Teachers' Perception of Instructional Leadership and Student Achievement

David Anspaugh
Western Michigan University

Follow this and additional works at: https://scholarworks.wmich.edu/dissertations

Part of the Educational Assessment, Evaluation, and Research Commons, and the Junior High, Intermediate, Middle School Education and Teaching Commons

Recommended Citation
https://scholarworks.wmich.edu/dissertations/1745

This Dissertation-Open Access is brought to you for free and open access by the Graduate College at ScholarWorks at WMU. It has been accepted for inclusion in Dissertations by an authorized administrator of ScholarWorks at WMU. For more information, please contact maira.bundza@wmich.edu.
TEACHERS' PERCEPTION OF INSTRUCTIONAL LEADERSHIP AND STUDENT ACHIEVEMENT

by

David Anspaugh

A Dissertation
Submitted to the
Faculty of The Graduate College
in partial fulfillment of the
requirements for the
Degree of Doctor of Education
Department of Educational Leadership

Western Michigan University
Kalamazoo, Michigan
June 1995
The focus of this study was to investigate the teachers' perceptions of the principal's leadership behaviors and how the achievement level of the students was affected. Three middle schools representing the Prairie View Public Schools were used in the study. These middle schools were Sparta Middle School, High Plain Middle School, and Middleville Middle School.

A staff survey was given to the 33 teachers in each of the buildings. The survey dealt with 18 leadership behaviors of the principal. The teachers were asked to rate the behaviors as to their importance to them and if the behaviors existed. The survey was then analyzed using six criteria to rate the leadership behaviors of the principals.

The Michigan Educational Assessment Program (MEAP) scores of the students in each of the buildings were collected. The building composite scores for the building used was seventh grade mathematics and English and eighth grade science. The scores were analyzed to compare student achievement with the perceptions of teachers about the principal. The comparison was made to see if there was a relationship between student achievement and leadership behaviors in these buildings.
INFORMATION TO USERS

This manuscript has been reproduced from the microfilm master. UMI films the text directly from the original or copy submitted. Thus, some thesis and dissertation copies are in typewriter face, while others may be from any type of computer printer.

The quality of this reproduction is dependent upon the quality of the copy submitted. Broken or indistinct print, colored or poor quality illustrations and photographs, print bleedthrough, substandard margins, and improper alignment can adversely affect reproduction.

In the unlikely event that the author did not send UMI a complete manuscript and there are missing pages, these will be noted. Also, if unauthorized copyright material had to be removed, a note will indicate the deletion.

Oversize materials (e.g., maps, drawings, charts) are reproduced by sectioning the original, beginning at the upper left-hand corner and continuing from left to right in equal sections with small overlaps. Each original is also photographed in one exposure and is included in reduced form at the back of the book.

Photographs included in the original manuscript have been reproduced xerographically in this copy. Higher quality 6" x 9" black and white photographic prints are available for any photographs or illustrations appearing in this copy for an additional charge. Contact UMI directly to order.
ACKNOWLEDGMENTS

I wish to extend my appreciation to my committee, Dr. Patrick Jenlink, Dr. Larry McConnell, and Dr. Charles Warfield. Their help and guidance enabled me to complete a very important goal in my life.

My family has been very supportive in my educational quest. My wife, Charlotte, helped keep me going toward my goal when I began to burn out. I thank my mother for instilling in me the desire to continually better myself and to reach for the educational opportunities she was not given.

I dedicate this dissertation to the memory of my father, a man who I dearly loved and respected and a man who was very proud of my educational accomplishments. Dad, we finally made it. Thank you.

David Anspaugh
TABLE OF CONTENTS

ACKNOWLEDGMENTS ........................................................................... ii
LIST OF TABLES ............................................................................................ vi
CHAPTER

I. BACKGROUND AND STATEMENT OF THE PROBLEM ........ 1

   Introduction ........................................................................... 1
   Setting of the Problem ........................................................ 4
   Purpose of the Study .......................................................... 5
   Questions From the Study ......................................................... 6
   Rationale ................................................................................ 6
   Overview of Methodology ......................................................... 7
   Summary ................................................................................ 8
   Overview ................................................................................ 8

II. REVIEW OF THE LITERATURE ................................................ 10

   Introduction ........................................................................... 10
   Effective School Movement ..................................................... 11
   High Achieving Schools ......................................................... 12
   Leadership ............................................................................. 12
   Resource Provider ................................................................. 13
   Instructional Resource Person .................................................. 14
   Communicator ........................................................................ 14
   Visible Leader ........................................................................ 14
   Instructional Leadership ......................................................... 15
   School Culture ....................................................................... 17
**Table of Contents--Continued**

**CHAPTER**

School Climate ................................................................. 18  
Student Achievement .......................................................... 19  
Teacher's Perspective .......................................................... 20  
Summary ................................................................................ 21  
Overview ................................................................................. 23  

**III. METHODS AND PROCEDURES ............................................... 24**

Questions From the Study ......................................................... 25  
Research Design ...................................................................... 25  
Sample Population ............................................................... 26  
Instrumentation ...................................................................... 27  
Data Collection Process ......................................................... 28  
Data Analysis .......................................................................... 30  
Summary ................................................................................ 31  
Overview ................................................................................. 32  

**IV. DATA ANALYSIS ................................................................. 33**

Review of Design and Methodology ........................................ 33  
Methodology .......................................................................... 33  
Sample Population Description .............................................. 35  
Analysis of Responses ........................................................... 36  
Analysis of Question Items .................................................. 36  
Summary ................................................................................ 50  
Overview ................................................................................. 52
# Table of Contents--Continued

## CHAPTER

V. SUMMARY, CONCLUSION, AND RECOMMENDATIONS ............................................................... 53

  Summary ................................................................................. 53
  Overview of the Research Design ................................... 53
  Review of Methodology ....................................................... 54
  Discussion of Findings ........................................................ 55
  Discussion .............................................................................. 57
  Conclusion .............................................................................. 59
  Recommendations ................................................................ 60
  Closing Remarks ................................................................... 61

## APPENDICES

A. Cover Letter .................................................................................. 62
B. Follow-up Letter ........................................................................... 64
C. Questionnaire ............................................................................... 66
D. Approval Letter From the Human Subjects Institutional Review Board ........................................... 70
E. Letter of Permission From Dr. Bill Rauhauser ..................... 72
F. Copy of MEAP Test Results .................................................... 74
G. Raw Data From High Plain Middle School ......................... 76
H. Raw Data From Sparta Middle School ................................. 78
I. Raw Data From Middleville Middle School ......................... 80
J. Data Analysis Example ............................................................... 82

## BIBLIOGRAPHY ......................................................................................... 84

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.
# LIST OF TABLES

1. Survey Responses ................................................................. 35
2. Mean Scores of High Plain Middle School ............................ 39
3. High Plain MEAP Scores ......................................................... 42
4. Mean Scores From Sparta Middle School ............................ 43
5. Sparta MEAP Scores ................................................................. 46
6. Mean Scores of Middleville Middle School ..................... 47
7. Middleville MEAP Scores ......................................................... 49
CHAPTER I

BACKGROUND AND STATEMENT OF THE PROBLEM

Introduction

The effective school movement began in 1979 with Edmonds, who focused on school level conditions and their effects. He stressed that for schools to be effective they should help the poor child achieve at least minimal mastery of basic school skills. His goal was to promote a change in schools which produced the greatest benefit for those students most likely to fail.

