Fostering Positive Classroom Environments: The Relationship Between Teacher Qualifications, Facility Management, and Perceptions of Leadership on Student Outcomes

Bryan Allan Marshall

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FOSTERING POSITIVE CLASSROOM ENVIRONMENTS: THE RELATIONSHIP BETWEEN TEACHER QUALIFICATIONS, FACILITY MANAGEMENT, AND PERCEPTIONS OF LEADERSHIP ON STUDENT OUTCOMES

by

Bryan Allan Marshall

Abstract of a Dissertation
Submitted to the Graduate School of The University of Southern Mississippi in Partial Fulfillment of the Requirements for the Degree of Doctor of Philosophy

May 2011
ABSTRACT

FOSTERING POSITIVE CLASSROOM ENVIRONMENTS: THE RELATIONSHIP BETWEEN TEACHER QUALIFICATIONS, FACILITY MANAGEMENT AND PERCEPTIONS OF LEADERSHIP ON STUDENT

by Bryan Allan Marshall

May 2011

This study attempted to determine the effectiveness of schools that have highly qualified teachers, along with a well managed facility, and the administration’s perception of the leadership role as an instructional specialist on the outcomes that students displayed. Also, the relationship between two instruments used to determine the quality of school facilities was measured. The findings of this study indicated that all three factors used to determine teacher quality had significant relationship at the .05 alpha level to QDI or Quality Distribution Index. The three categories were teacher advanced degree, teacher national board certification, and teacher highly qualified status. For NBCT the correlation \( r(242) = .767, p<.05 \) was significant when related to QDI. This was the most significant relationship between teacher quality and QDI followed by the percentage of highly qualified teachers \( r(242) = .752, p<.05 \) and advanced degree \( r(242) = .523, p<.001 \). A facility management score was measure to determine the influence facilities have on QDI within student populations. The two measures used to determine school facility management levels were the Total Learning Environment Assessment and the Hawkins Lilley. These two instruments were determined to be congruent using a correlation test based on two overall categories, Educational Adequacy and Educational
Environment. When related to QDI the TLEA indicated that $r(19) = .650$, $p<.01$ which was significant and the HL indicated a correlation of $r(19) = -.852$ which was also significant. Next a regression model was conducted to determine if QDI could be explained by using demographic factors other than the test alone. The conclusion was that the $R^2 = .712$ and can explain 71.2 percent of the variability in QDI. Therefore, the argument can be made that QDI is a measure of demographic features surrounding the schools. Finally, an interview was conducted with three high school administrators from various levels of school achievement. These surveys indicated that principals have a shared vision of their role in that they are expected to be instructional specialists. Consequently, the results of this study indicated that QDI is a product of demographics, teacher quality does influence QDI, facilities adequacy and environment are important to the QDI of the school, and that by in large principals see their role as an instructional leader.
University of Southern Mississippi

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A Dissertation
Submitted to the Graduate School
of The University of Southern Mississippi
in Partial Fulfillment of the Requirements
for the Degree of Doctor of Philosophy

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May 2011
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CHAPTER I
INTRODUCTION
Fostering Positive Classroom Environments

Education has long been an institution of disciplining students in order to get them to learn. Many people think of the one room schoolhouse as a setting where student misbehavior in class gained a trip to the teacher’s desk resulting in punishment. This course of action seems ineffective and unacceptable in today’s schools. However, these practices not being accepted in modern schools are inconsequential to the actual purpose. The actual premise behind discipline is to create a positive student behavior instead of a negative behavior. As a result of this new positive behavior, student and classmates can learn and achieve. Establishing effective discipline practices is critical to insure academic success and to provide a safe learning environment Luiselli, Putnam, Handler, Feinberg, (2005). Luiselli al. (2005) advocates a whole-school positive behavior support on discipline problems and academic outcomes of students. The whole-school model included five parts: improving instructional methods, formulating behavioral expectations, increasing classroom activity engagement, reinforcing positive performance, and monitoring efficacy through data-based evaluation. The findings of this study indicated that over several years the academic achievement of the students increased and behavior problems diminished. Many times discipline is not the problem. According to Seidman (2005), the problem may relate to the influence of the class size, over-routinization of the class and the maturation of the students. Another study (Kramer, 1997) cites a relationship between classroom management and discipline problems in schools. However, the real question is what defines misbehavior in a classroom. Charles
(1999) defines misbehavior as “behavior that is considered inappropriate for the setting or situation in which it occurs” (p. 2). Charles (1999) also classified misbehavior into five categories: aggression, immorality, defiance, and goofing off. Yet another study by Meyers (2003) classified misbehavior as either overt or covert. Overt behaviors are open and observable and include talking, cell phone use, eating loudly, etc. Covert behaviors are more along the lines of sleeping in class, tardiness, leaving class early, or being disengaged. According to Seidman (2003, p. 41), the reason student misbehavior in the classroom exists needs to be addressed and the purpose of why these students are so persistent in misbehavior needs to be uncovered. Furthermore, Seidman states that many behavior problems are beyond the control of the instructor. Earthman and Lemasters (1998) state “Obviously, the most important variables that influence how students learn come from the genes their parents impart to them and the home environment they create for their children.” (p.1) Regardless the nature of discipline problems in schools today, the chore of influencing students in a positive way, in order to provide an environment in which students are engaged and learning at specific levels or benchmarks, is increasingly present. This brings out the idea that there are specific factors that influence student behavior. Those specific factors may include parental involvement or the lack thereof. This is merely speculation but it lends the readers mind to the idea that parental involvement and parental education level may be a factor. There are concepts which suggests environmental factors can influence student performance was justified in this case. There are many other factors that have been studied such as parental socioeconomic status, marital status, income, etc. With this information, it is the researcher’s opinion that the teacher is at an early disadvantage in the educational process. Therefore, it is
imperative that educators develop a student with positive behavior in the classroom in order to give the child the best chance to succeed in school.

Many studies (Luiselli, Putnam, Handler, Feinberg, 2005) have been done to determine what factors contribute to student achievement. From Kindergarten to Senior High Schools, research indicates behavior and student achievement are related. One study attempts to illustrate that socioeconomic status affects student outcomes (Reyes, 2006). According to this study, when socioeconomic status increases the student achievement increases.

Many school facilities in the United States are old, out-of-date, poorly maintained, and lack specific design elements that are likely to enhance teaching, learning, behavior, and other desirable outcomes (Bosch, 2004, p. 729). A study conducted by Susan Lair (2003) dealing with the effects of school facilities on student achievement suggested in the findings merit attention and support previous research which points to building age, overall building maintenance, and building upkeep having a significant impact on student achievement (Lair, 2003, p. 4293). These findings are some of the reasons the researcher felt it necessary to include the impact of facility management in this study.

The final topic of discussion is that of teacher quality and the impact it has in the classroom. Studies have also shown that the level of degree a teacher holds makes a difference either positively or negatively in regard to student achievement. Goldhaber and Brewer (1997) found that teachers holding advanced degrees are not generally associated with increased student learning from the eighth to the tenth grade, but having an advanced degree in math and science and teaching in the area of math and science teachers appears to influence students’ achievement. The same results were not found to
be true for English or History. According to Eric Hanushek (1986), per pupil spending, teacher degree level, and teacher experience have little evidence as being important factors when related to student outcomes. He further states that there is “no strong evidence that teacher-student ratios, teacher education, or teacher experience have an expected positive effect on student achievement” and that “there appears to be no strong or systematic relationship between school expenditures and student performance” (Hanushek, 1986, p. 1162).

There must be some factors that make successful students perform on a higher level. Conceivably, socioeconomic status, discipline, clean facilities, teacher qualifications, and other factors often influence student success. Throughout this study these factors will be addressed. This study does not impose that these are the unique factors to student achievement. However, this study tries to investigate several factors, not one major factor, that supports student behavior leading to the desired positive student behavior both disciplinary and subject area test achievement.

Purpose of the Study

Much of the research (Baker, 2005; Finn, 2004; Lair, 2003) indicates that behavior has a direct effect on student outcomes, and it also indicates good work environments foster productivity and longevity, and that healthy environments provide for positive student learning. Consequently, the researcher found little literature that focuses on how administrators and teachers foster a positive student behavior. Therefore, this study focuses on the effects of teacher qualification, facility management/safety, and the administration’s perception of the leadership role and how those factors relate to positive student behavior. Specifically, this study will investigate what the implications
of teacher quality, administrator perceptions of the leadership role, and facility management on positive student behavior are; this study will also investigate how positive student behavior relates to student achievement. The relationship between teacher quality, administrator perceptions of the leadership role, and facility management all influence student behavior and achievement. Also, student behavior is fostered by, but not limited to these three factors. The intent of this study was to research high performing schools versus low performing secondary schools in Mississippi based on these three factors: teacher quality, administrator perceptions of their role as instructional leader, and facility management. In the State of Mississippi, schools are ranked on a point scale where one is the lowest or failing school, two is slightly higher but at-risk of failure, three academic watch, four is successful, five is a high performing school, and the final is a star school. In Mississippi, a school that is low performing failed to meet its growth expectation and is in Achievement Level 1. These schools may be designated as a Priority School, and they are subject to state conservatorship. To continue on, at-risk schools failed to meet growth and are in Achievement Level 2. Next, successful schools may or may not have met the growth expectation and is in Achievement Level 4. High performing schools are in Achievement Level 4 or exceeded growth expectation. If growth was not exceeded then a high performing school may have an Achievement Level of 3. A star performing school is in Achievement Level 6. In this case, growth is based on the number of additional students in Algebra I and English II that score in the proficient and advanced range from one year to the next (Mississippi Department of Education, 2009).
Justification of the Study

Research (Kramer, 1997; Reyes, 2006; Seidman, 2005) has been conducted based upon the concept that student behavior impacts student achievement. A group of researchers, Luselli, Putnam, Handler, and Feinberg (2005) have developed a systematic school redesign that, in theory, helps students become more disciplined and as a result these students achieve at a higher level. Clearly, the theoretical foundations of this study deal with student behavior and safety, teacher quality, facility management, and administrator perceptions of the role of instructional leader.

First, the issue that must be addressed, in order to determine what constitutes a positive outcome, is to determine the behavior that is conducive to learning. First and foremost, a main issue that arises for first year and sometimes veteran teachers is classroom behavior. Often times, disruptive behavior results in lost curriculum time and creates a classroom environment that is often hostile and not always conducive to learning (Cavanagh, 2007). Therefore, positive classroom behavior must be defined. What one teacher believes is good behavior may be utterly disruptive behavior in another teacher’s eyes. As a result of these mixed views, one could develop the definition of positive classroom behavior could be defined as the actions that a student takes in order to learn the material at hand without distracting or disrupting others in order so the entire class experiences a positive outcome. Proper and improper student behavior seems to be a topic of disagreement among many educators. According to Rausch and Skiba (2004), principals are sharply divided in regard to their attitude toward zero tolerance, out-of-school suspension, expulsion, and preventive strategies. Moreover, differences in principals attitude relate both to the characteristics of school principals and to outcomes.
in terms of discipline and prevention (Rausch & Skiba, 2004). On the whole, student behavior, at this point, seems to be subject to the attitude of the leadership of the school. Many students attending public schools exhibit discipline problems such as disruptive classroom behavior, vandalism, bullying, and violence. Therefore, establishing effective discipline is critical to ensure academic success to provide a safe learning environment (Luiselli et al., 2005). According to Abraham Maslow’s (2002) theory, once psychological needs are met people begin looking at safety, protection, and security in order to provide the needs which enable a person to become successful. According to Maslow (2002), once the psychological needs are met, a person often times displays an increasing need for structure. Undoubtedly, school should not be any different. In order for students to achieve, they must be placed in an environment that is safe and meets certain hierarchal needs. Added to this, even students that are typically discipline problems want and need structure. Equally important, one must understand there are other factors in the motivation or discouraging of children. These factors help determine how a successful academic career will be. Many times students may have a specific person who encourages them and keeps them motivated; in other cases, it may be a friend that influences the student to continue striving for excellence. The researcher uncovered some interesting research pertaining to these topics. According to Diane Kaplan’s study, children of parents that had a negative experience in school were significantly more likely to also have negative experiences in school (Klinovsky, 2002). When children enter school, they come with certain experiences and family backgrounds. These experiences either prepare them for a successful academic career or hinder their success; therefore, the conclusion can be made that students are directly affected by their family.
Teachers today have to inspire, motivate, and captivate their audience like never before. Today’s view of teaching has changed. Teaching is no longer viewed as a non-professional career. Even though teaching is viewed as a professional occupation, teacher’s salaries are doldrums. Many teachers have obtained their National Board Certification in order to earn more money. Teachers must be highly qualified, according to No Child Left Behind Legislation, and many have begun seeking higher-level degrees in order to obtain their highly qualified status. With the legislation supporting No Child Left Behind, teachers are held accountable for student performance. This performance is much like the business world’s system for accountability, a quality product at minimal cost. As a result, administrators must know how to judge teacher quality in order to get the best results for the taxpayers money in an attempt to stay competitive with NCLB legislation. According to a study done by the National Center for Educational Statistics in 1998, teacher quality is hard to define. There are two broad elements that most observers agree characterize teacher quality: teacher preparation and qualifications, and teaching practices. Of course, these elements of teacher quality are not independent; excellent teacher preparation and qualifications should lead to exemplary teaching behaviors and practices (Lewis, 1999). Growing concerns claim a number of the nation’s teachers are under qualified to teach our children. These concerns have focused attention on their pre-service learning. For example, concern regarding pre-service learning has been directed toward teachers’ post secondary degrees-that is, the idea that teachers, particularly secondary teachers, should have an academic major rather than a general degree (Ravitch, 1998). In addition, certification policies have drawn criticism, specifically that a growing number of the nation’s teachers are entering the classrooms with emergency or temporary
certification (Riley, 1998).

The research on the value of a teacher’s advanced degree is mixed. Studies have implicated that highly qualified teachers make a significant difference in the performance of students on state tests. Studies have also shown that the level of degree a teacher holds makes a difference either positively or negatively in regard to student achievement. Goldhaber and Brewer (1997) found that a teachers’ advanced degree is not generally associated with increased student learning form the eighth to the tenth grade, but having an advanced degree in math and science for math and science teachers appears to influence students’ achievement. The same relationships were not found to be true for English or history.

The final issue, when dealing with teacher quality, is the teacher’s perception of the school in which they work. Great teachers with poor attitudes about their work environments can sometimes, in the author’s opinion, become poor teachers because of the poor attitude. The teacher perceptions of the students and the staff may play a critical role in the development of a high quality teacher (Henig, 1999).

As far back as the 1920’s industrial research established the relationship between environmental factors and employee productivity and morale, but these lessons have not been applied widely in educational settings (Young et al., 2003). School facility factors such as building age and condition, quality of maintenance, temperature, lighting, noise, color, and air quality can affect student health, safety, sense of self, and psychological state. Research has also shown that the quality of facilities influences citizen perceptions of schools and can serve as a point of community pride and increased support for public education (Young et al., 2003).
Imagine the normal student trying to learn in a school that does not produce a quality learning environment. For example, pupils trying to learn in a classroom of twenty five students in a four hundred square foot room without an air conditioner in heat of ninety five degrees. There are many factors such as socioeconomic status, that affect learning in the schools and that cannot be changed. However, governments, schools, and districts can have an affect on the upkeep of the buildings in which students learn.

According to Young et al. (2003), the age of the facility correlated with the test scores and behaviors of students. As a building’s age decreased, the achievement level got higher and the behavior problems lessened. The condition of the facility was another factor that was addressed in the study. As the condition of the facility improved, achievement scores improved. Also the environment promoted positive attitudes in students. Finally, the report stated that in eight of nine studies the thermal environment had a direct effect on student outcomes and behavior.

Very little research could be found by the researcher on administrator perceptions of the leadership role and if these perceptions could change the way students behave and the outcomes they, consequently, receive in class. This may be especially evident with the administrations perception of how visible the administrative team is throughout the school day. However, one study done by Carolyn Keesor (2005) shows that an increase in administrator visibility greatly decreased the amount of time assistant principals spent on discipline. Surprisingly, there were several other factors that arose from the increase in administrator visibility such as a more positive relationship with teachers and students. The idea of greater visibility gives the administrator a chance to see students in a more personal setting and allows the administrator to increase communication between staff
and administration. In the study, daily administrative visits not only affected students, teachers, and support staff in a positive way, but the visits also benefited the assistant principal in many ways. These benefits included interacting with students in an academic setting, developing relationships with staff members, participating in classroom activities, having an increased awareness of curriculum, and fostering a positive school-to-home communication network (Kessor, 2005). On the whole, administrator visibility can change the viewpoint of the school and reduce the amount of discipline the administration sees on a daily basis. If the discipline factor decreases, then positive student behavior potentially increases. The perception an administrator has for visibility through hall monitoring or even class observation can greatly impact student behavior. The administrator’s perception of the school, staff, students, and themselves potentially can have a large impact on the positive environment.

Administrator visibility has not been studied on such a scale as the other two points of the study. However, it seems to be of sound reasoning that administrators who are active in the classrooms have a better relationship with the students and the faculty. School culture and climate might also be affected by this type of behavior in a positive way. Positive school climate and culture can provide a medium for effective schools. This type of quality school could then produce the type of students that parents, communities, and teachers want to see.

Research Questions

There are some specific questions that the researcher felt were necessary to explore in this study. The first question pertains to teacher quality. There are arguments which suggest teacher quality does not impact student achievement (Goldhaber &
Brewer, 2000). Conversely, there are arguments that highly qualified teachers are the teachers that make the difference in the classroom (Goldhaber & Brewer, 2000).

Secondly, the researcher investigated the perception of the leadership of the school. Dr. Cheryl Henig has developed an interview protocol (see Appendix A), which asks questions that pertain to the perception of leadership. The principal interview protocol also asks questions that pertain to the teacher-principal relationship along with other questions that ask principals to give ways to facilitate quality instruction in their school buildings. The interview protocol was designed to gain insight into the principals’ perception of the principal-ship.

Next, the researcher investigated the demographical features that research can attribute to higher performing schools. Finally, the researcher investigated the information that pertains to facility management. Based on the Hawkins-Lilley appraisal, the issue of facility management will be measured. The facility score was compared with schools that, based on the variables of the study, produced a positive classroom environment and positive teacher and administrator perceptions to see if those schools also have a high score in the area of facility management. Hypothetically, schools that produce positive classroom environments also have facilities that match. In short, the following research questions was studied:

1. By NCLB standards of highly qualified teachers, are schools with more highly qualified teachers recording higher QDI values than schools with fewer highly qualified teachers?

2. Do schools with a high facility analysis scores, favorable demographics, and high teacher quality, score higher than expected with reference to QDI?
3. Do the Hawkins Lilley Appraisal and the Total Learning Environment Assessment (TLEA) show congruence?

4. Are there certain aspects of facilities that are more important to student achievement than others?

5. Does administration’s perception of the leadership role influence student achievement and behavior?

   a. Does the demographic information of the school influence the perception of the school?

Hypotheses

The researcher’s hypothesis to the first question, pertaining to teacher quality, was that teachers with degrees past the bachelor’s degree should be more positively associated with achievement and negatively associated with discipline referrals and achievement. Clearly, the Mississippi State Department of Education defines achievement as any school that is categorized as a school from level one failing to level six star. Naturally, teacher quality is defined as the percentage of teachers with an advanced degree and or highly qualified status based on federal standards. Of these teachers, it was speculated the teachers with more favorable achievement scores also had fewer behavioral problems. Hypothetically, this can be attributed to the fact that teachers with advanced degrees constantly kept the students engaged and on task.

The hypothesis which dealt with administrator perceptions of the leadership role was that administrators who perceived the school’s leadership as an instructional leader produce better student results in achievement and behavior. The more positive attitude the school faculty as a whole displayed, hypothetically the school would have higher
achievement scores and fewer discipline notices. Achievement scores were Subject Area Testing Program (SATP) scores for Biology I, United States History, Algebra I, and English II. Also, achievement was measured based on Mississippi’s overall score of level one to six with six being the highest.

