schools, but there were patterns that identified how these schools supported student achievement. The most common characteristics in all schools were teacher engagement of students, small class size, high expectations about behavior and academics, dedicated and caring staff, and structured daily rituals and routines. This study supports one of the original correlates of effective schools and the related findings.

Waters, Marzano, and McNulty (2004) conducted a literature review of studies that suggested effective school leadership can bolster student achievement. In their study, the researchers reviewed more than 5,000 studies that observed the effects of school leadership on student achievement. This number was reduced to 70 studies that reported actual quantitative school data on student achievement and instructional leadership. Waters et al. asked teachers (14,000) to rate their principals' leadership abilities. Results revealed a positive correlation between teacher perceptions of effective instructional leadership and student achievement. The researchers also identified 21 areas that defined effective instructional leadership and are correlated with student achievement.

Edmonds's (1982) original correlates of effective schools were strong instructional focus, frequent monitoring of student achievement, strong instructional leadership, teacher behaviors that convey high expectations, and a safe and orderly school. Many of the studies in this literature review report findings that support the original correlates of effective schools and other variables.

METHODOLOGY

The intent of this study is to examine the relationship between student perceptions of school effectiveness and student achievement. Correlation and descriptive analyses were the primary means of data analyses. The research hypothesis was as follows: When student perceptions reflect a higher presence of the characteristics of an effective school, higher levels of school achievement will be observed.

Sample

A cluster of middle school students in a large urban school district in Florida were used in this study. Student participants completed a form of the More Effective Schools survey instruments. Principals at selected schools who agreed to participate were asked to randomly select two eighth-grade homerooms to participate in the study. Each homeroom had approximately 20-25

students. Two magnet schools and one specialized school were not included because their student bodies are not representative of middle school students in this district.

Instrument

An established 50 item Likert-type student survey called the *More Effective Schools Surveys* were used to obtain the eighth-grade students perceptions of school effectiveness. The More Effective Schools Surveys, developed by Cardella, Sprecher, Sudlow, and Spencerport Central Schools (2000), are instruments that assess parent, student, and staff perceptions of school effectiveness. The Catalogue of School Reform, National Diffusion Network, United States Department of Education, and the New York State Education Department provided evidence of the validity of the uses of the surveys through a review of the research and literature. Content validity was assessed by a panel of experts and knowledgeable practitioners.

The surveys measure student perceptions of seven effective school constructs: clear school mission, frequent monitoring of student progress, high expectations, instructional leadership, home-school relations, time on task, and safe and orderly environment. Each construct is measured by numerous questions. Using SAS (Version 9.1), coefficient alphas were determined for student items in each subscale. All of the alpha coefficients domains were within the preset acceptable range of .70 or higher, except for the *opportunity to learn domain*, which yielded an alpha coefficient of .67 (See Table 1).

Table 1
Student Internal Reliability Estimated Using Raw Scores

Domains (Constructs)	Reliability
Clear school mission	.70
Frequent monitoring	.73
High expectations	.78
Home/school relations	.70
Instructional leadership	.74
Opportunity to learn	.67
Safe and orderly environment	.78
Reliability for all items	.92

DATA COLLECTION

More Effective Schools Surveys

After permission to conduct research was granted by the school district and principals, data collection began by preparing the school contact persons to provide instructions to teachers on the administration of the More Effective Schools student surveys. Two homerooms were randomly selected by the principal at each school. Of the 1,150 parental consent forms sent to parents, 365 parents (approximately 32%) consented to their child's participation in the study. All of these student surveys were used in the data analysis.

Student Achievement Measures

The data on student achievement were obtained from school achievement data through the local Department of Education, which produces an annual report that provides detailed

information on school performance on state-wide standardized testing. This report aggregates student achievement data and provides the mean scale and developmental scores by district, school, and grade level in mathematics and reading. In this study, the mean scale scores were used as the measure of student achievement in mathematics and reading. Eighth-grade school achievement data in mathematics and reading were observed over a 3-year period and were used to examine the relationships between perceived school effectiveness and student achievement.