Blase (1987) defined conditions of effective schools as providing resources, physical facilities, class size, professional development, interactions, school goals and objectives, school and parent interactions, and building administration. Teachers, as cited in the Virginia Education Association (VEA) and Appalachia Educational Laboratory (AEL) (1991) report, indicated the building administration had the most impact on them.

Much has been learned about learning and student achievement since that time. The teachers' perceptions of the instructional leader has been indicated by research as the single most reliable predictor of student achievement. This perception is based on the quality of instructional leadership of the school principal (Andrews, Berube, & Basom, 1991).
One who becomes an educational leader assumes obligations in the school system, and the most important obligation is to create good schools. Administrative effectiveness is developed by educators who promote excellence and equity in student performance. The principal's role in the school is to behave in such a manner as to build a structure of relationships. These relationships create a positive atmosphere where all students learn (Andrews, Berube, & Basom, 1991).

The factors related to a positive relationship are: (a) accessibility, (b) consistency, (c) knowledge/expertise, (d) clear and reasonable expectations, (e) decisiveness, (f) goals/direction, (g) follow-through, (h) time management, (i) problem-solving orientation, (j) support/confrontation of conflict, (k) participation/consultation, (l) fairness/equability, (m) recognition--praise and reward, (n) delegation of authority, and (o) resource provider (Blase, 1987). The teacher's perception is defined as how the teacher views the administrative effectiveness in the above areas.

School administrators should concern themselves with teacher morale and student achievement to improve schools. Research indicates that poor teacher morale is affected by leadership and can adversely affect student performance (Smith & Andrews, 1989).

Educational leadership is for those who want to design, teach, and create conditions for higher levels of learning (Andrews & Sober, 1987). Andrews, Berube, and Basom (1991) indicated the development of learning and success occurs in schools when the following takes place: (a) the teachers perceive leaders as those who find resources which enable them to play an important part in the educational setting, (b) have knowledge of teaching and learning, (c) communicate a vision, and
(d) behave in a way which creates a trust to implement the vision. Security establishes an environment which enables faculties to take risks or helps the instructional leader improve instruction (Johnson & Johnson, 1989).

Educational leadership (Wood & Lease, 1987) helps teachers to become more effective, to refine skills they have learned, and to develop new skills. Participation in the process promotes ownership, commitment, and trust, all of which are important to improve instruction (Withall & Wood, 1979).

Leaders provide a vision, the ability to communicate that vision, and to create a trust in the workplace (Andrews, Basom, & Basom, 1991). Principals as leaders do make a difference in student achievement. They design activities to improve the teaching-learning process and refine educational practices which they implement in their classrooms (Hoy & Forsyth, 1986; Wiles & Bondi, 1980). The principal as instructional leader focuses on "doing the right things" designed to help improve student achievement (Andrews, Basom, & Basom, 1991). Principals must communicate these "right things" for teachers to understand them. A principal as leader communicates ideas that all students can learn and succeed, success breeds success, students can enable students to be successful, and clearly defined learner outcomes determine instructional progress and decisions (Andrews, Basom, & Basom, 1991).

Principals as educational leaders have a strong sense of direction. They model goals and behaviors that signal to others what is important in the school (Bennis, 1989). Each leader is obligated to model
behaviors which create positives for all students. Studies by Andrews, Basom, and Basom (1991); Andrews, Berube, and Basom (1991); Blase (1987); and Edmonds (1979) have focused on what makes a school effective. An effective school is one where students are able to achieve academic success. Educational leadership and teachers' perceptions of educational leadership were areas denoted as very important to this process.

Leadership behaviors have been expressed as important to student achievement. Teachers' perceptions of leadership behaviors have also been expressed as important to student achievement. The importance of this study is to determine the relationship between the teachers' perceptions of leadership behavior and student achievement.

Setting of the Problem

Studies of effective schools have become more common. These studies developed profiles of what made schools effective. One of these studies at the Brookings Institution, by Chub and Moe, as cited in Andrews, Berube and Basom (1991) indicated student achievement is not affected by school resources or state and local policy. Achievement is influenced by the principal (Andrews & Sober, 1987). Effective schools (Brookover & Lezotte, 1977) had principals who were assertive in the area of instruction, disciplinarians, and assumed responsibility for evaluation of achievement of basic objectives. The teachers' perceptions of the principal has also been indicated as an important part of an effective school (VEA & AEL, 1991). The perception refers to the quality of the workplace and the quality of the instructional leadership.
behavior of the school principal. The creation of a proactive school necessitates the leader's attention to setting high expectations of oneself and staff, creating a positive learning climate, and empowering the school to be successful.

The principal as leader, to be effective, must realize that people are motivated only when they believe in the value of the goal and the possibility of achieving the goal. Klug, as cited by Renchler (1992), noted the principal as instructional leader impacts motivation and achievement of students and teachers. This is accomplished by shaping the school's instructional climate. The climate influences the attitudes of all involved in education.

Research from the effective-school movement speaks to the issues of leadership and how leadership affects student achievement. Researchers such as Chub and Moe (1990), Andrews and Sober (1987), Brookover and Lezotte (1977) have discussed the issues of leadership and the role of the principal in making schools effective. Teachers perceive the acts of the school principal differently. How they believe the job is being accomplished may directly affect the achievement of the students of the school. Studies by Edmonds (1979), Brookover and Lezotte (1977), Chubb and Moe (1990), Blase (1987), and VEA and AEL (1991) speak of the issue of how a teacher views the principal and his roles of leadership.

Purpose of the Study

The purpose of this study was to determine if there is a relationship between the teachers' perceptions of the principal's leadership and
student achievement. The effective school movement studies have indicated there is a relationship between the principal and student achievement. The studies outlined important characteristics of successful schools. One purpose of this study was to determine if the teachers believed their principal to be effective. Another purpose was to determine if the students were achieving academically in accordance to the perceptions of the principal's leadership behaviors.

Questions From the Study

1. How did the teachers perceive the leadership behaviors of the principal?
2. Did students achieve better in the schools where the teachers had a high perception of the leadership behaviors of the principal?

Rationale

Effective school studies identified leadership behaviors of principals as an important characteristic of an effective school. Teachers' perceptions of leadership behaviors were stressed in other studies as being important in the schools where students were being successful. Teachers were asked to express what behaviors were necessary for an effective school.

This study asked teachers to express how important they believed these behaviors to be to them. They were also asked to determine to what degree they believed these behaviors to exist by the principal. If, according to previous studies, these behaviors are important and they do exist in a school, then the students should be successful.
Findings from this study could be helpful in determining a more in-depth study into the characteristics of an effective principal and perhaps how to make a school more effective. From this study programs could perhaps be developed to enhance the abilities of principals to increase student achievement.

Overview of Methodology

Two instruments were used in this study. One was a survey questionnaire, Professional Staff Perception of Effective Schools Correlates (see Appendix C) developed by Rauhauser (1987). The questionnaire identified the strengths and weaknesses of the leadership behaviors of the principal as perceived by the teachers.

The second instrument was the Michigan Educational Assessment Program (MEAP) (Michigan Department of Education, 1993) test (see Appendix F). Scores from each of the schools were collected. The scores used were the reading, science, and mathematics scores from the fall test.