In response to the question of demographical features, the researcher hypothesized students from a higher socioeconomic status will perform at a higher level on standardized tests and will have fewer behavior referrals.

The final hypothesis which pertained to school facilities, stated the students at schools with cleaner and newer facilities had more pride in the school thus giving the students a sense of ownership. This sense of ownership then resulted in the student’s desire to learn. As a result, it was hypothesized the cleaner and better kept facilities produced more favorable achievement scores and had fewer disciplinary troubles. The cleanliness and facility upkeep was measured using the Hawkins-Lilley Appraisal for school facilities. In short, the following were the researcher’s hypotheses:

1. Pertaining to teacher quality, teachers with a highly qualified status will show a significant correlation with QDI at the .05 alpha level.

2. Students from a higher socioeconomic status will perform at a higher level on standardized tests and will have fewer behavior referrals. Demographics alone can explain a significant amount of what determines QDI.

3. The Hawkins Lilley Appraisal and the Total Learning Environment Assessment will show congruence demonstrated by a significant relationship at the .05 alpha level. This is hypothesized to be especially true in the Educational Environment and Educational Adequacy categories.
4. In reference to administrator perceptions of the school the hypothesis is that administrators who perceived their role to be an instructional leader will show a higher QDI and fewer behavior referrals.

Definitions

Accountability – a system of measuring the of success a teacher, student, and or school is having

Administrator Perceptions – the perceptions of the leadership at each school as perceived by the principal

EMSTAC – Elementary and Middle School Technical Assistance Center

Facility Management – the management of grounds from cleanliness to the relative age and dilapidation of the complex. This will be measured using the Hawkins Lilly Appraisal.

Hawkins-Lilley Appraisal for School Facilities – an instrument that is used to determine the score for school facilities

IDEA – Individuals with Disabilities Education Act of 1997 – for the purpose of this study, this means that schools are to provide intervention strategies for students with disabilities that may impact behavior consequently impacting achievement.

MAEP – Mississippi Adequate Education Program – the formula and amount of funds that are provided by the state in order to provide an adequate education for all students

MARRS – Mississippi Assessment and Accountability Reporting System

MCT – Mississippi Curriculum Test – administered to elementary and middle school students
NCB – Nationally Board Certified Teacher

NCLB – No Child Left Behind Legislation

Over-routinization – the idea of a teacher implementing too much routine in the classroom.

Positive Classroom Environments – environments in which students learn in a safe, clean, and an educationally conducive classroom producing favorable results

QDI – Quality Distribution Index

SATP – Subject Area Testing Program (includes Algebra I, Biology I, English II, and United States History)

Mississippi Achievement Level – Mississippi schools are ranked on a scale of one through five where one is low performing, two is underperforming, three is successful, four is exemplary, and five is superior performing.

SES – Socio-Economic Status

Student Achievement – the scale in which states rate student achievement. In Mississippi there are four levels: basic, minimal, proficient, advanced

Student Outcomes – for the purpose of this study, student outcomes refers to high standardized test scores.

Teacher Perceptions – the perception of the leadership at the specific schools as perceived by the teachers interviewed

Teacher Quality – the percentage of teachers having either an upper level degree (masters, specialist, doctorate) or the percentage of the staff that is highly qualified

Total Learning Environment Assessment (TLEA) – one of the instruments used to
determine the facility scores.

Delimitations and Other Pertinent Information

This study was done in order to determine some of the possible factors that contribute to the success of Mississippi secondary schools. This study was limited to only secondary schools and could have been used in all schools in order to get a broader picture. However, time and funding limited the expansion of this project. Other limitations of the study included willingness to participate, data which was missing or unavailable, anonymity of the subjects to the researcher, and the appraisal of the school were subjective to the researcher.

First, the potential participants at each of the schools must have been willing to participate in the interview process. Some may not have felt comfortable with the interview questions which were asked. One reason for this is the idea that a face-to-face meeting is not anonymous to the researcher even though the names will not be released to anyone but the researcher. Some potential participants may be unwilling to give truthful answers for fear that the answer would be resounded back to the leadership.

Next, there was an issue of missing or unavailable data. Some schools have piloted the SATP and MCT prior to the test being live and that information is available for those schools but not available for the schools that were not pilot sites. This may pose a problem with the establishment of trend data. Finally, the Hawkins-Lilley Appraisal was somewhat subjective in nature. The researcher had the ability to conduct the appraisal and there may have been bias in the judgment of some of the facility components.
Some other limitations of the study include insufficient information in terms of facility management and the measuring of administrator perceptions and the definition of teacher quality and positive behavior. Every person has a different definition of what constitutes positive behavior. Therefore, this may be the most difficult concept to grasp. A preliminary definition of positive student behavior is defined as the actions a student takes in order to learn the material at hand, without distracting or disrupting others in order that the entire class experiences a positive outcome. Often times some of the problems with this study may include insufficient information in terms of facility management, the measuring of administrator perceptions of the leadership role, the definition of teacher quality, and positive behavior.

Summary

This project has many different facets to address. However, it has become apparent that education is not a simple one size fits all type of issue. Different students and different schools need different solutions to the complex problem that is education. This dissertation does not try to solve or cure the educational pinch that educators feel today however, it does attempt to address some of the major components that led to a positive classroom environment in which students can learn and succeed. The components used in this study are teacher quality, facility management, and teacher and administrator perceptions of the leadership role. These three components will be shown to be major contributors to increased student achievement and a decrease in student discipline. The increase of achievement and the decrease in discipline leads to the positive classroom environment in which students may truly learn the material presented in order to become successful students at the next level or to become successful and
skilled workers post secondary.
CHAPTER II

REVIEW OF LITERATURE

Theoretical Framework

The theoretical framework for this study truly revolves around the perception of the school and the perception of the leadership, along with the need for safety and clean facilities. These ideals are most present in Abraham Maslow’s (1966) hierarchy of needs. The number one need is physiological; such as food, water, and shelter. Next in the hierarchy are safety needs. If these safety needs are not met it could be agreed on that a positive learning environment would not exist. Children, teachers, and administrators want to come to school each day knowing they are at a safe place. According to Abraham Maslow’s theory once psychological needs are met, people begin looking at safety, protection, and security to provide the needs in which make a person successful. Also, according to Maslow a person may exhibit an increasing need for structure once the psychological needs are met. Consequently, school should not be any different. In order for students to achieve, they must be placed in an environment that is safe and meets certain hierarchical needs. Even students that are typically discipline problems want and need structure. In some cases, when the needs for safety and for physiological well-being are satisfied, the needs for love, affection and belongingness can emerge. Maslow states that people, oftentimes, seek to overcome feelings of loneliness and alienation; this involves both giving and receiving love, affection and the sense of belonging. Another key need, people have is high self-esteem. Humans have a need for a stable, firmly based, high level of self-respect, and respect from others. When these needs are satisfied, the person feels self-confident and valuable as a person in the world. When these needs are
frustrated, the person feels inferior, weak, helpless and worthless. It is important that teachers and students are given the opportunity to complete these needs in schools by the administration and visa versa. This can only be accomplished by having highly visible administrators in the school building and are in classrooms a large portion of the school day. This can also be transferred into the community by the administration and teachers when parents are called in reference to students doing something good in the classroom. Even the student’s parent may have a need for their child to be successful and to some degree plays a part in the parent’s self-esteem as well as the child’s. Finally, Maslow said that humans have a need for self-actualization. When all of the foregoing needs are satisfied, then and only then, are the needs for self-actualization activated. Maslow describes self-actualization as a person's need to be and do that which the person was "born to do" (Maslow, 1966).

The characteristics of a quality school arise in this study because the ultimate goal is to define those characteristics. Dr. William Glasser (1999) illustrates several characteristics of the quality school.

1. Relationships are based upon trust and respect, and all discipline problems, not incidents, have been eliminated.

2. Total Learning Competency is stressed and an evaluation that is below competence or what is now a "B" has been eliminated. All schooling as defined by Dr. William Glasser has been replaced by useful education.

3. All students do some Quality Work each year that is significantly beyond competence. All such work receives an "A" grade or higher, such as an "A+".
4. Students and staff are taught to use Choice Theory in their lives and in their work in school. Parents are encouraged to participate in study groups to become familiar with the ideas of Dr. William Glasser.

5. Students score higher on state proficiency tests and college entrance examinations. The importance of these tests is emphasized in the school.

6. Staff, students, parents and administrators view the school as a joyful place.

Based on these characteristics one can see how the importance of few discipline problems and high test scores relate. The problems that are encountered with this are how do quality schools become quality schools and what are the demographics and characteristics that make up the students, teachers, administrators, and community members of those quality schools. The theoretical framework for this study revolves around the basic idea of a quality school as provided by Dr. William Glasser, and what are some of the underlying implications that cause quality schools to be quality schools? These underlying characteristics are facility management, teacher quality, and administrator perceptions of leadership.

The idea of what constitutes a quality education is one of the main focuses of most literature and research in today’s educational fields. In direct correlation to that idea, the State of Mississippi has developed the Mississippi Adequate Education Program. This program sponsors funding in direct correlation to an adequate education. Even the funding formulas want to address what education needs to provide at least an adequate learning environment. Moreover, the question that has been looming in the background of the educational world is (a) what constitutes learning and (b) what factors
impact learning in a positive way? This study focuses on these ideas. By researching what constitutes a positive classroom environment, teachers and administrators may be able to understand more fully how to develop classrooms that produce quality learning environments.

Introduction to the Literature Topic

The influence of a positive classroom environment on the outcome of student scores is the central topic in this study. When factors contributing to student achievement are in place, theoretically, poor facilities negate those factors. From kindergarten to the senior high schools, research tends to indicate a relationship between behavior and student achievement. However, several factors may contribute to producing successful classrooms. These factors might include socioeconomic status, discipline, clean facilities, and teacher qualifications. Typically, these factors are hypothetically major components of a positive classroom environment. In contrast, many other factors may exist that also contribute to producing positive classroom environments. For the purposes of this study, the focus will be on the effects of teacher qualification, facility management/safety, and administrator visibility. This study will investigate how those factors relate to student behavior that leads to positive student outcomes.

Positive Student Behavior

The Definition of Desirable Behavior

Behavior is defined as a person’s manner of behaving, whether good or bad (Behavior, 2009). Classroom behavior is generally the hardest aspect of teaching to deal with for first year and sometimes veteran teachers. For instance, disruptive behavior results in lost curriculum time and creates a classroom environment that is not always
conducive to learning (Pearson Educational Development Group, 2009). Clearly, positive classroom behavior must be defined. Moreover, what one teacher deems as model and or acceptable behavior might be, in sharp contrast, disruptive and unacceptable behavior.

Undoubtedly, positive classroom behavior might be decided to be actions which a student attempts to master in order to learn the material being presented. These students leaning will not distract, disrupt, or impede the learning process of other students.

According to Rausch, the first question that must be answered in order to determine what constitutes a positive outcome is, “What is positive behavior that is conducive to learning?” Principals are sharply divided in their attitudes towards zero tolerance, out-of-school suspension, expulsion, and preventive strategies. Also, differences in principal attitude relate both to the characteristics of school principals and to outcomes in terms of discipline and prevention (Rausch, 2004). Therefore, student behavior, at this point, seems to be subject to the attitude of the leadership of the school. Many students attending public schools exhibit discipline problems such as disruptive classroom behavior, vandalism, bullying, and violence. Establishing effective discipline is critical to ensure academic success to provide a safe learning environment (Luiselli, 2005). Administrators continue to debate the issue of what effective classroom discipline should look like. Administrators are not in the classroom every minute with the students; therefore, teachers must have a grasp on the characteristics of effective classroom behavior. Several studies have been conducted (Kerr & Zigmond, 1986; Walker & Rankin, 1983; Lane & Pierson, 2004) in which the teachers placed emphasis on several factors of classroom behavior, including assertion skills, cooperation, and self-control skills. However, there is a problem with the determination of what is perfect classroom
behavior. The problem is that teacher expectations at high-performing and low-risk schools may differ from teacher expectations at low-performing and high-risk schools (Lane, 2006). Teachers at lower performing schools may place a large portion of their behavior time minimizing classroom disruptions, whereas teachers in high-performing schools may place more emphasis on maximizing educational opportunities (Lane, 2006). According to Lane, it is necessary to determine the degree to which schools of differing risk status are consistent in their expectations of student behavior. Results of one study (Lane, 2006) indicated that general and special education teachers at the elementary and middle school levels shared similar views regarding the importance of self-control skills, whereas high school special education teachers viewed self-control skills as significantly more important than did high school general education teachers. Consequently, another issue arises; from teachers at different grade levels and different levels of student cognitive ability have different ideas of what is a positive classroom behavior should be.

When one thinks of positive classroom behavior, there are a few factors that need to be considered such as the grade level of the student, risk component of the school, and cognitive level of the student. Teachers across the grade spectrum felt that three factors contributed to the majority of students acting positively in the classroom: self-control skills, assertion skills, and cooperation.

Influences on Student Behavior

According to the Pearson Education Group, classroom discipline ranks among the nation’s top concerns for classroom teachers. Also, the same website states the public feels the behavior of students in the classroom has a direct impact on the success of students. Teachers face challenges of discipline in the classroom, and with the new
accountability standards they must meet, teachers must have an increasing knowledge of how to master discipline in the classroom environment. However, there are many conflicting arguments on how the classroom should be managed. For instance, classroom disruptions are a problem that many veteran teachers construe as ambiguous and hard to define. Consequently, there are many suggestions, and sometimes the appropriate classroom management technique may change from one class to another and from year to year.

It seems logical that administrators look for ways to promote positive classroom behavior. According to the Elementary and Middle Schools Technical Assistance Center or, EMSTAC, (EMSTAC, 2006), there are several principles of positive behavior that a school can implement to support positive student behavior. Number one is to emphasize academic achievement. All students are able to achieve at some level. Thus, the theory is students who are achieving are less likely to act disruptively in class. Next, schools should implement a disciplinary system of school-wide, targeted early and targeted intensive interventions. Conversely, findings of EMSTAC also suggests, all schools develop and implement a comprehensive, school-wide set of strategies for supporting positive behavior. Teachers should clearly state behavioral expectations; classroom and school wide rules should be clearly stated and displayed throughout the school. The classroom teacher, along with a school wide-effort, should provide consistent consequences for inappropriate behavior. Punishments and rewards must be consistent in order that the students understand what is expected of them. Schools should further utilize developmentally and culturally appropriate interventions. All behavioral strategies and interventions utilized in the school should be child-centered and appropriate for the
age, gender, cognitive, emotional, and cultural background of the student. The EMSTAC organization also stresses the importance of making a connection across individual, classroom, and school-wide behavioral consequences. Hence, this would be the proverbial buddy system. Research indicates what one student does in a positive way directly affects the actions of another student in a positive way. Likewise, the website also expresses the need for students’ ideas to be listened to and acknowledged by adults. This may bestow a sense of belonging upon the student. Beyond that, the final three concepts that EMSTAC shares are providing adequate staff training and professional development, reaching out to gain family support, and collecting data to monitor the effectiveness of the intervention. These are just a few of the ideas that can help foster positive student behavior.

*Student Behavior is Shaped by Environment*

In today’s school setting, there is a set type of behavior standards that must be followed in the classroom in order to conduct an effective learning environment; there must be some intervention program in order to maintain this desired classroom behavior. Obviously, there is a need for a grade level intervention program. School administrators do not need to punish a kindergarten student in the same way as a senior high student. However, one recurring factor has been uncovered through research: the importance of providing an appropriate level of challenge, instructional level, within curricular material (Burns, 2005, p. 273). Keeping students challenged and engaged helps most students refrain from acting out in class. Kindergarten classes seem to be more apt to keep students engaged if the class is only a half-day or if the class size is small (Finn, 2004, p.80). In this study, students in the full day kindergarten class lost interest in learning the
material and began to act out. This is only one example of a type of intervention to promote positive student behavior. Another example of an intervention program is the whole-school model. This model emphasized improving instructional methods, formulating behavioral expectations, increasing classroom activity engagement, and reinforcing positive performance.

This program was monitored through data-based evaluation. It was found that student negative behavior decreased, and student achievement increased over several years (Luiselli, 2005, p.185).

School-Based Behavior Plans

There are hundreds of different school-based behavior plans that can be incorporated into a school in order to foster positive student behavior. These behavior plans include, but are not limited to, the following things: character education, positive reinforcement, effective behavioral supports, and peer tutoring. Certainly there are hundreds more behavior plans that can be adopted and work effectively in schools. These are merely the most effective ones that are going to be discussed. These behavior plans may not be the answer for every school; however, there is a behavior plan for every school that can be effective in producing positive student behavior.

According to EMSTAC character education encompasses various aspects of moral education, civic education, and character development, which make it a difficult concept to address in schools. Character education seeks to foster students in a commitment to living and acting in accordance with core ethical values such as caring, honesty, fairness, responsibility, and respect. It has demonstrated positive changes in student behavior and academic performance (Character Education Partnership, 2000).
There is no single set of rules for developing a character education program; as a result, the Character Education Partnership has developed ten principles on which character education should be based (Character Education Partnership, 2000):

Table 1

*Character Education Partnership*

<table>
<thead>
<tr>
<th>Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Character must be comprehensively defined to include thinking, feeling, and behavior.</td>
</tr>
<tr>
<td>2</td>
<td>Effective character education requires an intentional, proactive, and comprehensive approach promoting core values in all phases of school.</td>
</tr>
<tr>
<td>3</td>
<td>The school must be a caring community.</td>
</tr>
<tr>
<td>4</td>
<td>To develop character, students need opportunities to practice problem-solving and positive behavior.</td>
</tr>
<tr>
<td>5</td>
<td>Effective character education includes a meaningful and challenging academic curriculum that respects all learners and helps them succeed.</td>
</tr>
<tr>
<td>6</td>
<td>Character education should strive to develop students’ intrinsic motivation.</td>
</tr>
<tr>
<td>7</td>
<td>The school staff must become a learning and morally focused community in which all share responsibility for character education and attempt to adhere to the same core values that guide the education of students.</td>
</tr>
<tr>
<td>8</td>
<td>Character education requires strong pro-social leadership from both staff and students.</td>
</tr>
<tr>
<td>9</td>
<td>The school must include parents and community members as full partners in the character-building effort.</td>
</tr>
<tr>
<td>10</td>
<td>Evaluation of character education should assess the character of the school, staff functioning as character educators, and the extent to which students manifest good character</td>
</tr>
</tbody>
</table>
Positive reinforcement can be a valuable tool for a school based behavior plan. When students are given positive reinforcement for their appropriate behavior, they tend to repeat those positive actions. According to EMSTAC, there are nine rules of reinforcement that staff members need to remember in order to maintain this positive behavior plan:

Table 2

*The Nine Rules of Reinforcement*

<table>
<thead>
<tr>
<th>Number</th>
<th>Rule</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Reinforcement should be delivered as promised.</td>
</tr>
<tr>
<td>2</td>
<td>Reinforcement will be most powerful when delivered immediately</td>
</tr>
<tr>
<td>3</td>
<td>Do not give reinforcement because you feel sorry for a student or when it is generally undeserved.</td>
</tr>
<tr>
<td>4</td>
<td>Whenever possible, pair tangible reinforcement (edibles, toys, balloons, stickers, etc.) with social reinforcement (reinforcers that are socially mediated by teachers, parents, other adults, and peers).</td>
</tr>
<tr>
<td>5</td>
<td>Make sure social reinforcers are not ambiguous.</td>
</tr>
<tr>
<td>6</td>
<td>Reinforcement should be age appropriate.</td>
</tr>
<tr>
<td>7</td>
<td>Gradually taper back the schedule of reinforcement such that tangible reinforcers do not have to be provided each and every time a desirable behavior occurs.</td>
</tr>
<tr>
<td>8</td>
<td>Reinforcers should be periodically changed so that old reinforcers do not become boring.</td>
</tr>
<tr>
<td>9</td>
<td>Access to the reinforcer must be limited.</td>
</tr>
</tbody>
</table>
Peer tutoring is another helpful tool that can be implemented in a school-based behavior plan. This method of behavior training allows the students to tutor each other. In this behavior plan, both students are learning and acting in a positive manner. The tutor is reinforcing what he or she knows about the material, and the person being tutored is learning the material in a one-on-one setting. However, according to EMSTAC, the tutor needs to be trained in order to provide a successful service to not only themselves but the tutees. EMSTAC identifies five training methods that will produce quality tutors. The first method involves teaching the tutor to use positive verbal feedback for praise and encouragement. Corrective feedback methods should be taught so that the tutor can respond to an incorrect answer in an encouraging manner. Modeling by teachers is another good training technique. The trainer can give the tutor examples of incorrect and correct answers in which they can respond with the positive or corrective feedback. Also, role playing is an important part of a successful training. Students should role play with one another, and students should role play with the teacher as well.