DATA ANALYSES

Data obtained from the *More Effective Schools Surveys* and the state-wide test scores were analyzed using the SAS version 9.1 to determine the relationships among the seven subscales of the *More Effective Schools Surveys*. It is important to recognize these relationships because the subscales are the correlates used to define effective schools. A Pearson product-moment correlation coefficient provides information about the relationship between two variables on a scale of -1.00 to 1.00 (Iversen & Gergen, 1997). A significance level of .05 was used for all statistical tests. Results of the data analyses are reported in Table 2. Eighteen of the 21 (86%) correlation testings were statistically significant. The strength of the correlations among the student subscales ranged from .45 to .91. This suggests that all student subscales that were statistically significant had moderate to strong relationships.

A Pearson product-moment correlation analysis revealed a strong positive relationship between mathematics and reading achievement using the achievement results from the schools that provided responses to the More Effective Schools surveys ($r = .97$, $p < .01$). Results of the correlation analysis indicated statistically significant relationship between one of the subscales of student perceived school effectiveness (home/school relations) and student achievement ($r = -.21$ for mathematics and $r = -.27$ for reading). No other statistically significant relationships were revealed between student perceived school effectiveness and student achievement (See Table 3).

Table 2
Student Subscale Pearson Product-Moment Correlations for More Effective Schools Surveys

Domains	S1	S2	S3	S4	S5	S6
S1. Clear school mission	—					
S2. Frequent monitoring	.79**	—				
S3. High expectations	.77**	.78**	—			
S4. Home/school relations	.60**	.53**	.41	—		
S5. Instructional leadership	.57**	.77**	.77**	.17	—	
S6. Opportunity to learn	.84**	.76**	.79**	.16	.69**	—
S7. Safe and orderly environment	.91**	.68**	.70**	.51**	.45**	.80**

**p <.05

Table 3
Correlations between Student Subscale Scores on the More Effective
Schools Survey and Mathematics and Reading Achievement Scores

Domains	Mathematics	Reading
Clear school mission	-.05	-.03
Frequent monitoring	-.10	-.05
High expectations	-.10	-.03
Home/school relations	-.21**	-.27**
Instructional leadership	-.26	-.23
Opportunity to learn	-.11	-.06
Safe and orderly environment	-.08	-.01
Mathematics		.97**

**p <.05

DISCUSSION

I expected to find that the correlations among the domains of the *More Effective Schools Surveys* would yield small positive correlations because they are intended to measure different but complementary aspects of school climate. However, I did not expect them to be highly correlated with each other because they were purported to measure different aspects of school climate. This suggests that aspects of school climate that were measured are related. This finding suggests that there is a need for more research on different aspects of school culture.

Only one subscale of student data from the *More Effective School Surveys* indicated statistically significant relationship with student achievement. These results contribute to the knowledge base in education research and the practice of school-based leadership. Many other empirical studies also suggested that school climate did have a significant relationship with student achievement. Researchers and school administrators would be extremely erroneous to presume there is no significant relationship between the two. Based on my experience as a former school administrator and researcher, I strongly believe that aspects of school climate and student achievement are positively related. This relationship maybe indirect and modest, but cannot be dispensed based on the finding in a single study. I offer a discussion of potential explanations of these data and seek to continue efforts to study this area.

There were many factors that could have influenced these results. Sampling procedures were vital in the results yielded in this study. Student cluster samples were used to administer the More Effective Schools surveys in this study. The More Effective Schools surveys in this study were not a requirement for every student. Participation was strictly voluntary. The mental state of students when they took the surveys may have influenced their responses. Finally, these results illustrate the difficulty of measuring and reporting school climate variables without consideration of other influential factors. Results of data analyses provide a foundation for several conclusions and recommendations for educational planning and practice.

CONCLUSIONS

The first conclusion is that measuring school climate can be an elusive and imprecise task. School climate is comprised of many different aspects. As was the case in this study, the instrument used measured seven domains of school climate. Researchers must acknowledge the difficulty of measuring a construct and continually try to find ways to adequately perform the task.

Second, the results obtained from this study are tentative and would need to be confirmed by more research. Although earlier research has suggested that the school climate variables observed in this study were positively related to student achievement, it is the responsibility of researchers to be doubtful and to continue examining these variables. Because of the results in this study, more research is warranted. Development cannot be arrested when research provides results contrary to conventional wisdom. Researchers must continue to examine school climate variables in many different educational settings.

Third, defining an effective school is a difficult task and there are many valid approaches to defining an effective school. The review of the literature illustrated some of the controversy of defining an effective school. When conducting research on effective schools, researchers must decide which approach is most appropriate for their particular interest. Researchers must determine if using a blanket shared definition or idiosyncratic definitions for different settings would be most appropriate for their research.