The data from the survey questionnaire were analyzed for importance to the teachers and whether the teachers believed the behaviors existed in the building. The 1993 MEAP scores were analyzed to understand the level of student achievement in the building. These comparisons were used to determine the relationship between the teachers' perceptions of leadership behaviors in the building and student achievement.
Summary

Edmonds (1979) was searching for what makes schools effective. Blase (1987) spoke about conditions of effective schools. The Virginia Education Association and Appalachia Educational Laboratory (1991) studied the teachers' perceptions of the building administration. Studies indicate success in school effectiveness appears to be connected to the educational leadership of the principal in the building. There is evidence to suggest effective schools have strong leaders with staffs who have the same perception.

This study compared the teachers' perceptions of the principal's leadership with the achievement scores received by the students on the MEAP test. Teachers' perceptions were measured by using a survey questionnaire developed by Rauhauser (1987). The hypothesis was that the principal did make a difference in the achievement level of the students.

Overview

In Chapter II, a review of the literature concerning the leadership role of the principal and how this role affects student achievement is presented. The discussion focuses on what the role is and what researchers have found to be prevalent in effective schools.

Presented in Chapter III is the methodology employed in the study. Chapter III also contains a description of the sample population along with the instruments used to gather the necessary data for the study.
Presented in Chapter IV are the results of the study. The numerical data are followed with the statement of the findings of the study.

Chapter V contains a discussion of the results from Chapter IV. A conclusion is presented as well as suggestions for further study.
CHAPTER II

REVIEW OF THE LITERATURE

Introduction

The purpose of this study was to determine if there was a relationship between the leadership behaviors of school principals, as perceived by teachers, and student achievement. Presented in this chapter is a review of the related literature pertaining to the effective school movement.

American education is changing with the advent of the effective school movement. In the past 100 years the role of the principal has changed from one of a manager to that of a leader. A manager, as cited by Kersten and Sloan (1985), is concerned with putting plans into operation and maintaining the current organization. A leader is interested in the planning process and evaluation of needs. A vision is developed by observing the present and looking to the future. The leader then coordinates the change process based on this vision (Kersten & Sloan, 1985).

Emphasis has shifted from school level conditions to learning, practices in teaching, and student achievement. Andrews, Berube, and Basom (1991) inferred that the teachers' perceptions of the instructional leader was the single greatest predictor of student achievement.
Effective School Movement

Edmonds (1979) indicated a connection exists between student performance and strong leadership in the effective schools. Edmonds’s goal was to change schools to produce the greatest learning benefits. Research (Brookover & Lezotte, 1977; Edmonds, 1979) compared low achieving schools and high achieving schools. These studies were searching for schools that were instructionally effective for poor children and what made them more effective than the others. The results from each of these studies were that effective schools possessed a strong administrator who had high expectations for all students. The school atmosphere was orderly, quiet, and conducive to the educational improvement of all students.

All effective schools (Edmonds, 1979) had a strong principal as the leader. The principal was instrumental in setting the tone of the school. The principal was involved in instructional strategies, organized and distributed school resources, had high expectations for students, and created a support system for the teachers. The teachers in these schools were less satisfied than those in low achieving schools. This was due to the pressure of change created by the principal.

The Virginia teachers in the Virginia Education Association (VEA) and Appalachia Educational Laboratory (AEL) (1991) report agreed that the quality of interactions with their principal had an important impact on working conditions. The achievement level of students increases when education and teachers focus on the improvement of instruction and classroom management skills (Good, Passow, & Justman, 1979). Valid
content and sound principles increase learning when teachers' plans are based on these concepts (Hunter, 1982; Stallings & Krasavage, 1986).

The VEA and AEL (1991) study was a study on working conditions of the teachers. The study focused particularly on the teacher-principal interactions. The VEA and AEL sent a survey of 78 items to VEA teacher members. The survey dealt with items influenced by the principal that had an effect on the teachers. The data were analyzed by the National Education Association (NEA) and the findings reported.

High Achieving Schools

In a study by New York Office of Education, as cited by Edmonds (1979), high achieving schools were found to be impacted in a positive manner by the principal’s behaviors, policies, and practices. A study by Klitgaard and Hall (1973) found effective schools to possess four characteristics which enhanced their success. Each possessed a strong leader with a clear purpose, strong instructional leader who participated in instructional programs and active teaching, opportunities for teachers to try new techniques and encouragement to do so, and ambitious academic programs. The principal had high expectations for both students and teachers (Edmonds, 1979). A strong instructional leader is one whose actions affects and promotes student learning (Dwyer, 1984).

Leadership

Virtues of a strong leader have been defined as someone with a vision. A vision is the blue print for the school. The leader has the
ability to communicate and the ability to create trust in the workplace. Finally, a strong leader has the ability to persuade others to work toward desirable and reachable goals (Andrews, Berube, & Basom, 1991).

The VEA and AEL (1991) report indicated various factors influenced teacher effectiveness and student performance in a positive or negative manner. Research (Smith & Andrews, 1989) indicates four areas where instructional leadership enhances student achievement. The instructional leader is seen as (1) resource provider, (2) instructional resource person, (3) communicator, and (4) visible leader.

Andrews, Berube, and Basom (1991) indicated that studies have found a correlation between the teachers' perceptions of a strong leader and student achievement. Student achievement scores were greater in the schools where the leader was viewed as providing the above roles.

Resource Provider

Resource provider (Smith & Andrews, 1989) is defined as a leader who knows adults and their talents, then accordingly places them in appropriate roles, matching the staff members' needs to staff development, and having them analyze themselves to create change. A caring atmosphere is created by walking through the classrooms, providing for visitations, and speaking with the faculty. Cawelti (1984) indicated a strong principal did not stop with limited resources, but used ingenuity to get what was necessary.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.
Instructional Resource Person

An instructional resource person (Smith & Andrews, 1989) is one who understands the technology of teaching, the methods by which students learn, and the interactions that enhance learning. The leader helps the teachers understand themselves, their abilities, and the processes that aid student success by conferring with the teachers and using the staff meetings for instructional growth. The instructional leader interprets information from sources, assesses the ability of the school to meet the goals, and then communicates the necessary steps to the staff and community (Smith & Andrews, 1989).

Communicator

Communication (Smith & Andrews, 1989) is the ability to help people understand the vision, sense of mission, and the culture of the school. The effective instructional leader possesses a strong sense of direction for the school and aptly employs strategies that communicate direction. A strong communicator possesses speaking and writing skills; organization and planning skills; establishes goals that clearly define school expectations; and recognizes staff, students, and parents (Andrews, Sober, & Jacoby, 1986).

Visible Leader

Smith and Andrews (1989) identified a visible leader as one who was easily available and seen in the building. A visible leader has constant communication with the faculty and staff through formal and
informal face-to-face exchanges. These exchanges help the principal to role model by giving of his personal time. The modeling of the behavior consistent with the vision helps people do the right thing (Smith & Andrews, 1989). Effective principals spend time with teachers observing and discussing problems and methods to enhance learning (Cawelti, 1984).

Instructional Leadership

Instructional leadership is linked with the four areas above. Instructional leadership is defined as what the leader does with the staff and the building to influence the teaching process which affects student learning (Andrews, Basom, & Basom, 1991).