Finally, effective behavior supports are necessary to encourage positive student behavior. According to a study (Cafo & Somuncuo, 2000), behavioral expectations should be clearly defined and taught. Appropriate behaviors must be acknowledged, and behavioral errors should be corrected proactively. Behavior should be clearly defined, and the expectations made known to all students. Punishments for violations of these behavior rules need to be administered accordingly and in a consistent manner.

Schools, Family, Peers, and Society Shape Student Behavior

Common sense dictates that there are other motivating or discouraging factors that prevent children from having a successful academic career. Many times students may
have a certain someone that encourages them and keeps them going, other times it may be a friend that influences the student to continue in the right direction. According to Diane Kaplan’s study, the children of parents who themselves had a negative experience in school were significantly more likely to also have negative experiences in school (Klinrovsky, 2002). When children enter school they come with certain experiences and family backgrounds that either prepare them for a successful academic career or hinder their success. The conclusion can be made that students are directly affected by the family in which they live.

Peer pressure is another major factor that influences student behavior. According to the U.S. Department of Health and Human Services, peer pressure is a powerful reality, and many adults do not realize its effects. This pressure can be a negative force in the lives of children and adolescents, often resulting in their experimentation with tobacco, alcohol, and illegal drugs (Witmer, 2007). Since it has been shown that peer pressure is a major force in determining behavior of students, then it is safe to say that students can be pressured by peers in a positive way and or negative direction. Studies have shown that a significant number of students with a positive home life tend not to be influenced in a negative way by peers (Blum, 1998). Schools and society also influence students greatly. Initial results from the largest survey of adolescents ever undertaken in the United States indicate that a feeling of personal connection to family and school plays a crucial role in protecting young people from illegal substances, early sexual activity, and violence. Students’ feelings of connection to school; that is, their perception the teachers treat students fairly, they feel close to people at school, and they are a part of school—appear to protect them from every health risk examined such as drugs, violence,
and sex (NICH&HD, 1998). Society and school play a pivotal role in the development of the behavior of students in today’s classroom.

Student Achievement

The Definition of Desired Student Achievement

In order to understand what desired student achievement consists of, educators must first understand the definition of achievement. The definition of achievement is the act of accomplishing or finishing a task. Another definition is something accomplished successfully, especially by means of exertion, skill, practice, or perseverance (Webster’s Dictionary, 2009). Most states use the term proficient to define achievement. While all states have different guidelines by which proficiency of the students are measured, Mississippi schools are rated based on student achievement in four categories according to No Child Left Behind Legislation. Those four categories are advanced, proficient, minimal, and basic. Individual states are left the chore of creating standards for what a child should know and learn in reading and math in grades three through eight. With those standards in place, student progress and achievement is measured according to state tests designed to match those state standards to every child, every year (No Child Left Behind, 2002). Also, states are left the task of developing a curriculum based on standards for students in Algebra I, Biology I, US History, and English II multiple choice and writing. The desired student achievement in Mississippi focuses around those classes and the MCT tests in grades 2 to 8. Students that score minimal or basic need more instruction and individual tutoring in order to improve their test scores. In senior high schools, subject area testing determines the level of knowledge of the subject matter a student has obtained throughout the year in a specific class. Students must score at least a
300 on the Biology I and United States History subject area tests in order to graduate and at least a 645 on the Algebra I and English II tests. Theoretically, a student could pass the class and not score a 300 or a 645 on the subject area test. This student would not be allowed to graduate until both requirements are met. Therefore, in Mississippi students must score at least a 300 and 645 respectively, which is almost out of the minimal range for 300 and 646 is almost proficient, in order to achieve academic success. In Mississippi schools are ranked on a seven point scale where one is the lowest or failing school, two is slightly higher but at risk of failing, three is low performing, four is academic watch, five is a successful school, six is a high performing school, and the highest level is a star school. In Mississippi a school that is level one failed to meet its growth expectation and QDI requirement (for 208-2009 was 200). These schools may be designated as a Priority School and are subject to state overtake by a conservatorship. Growth is based on the number of more students in Algebra I and English II that score in the proficient and advanced range from one year to the next (Mississippi Department of Education, 2009). Quality Distribution Index is a score that is associated with the respective level of the school. The QDI is used to measure achievement and is sensitive to changes in the distribution of the student performance on the state assessments. The QDI measures the distribution of student performance on the state assessments around the cut points for basic, proficient, and advanced performance. The QDI is calculated for the school by obtaining the percentage of students that scored advanced and multiplying that score by a value of three, next obtaining the percentage of students that scored proficient and multiplying by a value of two, and finally obtaining the percentage of students that scored basic and multiplying by a value of one. Once these values are calculated they are added
together to give the schools an overall QDI score.

_Measure of Significant Student Achievement_

The first principal of accountability, for results, involves the creation of standards in each individual state. The state provides guidelines for a set curriculum that will align with the yearly tests. These set curriculums allow states to accurately measure the effectiveness of the students in that states educational system. For the most part, schools have been measured based on their success, the amount of money they receive, and how many computers are in the classroom, and also what types of creative new programs they can implement in the curriculum (No Child Left Behind, 2002). However, states are now required to test academic success as well. The idea of academic success has been a long fought topic; commonly accepted is the idea that success at the academic level should be measured. Continuing on, arguments still remain claiming tests are not always a good judge of the students’ knowledge of subject matter because some children are poor standardized test takers. According to the No Child Left Behind Legislation and President George W. Bush, states need to test children on their academic knowledge. Each state has its own system for measuring what is successful and unsuccessful. Mississippi rates schools based on the student performance in order to determine which schools are higher performing and which ones perform poorly. Students are tested in grades two though eight on the Mississippi Curriculum Test (MCT) and in the subject areas, Algebra I, Biology I, English II, and US History, and must score a certain base score in order to be eligible to graduate from school. Therefore, accountability is prevalent in almost every grade in school with the exception of Kindergarten and the senior year. Without accountability, teachers would have no way to judge their success or failure as teachers.
Accountability can be used to help teachers improve in areas which they have struggled to teach the children. Therefore, teachers must be held accountable for the achievement of students whom they teach.

Accountability Overview

With the Soviet Union’s launch of the Sputnik satellite the United States realized that it was far behind the Russians and possibly the world in terms of science and mathematics. One might believe the United States had become too complacent in the area of our nation’s technological and educational superiority. According to Senator Michael D. Enzi, the Russians were making more advances than the US. He also stated, “If our students and workers are to have the best chance to succeed in life, and employers to remain competitive, we must ensure that everyone has the opportunity to achieve academically” (Cavanagh, 2007, p.1). “Sputnik was really a shock to the nation’s confidence,” said Daniel Yergin (a Pulitzer Prize-winning author), “there was this palpable sense of crisis across America” (Cavanagh, 2007, p.1). The launch of Sputnik also triggered a response from the federal government that gave unprecedented amounts of investments to pre-collegiate curriculums and into teacher development. The United States committed to staying ahead in respect to education of the American people. The American idea of staying ahead, means there must be some governing body to monitor the success or failure of these educational programs. In other words, someone must check on that progress and with that comes accountability.

Accountability and Its Importance

According to former President George W. Bush (2002),

“Accountability is an exercise in hope. When we raise academic standards,
children raise academic sights. When children are regularly tested, teachers know where and how to improve. When scores are known to parents, parents are empowered to push for change. When accountability for our schools is real, the results for our children are real.” (p.1)

Accountability is a system of measuring the level of success a teacher is having in a school and, consequently, the level of success the school is having. Because education impacts children a lifetime, leads to their financial security, and gives them a chance to pursue the American dream, we want to know which children are mastering concepts and which students are not (No Child Left Behind, 2002). The level of success teachers attain in their classroom must be measured in order to determine which students are learning and which students are falling behind. To sum it up, this is the general principal behind accountability.

Under the No Child Left Behind Act (2002), each state must retain the responsibility to decide what their students should learn in each grade. States are to develop rigorous academic standards. Those standards should drive the curriculum which, in turn, must drive instruction. Annual statewide assessments are aligned with the curriculum to provide an external, independent measure of what is going on in the classroom, as well as early indicator showing when a student needs extra help.

Through the implementation of accountability standards, states can determine which schools are doing well and teaching the students the information they need to know in order to be successful in the future. Under No Child Left Behind, states are working to close the achievement gap and make sure all students achieve academic proficiency. Annual state and school district report cards inform parents and communities
about state and school progress. Schools that do not make progress must provide supplemental services, such as free tutoring or after-school assistance, take corrective actions; and, if still not making adequate yearly progress after five years, make a dramatic change to the way the school is run (No Child Left Behind, 2002).

Teacher Quality

Teachers in today’s world have to inspire, motivate, and captivate their audience like never before. Teaching has moved toward a professional occupation instead of the traditional non-professional job. For years, teachers’ salaries have been in the doldrums of the professional world. Many teachers have obtained their National Board Certification in order to earn more money. Teachers must be highly qualified, and many have begun seeking higher-level degrees in order to obtain their highly-qualified status. With the legislation behind No Child Left Behind, teachers are held accountable for student performance, which is much like the business world’s system of accountability; a quality product at minimal cost. So, the challenge for administrators is to hire competent and excelling young teachers to replace the retiring teaching force today. For most administrators, a clear understanding of the qualities that make a good teacher and get students to achieve higher on standardized tests is needed. Several factors contribute to high-performing teachers. First, administrators need to hire teachers that are qualified for the job and truly have a love for students and their success. Administrators must understand what qualities to look for in teachers to be able to hire the quality teacher. Also, student behavior, along with socioeconomic status of the students, their families, and many other factors contribute directly to successful teachers.

With No Child Left Behind legislation on the forefront of educational news,
obtaining and hiring quality educators is one of the most important roles for the school administrator; however, this is not an easy task. Teachers are the key support system in the fulfilling a school’s mission and goals, and finding teachers that are the right fit for the position is sometimes a daunting task.

Authors maintain several reasons why the hiring of teachers can be difficult. Slosson (1999) suggests a principal’s lack of training in personnel selection and often the rushed process of acquiring teachers in a short time frame could be key contributing factors. Regardless of the pressures to fill vacancies, Slosson (1999) warns that rushing the process of hiring will increase the likelihood of mistakes. Furthermore, even if a suitable candidate cannot be found, a substitute teacher should be utilized until the right candidate is located. According to Darling-Hammond (2003), “seeking out and hiring better prepared teachers has many payoffs and savings in the long run in terms of both lower attrition and higher levels of competence” (p. 12).

When hiring teachers, one of the most important strategies in finding the right employee is knowing what to look for. Connors, Coppola, and Scricca (2004) and Hindman and Stronge (2003) recommend looking for the “right stuff” in potential new employees. They are all in agreement even though a candidate may have strong content knowledge, academic background, and an impressive résumé and interview, there is a quality that is more important and foretelling of the perfect employee/employer match. “Teachers with the right stuff are teachers who have the character, desire, attitude, personal qualities, and potential to become great teachers” (Connors et al., 2004, p. 48). However, more important than character is the candidate’s love and care for children. This characteristic cannot be taught.
Student behavior in the classroom is another major factor in success and achievement of the student in today’s classroom. Many times teachers feel they are not capable of meeting the needs of their students in the classroom (Baker, 2005). Teachers must not feel inadequate in helping certain children if they want to educate the youth of today. Behaviors of children fall under the umbrella of classroom management. However, few administrators send teachers to professional developments in order to address all the needs of all the students in the classroom. Often times, students today have many learning disabilities, so classroom teachers need to be able to accommodate these needs. In contrast, the needs of administrators should not be overlooked. As they seek to better meet the needs of their teachers, administrators may need support in utilizing a more situational leadership approach. Perhaps using annual reviews as an opportunity to build a professional development plan could open the necessary dialogue to assess what type of support each teacher really needs in order to be more successful with challenging situations (Baker, 2005).

Many times it is found teachers teaching in poverty stricken areas are already at a disadvantage because of low wages and overall appeal to attract highly qualified teachers. Consequently, another issue that must be investigated arises; the socioeconomic status could affect the teachers and the consequent test scores that will be assessed at the end of the school year. If this is true, the issue is enticing more highly qualified teachers to teach in these low socioeconomic schools, and retaining these teachers from year to year. Studies suggest, students whose parents have been successful economically will (a) have a higher probability of success in school, (b) will receive the advantages of stimulation in the home and community, and (c) will attend schools in better financed school districts,
where many more options for academic achievement exist in both the school and community (Hanushek, 1989; Hedges, Laine, & Greenwald, 1994; Kozol, 1991; Wright, 1997). If this study is true, the issue remains that highly qualified teachers are needed in the subject area classrooms. Principals are left with the dilemma of attracting these highly qualified teachers to these areas. Rotherham (2002) states that because there is no overall teacher shortage, but rather specific subject area shortages and an adverse selection and allocation problem, the No Child Left Behind Act’s requirement that all teachers be “highly qualified” is important and attainable. To improve teacher quality, principals should be given more flexibility and control over teacher hiring and compensation. Requiring all teachers to possess strong content knowledge in the subject or subjects they teach is an important step that is grounded in research demonstrating the importance of teacher content knowledge for student achievement, particular at the secondary school level (Walsh, 2001).

Research on the value of a teacher’s advanced degree is mixed. Studies have implicated highly qualified teachers make a significant difference in the performance of students on state tests. Goldhaber and Brewer (1997) found that a teacher’s advanced degree is not generally associated with increased student learning from the eighth to the tenth grade, but having an advanced degree in math and science for math and science teachers appears to influence students’ achievement. Results did not match this pattern for English or history. Studies conducted by Eric Hanushek suggest that per pupil spending, teacher degree level, and teacher experience has little correlation to promoting student outcomes. Furthermore, he suggests there is “no strong evidence that teacher-student ratios, teacher education, or teacher experience have an expected positive effect
on student achievement” and that “there appears to be no strong or systematic relationship between school expenditures and student performance” (Hanushek, 1986, p. 1162). In light of the results of Hanushek’s study, school districts would be negligent if large sums of money were spent on teachers with advanced degrees or many years of experience. Many critics have since made the argument that Hanushek’s study provided very crude variables representing the school and teacher quality. For example, the quality of the colleges attended, certifications requirements, and subsequent professional development were not considered in the study (Goldhaber, 2000).

Teaching is the largest profession in the United States, employing over three million professionals (NCES, 1994, p. 71). An elaborate system of teacher education and certification is geared toward the preparation of those entering teaching, and there are significant professional development opportunities for those in the profession. More than forty percent of teachers have at least a master’s degree and more than twenty-five percent have at least twenty years of teaching experience (NCES, 1994, p. 77). Virtually all teachers in public school education must have at least an undergraduate degree. Goldhaber and Brewer (1996) concluded from their study that teachers who are certified in mathematics and have BA and MA degrees in mathematics are associated with higher student mathematics test scores. Likewise, teachers with BA degrees in science are associated with higher student science test scores. Therefore, Goldhaber and Brewer (1996) concluded that student achievement in technical subjects could be improved by requiring in subject teaching.

According to a study done by the National Center for Educational Statistics in 1998, teacher quality is difficult to define. There are, however, two broad elements that
most observers agree characterize teacher quality: (a) teacher preparation and qualifications, and (b) teaching practices. Of course, these elements of teacher quality are not independent; excellent teacher preparation and qualifications should lead to exemplary teaching behaviors and practices (Lewis, 1999). Growing concerns that a number of the nation’s teachers are under qualified to teach our children has focused attention on their pre-service learning. For example, concern regarding pre-service learning has been directed toward teachers’ post secondary degrees; that is, the idea that teachers, particularly secondary teachers, should have an academic major rather than a general degree (Ravitch, 1998). In addition, certification policies have drawn criticism, specifically that a growing number of the nation’s teachers are entering the classrooms with emergency or temporary certification (Riley, 1998).

Facility Management and Safety

Most school personnel readily acknowledge that not all students come to class ready to learn. The reasons are many and varied, including the fact that the school age population is becoming increasingly more diverse (Gable, 2003). No matter what the reasons might be which cause students to report to school not ready to learn, one underlying factor seems to affect the attitude of the students and the staff, and that factor is school facilities. As far back as the 1920s, industrial research established the relationship between environmental factors and employee productivity and morale, but these lessons have not been applied widely in educational settings (Young, 2003). School facility factors such as building age and condition, quality of maintenance, temperature, lighting, noise, color, and air quality can affect student health, safety, sense of self, and psychological state. Research has also shown that the quality of facilities influences
citizen perceptions of schools and can serve as a point of community pride and increased support for public education (Young, 2003). Imagine the normal student trying to learn in an environment that does not produce a quality learning environment. For example, students trying to learn in a classroom of twenty five in a four hundred square foot room without an air conditioner on a Mississippi summer day in a temperature of ninety five degrees. There are many factors that affect learning in the schools that schools cannot change such as socioeconomic status. However, governments, schools, and districts can have an affect on the upkeep of the buildings in which students learn. The learning environment is the responsibility of the administration of the school and the district. Most education research points to social factors as having more of an influence on learning than physical factors. The result is that physical factors are ignored in educational planning. Researchers may have overlooked the obvious. The “bottom line” to all reforms in education is improved academic achievement. This is usually measured by math and reading scores on standardized tests. School facilities can have a positive or negative effect on student achievement. According to Young (2003), the socio-economic status of students, the most important external factor in learning, cannot be controlled. Time in learning, the most direct internal factor, can be controlled. The facilities in which students learn has a major effect on the time students spend engaged in learning. The vast majority of students are attending 24,000 hours of time in schools that are approaching the fifty-year mark. One in five people spends at least a part of every day in a school building. There are four times as many people per square foot as a typical office building (Young, 2003). School districts have been confronted with deteriorating or obsolete facilities. Many districts also encounter demographic changes, which require them to re-examine
facility use or the building of new educational, and support facilities (Blackwell, 1997). According to Howell and Krantzler (1997), almost two-thirds of the nation’s schools have at least one inadequate building feature and 58% have at least one unsatisfactory environmental condition.

In 1994, the United States General Accounting Office surveyed ten thousand schools in more than five thousand school districts across the country in the first comprehensive survey of school facilities since 1965. The survey revealed that one-third of the schools, which serve 14 million students nationwide, need extensive repair and or partial replacement. The estimated cost to update these and other buildings to comply with federal mandates was approximately $112 billion (Hardy, 1997).

Obviously, there is a major need for upkeep of school facilities. Unfortunately, no one wants to spend any amount of time in a building that has a run down look. People want to work and learn in an environment that is suitable and conducive to education. Ed George (2003) has compiled a list of desirable and undesirable characteristics for schools based on research from educators and students.