Fourth, school climate data are very important to the overall functioning of schools. Prior research and the results in this study have revealed the importance of school climate. It is important to local administrators because the impact of school to school culture and climate cannot be over looked. Numerous educational scholars and consultants have written about the importance of school climate.

Finally, as the findings from this study illustrate, mathematics and reading achievement are closely related. This is also a very common finding in research. This conclusion has several implications for practice. School-based administrators should capitalize on this finding that is consistent in empirical research.

One of the goals of this study was to provide recommendations to inform practice and the field of education and educational planning. The recommendations are advisory guidelines and are provided with the understanding that every school has specific dynamics that only relate to that school. The recommendations may not be applicable to every school situation and/or setting. Therefore it would be imprudent to consider these recommendations as prescription to creating an effective school in every setting. Educational planners should consider geographic location, socioeconomic status of student families, family background, teacher stability, teacher education and experience, and other factors when determining the effectiveness of a school. These recommendations are based on a study from one large urban school district. Nonetheless, these recommendations should provide considerations for educational planners who seek to make improvements in the academic and social functioning of schools.

Recommendation 1: Future researchers in this area of study should be cautious about attempting to examine school climate domains individually. It may be more viable to observe school climate as a single construct, because domains of climate examined in this study revealed that the domains were closely related to each other.

Recommendation 2: Future researchers should be very careful when selecting sampling types for school climate research. In most cases, researchers should attempt to obtain large random samples for research. Random sampling approach is expected to be more representative of the population than cluster and convenience samples.

Recommendation 3: Administrators should emphasize the relationship of mathematics and reading to faculty. The two subject areas must be integrated to maximize the impact on student achievement. Mathematics teachers should be encouraged to integrate reading skills into their lessons/student activities and reading teacher should be encouraged to do the same for mathematics. Neither subject should be taught in isolation. Because studies examining these relationships are correlational, it cannot be determined which subject influences the other. This is why it is recommended that subjects are synchronously delivered to students. Mathematics requires adequate reading skills for successful understanding and completion of many components. Reading is also enhanced by the ability to use processing and reasoning skills involved with mathematics. This type of pedagogy will allow students to synthesize information, which is a skill that requires higher-order thinking. Student using higher-order thinking is a skill aligned with common-core like instruction, a long held best practice, and a student- ability most school administrators wish to observe in classrooms.

Recommendation 4: School-based administrators must keep classroom instruction as the primary focus to improve student achievement. While many variables impact student learning, classroom instruction has the most impact on student achievement among variables that can be controlled at the school level. However, students are the product of schools and are too unique to regulate the depth of their educational experience to student achievement. Many ancillary variables, such as school climate and culture, have an indirect impact on student achievement and the overall educational experience. These variables cannot be marginalized and should be strategically integrated to support classroom instruction and the overall learning environment based on the specific needs students within the school.

Recommendation 5: Future researchers should investigate other ways to examine school climate. Perception data were used in this study, but other ways could include, but are not limited to, community perceptions of school quality, focus groups and interview data, and reports of discipline violations.

IMPLICATIONS FOR EDUCATIONAL PLANNING

The insight yielded from this research presents several implications for educational planning researchers and practitioners. The one of the rudimentary goals of educational planning is to design educational experiences that will provide a foundation for student success. This study provides recommendations for educational planners that can help the process of mapping out strategies to ensure that students are afforded an optimal learning environment that emphasizes the correct components of school culture. Because data in this study were limited, educational planners must continue to explore the importance of school culture and how it impacts the learning environment. This research provides educational planners an impetus to examine other areas of school culture that were not captured in this study. There are many aspects of school culture not examined in this study, but may be related to the seven areas addressed. For instance, cyberbullying, social media, video-taping of incidents, threats of terrorism, socio-emotional interactions, discrimination, and other areas may be included as planners continue to study school culture. As stated in recommendation three, there is a strong positive correlation between math and reading achievement. This finding should compel educational planners to examine ways to ensure that the curriculum have the two subjects embedded and delivered in a systematic manner.

In recommendation four, educational planners are reminded that the primary determinant of student achievement is classroom instruction and that all other variables are support variables. When planning for student academic success, educational protocols must include plans to continuously examine classroom instruction. Educational planning involves studying variables that are, or have the potential to be, related to student achievement. This research contributes to this knowledge base and provides next steps and recommendations for educational planners.

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