Instructional leadership (Dwyer, 1984) is necessary to build relations where all students can learn in an effective process. Research indicates that the single greatest predictor of student success is the perception of the staff. The perception refers to the quality of the workplace and the quality of instructional leadership behavior of the school principal. The creation of a proactive school necessitates the leader to set high expectations of oneself and staff, to create a positive learning climate and to empower the school to be successful.

The instructional leader, to be effective, must realize that people are motivated only when they believe in the value of the goal and the possibility of achieving the goal. Klug (cited in Renchler, 1992) noted instructional leaders impact motivation and achievement of students and teachers. This is accomplished by shaping the school’s instructional climate. The climate influences the attitudes of all involved in education.
A study by Dwyer (1984) surveyed principals to see what influenced their decisions toward instruction. The principals indicated personal traits, beliefs, experience, and training affected their decisions and actions in the building (Dwyer, 1984).

Maehr (1991) conducted a study indicating that school leadership which stressed goals of motivation and achievement did impact the environment of the school in a positive manner. Research (Brookover & Lezotte, 1977; Edmonds, 1979) confirms that leadership that is effective is of paramount importance to the success of the school. These leaders must maintain their own motivation to create a school where students discover learning as exciting and rewarding (Renchler, 1992).

The needs of the followers must be recognized by the leader to help them gain the confidence to accomplish the desired results in the school. Teachers need to believe they are effective in accomplishing their goals of building a better future (Gardner, 1989).

Education has evolved from status quo to understanding what makes schools effective. Good schools need quality leaders who behave in such a manner that the teachers and the community believe in the dream that all children can learn (Andrews, Berube, & Basom, 1991).

Concentrating on the daily activities of these instructional leaders may provide alternatives and additional methods for increasing achievement in schools (McQuarrie & Wood, 1991). Leaders provide reliability by defining expectations of teachers and promoting variability, facilitation, empowerment, and disaggregation. Variability encourages cooperation in decision making and the search for alternatives. Facilitation surmises the school has skilled and committed teachers who need to be
part of the decision making and problem solving process. Empowerment maximizes teacher involvement. Disaggregation allows for flexibility and change (Adams & Bailey, 1989). The leaders' role is to establish an environment where teachers generate their own ideas and solutions (Maeroff, 1990).

Students and teachers want to feel good about themselves and be recognized for the roles they play. When the school climate is healthy, effective learning is present. This climate exists (Taylor, 1989) where:
(a) Students and staff are friendly, (b) students' work is displayed, (c) a sense of order and pride exists, and (d) people respect one another.

School Culture

Studies by Davis (1989), Deal and Peterson (1987), and Sergio-vanni (1984) indicate school culture affects students' attitudes and academic achievement. The leader's responsibility is to discover and develop motivation of the individuals in the educational process and to promote a culture that enhances student learning. They also found that leaders have the ability to change culture to one where academic success and the motivation to learn are expected and rewarded (Renchler, 1992).

Culture (Deal & Peterson, 1990) refers to the workings of the school or character of the school. These include solutions, internal and external, which have worked consistently and are taught to the new members of the building. Culture reflects the values, beliefs, and traditions which have been formed over time. The culture shapes the experiences of the people involved. Effective schools have a coherent ethos.
with agreed-upon ways of doing things, strong beliefs about learning and teaching, and a principal who is a strong leader (Deal & Peterson, 1990).

Traditionally, the focus of the school has been to do things right, referring to paying attention to procedure (Andrews, Basom, & Basom, 1991). The change and focus now are directed to doing the right thing, referring to improving student achievement. This process requires more than a manager, tactics, and strategic processes. Renchler (1992) indicated neither resources nor policies have had an effect on student achievement, but principals do have an impact.

Effectiveness of the principal is the ability to make actions meaningful (Deal & Peterson, 1990). The principal is the symbol of the culture and everyone is watching. The role of the principal is to create, encourage, and refine what gives meaning to the building (Sheive & Schoenheit, 1987). Deal and Peterson (1990) indicated a principal shapes the culture by the following: what he pays attention to, what is measured and controlled, recruitment, role modeling, and useful stories and successes.

School Climate

School climate reflects school culture. A climate which is positive and is positively perceived is a good predictor of school success. Collecting climate information is important for students and teachers to see the influence climate has and how it is perceived (Pellicer, Anderson, Keefe, Kelley, & McCleary, 1990).

The perceptions of the climate are influenced internally and externally. The philosophy of the principal and his credibility as a leader,
values of teachers and student relations, and the stability of the teaching staff influence the climate (Pellicer et al., 1990).

Research on effects of the school on student achievement has paid particular attention to the leadership role of the principal (Andrews & Sober, 1987; Brookover & Lezotte, 1977; Edmonds, 1979). This research suggests the behavior of the leader is critical to the academic achievement of the student. Schools where teachers were empowered and involved by the leader had high achieving students academically. The interactions of the leader and the staff in coordinating the school has been found to shape not only the learning experience and the academic achievement, but the environment in which the work is carried out (Heck & Marcouledes, 1993).

Student Achievement

Andrews and Sober (1987) studied principal leadership and academic achievement. One of the areas studied was staff perceptions of principal leadership and if it improved student achievement. The study used a questionnaire to collect the data. The study's findings indicated a relationship between the perceptions of the teachers about the principal and student achievement in the building. The students' achievement was measured in terms of gain in an academic area, such as mathematics and reading. Andrews, Berube, and Basom (1991) defined student achievement as a student reaching each grade level on time with the knowledge necessary to go on to the next level no matter what and graduate on time.
Teacher's Perspective

Teachers have concurred that the quality of the interactions of the principal affected their work conditions. These working conditions affect the environment and methods of reinforcing student learning. Teachers who feel better about themselves and their workplace expend more effort to increase student learning. Teacher empowerment is correlated to student empowerment (Kavina & Tanaka, 1991).

Research has been searching for what successful leaders do to develop an effective school (Dwyer, 1984). No simple formula has been found. Success appears to be connected to the ability to influence the school climate and the quality of the instructional program. Studies based on student learning (DeBevoise, 1984) indicate each effective principal has a clear sense of mission, is committed to high standards, uses a participatory style, and is not content with status quo. He sees himself as the pivotal point to the success of the school.

Blase (1987) studied the teachers' perceptions of the principals. This study was accomplished through the use of questionnaires, observations, and surveys. The study researched the teachers' perceptions specifically. This study determined effective principals contributed to the development of associative, social, and cultural patterns of the school. Teachers described areas in the study which they believed were important for a principal to be effective. These areas were accessibility, consistency, knowledge (formal and informal), clear and reasonable expectations, decisiveness, goals and direction, follow-through, ability to manage time, and problem-solving orientation.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.
Teachers expressed consideration factors which added in the effectiveness of the principal (Blase, 1987). These areas were support in confrontations/conflicts, participation/consultations, fairness/equitability, recognition, and willingness to delegate authority. The teachers in the study indicated all the above factors affected their involvement, motivation, and morale. It appeared to enhance the interactions of the teachers with others and improve learning. The factors involved in Blase’s study were similar to findings in studies by Edmonds (1979); Brookover and Lezotte (1977); and Andrews, Berube, and Basom (1991). These studies focused more on finding why schools were effective. Blase’s (1987) study sought the teachers' perceptions of why the principal was effective.

Summary

The purpose of this study was to investigate the perceptions of the teaching staff with regard to the principal’s leadership behaviors and how they affected the achievement of the students.

Previous studies of effective schools have focused on what made schools effective. Previous studies cited the principal as a major factor in helping schools be effective and improve student achievement.