Table 3

Desirable and Undesirable Characteristics for Schools

<table>
<thead>
<tr>
<th>Desirable</th>
<th>Undesirable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Higher student scores on standardized math and reading tests</td>
<td>Student absenteeism, truancy, and tardiness</td>
</tr>
<tr>
<td>Less absenteeism</td>
<td>Vandalism of school property/graffiti</td>
</tr>
</tbody>
</table>
Table 3 (continued).

<table>
<thead>
<tr>
<th>Desirable</th>
<th>Undesirable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Higher graduation and promotion rates</td>
<td>Low scores on standardized math and reading tests</td>
</tr>
<tr>
<td>Higher morale, more school spirit, motivation</td>
<td>Higher dropout rate</td>
</tr>
<tr>
<td>Less turnover of teachers</td>
<td>High incidence of expulsions, suspension and other disciplinary actions</td>
</tr>
<tr>
<td>Greater community pride in, and support for Schools</td>
<td>Class disruptions, rowdy behavior</td>
</tr>
<tr>
<td>More parental involvement</td>
<td>Failure to improve student achievement</td>
</tr>
<tr>
<td>More time on task in the classroom</td>
<td>Racial and ethnic incidents</td>
</tr>
<tr>
<td>Enhanced socialization of students</td>
<td>Smoking, drinking, drug use</td>
</tr>
<tr>
<td>Fewer disciplinary problems and actions</td>
<td>Weapons offenses</td>
</tr>
<tr>
<td>Enhanced feeling of security and emotional well being</td>
<td>School violence, assaults</td>
</tr>
<tr>
<td>Creation and maintenance of an optimal learning Environment</td>
<td>Over-utilization of sub teachers</td>
</tr>
</tbody>
</table>

According to Young (2003), the age of the facility correlated with the test scores and behaviors of students. As the building’s age decreased, the achievement level rose and the behavior problems lessened. The condition of the facility was another factor that was addressed in the study. As the condition for the facility improved, achievement scores improved. Also the environment promoted positive attitudes in students. Finally, the report stated that in eight of nine studies, the thermal environment had a direct effect
on student outcomes and behavior.

Safety is also another major factor that attributes to student achievement, in order for other students to feel safe and achieve at a higher level. The 1997 IDEA stipulates that states address the needs of school personnel as they relate to positive intervention strategies to deal with student behavior that impedes learning (Gable, 2003). Disruptive students must have an intervention plan in order to show the other students that unruly behavior will not be tolerated. Student behavior usually serves one or more functions: to gain attention, to avoid or escape an aversive situation, or as a form of communication (Cullinan, 2002; Gable, 2001).

Therefore, facility management continues to be an area of concern in order for students to achieve. School districts have been confronted with deteriorated or obsolete facilities. Many districts also encounter demographic changes, which require them to re-examine facility use or building new educational, and support facilities (Blackwell, 1997). According to Howell and Krantzler (1997), almost two-thirds of the nation’s schools have at least one inadequate building feature and 58% have at least one unsatisfactory environmental condition. Focusing on instruction and learning with leaky roofs and broken air conditioners is almost impossible. Therefore, this study takes an in depth look at how much clean and orderly facilities impact student learning.

Administrator Perceptions

Very little research has been conducted on the idea of how administrator visibility can change student behavior and the outcomes students consequently receive in class. However, one study done by Carolyn Keesor shows that an increase in administrator visibility greatly decreased the amount of time assistant principals spent on discipline.
Surprisingly, there were several other factors that arose from the increase in administrator visibility such as a more positive relationship with teachers and students.

The idea of greater visibility gives the administrator a chance to see students in a more personal setting and allows the administrator to increase communication between staff and administration. In the study, daily administrative visits not only affected students, teachers, and support staff in a positive way, but also benefited the assistant principal in many ways. These included interacting with students in an academic setting, developing relationships with staff members, participating in classroom activities, having an increased awareness of curriculum, and fostering a positive school-to-home communication network (Kessor, 2005). Therefore, administrator visibility can change the viewpoint of the school and reduce the amount of discipline that the administration sees on a daily bases. Increased administrative visibility in classrooms, such as walk-through visits, allowed for the cultivation of a positive relationship with staff members and students (Kessor, 2005, p.72). This also led to a positive perception of the principal in the community because the principal had a working knowledge of how individual students were doing in class and was able to call the parents on more than just a few occasions with a good news phone call. This line of communication opened the door for community involvement in the school and parents, teachers, and students could become proud of the things they were doing at the school. According to Dr Kessor’s research, daily administrative walk-through visits not only affected the students, teachers, and support staff in a positive way but also benefited the assistant principal in many ways. These included interacting with students in an academic setting, developing relationships with staff members, participating in classroom activities, having an increased awareness
of curriculum, and fostering a positive school-to-home communication network (Kessor, 2005, p. 72). According to Dr. Kessor’s study, discipline in the schools decreased and the implication was that if the discipline factor decreases then positive student behavior must increase. The principals could then spend an increased amount of time on more rewarding aspects of the job.

Based on the research from the previous paragraph, there seemed to be a link between the job teachers thought the administration did and the behavior of the students. Likewise, the administrator’s view of how good a job they were doing seemed like it would also play a role in the development of a positive school culture which in theory would lead to positive student behavior and consequently positive outcomes. One study by Gable (2003) gave a listing of the most important perceptions that students, teachers, and administrators must have in order for the students to perform at their very best:

1. Students perform best when safety and security are maintained and mutual respect is nurtured and developed
2. Students perform best when school wide and classroom-level academic and behavioral supports are routinely available
3. Students perform best when emphasis is on prevention and early intervention in academic and behavioral problems
4. Students perform best when administrators and faculty assume a collaborative relationship in addressing the teaching/learning process
5. Students perform best when a school/home partnership promotes positive academic and behavioral outcomes for all students. (p.74)

The perceptions of the school by principals and teachers set the tone for students.
According to a study by Giannagelo & Malone (1987), teachers view the administrator’s role as an instructional leader. This study also found that only 15% of administrators actually are instructional leaders. Principals that were given the same survey as the teachers were given agreed that their primary role should be that of instructional leader. However, most of the principals spent most of their time on administrative tasks and discipline. According to Kessor (2005), principals that are more visible in the school can begin to curb discipline problems and spend more time in the classrooms and on more enjoyable aspects of the job.

Summary of Literature

Mississippi has long been one of the poorest states in the union. According to many experts Mississippi ranks below the nation in several categories including reading, math, and science. Former State Superintendent, Hank Bounds, has been an advocate of workforce development through the high school curriculum to combat these stigmas that Mississippi has obtained over the course of the last fifty years. It is not conceivable the amount of money that is lost in Mississippi because of a lack of a skilled workforce. This major problem comes from only one place, the inadequacy of the public school system in many instances. Therefore, Mississippi must turn the page to a progressive state that not only trains new workers but implements a highly skilled worker into the job force.

There are many theories that surround education and the success of a particular institution. One major component in secondary schools linked to academic achievement is that of socioeconomic status. Many would argue that SES is a major player in the success or failure of a Mississippi student. It seems that some research indicates that poorer students have less of a chance for success than students with a richer background.
While this may be true, there are some schools in the low socioeconomic Mississippi Delta Area which perform rather well on standardized tests and this would tend to hinder the theory of SES. Some would argue that gender makes a difference in a student performance. This variable of gender is a much less clear cut research item than SES. It seems there is an argument that gender matters in some subjects more than others. For example, some studies may indicate males have a tendency to achieve higher in mathematics than females, particularly in geometric shapes. Furthermore, the argument might be females achieve higher on English Literature standardized tests. Another variable that may be a factor in achievement is ethnicity. For instance, some would argue African American students score slightly lower than Caucasian students in many cases. It would be hard, however, to shed light on this variable without talking about the achievement gap that is present in most schools today. The home environment of a student could be argued to influence ethnic scores on standardized tests.

Other experts believe student performance is based on teachers, not the students. Teacher salary is a major topic in today’s educational arena; therefore, paying teachers more does not necessarily mean that the school is employing a higher quality teacher. Nevertheless, teacher salary has been pinned as a factor in student performance. There is also the argument indicating student to teacher ratio plays an important role in student performance. Student to teacher ratio has been an argued point from day one because of the way in which some school districts interpret the student to teacher ratio. Some districts use librarians, principal, counselors, etc. to factor into the student/teacher ratio. Adversely to the ratio, some districts opt to use only academic teachers to compare to the student body when figuring this statistic. There is definitely a problem in definition on
this variable.

Finally, many argue that reading is the cause of achievement. Good readers make strong achievers and poor readers make poor achievers. Research suggests that we remember about 10% of what we read, 20% of what we hear, 30% of what we see, and 70% of what we discuss (Forget, 2004). This is the very principal behind why teaching literacy is so important. However, there are many external motivating factors that influence reading as well. Many of these factors have already been discussed.

With workforce development in mind for Mississippi, it is imperative we train competent and skilled students who can provide valuable services for future industries in Mississippi. This study focused in on the variables that may help in the production of this type of student.

The literature that addresses the issues at hand is vast. Many studies have been done on the accountability of students and the methods in which students should be tested. No Child Left Behind has provide a method in which schools can now be measured and teachers and students alike can be tested and the outcomes that each of these parties assume can be seen and evaluated year by year. This will play a pivotal role in closing the learning gap in schools. It also makes it easy for an administrator to see what teachers are getting the job done and which ones need some improvement in the classroom.

The preliminary review of the literature suggests there are many factors which influence the success of students. The one factor that seemed to be a recurring theme was that of socioeconomic status. With that information, one must wonder what other factors influence education because very few times can an educational institution impact the
socioeconomic status of the location alone. The idea that teacher quality has an impact on the education of our students has raised much consideration in the recent past. The No Child Left Behind act ensures, through one of its provisions, that schools have a certain number of highly qualified teachers. However, the NCLB definition of highly qualified may not be the definition that truly captures the essence of a quality teacher. Quality teachers may be defined as having an advanced degree or simply having some training in a specific subject area. This study is designed to develop a theory of what constitutes a highly qualified teacher based on the idea of student achievement on the Mississippi SATP.

There is a vast amount of information on the behavior of students and the factors that contribute to that behavior either good or bad. Therefore, educators must manage student behavior in order to produce more positive student outcomes, provided that student behavior directly correlates with an increase in positive student outcomes. Effective management of student behavior begins with viewing each school as a comprehensive system in which teachers, administrators, related service personnel, parents, and students all play a part (Rosenberg, 2003). Each school is unique and each student has unique needs different from the other student. Therefore, it is imperative to implement an intervention plan in all schools and for all grades in order to provide the individual student with the needs that are uniquely theirs.

The impact that the administrators’ perceptions of the leadership of the school, with respect to achievement, has not been studied on such a grand scale. However, it seems to be common sense that administrators that are active in the classrooms would have a better relationship with the students and the faculty. School culture and climate
could be affected by this type of behavior in a positive way. Positive school climate and culture can provide a medium for effective schools. This type of school could then produce the type of students that parents, communities, and teachers desire.
CHAPTER III

METHODOLOGY

Overview

The purpose of this chapter is to describe the methodology and procedures that will be used in this study. The following is a brief introduction to the project design and the procedures to be used in the data collection and analysis.

Research Design

This study focused on three factors that potentially impact positive student behavior. These three factors are teacher quality, perceptions of the leadership role, and facility management in Mississippi secondary schools. Also, many of the variables used were demographic in nature. This study was intended to explore the correlation between teacher quality, perceptions of leadership, school demographics and facility management.

The research design was a mixed method design and targeted twenty secondary schools in Mississippi the quantitative portion of the study along with three of these twenty schools that had the head principal interviewed for the qualitative portion of the study.

Archival data was be used from the Department of Education in order to determine teacher quality. Facility management was based on the results of the Hawkins-Lilley Appraisal and the Total Learning Environment Assessment. These two instruments were compared to determine the level of congruence. Facility management also focused on the congruence and perceptions of the usefulness of the facility instruments. This data was quantitative in nature from the school year 2008-2009 with a qualitative side that measured the principal’s perception of the leadership role and the perception of usefulness of the facility instruments. The archival data was used to develop a multiple
regression model in order to determine how much of the variability the variables of 
teacher quality, facility management, and demographics have on the school Quality 
Distribution Index (QDI).

For the qualitative portion of the study, input of school principals and their 
respective perceptions of their role as an administrator at the school was determined 
through interviews. The interviews were conducted in a face to face interview and the 
questions were from an interview protocol developed by Dr. Cheryl Henig. Dr. Cheryl 
Henig approved the use of the interview protocol (see Appendix A). This instrument was 
developed with open-ended questions designed to be interpreted through qualitative 
analysis. If available, the head principal will be interviewed; however, the assistant 
principal at the school was used if the head principal was unavailable. The cluster of 
schools was selected on the criteria of one high performing level or STAR, one mid-level 
or successful school high school, and one low-performing level failing school. The 
information from the interviews was recorded and transcribed and the interviewee given 
the transcribed responses to rephrase or reword any statement. There were a total number 
of three participants in the qualitative portion of the study that included a principal from a 
STAR school, a successful school, and a failing school.

Teacher quality was scored on the information obtained from the State 
Department of Education (MDE); based on three factors which are percentage of teachers 
with higher level degrees, No Child Left Behind (NCLB) highly qualified status 
measured by the number and percentage of core classes taught by highly qualified 
teachers, and the percentage of National Board Certified teachers in the school. Finally, 
the hardest factor to determine was positive student behavior. There were many different
definitions of what constitutes positive behavior. A preliminary definition of positive student behavior was defined as the actions that a student takes in order to learn the material at hand without distracting or disrupting others in order that the entire class experiences a positive outcome. Each of these factors that pose problems were recorded by the number of discipline referrals per school. This demographic can be misleading because larger schools may have a larger number of referrals due to the influx of a larger student body. Hence, for the twenty schools involved in this study the percentage of referrals in relationship to the total ADA was measured to give the discipline factor.

The Qualitative Analysis

*Participants*

The first topic that assisted in the development of the research design was the idea that leadership that extended from the teachers to the principals had a major impact on student achievement. The hypothesis of the researcher was that leadership has an impact on the success of the students. For the purpose of this study, it was determined the perceptions of the leadership at one of each cluster school included in this study must be analyzed. The clustering includes one level five school or STAR, one level three or successful school and one level one or failing school. Consequently, the cluster included a high performer, a mid-performer, and a low performer respectively. A copy of the principal perceptions interview questions can be found in Appendix A.

This study is a mixed method design therefore, the qualitative portion of the study focuses on the perceptions of leadership at their respective schools. Each cluster school was asked to have the head principal in charge of curriculum to complete the interview. Each principal met the following criteria in order to be included in this study:
• Demonstrate a willingness to find ways to enhance student learning;
• Foresee any issues and problems;
• Actively implement the vision and goals of the school;
• Collaborate well with other colleagues in order to improve student achievement;
• Help foster a positive classroom and school climate that is conducive to learning; and
• Demonstrate creativity and imagination in order to bring about and foster change.

The goal of this study was to find a minimum of three secondary school principals that met these criteria. The N of secondary schools to choose from was four.

Each interview was accounted for in the qualitative portion of the results section. The interviews were transcribed and then sent via email back to the participant for review. These interviews were available along with any repudiation that the principal may have had. The perception of the leadership of the school was determined through these interviews.

The Quantitative Analysis

All information for quantitative analysis was collected from the MARRS program that is publicly available with the exception of the Hawkins-Lilley appraisal and the Total Learning Environment assessment results. The demographic information for the schools involved in the study were placed in SPSS for evaluation.

The facility was evaluated with two instruments designed to determine the
relative plant maintainability, safety and security, the school site, structural an
mechanical features, cleanliness of the environment and the educational adequacy of the
school buildings. The two instruments were analyzed to determine there congruence. A
correlation chart was done to show the correlations between each sub section of the
assessments. Once this was done the facility scores were placed into the regression model
to determine if this would increase the R squared value to determine the level of impact
facilities have on the educational environment. This was done to answer the question:
Does facility maintenance impact the education of the students and can a school with
poor facilities produce a positive classroom environment.

Participants

The population of this study, for the quantitative analysis, included each student
who took the subject area test in the participating schools. However, to simplify the
results and to illustrate a more readable analysis, the SATP scores were collected at the
school level. The scores are a mean of the students’ scores. For the quantitative aspect of
the study publicly available data was collected for twenty high schools. Ten of these high
schools had the highest QDI in the state from the year 2008-2009 and the other ten had
the lowest scores in the state for QDI. The schools ranged from high to low
socioeconomic status and from a high percentage of minorities to a low percentage of
minority students. There was also a range from level one to level five in the accreditation
level of the schools included in the study. The accreditation level is set forth by the state
and ranges from level one or underperforming to a level five or STAR based on the
Subject Area Test Program.

The selection process is straightforward for the publicly available data. These
schools had varying class size in terms of student population. The demographics and the socioeconomic status of the schools ranged from poor and rural to middle class and to upper class and somewhat wealthy throughout the mid portion of Mississippi. There is was large distinction in racial diversity in the schools as well as academic achievement level. Mostly the schools had relatively the same ratio of males to females. One would surmise that the achievement would be similar throughout.

Dependent and Independent Variables

The dependent variable for this project is the school’s QDI which includes the Biology I, English II, United States History and Algebra I SATP average scores for the school. This information can be disaggregated by student but has not been done for this study. The State uses the Quality Distribution Index to determine school performance on the four Subject Area Tests. The scores are an index that includes the schools performance on each of the four tests which are advanced, proficient, basic, and minimal.

The independent variables included three categories: teacher quality, demographics, and facility maintenance. Each of these independent variables has points that can be disaggregated, which is explained further in the following paragraphs. Each variable was publicly available data from the states MAARS system with the exception of the facility portion of the study which was done using the Hawkins-Lilley appraisal and the Total Learning Environment Assessment for school facilities.

Teacher quality. Teacher quality is based on the percentage of teachers within the school who hold a higher-level degree, the percentage of teachers with National Board Certification, and the percentage of teachers that are highly qualified. These percentages were loaded onto SPSS for data analysis.
Demographics. The key points on demographics are included in this study are: average teacher salary, percentage of minorities at the school, percentage of economically disadvantaged students in the school measured by the percentage of free lunches, average daily attendance, High School Completion Index (HSCI), graduation rate, and the student to teacher ratio. All these independent variables were placed into SPSS for data analysis.

Student behavior. The third independent variable was student behavior at the school. This was measured by ascertaining the number of discipline referrals to the office in the school year 2008-2009. Once the total number tallied it was divided by the average daily attendance to get an average of discipline referrals by school. These independent variables were placed into SPSS for data analysis.

Facility management. The final dependent variable was facility management which was based on the overall score from the Hawkins-Lilley Appraisal system and the Total Learning Environment Assessment. The final dependent variable was based on principal interviews and was qualitative.

Instrumentation

This study was conducted by examining data from four different sources. The data used for student academic performance will be collected from the overall school scores on the four subject area tests, English II, Biology I, United States History, and Algebra I and incorporated into the QDI for the school. Teacher quality, as measured by the percentage of teachers with advanced degrees, highly qualified status, measured by the percentage and number of core courses taught by a highly qualified instructor, and percentage of staff with national board certification was also addressed, and this information was provided by the Mississippi Department of Education.
Next, facility management was measured by the Hawkins-Lilley appraisal for school facilities and the Total Learning Environment Assessment. The information was collected from each high school and an analysis of the facility was done to determine the overall facility management of the school. Finally, an interview protocol was given to participating principals at three of the schools. This questionnaire was given to determine the principal perceptions of the leadership role at the school and the perception of the facility assessments. All of the dependent variables with the exception the Hawkins-Lilley appraisal and the Total Learning Environment Assessment was publicly available data collected from the Mississippi Department of Education’s MARRS website and the United States Census Bureau.