The principal's leadership, principal's characteristics which existed in an effective school, teachers' perceptions of the principal, and if they affected student achievement were addressed. The literature review provided in this chapter was used to describe information in future chapters.
The review of the literature concerning the relationship between teacher perception of leadership behaviors and student achievement has brought forth ideas relevant to this study. Studies by Dwyer (1984), Edmonds (1979), and Brookover and Lezotte (1977) discuss the characteristics of effective schools. They all point to the principal as being a major factor in a school being effective and students succeeding in school.

Blase (1987) and the study by VEA and AEL (1991) focused on leadership from the teachers' perspective. The teachers pointed out the qualities they believed necessary to create an effective school. The characteristics indicated by the teachers were similar to those of the other studies.

If indeed there is a relationship between leadership and student achievement, then merit exists in using the finding of this study to enhance the school improvement process or to encourage further study into teacher perceptions. If schools are helped when leaders understand what effective school leaders possess and how academic success is achieved, then principal leadership programs would be important to help the leaders improve. Blase (1987) indicated more attention should be paid to principals and their competencies. He also indicated further studies could enhance the development of principal training programs.

As a result of the review, several themes were evident with regard to effective schools. The major emphasis, more specifically, was placed on the following: (a) the leadership behaviors of the principal, (b) how teachers perceive the behaviors of the principal, and (c) how these behaviors affect student achievement.
Overview

Chapter III contains a definition of the sample population and a description of how the subjects were contacted and surveyed. An overview of the research design identifies the study and the instruments used along with the questions for this study. There is also a description of statistical procedures and how the data collected in the survey were utilized.

The results of the survey are presented in Chapter IV. A section is devoted to the hypothesis, the numerical data, and a statement of the acceptance or rejection of the hypothesis.

Chapter V contains a discussion of the significance of the results presented in Chapter IV. A presentation of the conclusion and areas worthy of further study are included.
CHAPTER III

METHODS AND PROCEDURES

The purpose of this study was to investigate the perceptions of teaching staff with regard to the principal’s leadership behaviors and how they affected the achievement of the students.

A description of the study and the methods are presented in this chapter. The chapter contains the questions which will be studied and analyzed. A description of the instrumentation and the sample population are included. A description of the data analysis explains the manner in which the conclusions were drawn.

The literature suggested student learning and achievement were directly dependent upon teaching and increased when teachers focused on improved instruction. Studies also indicated that school culture affected the achievement level of the students (Andrews, Berube, & Basom, 1991; Blase, 1987; Edmonds, 1979). The principal demonstrated this culture through the leadership behavior. The teacher perception of the principal’s behavior was suggested to have a direct effect on the teachers and the achievement level of the students.

Previous studies, as indicated in the review of the literature, revealed that the perceptions of the principal’s leadership behaviors by the teachers do have an effect on the achievement level of the students.
Questions From the Study

The questions for this study were:

1. Do teachers perceive the principal’s behaviors to be that of an effective or ineffective leader?

2. Are the students in these schools achieving in accordance to the principal’s rating?

Research Design

This study was a descriptive study. The study used a survey research design. Two forms of data were collected. Data were collected on the teachers' perceptions of the principal using a survey questionnaire. Previous effective school studies indicated principal behaviors as being an important issue in school improvement. They also identified teacher perceptions of these behaviors as being important in the process of student achievement.

The instrument used was a staff survey questionnaire designed to collect data on the teachers' perceptions of the principal's leadership. Andrews, Basom, and Basom (1991), Brookover and Lezotte (1977), Edmonds (1979), Blase (1987), and others spoke about specific behaviors of the principals. The instrument used was designed specifically to address these areas. Rauhauser (1987) was assisted by Lezotte in developing this instrument. The instrument has been used in many schools throughout the United States in an effort to help schools become aware of areas which need improvement.
The teachers were sent a cover letter (see Appendix A) along with a survey to complete and return. The survey was sent in a self-addressed stamped envelope. Two weeks later a follow-up letter (see Appendix B) was sent to remind the teachers to return the survey.

Student achievement was measured by the scores on the 1993 Michigan Educational Assessment Program (MEAP) (Michigan Department of Education, 1993) test (see Appendix F) which was given to all students in Michigan. This test is given to all seventh and eighth graders by school districts annually in the fall. The 1993 MEAP composite scores were collected from the central office of the Prairie View School District. The scores used were the combined scores on the test in mathematics, reading, and science. The study was concerned with determining the relationship between the teachers' perceptions and the achievement level of the students.

Sample Population

The target population was the middle school teachers employed in Prairie View Public Schools in Michigan. Prairie View is a town of approximately 50,000 residents. The district has three middle schools of approximately the same size and mix of students. The three schools represented were: Sparta Middle, High Plain Middle, and Middleville Middle. The middle schools are comprised of seventh and eighth graders. There were approximately 50 teachers in each of the schools. Thirty-three teachers were chosen from each of the schools using a random stratified sampling. Thirty-three teachers were surveyed to represent a large enough population.
Instrumentation

The instrument used to measure the teachers' perceptions of the leadership of the principal was a survey produced by Rauhauser (1987) of School Improvement Specialists from Lewisville, Texas (see Appendix C). Permission to use the survey was given by Rauhauser (see Appendix E). This instrument has been used throughout the United States for school improvement purposes. The survey was developed by Rauhauser in 1987 with the assistance of Lezotte, while both were associated with the National Research Center for Effective Schools. The questions were very carefully developed using research data from previous studies done by National Research Center for Effective Schools researchers.

The instrument was developed to measure the perceptions of the teachers about the leadership in the building. The purpose of the instrument was to help in the school improvement process by pinpointing areas which are strong or need to be improved.

The instrument consisted of 18 items and used a 5-point Likert type scale which measures the importance and existence of the leadership behavior. The rating for the importance measures were: 1 = priority, 2 = very important, 3 = important, 4 = somewhat important, and 5 = not important. The existence is measured as: 1 = always, 2 = usually, 3 = somewhat, 4 = rarely, and 5 = never.

This instrument was chosen because it measured the characteristics described in Chapter II. Chapter II contained discussion about the behaviors of the principals in effective schools and how they affected the teachers' perceptions. The items in the survey spoke to the issues
described in studies by Andrews, Basom, and Basom (1991) and Blase (1987).

The instrument used to determine the achievement level was the Michigan Education Assessment Program (MEAP) (Michigan Department of Education, 1993) test in the state of Michigan. This test originated in 1969 and used standardized norm-referenced test designs. In 1971 the test was updated to be an objective-referenced test. The test has continued to go through a series of changes since that time. The reviews and modifications have been done to reflect the changes suggested by teachers. The test allows for monitoring of student achievement and academic programs (Michigan Department of Education, 1993).

Data Collection Process

The instrument for this study was specifically chosen, after careful study, because it contained questions which related to the data desired. The permission to use the survey was sought from Rauhauser (see Appendix E).

Following the approval to use the instrument, approval from the Human Subjects Institutional Review Board at Western Michigan University was requested. Protection of human subjects was a priority. All of the individuals in the study were assured confidentiality. The research followed the federal guidelines established for the protection of human subjects. An application for approval was completed and sent to the review board. The application contained an explanation of the study with a copy of the survey to be used. The Human Subjects Institutional Review Board at Western Michigan University, Kalamazoo, Michigan,
then reviewed the application and gave the approval for the study (see Appendix D).