Procedures

This project was a mixed method design; therefore, the concepts of facility management, principal perceptions of the leadership role, and teacher qualifications have been done in an evaluation and interview process. Each school was subjected to an evaluation of the school facilities and their upkeep. Initial contact was made via telephone or email, at which time the willingness to participate was ascertained and a date and time for the interview established. Prior to the principal interview, each participant was emailed a copy of the interview protocol to allow time for reflection prior to the interview. This emailed information also contained an electronic copy of a Statement of Informed Consent that was reviewed, signed and returned at the time the interview was conducted. Each interview was recorded with a voice recorder and later transcribed for analysis. After the interview each participant received an emailed copy of the transcribed material of their individual interview material to review for accuracy and
to clear up any ambiguous responses. The participants were allowed to change their responses at that time via email.

Data Analysis

For the purpose of this data analysis all quantitative information was gathered from the MARRS accountability system on the Mississippi Department of Education website, MSIS or the Mississippi Student Information System, and the United States Census Bureau. The information was compiled into SPSS and evaluated to determine the statistical significance of the individual factors which had a potential impact on student achievement.

The evaluation of the facilities was conducted using the Hawkins – Lilley appraisal and the Total Learning Environment Assessment. This information was collected by the researcher during an on site visit to the corresponding school. A copy of the report was copied and emailed for the individual review and rebuttal of any information included in the report. A final copy of the report was emailed to the school’s principal for review.

A multiple regression model was performed to determine the correlation of the independent and dependent variables included in the study. These variables are school QDI as the independent variable, percentage of minority students, percentage of male and female students, average student to teacher ratio, average daily attendance, percentage of highly qualified teachers, percentage of teachers with advanced degrees, percentage of teachers that are nationally board certified, high school completion index, graduation rate, and the number of economically disadvantaged students measured by the number and percentage of free lunches. All these variables were made available through the MAARS
system and were publicly available. The variable that included the number of discipline referrals reported was collected through the MSIS system or Mississippi Student Information System. The dependent variable of average teacher income was collected from the MAARS system. All this information was publicly available. The intent of this project was to determine which, if any, of these variables influenced student achievement as it relates to the Quality Distribution Index (QDI), and the promotion of a positive classroom environment in Mississippi Secondary Schools.

The data analysis for the qualitative portion of the project was done via interview. The information will be transcribed using a coding procedure by which information was collected and placed into corresponding paragraphs by themes. The researcher analyzed the participants’ responses for emergent themes or assertions. Data analysis and reporting for qualitative research has been identified by Erickson (1986) as having nine elements. They include:

1. empirical assertions
2. analytic narrative vignettes
3. quotes from field notes
4. quotes from interviews
5. synoptic data reports
6. interpretive commentary framing particular description
7. interpretive commentary framing general description
8. theoretical discussion
9. report of the natural history of the inquiry in the study. (p. 145)
Summary

In summary, this chapter focused on three aspects of education that potentially impact positive student behavior. The three aspects of teacher quality, perceptions of leadership, and facility management were studied in a mixed method approach. The data collected from the teacher quality aspect also focused on many demographic features that potentially shaped the dependent variable of QDI or quality distribution index. These factors were compared in a multiple regression model to interpret the data. The perceptions of the leadership role was studied using a qualitative approach in which three high school principals were interviewed and discussed their view of the leadership role. The three principals were from one low performing school, one moderate performing school, and one high performing school. Finally, the aspect of facility management was studied using two instruments, the Hawkins Lilley and the TLEA. These two instruments measured the effectiveness of the facility in the areas of educational environment and educational adequacy. These two instruments were checked for congruency using correlation data. Also, the principal’s that were interviewed for the qualitative portion were also asked their opinion of each facility instrument to measure their view of each instrument’s effectiveness.

Data collection was done from the state MAARS accountability data base and was publicly available data. The qualitative portion was conducted in face to face interviews with the participants.
CHAPTER IV

RESULTS

The purpose of this study was to explore the specific variables that contribute to the overall QDI or Quality Distribution Index of secondary schools in Mississippi. Secondly, this study focused on two instruments for measuring facilities and their congruence. This study was of mixed method design. For the quantitative portion there were two data sets. The first data set included all 243 high schools in the State. The second data set that dealt with facilities was based on twenty high schools in the state that ranged in QDI from a Failing school to a Star school. The two instruments used for measuring school facilities were the Hawkins Lilley School Facility Analysis and the Total Learning Environment Assessment. The congruence was assessed to determine the best instrument for administration to use in order to measure school facilities. Both instruments were broken into two subcategories which are included in the instruments. These subcategories are Educational Adequacy and Educational Environment. The scores from each of the instruments were analyzed and compared to the overall regression model to determine any correlation that the facility scores had with any other variables. More specifically, the aim of this project was to determine the relationship that school facilities have on overall school QDI. The following research questions were explored:

Research Question 1: By NCLB standards of highly qualified teachers, are schools with more highly qualified teachers recording a higher QDI than schools with fewer highly qualified teachers?

Research Question 2: Can the school facility analysis score, demographics, and
high teacher quality, predict school QDI?

Research Question 3: Do the Hawkins Lilley Appraisal and the Total Learning Environment Assessment (TLEA) show congruence?

Research Question 4: Are there certain aspects of facilities that are more important to student achievement than others?

Research Question 5:

a. Does administration’s perception of the leadership role influence student achievement and behavior?

b. Does the demographic information of the school influence the perception of the school?

In addition, the following hypotheses were tested:

Research Hypothesis 1: Pertaining to teacher quality, the percentage of teachers with a highly qualified status will show a significant correlation with QDI at the .05 alpha level.

Research Hypothesis 2: Students from a higher socioeconomic status will perform at a higher level on standardized tests and will have fewer behavior referrals. Demographics can explain a significant amount of variance in QDI.

Research Hypothesis 3: The Hawkins Lilley Appraisal and the Total Learning environment Assessment will show a significant relationship at the .05 alpha level. This will exist among educational Environment and Educational Adequacy and these will be the most significant factors in relationship to
Research Hypothesis 4: In reference to administrator perceptions of the leadership role, the hypothesis is that administrators who perceived their role to be an instructional leader will show a higher QDI and fewer behavior referrals.

Descriptive Data

Descriptives and Predictor Variables

A total of 243 high schools were studied for the purpose of this study. Of those 243 high schools, twenty-four were requested for participation. Of the 24, only 20 schools agreed, and two facility analyses were done at each of the 20 schools. The two analyses were the Hawkins Lilley and the TLEA instruments. Therefore, there are two sets of data for the purpose of the study. Demographic information was gathered on all 243 schools to comprise the first data set. The second data set included the information gathered in data set one but this was limited to the 20 specific schools, and the facility analyses information was input into this, the second data set.

Data Set One

A total of 243 schools were included and their demographics and frequencies measured for several variables. These data were collected from the MAARS program that contains data for all schools statewide. The data were collected from the 2008-2009 school year. All demographic data is presented in Table 5. Of the 243 schools there was a range from 70 to 235 in QDI. QDI for the purpose of this data set was the dependent variable. All other variables served as independent variables. The mean QDI of the schools in Mississippi was 154.57 (SD = 36.5); for the 2008-2009 school year see Table
4. These schools’ racial makeup was comprised of a range from 0 - 100% Caucasian and from 0 – 100% African American. The mean percentage of Caucasian students was 46.25%, whereas there was a mean of 51.75% African American students for the state. The schools had an Average Daily Attendance (ADA) of 684.1 students. The ADA of these schools ranged from a minimum of 145 students to a maximum of 1998 students with a standard deviation of 378.33. The percentage of free lunch had a mean of 58.12% with a range from less than one percent to 100% (SD = .22). The High School Completion Indexes (HSCI) ranged from 65 to 292 with a mean of 191.9 (SD = 45.36). This index measures the efficiency of the school to get each student to complete high school within five years from the time the student enters the ninth grade. The graduation rate for students enrolled in all 243 schools in the year 2008-2009 ranged from 53.8% to 98.7% with a mean of 75.9% (SD = 8.8).

Demographics pertaining to teachers were also gathered from the 243 schools from the school year 2008-2009. All demographics for data set one can be viewed on Table 4. These variables included average teacher pay, number of core courses offered, percentage of National Board Certified teachers, percentage of teachers with an advanced degree, discipline referrals, percentage of core courses taught by highly qualified teachers, and student teacher ratio. The average teacher pay during this year was $40,668. Districts’ teacher salaries ranged from $35,626 to $48,367 based on years of experience, degree level, and district supplement added to the base salary chart legislated through the state. The standard deviation for these salaries was $1,734. The number of core courses offered had a large range from 62 courses to 557 courses. This was due to the difference in school size, the larger the school the more core courses that were offered. The mean
The number of core courses offered was 201.2 ($SD = 88.26$). Of these core courses a mean of 182.2 courses were taught by NCLB standards for highly qualified teachers. The number of core courses taught by highly qualified teachers ranged from 40 to 541 courses, ranging in percentage from 51% to 100% of core courses being taught by highly qualified teachers. The mean student to teacher ratio was 13.43 students per teacher with a range from 10.2 to 17.4 ($SD = 1.21$). The percentage of teachers teaching in the school with National Board Certified status was on average 5.4 teachers. This statistic ranged from zero to 28.57 with a standard deviation of 5.3. Also pertaining to teacher demographics, the percentage of teachers with an advanced degree statistic was gathered and resulted in a range of 9% to 62% with a mean of 34%.

Information pertaining to student behavior was collected and measured by the number of discipline referrals reported to the state by each member school. There was a range from a minimum of zero to a maximum of 4178 referrals. The mean for the number of referrals reported was 445.14 with a standard deviation of 524.9. This information may be viewed in Table 4.

Table 4

Demographics Data Set 1

<table>
<thead>
<tr>
<th>Demographic Variable</th>
<th>Min</th>
<th>Max</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADA</td>
<td>145</td>
<td>1998</td>
<td>684.09</td>
<td>378.33</td>
</tr>
<tr>
<td>Percent African American</td>
<td>0</td>
<td>100</td>
<td>51.75</td>
<td>34.3</td>
</tr>
<tr>
<td>Percent Free Lunch</td>
<td>1.1</td>
<td>100</td>
<td>58.12</td>
<td>22.4</td>
</tr>
</tbody>
</table>
Table 4 (continued).

<table>
<thead>
<tr>
<th>Demographic Variable</th>
<th>Min</th>
<th>Max</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent Caucasian</td>
<td>0</td>
<td>100</td>
<td>46.25</td>
<td>33.5</td>
</tr>
<tr>
<td>Number of Free Lunch</td>
<td>74.0</td>
<td>1713</td>
<td>357.06</td>
<td>199.9</td>
</tr>
<tr>
<td>HSCI</td>
<td>65</td>
<td>292</td>
<td>191.88</td>
<td>45.37</td>
</tr>
<tr>
<td>Graduation Rate</td>
<td>53.8</td>
<td>98.7</td>
<td>75.92</td>
<td>8.83</td>
</tr>
<tr>
<td>Average Teacher Salary</td>
<td>$35,626</td>
<td>$48,367</td>
<td>$40,668</td>
<td>$1734</td>
</tr>
<tr>
<td>Number of Core Courses Offered</td>
<td>62</td>
<td>557</td>
<td>201.2</td>
<td>88.26</td>
</tr>
<tr>
<td>Number of Core Courses Taught by HQ Teacher</td>
<td>40</td>
<td>541</td>
<td>182.2</td>
<td>85.37</td>
</tr>
<tr>
<td>Percent of Core Courses Taught by HQ Teacher</td>
<td>51</td>
<td>100</td>
<td>89.4</td>
<td>8.22</td>
</tr>
<tr>
<td>Student to Teacher Ratio</td>
<td>10.2</td>
<td>17.38</td>
<td>13.43</td>
<td>1.31</td>
</tr>
<tr>
<td>NBCT Teacher Percentage</td>
<td>0</td>
<td>28.57</td>
<td>5.4</td>
<td>5.31</td>
</tr>
<tr>
<td>Teacher Advanced Degree</td>
<td>9.09</td>
<td>62</td>
<td>34.2</td>
<td>10.7</td>
</tr>
<tr>
<td>Number Discipline Referrals</td>
<td>0</td>
<td>4178</td>
<td>445.14</td>
<td>524.9</td>
</tr>
</tbody>
</table>

*Note:* N = 243.

Data Set Two

This data set is based upon the 20 school sampling in which the two facility analyses were conducted. The demographic information for these 20 schools can be viewed on Table 5. The mean QDI for these schools (165.85) was slightly higher than the entire state and had a range from 70 to 235. QDI was again the dependent variable.
The total percentage of points earned on the TLEA was shown as a mean of 85.31% and ranged from 67.1% to 96% with a SD = 9.97. The total percentage of points earned on the Hawkins Lilley Appraisal showed a mean of 91.15 % with a range from 78% to 97.2 % (SD = 5.34). The mean age of the school buildings was 32.8 years.

Section 5.0 of the Hawkins Lilley is labeled Educational Adequacy with a mean score of 170.79 points. This section ranged from 141 to 195 (SD = 16.53) out of a possible 200.

Section 6.0 of the Hawkins Lilley Appraisal labeled Educational Environment showed a mean of 178.53 points and ranged from 92 to 198 (SD = 24.69) points out of a possible 200. The TLEA section labeled Educational Adequacy showed a mean of 155.37 with a range from 117 to 181 (SD = 21.29) out of a total of 190. The TLEA section labeled Educational Environment showed a mean score of 126 ranging from 93 to 181 (SD = 19.55) out of a total 139 points.

Table 5

Data Set Two Descriptive Statistics

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>Min</th>
<th>Max</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>TLEA Total Score</td>
<td>220</td>
<td>315</td>
<td>279.79</td>
<td>32.63</td>
</tr>
<tr>
<td>TLEA Percent Score</td>
<td>67.1</td>
<td>96</td>
<td>85.31</td>
<td>9.98</td>
</tr>
<tr>
<td>HL Total Score</td>
<td>780</td>
<td>972</td>
<td>911.53</td>
<td>53.46</td>
</tr>
<tr>
<td>HL Percent Score</td>
<td>78</td>
<td>97.2</td>
<td>91.55</td>
<td>5.35</td>
</tr>
<tr>
<td>Building Age</td>
<td>4</td>
<td>76</td>
<td>32.8</td>
<td>22.5</td>
</tr>
<tr>
<td>HL School Site 1.0</td>
<td>75</td>
<td>99</td>
<td>90.95</td>
<td>7.81</td>
</tr>
<tr>
<td>HL Plant Maintainability 3.0</td>
<td>68</td>
<td>100</td>
<td>92.74</td>
<td>9.06</td>
</tr>
</tbody>
</table>
Table 5 (continued).

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>Min</th>
<th>Max</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>HL Structural and Mechanical 2.0</td>
<td>162</td>
<td>198</td>
<td>186.48</td>
<td>9.24</td>
</tr>
<tr>
<td>HL School Building Safety And Security 4.0</td>
<td>166</td>
<td>198</td>
<td>186.58</td>
<td>8.11</td>
</tr>
<tr>
<td>HL Educational Adequacy 5.0</td>
<td>141</td>
<td>195</td>
<td>170.8</td>
<td>16.53</td>
</tr>
<tr>
<td>HL Educational Environ. 6.0</td>
<td>92</td>
<td>198</td>
<td>178.53</td>
<td>24.7</td>
</tr>
<tr>
<td>TLEA Educational Adequacy</td>
<td>117</td>
<td>181</td>
<td>155.37</td>
<td>21.3</td>
</tr>
<tr>
<td>TLEA Educational Environ.</td>
<td>93</td>
<td>181</td>
<td>126</td>
<td>19.55</td>
</tr>
</tbody>
</table>

Note: N = 20; HL = Hawkins Lilley Appraisal; TLEA = Total Learning Environment Assessment

Testing of Research Hypotheses

*Hypothesis One*

Hypothesis one suggests that a significant relationship exists at the .05 alpha level between teacher quality, based on NCLB standards, and QDI. In order to test this hypothesis, a Pearson Bivariate Correlation analysis was done to determine the relationship between the dependent variable (QDI) and the independent variables which were the number of core classes taught, the number of core classes taught by highly qualified teachers, and the percentage of core classes taught by highly qualified teachers. As indicated by Table 6, all factors were significantly correlated with QDI with the percentage of core courses taught being the most highly correlated $r(242)=.522$, $p<.05$. The next highly correlated is the number of core courses taught $r(242)=.389$, $p<.05$. These correlations are expected based on the NCLB standards for teachers being highly qualified. These teachers should be subject area experts therefore, leading to better scores
on the Subject Area Testing Program. This would ultimately lead to a higher school QDI and thus supports the hypothesis that teacher quality is significantly related to QDI. The more highly qualified teachers a school has and the more core courses a school can offer and teacher with these highly qualified teachers the students score higher on the QDI.

Table 6

*Teacher Quality and QDI Correlations*

<table>
<thead>
<tr>
<th>Variables</th>
<th>QDI</th>
<th># of Core Taught by HQ Teacher</th>
<th># Core Offered</th>
<th>% of Core Taught by HQ Teacher</th>
</tr>
</thead>
<tbody>
<tr>
<td>QDI</td>
<td>1.00</td>
<td>.389*</td>
<td>.323*</td>
<td>.522*</td>
</tr>
<tr>
<td># Core Taught by HQ Teacher</td>
<td>1.00</td>
<td></td>
<td>.986*</td>
<td>.330*</td>
</tr>
<tr>
<td># Core Offered</td>
<td></td>
<td></td>
<td>1.00</td>
<td>.190*</td>
</tr>
<tr>
<td>% Core Taught by HQ Teacher</td>
<td></td>
<td></td>
<td></td>
<td>1.00</td>
</tr>
</tbody>
</table>

*Note: N = 243; # = number; % = percentage; HQ = highly qualified; * = significant at the .001 level*

**Hypothesis Two**

This hypothesis states demographics can explain a significant amount of what determines QDI. For the first portion of this analysis, a Pearson Correlation was conducted to determine the relationship between teacher quality, student demographics including student percentage of free lunch and discipline referrals, and the facility scores when compared to QDI. The N for this correlation was twenty. These were the twenty schools in which the two facility analyses were conducted. For the second portion of the hypothesis question, whether demographics can explain QDI, a multiple regression was conducted to determine the amount of variance the independent variables would explain...
for the dependent QDI variable. The N value for the multiple regression was 243.

The results of the correlations determined during the multiple regression analysis indicated National Board Certification, the percentage of teachers with advanced degrees in the school, and the racial makeup of the school were significant at the .005 alpha level. This can be seen in Table 7 below. The r value for National Board Certification r(242) = .767, p<.01 indicated a significant correlation with. Also, the correlation for the percentage of teachers with an advanced degree r(242) = .523, p<.05 was statistically significant. Next, the number of free lunches that the school serves did not show a significant correlation, nor did the number of discipline referrals show a significant correlation. However, both the TLEA and the HL instruments showed a significant correlation with QDI r(242) = .650, p<.05 and r(242) = .772, p<.05, respectively.

Table 7

| Correlation of Teacher Quality, Facilities, Demographics with QDI |
|-----------------------------|-----------------------------|
| **Variable**               | **QDI**                     |
| NBCT                       | .767**                      |
| % Highly Qualified         | .752**                      |
| % Advanced Degree          | .523*                       |
| # Free Lunch               | -.228                       |
| % African American         | -.918**                     |
| % Caucasian                | .908**                      |
Table 7 (continued).