Central office administration from the Prairie View Public Schools was contacted for approval to use their teachers in the study. An explanation of the study, the purpose of the study, and an assurance of confidentiality was given to the administration. A week was given for consideration of approval. Central office was contacted at the end of the week and approval was given to survey the teachers.

A cover letter (see Appendix A), along with the survey, was sent to the teachers in the three schools, after the administration gave its approval. The letter explained to the respondents who the researcher was and the significance of the study in July of 1994. The respondents were asked to return the survey in the self-addressed stamped envelope provided. A follow-up letter (see Appendix B) was sent within 2 weeks to the participants who had not responded.

The survey instrument (see Appendix C) consisted of 18 categories with Likert-type responses. A review of the perceptions was compiled and analyzed. The achievement level of the students on the 1993 MEAP (see Appendix F) was collected. The MEAP test is given each fall by the school to all seventh and eighth grade students. The scores are then analyzed by the state and sent to the central office of the schools. The composite scores in seventh grade mathematics and reading and eighth grade science were collected from Prairie View central office and these scores were analyzed and compared with the teachers' perception survey.
Data Analysis

As presented in Chapter I, this study sought to determine whether the leadership behavior of the principal, as perceived by the teachers, correlated with the achievement level of the students. The data were analyzed using descriptive statistics which contained the average mean score for importance, existence, and discrepancy between the two. Klugh (1986) indicated the use of descriptive statistics was an efficient way to describe, summarize, and present data. Descriptive statistics were used for the teacher perceptions and the student achievement as represented by the MEAP. The composite MEAP scores for all of the students were used.

There were 18 categories on the survey. Each item represented a leadership behavior by the principal. Each teacher rated the importance of the behavior and the existence of the behavior. All survey results for each school were compiled and then analyzed by the School Improvement Specialists using descriptive statistics. Each of the 18 items were placed into mean scores of importance and existence.

The data were analyzed using the instructions given by Rauhauser (see Appendix J) with the survey results. The analysis gave information about whether the teachers believed the behaviors to be important and how important, if they existed, and to what degree they existed. This analysis allowed for the categorizing of the principal's behaviors to determine if the teachers believed the principal to be effective or if they believed there to be weak areas.
Test results from the MEAP were collected from each of the three schools of the survey. This allowed for the comparison of the MEAP scores to the analysis of the teachers' perceptions.

Content analysis was used to examine the data collected from the surveys and the MEAP. This method was used because it is a method to measure variables in a systematic, objective, and quantitative manner (Kerlinger, 1986).

Summary

The purpose of the study was to investigate and identify the perceptions of teaching staff with regard to the leadership behaviors of the principal and whether it influenced student achievement. A teachers' survey questionnaire was given to randomly selected teachers in three middle schools in the Prairie View School District. Survey results were compiled and analyzed using descriptive statistics. Mean scores for importance and existence were given for each of the leadership behavior items. Data were then analyzed using the descriptive statistics given by School Improvement Specialists.

MEAP composite scores were gathered from Prairie View central office. The students were given the test in the fall of 1993 by the school system. The tests were analyzed by the state of Michigan and the results sent to the school district. Results from the survey were then compared to the results from the MEAP test.
Overview

The results of the survey are presented in Chapter IV. The data are presented and analyzed along with a statement of the acceptance or rejection of the hypothesis.

Chapter V contains a discussion of the significance of the results contained in Chapter IV. Chapter V also includes the conclusions of the study and a presentation of other areas worthy of further study.
CHAPTER IV
DATA ANALYSIS

The purpose of this study was to investigate the perceptions of teacher staff with regard to the principal's leadership behaviors and student achievement. These teacher perceptions were to indicate if the leadership behaviors were important to them and if these leadership behaviors did indeed exist. Another purpose was to see if the leadership behaviors influenced the achievement scores of students in the building.

This chapter contains a review of the design and methodology of the study which includes background information about the schools included in the study. The chapter provides analysis of the data concerning the teachers' perceptions of the leadership behaviors as well as the data concerning the Michigan Education Assessment Program (MEAP) scores of the students in the corresponding schools.

Review of Design and Methodology

This study was a descriptive study. The study used the Professional Staff Perception Survey (Rauhauser, 1987) designed specifically to collect information from teachers about their perceptions of the leadership behaviors in their buildings. The survey was constructed by Rauhauser in 1987 with assistance from Lezotte while both were associated with the National Research Center for Effective Schools. Previous research (Andrews, Berube, & Basom, 1991; Brookover & Lezotte, 1991; 1992).
1977, Edmonds, 1979) identified characteristics of effective principals. These characteristics were used to formulate this instrument.

The survey consisted of 18 items. These items addressed areas of communication, recognition and praise, participation, support, problem solving, goals/direction, clear and reasonable expectations, knowledge/expertise, visible presence, accessibility, and student achievement.

The subjects of this study were middle school teachers in the Prairie View Public School system. The survey was mailed to 99 teachers with permission given from the administration. The teachers were mailed the survey in July of 1994 with a self-addressed stamped envelope. A follow-up reminder was mailed 2 weeks later.

Methodology

Descriptive statistics were used in the study to analyze and explain the data. The methodology, as was presented in Chapter III, called for teachers in the three middle schools to respond to the Professional Staff Perception Survey (Rauhauser, 1987). The purpose was to investigate the teachers' perceptions of the principal's leadership behavior and if it influenced the achievement of students. The survey was used to collect and analyze data about the leadership behaviors of the principal as the teachers perceived the behavior.

The second part of the survey was to collect the students' MEAP scores. The students' achievement was measured by the MEAP test. The composites of the MEAP test were compared with the perceptions of the teachers to see if the leadership behavior had an influence on student achievement as indicated by the scores.
Sample Population Description

Middle school teachers from the Prairie View Public Schools were selected for the study. The teachers represented each of the three middle schools in the district. The teachers represented a stratified sample of its larger population. All of the teachers in the sample population (N = 99) were contacted during July of 1994 and asked to respond to the Professional Staff Perception Survey. A follow-up letter was sent to the nonrespondents 2 weeks later. The final responses tally (N = 45) are represented in Table 1. A review of Table 1 indicates that the responses returned varied. Middleville Middle School had the most responses, n = 18, which represented 56%. Sparta Middle School had the second most, n = 15, which represented 45%. High Plain had the fewest, n = 12, which represented 36%.

Table 1
Survey Responses

<table>
<thead>
<tr>
<th>School</th>
<th>No. in sample</th>
<th>No. returned</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 High Plain</td>
<td>33</td>
<td>12</td>
<td>36</td>
</tr>
<tr>
<td>2 Sparta</td>
<td>33</td>
<td>15</td>
<td>45</td>
</tr>
<tr>
<td>3 Middleville</td>
<td>33</td>
<td>18</td>
<td>56</td>
</tr>
</tbody>
</table>

High Plain Middle School has 575 students. Sparta Middle School has 497. Middleville has 562 students. The student population is made up of many different population groups. The ethnic breakdown of the
students are: High Plain has 54% White, 42% are African American, 1% are Hispanic, and 3% are other; Sparta has 48% White, 42% African American, 8% Hispanic, and 2% are other; Middleville has 57% White, 38% African American, 2% Hispanic, and 3% are other.

Analysis of Responses

The following is an analysis of the responses which were collected from the survey sent to the middle school teachers in the Prairie View Public Schools. The survey contained 18 questions which were divided into two areas of responses. The first represented how important the question item was to the teacher. The second was whether the item was practiced by the principal in the building. The survey used a 5-point Likert-type scale. The response to the importance item was: priority, very important, important, somewhat important, or not important. The response to existence was: always, usually, sometimes, rarely, or never. The teachers were asked to check the appropriate response to each category. In this section each of the survey items will be addressed. Tables are used to represent each item.

Analysis of Question Items

Ninety-nine surveys were sent to the Prairie View Middle School teachers with a 45% return rate (see Table 1). The mean scores for each of the survey items were calculated. The mean score for importance was compared to the mean score of existence and then subtracted to find the mean discrepancy.
The means of the survey questions (see Appendix J) were then analyzed. There were six criteria used to analyze the strength or weakness of the leadership behavior. Each of the survey items about leadership behavior was carefully chosen for its relationship to school success and student achievement. Items falling into the following areas signified improvement is necessary for improving school success and student achievement:

1. A negative number of 0.90 for any survey number in the mean discrepancy column (see No. 4, Appendix J). This signified the leadership behavior item was not important to teachers and was in existence to a much greater degree.

2. A positive number of 1.00 for any survey number in the mean discrepancy column (see No. 5, Appendix J). Teachers indicated the leadership behavior did not exist to their satisfaction and needs to be improved.

3. A number of 0.90 in the average mean discrepancy (see No. 6, Appendix J). Teachers indicated all the leadership behaviors were more important to them than they were in existence. The teachers believed there were many leadership behaviors which were important and were not practiced by the leader if this number exists.

4. A response of 20% of the staff in the never column (see No. 7, Appendix J). Teachers indicated they believe the leadership behavior never exists. This number is significant enough to demonstrate a problem.

5. Any number less than 3.50 in the importance or existence column (see No. 8, Appendix J). Below this mark means the item was
not practiced enough by the principal in the building. As was indicated in previous studies this item should be important to the teachers. A score below this would indicate it was not important to them. This means this is a problem area for both the teachers and the principal.

6. If the number in the A and the U columns in the existence part of the Raw Tally Data section (see No. 3, Appendix J) is lower than 66%, it is an area of concern. This means less than two thirds of the teachers believed the behavior was practiced in the building always or usually.

Areas which fell into any of these six categories demonstrated a concern for the leadership in the building. This analysis indicated areas of strength or weakness in leadership behavior as perceived by teachers in the building. The more areas designated as being weak, the more leadership behavior was perceived as needing improvement.

Data from the survey items can be found in Table 2.

The data were collected from High Plain Middle School teachers and the mean scores calculated for importance, existence, and the discrepancy between the two. The data were then analyzed using the six criteria previously cited to determine the areas of leadership behaviors which were important to the teachers and which existed. This was to determine if the teachers perceived the leadership in the building as strong or weak and which areas needed improvement.

High Plain Middle School had a high mean average of importance. The average was 4.23. This indicated the teachers placed high importance on the 18 principal behaviors for their building. The highest ranking was on Item 8 (4.67) and the lowest on Item 6 (3.75).
Table 2
Mean Scores of High Plain Middle School

<table>
<thead>
<tr>
<th>Item no.</th>
<th>Importance mean</th>
<th>Existence mean</th>
<th>Discrepancy mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>4.42</td>
<td>3.75</td>
<td>0.67</td>
</tr>
<tr>
<td>2</td>
<td>4.67</td>
<td>4.25</td>
<td>0.42</td>
</tr>
<tr>
<td>3</td>
<td>4.50</td>
<td>4.42</td>
<td>0.08</td>
</tr>
<tr>
<td>4</td>
<td>3.92</td>
<td>3.67</td>
<td>0.25</td>
</tr>
<tr>
<td>5</td>
<td>3.92</td>
<td>3.67</td>
<td>0.25</td>
</tr>
<tr>
<td>6</td>
<td>4.33</td>
<td>3.75</td>
<td>0.58</td>
</tr>
<tr>
<td>7</td>
<td>3.92</td>
<td>3.92</td>
<td>0.00</td>
</tr>
<tr>
<td>8</td>
<td>4.67</td>
<td>4.67</td>
<td>0.00</td>
</tr>
<tr>
<td>9</td>
<td>4.17</td>
<td>3.67</td>
<td>0.50</td>
</tr>
<tr>
<td>10</td>
<td>3.75</td>
<td>2.92</td>
<td>0.83</td>
</tr>
<tr>
<td>11</td>
<td>4.50</td>
<td>4.17</td>
<td>0.33</td>
</tr>
<tr>
<td>12</td>
<td>4.08</td>
<td>3.58</td>
<td>0.50</td>
</tr>
<tr>
<td>13</td>
<td>4.42</td>
<td>4.17</td>
<td>0.25</td>
</tr>
<tr>
<td>14</td>
<td>4.50</td>
<td>4.18</td>
<td>0.32</td>
</tr>
<tr>
<td>15</td>
<td>4.25</td>
<td>4.17</td>
<td>0.08</td>
</tr>
<tr>
<td>16</td>
<td>3.80</td>
<td>3.42</td>
<td>0.38</td>
</tr>
<tr>
<td>17</td>
<td>4.27</td>
<td>3.91</td>
<td>0.36</td>
</tr>
<tr>
<td>18</td>
<td>3.92</td>
<td>3.25</td>
<td>0.67</td>
</tr>
<tr>
<td>Average</td>
<td>4.23</td>
<td>3.86</td>
<td>0.37</td>
</tr>
</tbody>
</table>

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.
The mean average for existence was 3.86 which was a good rating. The teachers indicated these principal behaviors did happen in their building. Seven of the behaviors were ranked over 4.00. These were Items 2, 3, 8, 11, 13, 14, and 15.

The survey indicated High Plain had the following areas of concern as described by the teachers. Three items fell below the 3.50 range in the existence column. These were Items 10, 16, and 18. Item 10 was 2.92. Item 16 was 3.42. Item 18 was 3.25. Item 10 stated: "Classroom visits to observe instruction followed by productive feedback are done frequently by the principal." Item 16 stated: "Student achievement is one important criterion in determining teacher recognition." Item 18 stated: "Rewards for teachers and students recognize services to others as well as personal achievement."

Item 10 had the largest discrepancy of 0.83. This was very close to the +1.00 criteria in the mean discrepancy. This indicated an area which needs more work than the other areas. The discrepancy for Item 18 was 0.67 and for Item 16 the discrepancy was 0.38. Item 18 had the highest importance of the three items and had a high discrepancy in the existence. This area also needs improvement. Item 16 was the lowest of the three. This item may be in the gray area, one that is not too serious, but needs attention.

The other areas demonstrating low scores were in the raw tally data of existence. Five areas were less than 66% of always and usually (see Appendix G). These items were 4, 9, 10, 16, and 18. Item 4 stated: "The principal checks student progress frequently, relying on explicit performance data." Item 9 stated: "Resources needed to ensure
the effectiveness of instructional programs are available and allocated according to established instructional priorities." Item 10 was only 33%. This was another citing of concern for this item.

The other items were not low enough below this point to indicate a great concern. Items 10, 16, and 18 were low in both of these areas. These items were indicating the principal needs improvement in giving effective feedback and rewards recognizing achievement by both staff and students. Items 4, 9, and 16 were related to student achievement. While low, these were not low enough to indicate a significant problem in these areas.