<table>
<thead>
<tr>
<th>Variable</th>
<th>QDI</th>
</tr>
</thead>
<tbody>
<tr>
<td>TLEA</td>
<td>.650**</td>
</tr>
<tr>
<td>HL</td>
<td>.772**</td>
</tr>
<tr>
<td>Discipline</td>
<td>-.032</td>
</tr>
</tbody>
</table>

Note: N=20; NBCT = National Board Certified Teacher; TLEA = Total Learning Environment Assessment; HL = Hawkins Lilley Appraisal; *=significant at the .001 alpha level

To test the second part of this hypothesis that demographics can explain a significant amount of what determines QDI, a standard multiple regression was conducted. All data was centered prior to running the analysis. Any missing data was replaced using the mean substitution method. The N for the regression analysis was 243 high schools. Assumptions were tested by examining normal probability plots of residuals, scatter diagrams of residuals versus predicted residuals, and the Shapiro-Wilk’s statistical test for normality. The plots, diagrams, and test indicate normal distributions. However, when testing for multicollinearity there were four variables that violated assumptions of a multiple regression and these were percentage of African American students, the percentage of Caucasian students, the total number of core courses offered, and the percentage of core courses taught by highly qualified teachers. This was due to the range of enrollment in the sample schools from 0 - 100 % and from large schools in the sample offering and teaching many more core courses with highly qualified teachers than extremely small schools in the sample. These values were included in the regression in order to determine their significance in predicting QDI. The tolerance statistics and the
variance inflation factor for each predictor were examined for multicollinearity. In this study, there were four tolerance values above 0.1. These were the percentage of African American and percentage of Caucasian students along with number of core courses taught and the number of core courses offered. The variance inflation factor for each of these variables was also above 10. This was expected since these variables are so intercorrelated to each other respectively.

Standard multiple regression was conducted to determine which independent variables (average daily attendance, percent African American, percent Caucasian, percent free lunch, number of free lunch, high school completion index, graduation rate, discipline, average teacher salary, teacher advanced degree percentage, National Board Certification percentage, number core courses offered, number of core courses taught by highly qualified teacher, percentage of core courses taught by highly qualified teacher, and student teacher ratio) were the predictors of QDI in secondary schools. Regression analysis revealed that all variables except discipline referrals predicted QDI at a statistically significant level. The F statistic = 37.461, p < .05. R² for the model was .712, and the adjusted R² was .693. This model accounts for 71.2% of the variance in QDI. Table 8 illustrates these figures.
Table 8

**Summary of Regression Model Statistics**

<table>
<thead>
<tr>
<th>Variable</th>
<th>QDI</th>
</tr>
</thead>
<tbody>
<tr>
<td>F Statistic</td>
<td>37.461*</td>
</tr>
<tr>
<td>$R^2$</td>
<td>.712</td>
</tr>
<tr>
<td>Adjusted $R^2$</td>
<td>.693</td>
</tr>
</tbody>
</table>

* = $p < .05$

Table 9 displays the unstandardized regression coefficients (B), intercept, and standardized regression coefficients ($\beta$) for each variable. In terms of individual relationships between the independent variable and QDI, percentage of African American students ($t = -4.00, p < .05$), percentage of Caucasian students ($t = -3.787, p < .05$), percentage of students that receive a free lunch ($t = -3.908, p < .08$), and the percentage of core courses taught by highly qualified teachers ($t = 3.219, p < .05$) each significantly predicted QDI for secondary schools. In addition, the analysis indicated that the variables of average daily attendance, number of free lunches, high school completion index, graduation rate, discipline referrals, average teacher salary, percentage of teachers with an advanced degree, National Board Certified teacher percentage, number of core course taught by a highly qualified teacher, the number of core courses offered, and the student to teacher ratio did not predict a significant portion of the variance in QDI in secondary schools. Based on the data, Hypothesis Two was supported.
Table 9

*Summary of Regression Analysis for Variables Predicting QDI in Secondary Schools*

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>SE B</th>
<th>β</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADA</td>
<td>.015</td>
<td>.011</td>
<td>.157</td>
<td>1.436</td>
</tr>
<tr>
<td>Percent African American</td>
<td>-249.018</td>
<td>62.249</td>
<td>-2.340</td>
<td>-4.0</td>
</tr>
<tr>
<td>Percent Caucasian</td>
<td>-236.116</td>
<td>62.345</td>
<td>-2.170</td>
<td>-3.787</td>
</tr>
<tr>
<td>Percent Free Lunch</td>
<td>-69.023</td>
<td>14.664</td>
<td>-0.424</td>
<td>-3.908</td>
</tr>
<tr>
<td>Num. Free Lunch</td>
<td>-0.029</td>
<td>.017</td>
<td>-0.157</td>
<td>0.098</td>
</tr>
<tr>
<td>HSCI</td>
<td>.026</td>
<td>.070</td>
<td>.032</td>
<td>.367</td>
</tr>
<tr>
<td>Graduation Rate</td>
<td>.129</td>
<td>.362</td>
<td>.031</td>
<td>.355</td>
</tr>
<tr>
<td>Discipline</td>
<td>.002</td>
<td>.003</td>
<td>.034</td>
<td>.779</td>
</tr>
<tr>
<td>Avg. Teacher Pay</td>
<td>.001</td>
<td>.001</td>
<td>.052</td>
<td>1.155</td>
</tr>
<tr>
<td>Advanced Degrees</td>
<td>.168</td>
<td>.145</td>
<td>.050</td>
<td>1.160</td>
</tr>
<tr>
<td>NBCT Teachers</td>
<td>-.032</td>
<td>.319</td>
<td>-.005</td>
<td>-.102</td>
</tr>
<tr>
<td>Num. Core Offered</td>
<td>.316</td>
<td>.207</td>
<td>.764</td>
<td>1.524</td>
</tr>
<tr>
<td>Num. Core Taught</td>
<td>-.363</td>
<td>.222</td>
<td>.278</td>
<td>3.219</td>
</tr>
<tr>
<td>Percent Core Taught</td>
<td>123.424</td>
<td>38.346</td>
<td>.278</td>
<td>3.219</td>
</tr>
<tr>
<td>Student Teacher Ratio</td>
<td>-.512</td>
<td>1.088</td>
<td>-.018</td>
<td>-.470</td>
</tr>
</tbody>
</table>

N = 243

**Hypothesis Three**

Hypothesis three states that the Hawkins Lilley Appraisal and the Total Learning Environment Assessment will show a significant relationship at the .05 alpha level.
Further, this will exist among two main categories educational adequacy and educational environment. In order to test this hypothesis a Pearson Correlation was conducted to see the relationship between all categories of the HL and the TLEA instruments. A Bonferroni adjustment was also conducted by dividing the probability value of .05 by the total number of tests conducted (12). The resulting probability value for significance is .004. Table 10 illustrates the most important correlations for the purposes of this study. These correlations are educational adequacy and educational environment.

Table 10

*Hawkins Lilley Appraisal and TLEA Correlation*

<table>
<thead>
<tr>
<th>Variables</th>
<th>TLEA Total</th>
<th>HL Total</th>
<th>HL 5.0</th>
<th>HL 6.0</th>
<th>TLEA EA</th>
<th>TLEA EE</th>
</tr>
</thead>
<tbody>
<tr>
<td>TLEA Total</td>
<td>1.0</td>
<td>.804**</td>
<td>.853**</td>
<td>.158</td>
<td>.982**</td>
<td>.878**</td>
</tr>
<tr>
<td>HL Total</td>
<td>1.0</td>
<td>.853**</td>
<td>.268</td>
<td>.786**</td>
<td>.718**</td>
<td></td>
</tr>
<tr>
<td>HL 5.0</td>
<td>1.0</td>
<td>.187</td>
<td>.829**</td>
<td>.705**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HL 6.0</td>
<td>1.0</td>
<td>.123</td>
<td>.260</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TLEA EA</td>
<td>1.0</td>
<td></td>
<td></td>
<td></td>
<td>.827**</td>
<td></td>
</tr>
<tr>
<td>TLEA EE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1.0</td>
</tr>
</tbody>
</table>

*Note:* N = 20; TLEA = Total Learning Environment Assessment; HL = Hawkins Lilley Appraisal; HL 5.0 = Hawkins Lilley Educational Adequacy; HL 6.0 = Hawkins Lilley Educational Environment; TLEA EA = TLEA Educational Adequacy; TLEA EE = TLEA Educational Environment; ** = significant at the .004 alpha level based on Bonferroni adjustment.

In this case, the two instruments appear to correlate significantly in their respective total scores. The correlation between total scores was .804, which indicates the total scores are significantly correlated at the .004 alpha level based on the Bonferroni adjustment. These statistics indicate, as a whole, the two instruments are congruent.
Between the two instruments there were two subsections that were worthy of mention. The correlation $r(19) = .829$, $p<.004$ between Educational Adequacy of the two instruments was significant. This information indicates that the two instruments are congruent in the subsection of educational adequacy. In contrast, the subsection of educational environment between the two instruments did not indicate a significant correlation $r(19) = .260$, $p<.004$. This information supports the hypothesis that the two instruments as a whole will be congruent. However, the portion of the hypothesis that pertains to educational environment was not congruent and not significant at the .004 alpha level. Therefore, the portion of these two instruments dealing with educational environment does not show congruence. All other subsections of both instruments showed a significant correlation at the .004 alpha level.

Interestingly the age of the building had significant correlations with each subsection of both instruments with one exception. The mean age of the 20 school buildings in which the Hawkins Lilley and the Total Learning Environment Assessments were conducted was 22.5 years. The exception was again educational environment. There was no significant correlation between building age and educational environment. In all other subsections the correlation was a negative correlation and showed that building age has a negative impact upon school facilities. This can be seen in Table 11.

Table 11

<table>
<thead>
<tr>
<th>Age of Building and the TLEA and HL Instruments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variables</td>
</tr>
<tr>
<td>--------------------</td>
</tr>
<tr>
<td>Age of Building</td>
</tr>
</tbody>
</table>
Table 11 (continued).

<table>
<thead>
<tr>
<th>Variables</th>
<th>Age of Building</th>
</tr>
</thead>
<tbody>
<tr>
<td>TLEA Total</td>
<td>-.738**</td>
</tr>
<tr>
<td>HL Total</td>
<td>-.886**</td>
</tr>
<tr>
<td>HL 6.0</td>
<td>-.222</td>
</tr>
<tr>
<td>TLEA EE</td>
<td>-.616**</td>
</tr>
</tbody>
</table>

Note: N = 20; TLEA = Total Learning Environment Assessment; HL = Hawkins Lilley Appraisal; HL 6.0 = Hawkins Lilley Educational Environment; TLEA EE = Educational Environment; ** = significant at the .01 alpha level.

In reference to the question of whether there are certain aspects of facilities that are more important to student achievement than others, a Pearson Correlation was conducted to determine the level of significance of QDI and the subsections of both the Hawkins Lilley and the TLEA as well as the variable of building age. The results can be seen in Table 11. The information in Table 12 indicates that there is a significant correlation at the .05 alpha level of all the subcategories of the HL and the TLEA save one subcategory that is educational environment (r = .247) as is on the Hawkins Lilley. Educational Environment for the TLEA was significant at the .05 alpha level (r = .601).
Table 12

*QDI and Hawkins Lilley and TLEA including Subcategories*

<table>
<thead>
<tr>
<th>Variable</th>
<th>QDI</th>
</tr>
</thead>
<tbody>
<tr>
<td>QDI</td>
<td>1</td>
</tr>
<tr>
<td>TLEA</td>
<td>.650**</td>
</tr>
<tr>
<td>HL</td>
<td>.772**</td>
</tr>
<tr>
<td>Age</td>
<td>-.852**</td>
</tr>
<tr>
<td>TLEA EA</td>
<td>.652**</td>
</tr>
<tr>
<td>TLEA EE</td>
<td>.601**</td>
</tr>
<tr>
<td>HL 5.0</td>
<td>.726**</td>
</tr>
<tr>
<td>HL 6.0</td>
<td>.247</td>
</tr>
</tbody>
</table>

*Note:* N = 20; TLEA = Total Learning Environment Assessment; HL = Hawkins Lilley Appraisal; HL 5.0 = Hawkins Lilley Educational Adequacy; HL 6.0 = Hawkins Lilley Educational Environment; TLEA EA = TLEA Educational Adequacy; TLEA EE = TLEA Educational Environment; ** = significant at the .01 alpha level.

*Hypothesis Four*

The results of three interviews with principals follow in this section. The interviews were conducted with a principal from a star high school, a successful school, and a failing school to determine their perception of the leadership role in their school and to determine which instrument they felt would be most beneficial to their respective school.

*Interview one.* The general theme from interview one pertained to the principal’s role being seen as one that promoted the teachers in such a way that it is possible for them to develop and maintain the mission of the school. The open door policy that this
particular principal implements in his school allows for a freedom for teachers to discuss
issues in and out of the classroom. The teachers are expected to shape and mold students
into a person that achieves at their maximum potential. The principal of the school has set
forth clear expectations of the teachers and he fully expects them to work toward those
expectations. This particular principal saw his role as that of a promoter of the curriculum
and the leader of the school. He wants to see students achieve both academically and
socially. This principal also feels that facilities play a role in student achievement and he
stated that the TLEA was the more favorable instrument for facility measure because it
gave more information.

1. Please tell me about your administrative background including the levels and
types of schools in which you have served in an administrative capacity. What is
your current role?

“As an administrative I’ve served 3 years, after 9 years of being a classroom
teacher in an area of band. I’ve served 3 years at Clinton High School as an
assistant principal and worked for 3 years in Gulfport, called Gulfport Central
Middle School. I’m in my 3rd year as Principal here at Clinton High School.”

2. In general, what beliefs and attitudes do you have about teaching and learning?

“In general I believe that all students can learn and be successful. I
believe that it’s the teacher responsibility to help students get to that point. I
believe it’s the teacher responsibility to discover and develop each child’s
talent and potential.”

3. As a principal, what do you hope to gain from the teacher-principal relations?

How would you describe the optimal teacher-principal relationship?
“I expect teachers to come to work every day and prepare to help students to develop to their maximal potential and to work to their maximal potential. I expect teacher’s to give input on how to develop the mission of the school. I have an open door policy and I consider myself, as a Principal, very approachable and open to teacher’s opinions and thoughts about ideals on us achieving what our vision and mission is for the school.”

4. One of the things that teachers seek from their principals is “support.” How would you describe or define support? In what ways do you support the teachers with whom you work?

“I feel like I’ve set the expectations out for teachers and I’ve allowed them and expect to work towards what those expectations are. I feel like I’m fully supportive of them in any situation whether it’s dealing with class room management issues or dealing with parent issues. If there is something that I feel like they’re not doing to meet the expectation of our building or our school then we meet in a private setting to discuss that and to make sure that we are all in agreement with those things involving our philosophy.”

5. Are there ways in which you facilitate instruction in your building other than those you have already mentioned?

“I try to commutate with teachers every day to remind them daily of what our goals and our philosophy are, whether in a person to person meeting or via email. I try to communicate in hopes that they will communicate our mission daily in some way to our students.”
6. If you were charged by your superintendent with identifying and selecting principals who might effectively support the task of teaching and learning, what qualities would you seek?

“Off the top of my head without really a chance to think about this, I would seek someone who is a lifelong learner and who encourages and practices growing of learning compassable as it relates to running a school. I would look for someone who is personable but firm, a person who is consist with their beliefs and their thoughts, a person who is open to listening to people who supervise them.”

7. How do you believe principals should be evaluated? What criteria should be most important?

“I believe that a Principal should be evaluated by the progress of the school academically and socially to a certain degree. I believe the thoughts or the perception of the teachers, parents and community are important. I believe a Principal should also be evaluated by their success in meeting and achieving the district’s goal and mission and of course, by the academically performance of the school.”

8. Do you feel that facilities have an influence on student achievement?

“I believe the facilities as it relates to safety, the environment as far as cleanliness. I believe the design of it as a administrator being able to monitor the goings-on in the building plays a part in the success. So I guess the answer to your question is yes, I feel like it does.”
9. Of the two instruments (Hawkins-Lilley and the TLEA), which would you most likely find beneficial?

“I believe the TLEA has a little bit more information I think that is useful to me in understanding and knowing my building, my facility.”

*Interview two.* The major themes indicated in interview two consisted of the principal’s ability to be the instructional leader or facilitator of the school. Her beliefs were that, as the school leader, she needs to equip others to become leaders in their respective fields. This could be instructional but on a different level she wants to pass on integrity, enthusiasm, and content knowledge to the staff. This particular principal has in place a leadership team that addresses instructional issues at the school. She is a part of this instructional team along with the curriculum specialist at the school. This team meets for small group meetings and departmental meetings bi-monthly. The principal attends and participates in these meetings. This principal felt that the TLEA also gave more pertinent information about the school building. She also felt that school facilities played a part in the achievement and success of the students.

1. Please tell me about your administrative background including the levels and types of schools in which you have served in an administrative capacity. What is your current role?

“This is my first year in an administrative capacity. I am an assistant principal at Brandon Middle School. Last year I was an administrative intern at Brandon Middle School. Currently, I am responsible for 420 sixth graders and 24 teachers. I also assist the head principal in other roles that deal with
professional development, student assessments, data, and research. Also included in my duties are discipline and extracurricular activities supervision.”

2. In general, what beliefs and attitudes do you have about teaching and learning?

“I believe that for a teacher to truly be teaching, her students must be learning. I do not agree with teachers when they say, “Well I taught it, they just did not get it.” I also believe that all students can learn, not all at the same pace or the same way, but all can learn. It is the job of the teacher to make that happen.”

3. As a principal, what do you hope to gain from the teacher-principal relationship? How would you describe the optimal teacher-principal relationship?

“I believe that one of my major responsibilities as a principal is to help teachers become the best they can be. I also believe that as a school leader, I need to equip others to become leaders in their field. With that being said, I must exhibit leadership qualities that others will want to follow. I will need the knowledge, the integrity, the enthusiasm, and the stamina to see the needed changes happen. Not everyone sees the need to change, so creating that shared-vision is crucial.”

4. One of the things that teachers seek from their principals is “support”. How would you describe or define support? In what ways do you support the teachers with whom you work?

“I keep my door open for teachers. I am in the hallways and in the classrooms as much as possible. I am here in the mornings before they get here and I am usually the last one to leave. I need to be visible. I listen to
them. Sometimes they do not want me to “fix” their problem, just listen to them. That happens often. Being new to this position, I have made this part of my job a priority as I was a teacher for 20 years and know the importance of having support. I had a teacher leave my office this week saying thanks for hearing me out. “When I talk to you, you make me feel like I am important part of this school”.”

5. Are there ways in which you facilitate instruction in your building other than those you have already mentioned?

“We have a leadership team that heads up our professional development for teachers. Along with our curriculum specialist and other administrators, we train our leadership team and support the activities that go on during those bi-monthly meetings. I attend these group meetings and department meetings. I also check teachers’ unit plans and assessments for the correct rigor and pacing.”

6. If you were charged by your superintendent with identifying and selecting principals who might effectively support the task of teaching and learning, what qualities would you seek?

1. Experienced Educator
2. Integrity/Character
3. Work Ethics
4. Intelligence
5. Communication Skills
6. Ability to Mobilize Others
7. How do you believe principals should be evaluated? What criteria should be most important?

“Using the qualities listed above, the evaluation should be holistic in nature. Also, I do believe that students’ scores should be a part of the evaluation. I also believe that teachers should have some input into the evaluation of their principals.”

8. Of the two instruments, which would you most likely find beneficial? “TLEA gives more information and would be my choice.”

9. Do you feel that facilities have an influence on student achievement?

“Yes. Students must feel comfortable in their surroundings in order to learn most effectively. Also, facilities that support the use of technology will encourage achievement by creating excitement for learning.”

Interview three. The major themes of this interview centered on creating relationships not only appropriate relationships with students but also appropriate relationships with teachers. The idea is to empower teachers to have a maximum impact on their circle of influence. He believes that by building and enhancing relationships unity and a common direction are achieved. These relationships involve promoting a two way safe communication between administration and teacher and group dynamics. He felt that supporting teachers was best achieved by positioning them for success. His school surrounded teachers with the building blocks they needed to grow. This was done through small learning communities, professional development, and implementation of best practices. This principal felt that facilities did influence student achievement.
1. Please tell me about your administrative background including the levels and types of schools in which you have served in an administrative capacity. What is your current role?

“I served at Pelahatchie High School as Assistant Principal one year and Principal one year. Then I served as Principal seven and one half years at Brandon Middle School. Currently I am Principal at Brandon High School where I previously served for eight years as Assistant Principal”

2. In general, what beliefs and attitudes do you have about teaching and learning?

“It is my belief that all students can learn. All students have a gift and it is up to us to help them find it. Students learn at different rates and with different styles. Teaching should be student centered and should focus on process as well as content. The most effective strategies should be implemented in the classroom teaching with the “End in Mind”. Teaching should include appropriate relationship building with students and they should be taught in the ways they have been developed (fast access to information in short segments including technology).”

3. As principal, what do you hope to gain from the teacher-principal relationship?

“I would hope to influence teachers to impact students positively and promote physical, mental, social, emotional, and spiritual growth. We should measure ourselves by the growth of the people our lives touch. I would like to empower teachers to have maximum impact on their circle of influence. Enhancing this relationship provides unity and common direction for an
organization. I would want this relationship to tap them as one of our major resources and create opportunities for their ideas to be shared and utilized in the growth of our institution. This relationship would involve and promote two way safe communication and group dynamics.”

4. One of the things that teachers seek from their principals is “support”. How would you describe or define support? In what ways do you support the teachers with whom you work?

“Support is positioning teachers for success. It is surrounding them with the foundation and building blocks needed to grow. We surround our teachers with a support team of administration, mentors, colleagues, and training that insures their success.”

5. Are there ways in which you facilitate instruction in your building other that those you have already mentioned?

“We facilitate instruction at BHS through process teaching and proven best practices. This instruction is data driven and individualized to meet the needs of a diverse classroom. Instruction is also facilitated through professional learning communities and professional development training.”

6. If you were charged by your superintendent with identifying and selecting principals who might effectively support the task of teaching and learning, what qualities would you seek?
“To identify and select principals who effectively support the task of teaching and learning I would first of all seek someone who put developing relationships as a priority. I would want them to promote growth in every relationship they touched; student, teacher, administration, and community. They must have a vision bigger than they are of impacting their community and be able to transfer that vision to others. These principals must have a thorough knowledge of “Best Practices” proven to enhance learning and retention and the importance of “Real World Value” to the area of motivation. They must be data proficient and promote data driven decisions.”

7. How do you believe principals should be evaluated? What criteria should be most important?

“Principals should be evaluated based on a developed set of expectations that are specific to the local school. Categories to be included are: safe and orderly climate free of fear and conducive to teaching and learning, instruction, technology, curriculum, high expectations for all learners, relationships to total staff, personal growth, student achievement and growth.”

8. Of the two instruments, which would you most likely find beneficial? “I would have to say the TLEA. It seems to give you more specific and guided answers to problems.”
9. Do you feel that facilities have an influence on student achievement?

“Facilities do have an influence on student achievement but do not have the final say. There are students in great facilities that under-perform and students in lesser facilities the over achieve. I believe that facilities are a tool in setting the tone for teaching and learning but a positive tone can be set without them. If facilities affect the quality and quantity of resources then they affect student achievement more.”

Interview Summary

In summary of the interviews, each principal felt that they were the instructional leader of the school. They saw themselves as the leader that should provide support for the teachers no matter what that may entail. These individuals also saw a larger picture than just test scores. Each of the principals made reference to the need for students to achieve in all aspects of life, not just test scores. Each of these individuals felt that school facilities did influence student achievement and that measures need to be taken to ensure building safety and cleanliness. They also felt that the TLEA was a more useful tool because it gave more information to the administration to determine where facilities were lacking or exceeding.

Summary

Data analysis in this study revealed that the demographics of the schools involved had a wide range of variability. The schools were also from a vastly different setting from very rural to urban schools. The result of the study indicated some important information that needs to be studied in more depth. The study indicated through a multiple regression
that the demographic factors alone can explain close to seventy one percent of the variability in QDI. This is an astounding number and indicates that QDI is really a measure of demographic factors. Secondly, this study indicated that there was a significant relationship at the .05 alpha level between teacher quality and QDI. For the three factors of teacher quality measured were teacher advanced degree, teacher National Board Certified, and Highly Qualified teachers. The results indicated that all three factors have a significant relationship with QDI. However, National Board Certification seems to be most significant. Next, in order to measure facilities the Hawkins Lilley and TLEA were the instruments used. The data collected in these studies indicated that they were congruent in educational adequacy and educational environment. However, these two factors were measured in different sections of the instruments. The facility measurement indicated a direct relationship between QDI and educational adequacy and educational environment. Consequently, there is an indication that facilities play a vital role in the level of achievement as measured using QDI. Finally, three interviews were conducted to determine the perception of the leadership role and to determine which facility measure the interviewees felt most valuable. All three concluded that the TLEA would be the most valuable because it gave more pointed and direct questions and indicators for them to use for school improvement. The three had very different similar views of the leadership role. Hypothetically, this was due to the surging demand for principals to be instructional leaders.
CHAPTER V

DISCUSSION

In the final chapter, the study results are summarized, a review of the findings from the statistical analysis of the data presented, limitations are identified, and recommendations for future research are included. Also, implications and suggestions are made concerning the issues that have been raised in this study. Finally, conclusions are drawn.

Summary of the Study

This study was conducted to address the issue of school facilities, teacher quality, and student behavior and their relationship to school achievement measured though QDI or Quality Distribution Index. Secondly, this study was conducted to determine congruence between two instruments that measure school facilities. These two instruments are the CEFPI Guide for School Facility Appraisal (Hawkins & Lilley, 1998) and the TLEA of Total Learning Environment Assessment (O’Neill, 1999).

This study was conducted in three parts. This first portion was conducted using publicly available data from the Mississippi MAARS system. This was done to determine the independent variables that contribute to the variance in QDI. The second portion involved a sampling of 20 schools ranging in QDI from the state’s lowest QDI to the state’s highest QDI. This sampling was asked to allow the researcher to travel to the school site and perform the facility analysis using both facility instruments. The third portion of this study was qualitative in nature and required an interview with three head principals (one principal from a low performing school, one principal from a moderate performing school, and one principal from a highly successful school). Furthermore, this
qualitative study was done to determine the perspective of the administration’s leadership role in secondary schools and to determine the best method of evaluating school facilities.

**Description of the Sample**

The study contained two sample groups. The first consisted of 243 secondary schools in Mississippi; the second sample group had 20 secondary schools taken from the 243 schools based on the overall school QDI. The demographics of both samples ranged from the state’s lowest to the state’s highest possible number within each demographic area. Of the 20 secondary schools chosen three head principals were chosen to do an interview in order to determine the principal’s perception of his or her leadership role and to determine which facility instrument would be most preferred. The three principals interviewed were from different levels of schools. One principal was from a school in conservatorship, another was from a successful school, and the final was from a Star school or the highest level possible in Mississippi.

**Description of Study Variables**

Of the 243 schools there was a range from 70 to 235 in QDI. For the purpose of this data set, QDI was the dependent variable. All other variables were the independent variables. The mean QDI of the schools in Mississippi was 154.57 (SD = 36.5) for the 2008-2009 school year. These schools’ racial makeup was comprised of a range from 0 – 100% Caucasian and from 0 – 100% African American. The mean percentage of Caucasian students was 46.25% while there was a mean of 51.75% African American students for the state. The schools had an Average Daily Attendance (ADA) of 684.1 students. The ADA of these schools ranged from a minimum of 145 students to a maximum of 1998 students with a standard deviation of 378.33. The percentage of free
lunch had a mean of 58.12% with a range from less than one percent to 100% \( (SD = .22) \).
The High School Completion Indexes (HSCI) ranged from 65 to 292 with a mean of 191.9 \( (SD = 45.36) \). This index measures the efficiency of the school to get each student to complete high school within five years from the time the student enters the ninth grade. The graduation rate for students enrolled in all 243 schools in the year 2008-2009 ranged from 53.8% to 98.7% with a mean of 75.9% \( (SD = 8.8) \).

Demographics pertaining to teachers were also gathered from the 243 schools from the school year 2008-2009. These variables included average teacher pay, number of core courses offered, percentage of National Board Certified teachers, percentage of teachers with an advanced degree, discipline referrals, percentage of core courses taught by highly qualified teachers, and student teacher ratio. The average teacher pay during this year was $40,668. Districts’ teacher salaries ranged from $35,626 to $48,367 based on years of experience, degree level, and district supplement added to the base salary chart legislated through the state. The standard deviation for these salaries was $1,734.
The number of core courses offered had a large range from 62 courses to 557 courses. This vast difference was due to the school size: the larger the school, the more core courses were offered. The mean number of core courses offered was 201.2 \( (SD = 88.26) \). Of these core courses, a mean of 182.2 courses were taught by NCLB standards for highly qualified teachers. The school’s core courses taught by highly qualified teachers, ranged from 40 to 541 courses. This ranged in percentage from 51% to 100% of core courses being taught by highly qualified teachers. The mean student to teacher ratio was 13.43 students per teacher with a range from 10.2 to 17.4 \( (SD = 1.21) \). The percentage of teachers teaching in the school with National Board Certified status was on average 5.4
teachers. This statistic ranged from zero to 28.57 with a standard deviation of 5.3. Also, pertaining to teacher demographics, the percentage of teachers with an advanced degree statistic was gathered and resulted in a range of 9% to 62% with a mean of 34%.

Information pertaining to student behavior was collected and measured by the number of discipline referrals reported to the state by each member school. There was a range from a minimum of zero to a maximum of 4178 referrals. The mean for the number of referrals reported was 445.14 with a standard deviation of 524.9.

Analysis of the Research Questions

Research Question One

Research question one issued a question of whether or not schools with more highly qualified teachers are recording a higher QDI than schools with fewer highly qualified teachers. According to the data accumulated for this study the percentage of courses taught by teachers with the highly qualified status gave a clearer indication of the effectiveness of the highly qualified school. The mean percentage of courses taught by highly qualified teachers at all secondary school included in the study ($n = 243$) was 89.4%. This means that of all the schools nearly 90% of all core courses were taught by highly qualified teachers. This data can be viewed on Table 5. This study indicated a direct relationship between the percentage of core courses taught and QDI or Quality Distribution Index. A Pearson’s correlation was done to determine this relationship. The findings indicated that the $r = .522$ which was significant at the .001 alpha level. This indication was consistent with the implication that schools with more core courses taught by highly qualified teachers record higher QDI results than schools with lower numbers of core courses taught by highly qualified teachers. This finding is consistent with the
research collected. According to Rotherham (2002), there is no teacher shortage, rather there is a shortage of specific subject area teachers and an adverse selection and allocation problem. Also, Rotherham (2002) suggested that the No Child Left Behind Act’s requirement that all teachers be “highly qualified” is important and attainable. Another study by Walsh (2001) suggested that requiring all teachers to possess strong content knowledge in the subject or subjects they teach is an important step that is grounded in research demonstrating the importance of teacher content knowledge for student achievement, particularly in the secondary school level.

Research Question Two

Research question two asked if the school facility analysis score, high teacher quality, and school demographics can predict the school QDI. In order to test this research question a multiple regression was conducted to determine the amount of variance the independent variables would explain for the dependent QDI variable. The N value for the multiple regression was 243.

All data was centered prior to running the analysis. Any missing data was replaced using the mean substitution method. The N for the regression analysis was 243 high schools. Assumptions were tested by examining normal probability plots of residuals, scatter diagrams of residuals versus predicted residuals, and the Shapiro-Wilk’s statistical test for normality. The plots, diagrams, and test indicate normal distributions. However, when testing for multicollinearity there were four variables that violated assumptions of a multiple regression and these were percentage of African American students, the percentage of Caucasian students, the total number of core courses offered, and the percentage of core courses taught by highly qualified teachers. This was due to
the range of enrollment in the sample schools from 0 – 100% and from large schools in
the sample offering and teaching many more core courses with highly qualified teachers
than extremely small schools in the sample. These values were included in the regression
in order to determine their significance in predicting QDI. The tolerance statistics and the
variance inflation factor for each predictor were examined for multicollinearity. In this
study, there were four tolerance values above 0.1, and these can be seen in Table 8. These
are the four variables mentioned above.

Standard multiple regression was conducted to determine which independent
variables (average daily attendance, percent African American, percent Caucasian,
percent free lunch, number of free lunch, high school completion index, graduation rate,
discipline, average teacher salary, teacher advanced degree percentage, National Board
Certification percentage, number core courses offered, number of core courses taught by
highly qualified teacher, percentage of core courses taught by highly qualified teacher,
and student teacher ratio) were the predictors of QDI in secondary schools. Regression
analysis revealed that all variables except discipline referrals predicted QDI at a
statistically significant level. This model accounts for 71.2% of the variance in QDI. In
terms of individual relationships between the independent variable and QDI, percentage
of African American students, percentage of Caucasian students, percentage of students
that receive a free lunch, and the percentage of core courses taught by highly qualified
teachers each significantly predicted a portion of variance for QDI for secondary schools.
There were a few demographic factors that alone did not contribute a significant amount
to the determination of QDI. However, based on the regression model as a whole, 71.2% of
the variability in QDI was explained using only demographic features of the school
such as teacher quality, facility management, and other demographic features.

This data by-in-large supports the literature that was collected prior to the data collection. Eric Hanushek (1986) suggested that teacher degree level and teacher experience has little correlation to promoting student outcomes. However, another study (Goldhaber & Brewer, 1997) suggests that although teacher advanced degree is not necessarily correlated to student outcomes in the eighth grade to the tenth grade, by the eleventh grade teachers with an advanced degree in math and science make a significant influence on student outcomes. Consequently, Goldhaber and Brewer (1996) suggested that student achievement in technical subjects could be improved by requiring in subject teaching. This suggestion seems to be in line with the thinking behind highly qualified teachers.

The research behind the facility management issue suggests that the quality of facilities influence citizen perceptions of school and can serve as a point of community pride and increased support for public education (Young, 2003). This point is important since the research done in this study indicates that facility management has a significant correlation to the overall QDI of the school. This is consistent with Young (2003) that suggested that the age of the facility correlated with the test scores and behaviors of students. As the building’s age decreased, the achievement level rose and the behavior problems lessened. Also according to Howell and Krantzler (1997), almost two-thirds of the nation’s schools have at least one inadequate feature and 58% have at least one unsatisfactory environmental condition. Based on this information and the other research that has been done it is pivotal to revitalize and keep up school facilities if achievement is going to rise.
Research Question Three

Research question three asked if the Hawkins Lilley Appraisal and the Total Learning Environment Assessment show congruence. In order to test this hypothesis a Pearson Correlation was conducted to see the relationship between all categories of the HL and the TLEA instruments. A Bonferroni adjustment was also conducted by dividing the probability value of .05 by the total number of tests conducted (12). The resulting probability value for significance is p>.004. Table 11 illustrates the most important correlations for the purposes of this study. These correlations are educational adequacy and educational environment.

In this case, the two instruments appear to correlate significantly from their respective total scores. The correlation between total scores was r(19) = .804, p<.004 which indicates the total scores are significantly correlated after the Bonferroni adjustment. These statistics indicate, as a whole, the two instruments are congruent. Between the two instruments there were two subsections that were worthy of mention. The correlation between Educational Adequacy of the two instruments was significant. This information indicates that the two instruments are congruent in the subsection of educational adequacy. In contrast, the subsection of educational environment between the two instruments did not indicate a significant correlation. This information supports that the two instruments as a whole will be congruent. However, pertaining to educational environment there was not a congruent statistic and did not demonstrate significance at the .004 alpha level. Therefore, the portion of these two instruments dealing with educational environment does not show congruence. All other subsections of both instruments showed a significant correlation at the .004 alpha level.
Research Question Four

In reference to the question of whether there are certain aspects of facilities that are more important to student achievement than others, a Pearson Correlation was conducted to determine the level of significance of QDI and the subsections of both the Hawkins Lilley and the TLEA as well as the variable of building age. The results can be seen in Table 5. The information in Table 5 indicates that there is a significant correlation at the .05 alpha level of all the subcategories of the HL and the TLEA save one subcategory that is educational environment (r = .247) as is on the Hawkins Lilley. Educational Environment for the TLEA was significant r(19) = .601, p<.004.

Research Question Five

This research question was based on the idea that the leadership role can influence student achievement. The principals in this study were asked a series of questions that pertained to their perspective of the leadership role. This information revealed that by in large administrators see their role as that of a building level curriculum expert. The principals interviewed perceived their role as that of an instructional leader. The surveys were conducted with principals from a poor performing school a mid-level performer, and a Star school. Each of the perceptions was similar in that they all viewed their role as instructional leader to be the most important responsibility that they dealt with on a daily basis.

The next portion of this question asked if the demographics of the community influenced the principal’s perceptions of the leadership role. This was somewhat difficult to analyze with the line of questioning within the survey. More research should be conducted in this area. However, it seems evident based on the information gathered from
the previous research question that demographics a major factor in determining the success of the school.

Analysis of the Research Hypotheses

Research Hypothesis One

Hypothesis One suggested a significant relationship at the .05 alpha level would exist between teacher quality and QDI, specifically between teachers with a highly qualified status based on NCLB standards and QDI. A relationship between the two was suggested in the literature based on the acquisition of high quality teachers (Clement, 2000). A correlation matrix was constructed to test the relationship between all study variables. Specifically, a significant positive relationship existed among all four variables. These relationships are not surprising since the push for all teachers to be content experts in their respective field has come to light with NCLB legislation (No Child Left Behind, 2002).

In addition, a significant positive relationship was found among teachers with National Board Certification and teachers with degrees higher than a bachelors and the dependent variable QDI. This finding supports the idea of better quality teachers, who are hired, can result in better achievement scores (Clement, 2000). According to Clement (2000), the key to a successful school starts with hiring and retaining quality teachers. Upon analysis, the results indicate that the better quality teacher a school can attract has a significant relationship to QDI.

Research Hypothesis Two

Research Hypothesis Two suggested students from a higher socioeconomic status would perform at a higher level on standardized tests and would have fewer behavior
referrals. Secondly, this hypothesis suggested that demographics can explain a significant amount of what determines QDI. For the first portion of the hypothesis, the Pearson Correlation resulted in a significant relationship between QDI and teacher quality (measured by NBCT, HQ status, Advanced Degree), racial makeup of the school and between both facility analysis scores. Interestingly, there was not a significant correlation between QDI and the number of free lunches served and the number of discipline referrals to the office. This was completely unexpected and the first portion of the hypothesis deemed unsupported by the evidence produced by this data set. This was conducted on the data set that contained the 20 school sampling and thus could have skewed the results. However, this was supported by the literature (Riley, 1998).

The second portion of the hypothesis stated that demographics can explain a significant amount of what determines QDI. For this portion, a standard multiple regression was conducted to determine the amount of variance of QDI explained by the independent variables. The results indicated the overall model accounted for 71.2% of the variance in QDI. The overall percentage was statistically significant, thus supporting the acceptance of Hypothesis Two.

In terms of individual relationships between the predictor variables and QDI, significant beta coefficients were found for the factors of percent African American, percent Caucasian, percent free lunch, percent and number of core courses taught by highly qualified teachers. In addition, the analysis indicated that the variables of ADA, number free lunch, HSCI, graduation rate, discipline, average teacher pay, percentage of teachers with advanced degrees, National Board Certification, number of core courses offered, and student teacher ratio did not predict a significant portion of the variance in
QDI.

The significance of the variables of racial makeup indicates there is a relationship between the racial make-up of the school and QDI. This is not surprising after reading the literature that supports the crisis in achievement gaps in American schools. These revelations indicate that Mississippi continues to have a tremendous achievement gap from schools that are 100% African American to schools that are 100% Caucasian. Also, the relationship between the percentage of free lunch and QDI continues to support the idea that low socioeconomic areas perform poorer on standardized tests. Finally, the relationship between the percentage of core courses taught by highly qualified teachers and QDI indicates that the decision to implement a high quality teacher in every classroom was statistically needed (No Child Left Behind, 2002).

The indications QDI can be explained by demographic factors that have absolutely nothing to do with the way in which QDI is calculated is interesting to the author. This information suggests there needs to be more research done to determine if QDI truly measures student achievement or whether it measures the achievement or underachievement of students that were dealt the demographics that they live among. There has been a shift recently to measuring growth in Mississippi schools. At first glance, measuring growth seems to be a more convincing way to measure student achievement. (Growth is the measurement of a student’s achievement when he or she reports to a teacher measured against the student’s achievement level when he or she leaves the given teacher.) Hypothetically, this is a way to more accurately measure student and school achievement and more research needs to be conducted.
Research Hypothesis Three

Research Hypothesis Three stated the Hawkins Lilley Appraisal and the Total Learning Environment Assessment will show a significant correlation at the .05 alpha level. In order to test this hypothesis, a Pearson’s Bivariate Correlation was conducted on each subsection of each of the facility instruments along with the total score of each instrument. At the initial evaluation of the data, there seemed to be a highly significant correlation between the two instruments. Before reporting this information, a Bonferroni adjustment was made and the adjusted alpha level was then .004. With this information it was determined that the two instruments were congruent as a whole however, section 6 of the Hawkins Lilley entitled Educational Environment and the section of the TLEA entitled Educational Environment were not congruent and showed no significance at the .004 alpha level. Also, Section Six of Hawkins Lilley and the TLEA section entitled Educational Adequacy were not congruent. Interestingly, the Hawkins Lilley section 5 entitled Educational Adequacy and the TLEA section entitled Educational Adequacy showed a significant correlation ($r = .829$) which was significant at the .004 alpha level. This was expected to be true with reference to Educational Adequacy. Many of the same questions are present on each instrument. Therefore, it was determined when referencing Educational Adequacy with either instrument the researcher could gain the same conclusions for the school site. However, for the sections on the respective instruments for Educational Environment the case was not the same. The two sections did not demonstrate a significant correlation. This was surprising since many of the same questions were asked commonly between the two instruments in these sections. Several factors could exist to cause these results. One factor could have been the subjectivity of
the researcher in assigning the scores to each question. However, this possibly was the case since the Hawkins Lilley instrument in this section was based on a 200-point score, and the TLEA for this section was based on a Likert scale of between one and four with a total score of 140 points. The TLEA seemed a more specific and more informative grading scale and this could have caused the result. Secondly, there is the possibility that the two sections are simply not measuring the same things with respect to Educational Environment. This seems unlikely to the researcher because so many of the same questions are asked in the respective sections. However, the TLEA was much more in depth and gave a clearer understanding of how to score each question because of the specificity of the questioning. Finally, the possibility that the two sections were done in sequential order when conducted at the school sites with the Hawkins Lilley given first and the TLEA given secondly could have skewed the results. The possibility exists that the researcher was much more aware of the environmental problems that were associated with the school site from the Hawkins Lilley Appraisal and consequently scored the TLEA with more information resulting in a much lower or higher score on the TLEA.

Interestingly, when a Pearson’s Correlation was done to determine the significance of building age to the facility instruments, it was found to be significantly correlated to the total score of both the Hawkins Lilley and TLEA. This is of note because this was a significant negative correlation and indicated that the age of the building is directly related to the overall score of the two instruments. This relationship was a negative relationship. Undoubtedly, this was expected and makes sense that the older the building, the poorer the score on the instruments. Also, when building age was correlated with QDI there was a significant relationship at the .004 alpha level. This was
expected since older school buildings are generally located in lower socioeconomic areas. In Mississippi the lower socioeconomic areas are generally in the Delta region. This area also includes schools that have a high percentage of African American students. Since these areas are economically challenged, the probability that new schools will be built is unlikely and the probability of attracting and retaining a large percentage of quality teachers in the school building is unlikely.

The next portion of this study included the 20 school sample that was chosen based on school QDI. Another Pearson Correlation was conducted to determine the relationship between QDI and the facility instruments. The results indicated that QDI and building facilities show a significant relationship. This is not surprising because the quality of the school facilities was directly related to QDI. This only makes sound reasoning; the better the facilities, the higher quality of education given. Many factors could be the root cause of this opinion; however, the one main factor, hypothetically, would be socioeconomic status. Finally, the relationship between QDI and the Educational Adequacy and Educational Environment was tested by reviewing the results of a Pearson’s Correlation. Within the two instruments, both indicated that educational adequacy was significantly correlated with QDI at the .004 alpha level. However, only the TLEA demonstrated a significant correlation with QDI in the subsection of Educational Environment. The Hawkins Lilley indicated no significant relationship between the Hawkins Lilley and QDI. This was of note because the measure of educational environment of both instruments asked specific questions of the outside school site and building. Very few questions were asked that dealt strictly with the inside of the classroom and none that dealt with classroom instruction.
subsection on educational environment, although significant, was the least significant of the subsections. Therefore, this is justifiable since the adequacy of the classroom would hypothetically be the main factor, with respect to school facilities, in student achievement. These results indicate that within school facilities educational adequacy produces more gains for school QDI than educational environment. In general terms, whether the grass is cut and the shrubs are manicured or not, if the students are provided an adequate environment inside the classroom there should be an increased or higher QDI than schools that do not provide the same educational adequacy.

Implications for Policy and Practice

The implications of this study for administration are tremendous. There are many factors involved in making schools better for students to learn at a higher level than ever before. For Mississippi, closing the achievement gap and becoming more competitive on the national level is a must in order to bring more business, industry, and opportunity to Mississippi for our future. Consequently, there are three major implications that are addressed in this section which are as follows: QDI as a school success measure, what really matters with respect to facilities, and teacher quality.

Based on the research, there was an indication based on the regression analysis that demographics of a school and community can determine the level of QDI. The implication with this statement is tremendous. This suggests in order to truly impact student achievement in some areas the community and demographics of the school must change first. Some areas will have a high QDI based on the school and community demographics; therefore, the idea that the administration of these schools have a QDI “gold mine” so to speak. In other areas, the demographics of the school and community
are not as favorable. In other terms, these administrators, to truly be successful, must not only change the demographics of the school but someway change the demographics of the community. This alludes to the idea that the community is a crucial part of the success of the school.

The next implication from this study is that QDI can be almost explained completely by demographic factors alone. Therefore, does QDI truly measure student achievement or does QDI measure the demographic levels of the school and community? The idea that schools with more favorable demographics perform higher on SATP in Mississippi suggests that QDI is simply a measure of the surrounding environment. Consequently, more research needs to be done in order to determine a better method for measuring school success. The state has started this research by measuring the growth factors of schools. The idea is to measure the achievement level at the time the student came to a particular teacher and then measure the growth the student made at the end of the year when the student leaves that teacher to take another course. The implications for administration are startling with this idea. Teachers that have always had advanced students and have students who score advanced scores on standardized tests are getting the results that are expected. When the growth factor is infused into these upper level students the teacher now has to work extra hard to get these students to achieve growth at all since they are already achieving at a level higher than other students. However, many problems seem to arise from this method. One such problem is that a student that comes to a teacher with a very high growth residual may not grow as much as student that comes to a teacher with a lower growth residual. Therefore, schools with better demographics would not have the potential to grow as much as a school with lower
demographic factors. The implication for administration and school boards are that measuring growth factors instead of QDI may be a more practical way of measuring school success.

The next implication from this study involves what factors really make a difference in education with respect to facilities. The findings indicate that the age of the buildings directly influenced QDI. However, the majority of the older buildings that were evaluated with the Hawkins Lilley Appraisal and the Total Learning Environment Assessment were not well kept. The researcher’s opinion is that the buildings could have been completely new or renovated and would have still been unkept. This is due to the results of the data that indicated the age of the building was also significantly correlated to the overall score of both survey instruments in a negative manner. In other words the older the building the worse the facilities score. This was expected since the older buildings were mostly in the lower demographic areas. These areas do not have the tax base to support constructing new buildings. Therefore, the buildings school districts are currently using have to serve students for years to come. This sounds bleak for older school buildings; however, the second portion of the implications may help alleviate these constraints for Mississippi schools.

This study had a main focus of facilities and what portion of the facilities were most important to schools. The implications of this study suggest that schools that provide an educationally adequate classroom perform at a higher level on QDI than schools that do not provide this level of educational adequacy. Consequently, this suggests that schools spending money on classroom necessities, teacher quality, and teacher needs are producing more favorable results in QDI. As far as educational
environment, which includes items such as well painted building, manicured landscaping, quality parking, treating teachers as professionals, etc., did not show a significant correlation with QDI on one instrument and a slight correlation on the other instrument. The implication is that when students and teachers have the resources they need to teach and learn, it matters not if the color of the building is aesthetically pleasing. Factors that impact education in the classroom, regardless of the factors outside the classroom, produce more favorable QDI results. Consequently, the implication for administration is that spending money on things that influence students and teachers is more important in producing high QDI than spending money on factors that influence the aesthetic makeup of the school building. This indicates that whether the building is ancient or brand new, the school that provides an educationally adequate classroom performs on the Mississippi Subject Area Testing program in the area of QDI. Recommended policy for administration and school boards would be to implement a fiscal plan that allocates money on a priority system in which the classroom needs are addressed as the primary and school appearance is secondary.

Another focus of this study was the congruence between the two facility instruments, the Hawkins Lilley and the TLEA. The two instruments were found to be congruent. Therefore, the two instruments measured with the same accuracy the aspects of the school facility that must be maintained and implemented. Also, the study indicated that the TLEA was viewed more favorably by administration. The recommendation for the TLEA is crucial for school districts that wish to save money when conducting facility analyses. The Hawkins Lilley cost $45 per instrument whereas the TLEA is a tool for schools to use that is free of charge. Therefore, the implication is when school districts
conduct facility analyses they should use the free instrument since it results in the same information.

There has been research conducted (Goldhaber & Brewer, 1997) that suggests teachers with advanced degrees garner more favorable results with respect to student achievement. In Mississippi’s secondary schools, there is a significant correlation between teacher advanced degree and QDI. There is also a significant correlation between National Board Certification and QDI. In Mississippi secondary schools the most correlated variable with QDI was highly qualified status based on NCLB standards. Consequently, based on this information, the implication for administration is that hiring teachers that are highly qualified in their respective content area is the most powerful tool a principal has in raising QDI. However, the data indicates that having teachers with NBCT status and having teachers with advanced degrees will also produce gains in QDI but not as significantly as highly qualified status. Hence, the implications are that principals must have teachers who are highly qualified in each subject area course in order to produce gains in student achievement. Therefore, it seems favorable, based on this study, for administration to hire highly qualified teachers first, then teachers with NBCT, and then teachers with an advanced degree.

Limitations

The results of this study must be understood, within the context of the limitations inherent in the design and implementation of the study. Limitations exist that relate to sampling and instrumentation and are addressed in order to promote a better analysis of future studies in this area of research.
Sampling

In interpreting the data, two data sets were used. The first sample was based on all 243 secondary schools in Mississippi and this information was gathered from the Mississippi Student Information System (MSIS) and the MAARS system. Each of the 243 secondary schools enter the information into the MSIS therefore, the data is only as accurate as the information that the schools enter. Therefore, there could be errors in data from the school levels. Also, this data was taken from a period of one school year. For further research, a period of several sequential years is suggested. The second set of data was based on 20 of the 243 secondary schools selected by QDI level. There was a large range from very low to very high QDI level and this could have skewed the information slightly. However, this skewed information is what exists in secondary schools in Mississippi; therefore, any skewness of the data was necessary for the purpose of this study. Secondly, this set of data could limit the generalizability of the results since only 20 member schools were selected for the facilities analyses.

Instrumentation

First, the instruments used in this study were completed by the researcher. The researcher has been trained in evaluation of school facilities and the use of the Hawkins Lilley Appraisal system; however, the researcher was not initially trained in the scoring of the TLEA. Hence, the information contained in the two instruments could be subjective to the researcher point of view. The researcher’s bias toward the school based on first impressions of the school facility may have influenced the scoring of the instruments as well. Also, the instruments were all conducted in one time visits to the school site. There are many problems that can surface on any given day. For example, it
would be much easier to judge the leakiness of the roofs on a rainy day. However, only a few schools were evaluated on a rainy day. Therefore, the instruments could have been scored subjectively based on the day in which the school site was visited.

Delimitations

This study was done in order to determine some of the possible factors that contribute to the success of Mississippi secondary schools. This study was limited to only secondary schools and could have been used in all schools in order to get a broader picture. However, time and funding limited the expansion of this project. Other limitations of the study included willingness to participate, data which was missing or unavailable, anonymity of the subjects to the researcher, and the appraisal of the school were subjective to the researcher.

First, the potential participants at each of the schools must have been willing to participate in the interview process. Some may not have felt comfortable with the interview questions which were asked. There were several persons that refused the interview. One reason for this is the idea that a face-to-face meeting is not anonymous to the researcher even though the names will not be released to anyone but the researcher. Some potential participants may be unwilling to give truthful answers for fear that the answer would be resounded back to the leadership.

Next, there may be an issue of missing or unavailable data. Some schools have piloted the SATP and MCT prior to the test being live and that information is available for those schools but not available for the schools that were not pilot sites. This may pose a problem with the establishment of trend data. Finally, the Hawkins-Lilley Appraisal was somewhat subjective in nature. Although, the researcher had been trained on school
facilities there was still the possibility for subjective scoring on the researcher’s part. This could have skewed the results slightly. However, the two instruments were found to be congruent and all schools were evaluated with both instruments. Both instruments recorded roughly the equivalent score on each instrument which validates the research to some degree.

Recommendations for Future Research

More research needs to be conducted in the area of QDI and teacher quality. Since QDI is a measure of student achievement in four core courses (English II, Biology I, Algebra I, and United States History) there is only a measure of teachers teaching these four courses. There needs to be research done to determine if this study holds true when compared across the curriculum in all classrooms in Mississippi secondary schools. Secondly, QDI is a one day measurement of a student’s knowledge in the four core courses. The research that needs to be conducted should investigate the relationship of a student’s knowledge growth over the entire school year to the overall QDI from one day. This would be interesting to determine if the growth of a student from day one of school to the last day of school correlates to the overall QDI of the student scores.

The suggestion that in order to truly impact student achievement in some areas the community and demographics of the school must change first alludes to the idea that the community is a crucial part of the success of the school. More research needs to be conducted in terms of how schools have changed communities. This is opposite of the way many think, in that communities should change schools for the good. If school administration wants to truly be successful, it starts with school and community demographics. Therefore, the question to be asked is how can the school change the
Some may suggest that changing the community is the hardest portion of the demographic scheme; however, others may argue that hiring and retaining quality teachers (Clement, 2000) as the most difficult demographic to change. Some areas have many opportunities for families and may find it much easier to hire quality teachers. Other areas may not be as fortunate and have a more difficult time hiring and retaining teachers. Consequently, more research is needed to help administrators develop a plan of changing the school demographics starting with hiring and retaining teachers in communities that do not have a lot to offer. However, many times outside entities do not fully understand the school and the community. It is important to understand why the demographic factors are the way they are. This is only done by talking with administration and teachers. However, when the interviews were done for this study with administration, the higher performing the school the more willing the administration was to be interviewed. Therefore, more research needs to be conducted to develop protocols that are less invasive and threatening to poorer performing school’s administration.

Teachers that have always had advanced students and have students who score advanced scores on standardized tests are getting the results that are expected. When the growth factor is infused into these upper level students the teacher now has to work extra hard to get these students to achieve growth at all since they are already achieving at a level higher than other students. However, many problems seem to arise from this method. One such problem is that a student that comes to a teacher with a very high growth residual may not grow as much as student that comes to a teacher with a lower growth residual. Therefore, schools with better demographics would not have the
potential to grow as much as a school with lower demographic factors. Consequently, more research needs to be conducted to determine the effectiveness of measuring the growth factor to determine school success.

The implication from this study is that when students and teachers have the resources they need to teach and learn, it matters not if the color of the building is aesthetically pleasing. Factors that impact education in the classroom, regardless of the factors outside the classroom, produce more favorable QDI results. This indicates that whether the building is ancient or brand new, the school that provides an educationally adequate classroom performs on the Mississippi Subject Area Testing program in the area of QDI. Further research is needed in all Mississippi secondary schools to determine if these results were a result of sampling or if this information holds true in all secondary schools in Mississippi. Also, further research needs to be conducted on the educational adequacy of Mississippi schools as it pertains to demographic factors in these respective communities. The question to be asked, do demographic factors prohibit Mississippi secondary schools from providing an adequate educational experience for the students in these communities?
APPENDIX A

PERCEPTIONS INSTRUMENT

Exemplary Principals' Perceptions of the Principalship

You have been recognized as an exemplary principal by a national organization representing your profession. I am interested in how you conceptualize your role and responsibilities as an educational leader.

1. Please tell me about your administrative background including the levels and types of schools in which you have served in an administrative capacity. What is your current role?

2. In general, what beliefs and attitudes do you have about teaching and learning?

3. As a principal, what do you hope to gain from the teacher-principal relationship? How would you describe the optimal teacher-principal relationship?

4. One of the things that teachers seek from their principals is "support." How would you describe or define support? In what ways do you support the teachers with whom you work?

5. Are there ways in which you facilitate instruction in your building other than those you have already mentioned?

6. If you were charged by your superintendent with identifying and selecting principals who might effectively support the task of teaching and learning, what qualities would you seek?

7. How do you believe principals should be evaluated? What criteria should be most important?

Additional questions may be used in order to clarify responses.
Dear Bryan,
I am honored that you wish to use my work. You have my permission to use my protocol.

Cheryl

> Dr. Henig,
> My name is Bryan Marshall and I am currently working on my dissertation at The University of Southern Mississippi. I have run across two dissertations that have your name attached. One is a dissertation that you wrote I believe and the other that you were the persons chair. I am wanting to get permission to use your instruments that were used in those dissertations. One is the entitled "Exemplary Teacher's Perceptions of Principalship Interview Protocol" and the other Exemplary Principals Perception of the Principalship. I would very much like to use them and adapt them to my project with your permission.
>
> Thank You for Your Time and Consideration,
Bryan Marshall
Assistant Principal
Brandon High School 601-825-226
APPENDIX B

IRB FORM

HUMAN SUBJECTS REVIEW FORM
UNIVERSITY OF SOUTHERN MISSISSIPPI
(SUBMIT THIS FORM IN DUPLICATE)

Protocol # 10020103
(office use only)

Name: Bryan Marshall

E-Mail Address: bmarshall@rcsd.ms

Phone: 901-750-1462

Mailing Address: 202 West Brandon Ct., Brandon, MS. 39042
(address to receive information regarding this application)

College/Division: Education and Psychology
Dept: Ed. Leadership and School Counseling

Department Box #: 5027

Proposed Project Dates: From March 1, 2010 To June 30, 2010
(specific month, day and year of the beginning and ending dates of full project, not just data collection)

Title: Fostering Positive Classroom Environments: The Relationship Between Teacher Qualifications, Facility Management
and Perception of Leadership on Student Outcomes

Funding Agencies or Research Sponsors:

Grant Number (when applicable):

New Project

XX Dissertation or Thesis

Renewal or Continuation: Protocol #

Change in Previously Approved Project: Protocol #

Principal Investigator: Bryan Marshall
Date: 1-28-10

Advisor: Harry Mene
Date: 1-29-10

Department Chair:

RECOMMENDATION OF HSPRC MEMBER

Category I, Exempt under Subpart A, Section 46.101( ), 45CFR46.

Category II, Expedited Review, Subpart A, Section 46.110 and Subparagraph

Category III, Full Committee Review.

HSPRC College/Division Member:

DATE: 3-25-10

HSPRC Chair:

DATE:
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