The teachers' perceptions in this school would indicate a school which needs some minor modifications to improve. They rated very few areas low in existence and believed all were important. The principal definitely needs to work on evaluation and effective feedback. The scores by the teachers would indicate a school which places high importance on these leadership behaviors and agrees that they are happening to an above average degree.

MEAP scores were divided into three sections to analyze student success. Satisfactory is the highest level of achievement. Moderate is the second highest level. Low is the lowest level. Students have been successful on the test if they attained satisfactory or moderate. Students in the low column have not achieved a passing mark on the test. Each of the marks in Table 3 refers to the composite scores for the building. Each of the low marks refers to the percentage of the students who did not pass the test. Table 3 contains the 1993 MEAP scores for High Plain Middle School.
Table 3
High Plain MEAP Scores

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Seventh grade mathematics</td>
<td>26.3</td>
<td>23.7</td>
<td>50.0</td>
<td>22.9</td>
<td>17.9</td>
<td>59.2</td>
</tr>
<tr>
<td>Seventh grade reading</td>
<td>37.4</td>
<td>22.5</td>
<td>40.1</td>
<td>34.4</td>
<td>31.6</td>
<td>34.0</td>
</tr>
<tr>
<td>Eighth grade science</td>
<td>41.4</td>
<td>34.9</td>
<td>23.7</td>
<td>39.5</td>
<td>35.9</td>
<td>24.6</td>
</tr>
</tbody>
</table>

Note. Sat. = satisfactory; Mod. = moderate.

The math and science scores for High Plain have improved over the last 2 years. The reading scores have declined slightly, a total of 6.1% points. The survey results demonstrated a school which had a few areas which needed improvement. However, the ratings were high enough to indicate the students should be improving. The MEAP scores indicated an improvement over the last 2 years. This would indicate the leadership is having an effect on student achievement.

Data from the survey items can be found in Table 4.

Sparta Middle School had a mean average of importance of 3.76. They ranked six items in the high range. These were Items 1, 2, 3, 8, 11, and 13. Item 2 was ranked the highest with 4.20. There were four items ranked below the 3.50 range of importance. These were Items 10, 16, 17, and 18. This indicated the teachers did not believe these
Table 4
Mean Scores From Sparta Middle School

<table>
<thead>
<tr>
<th>Item no.</th>
<th>Importance mean</th>
<th>Existence mean</th>
<th>Discrepancy mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>4.13</td>
<td>3.80</td>
<td>0.33</td>
</tr>
<tr>
<td>2</td>
<td>4.20</td>
<td>3.53</td>
<td>0.67</td>
</tr>
<tr>
<td>3</td>
<td>4.13</td>
<td>3.53</td>
<td>0.60</td>
</tr>
<tr>
<td>4</td>
<td>3.60</td>
<td>3.47</td>
<td>0.13</td>
</tr>
<tr>
<td>5</td>
<td>3.47</td>
<td>3.73</td>
<td>-0.26</td>
</tr>
<tr>
<td>6</td>
<td>3.80</td>
<td>3.47</td>
<td>0.33</td>
</tr>
<tr>
<td>7</td>
<td>3.67</td>
<td>3.67</td>
<td>0.00</td>
</tr>
<tr>
<td>8</td>
<td>3.67</td>
<td>3.67</td>
<td>0.00</td>
</tr>
<tr>
<td>9</td>
<td>3.87</td>
<td>3.60</td>
<td>0.27</td>
</tr>
<tr>
<td>10</td>
<td>3.40</td>
<td>3.13</td>
<td>0.27</td>
</tr>
<tr>
<td>11</td>
<td>4.33</td>
<td>3.73</td>
<td>0.60</td>
</tr>
<tr>
<td>12</td>
<td>3.71</td>
<td>3.57</td>
<td>0.14</td>
</tr>
<tr>
<td>13</td>
<td>4.13</td>
<td>3.93</td>
<td>0.20</td>
</tr>
<tr>
<td>14</td>
<td>3.73</td>
<td>3.67</td>
<td>0.06</td>
</tr>
<tr>
<td>15</td>
<td>3.60</td>
<td>3.43</td>
<td>0.17</td>
</tr>
<tr>
<td>16</td>
<td>3.07</td>
<td>3.14</td>
<td>-0.07</td>
</tr>
<tr>
<td>17</td>
<td>3.47</td>
<td>3.33</td>
<td>0.14</td>
</tr>
<tr>
<td>18</td>
<td>3.40</td>
<td>3.53</td>
<td>-0.13</td>
</tr>
<tr>
<td>Average</td>
<td>3.76</td>
<td>3.56</td>
<td>0.20</td>
</tr>
</tbody>
</table>

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.
areas of behavior were very important to them. This would be inconsistent with the previous studies cited.

The average mean of existence was 3.56. No items were ranked above the 4.00 rating. The highest rating was given to Item 13 which was 3.93. There were six areas below the 3.50 level in existence. These were Items 4, 6, 10, 15, 16, and 17. Item 4 stated: "The principal checks student progress frequently, relying on explicit performance data." Item 6 stated: "Learning time is protected from disruption." Item 10 stated: "Classroom visits to observe instruction followed by productive feedback are done frequently by the principal." This item was just below the mark with a 3.40 and did not have much of a discrepancy between importance and existence. Item 15 stated: "Awards are set at different levels of performance providing all students with opportunities for success and recognition." Item 16 stated: "Student achievement is one important criterion in determining teacher recognition." The principal placed more emphasis in this area than do the teachers. Item 17 stated: "Student achievements are featured in school and community newspapers, newsletters, and other news media." This area had little discrepancy and was just below the 3.50.

The teachers indicated three areas as not being as important to them as they were to the principal. They were in existence to a greater degree than they thought important. These were Items 5, 16, and 18. Item 5 referred to the principal evaluating with a focus on instructional improvements. Item 16 referred to teacher recognition being tied to student achievement. Item 18 referred to student and teacher recognition.
There was a number of items which fell below the 66% range on the raw tally data. These were Items 1, 2, 3, 4, 6, 7, 10, 11, 12, 14, 15, 16, 17, and 18 (see Appendices C and H). All areas were close to the 66% mark except Items 10 and 16. There were only three teachers on Item 10 who believed this happened always or usually. Four teachers on Item 16 indicated this existed always or usually.

The teachers' perceptions indicated a large number of areas to improve upon and raised a question with regard to the areas they indicated were of less importance to them than the principal. Edmonds (1979) spoke about the importance of student achievement. Andrews, Berube and Basom (1991) gave characteristics of an effective principal. The Virginia Education Association (VEA) and Appalachia Educational Laboratory (AEL) (1991) report indicated teachers did better when these behaviors were in existence and students achieved better. The principal acknowledged these areas as being important and did stress them.

The teachers' rating was not low enough to indicate the building had a major problem. The rating was low enough to indicate a need to improve in many areas. The staff indicated the principal saw a greater need for existence in some areas than they did. According to previous cited studies, the teachers as well as the principal, have areas of improvement (see Table 5).

Sparta Middle School MEAP scores have only improved in the mathematics area. The reading scores have declined 10% points, and the science scores have declined 5.3% points. These scores should be consistent with the ratings of the teachers. The teachers' perceptions demonstrated a need for improvement and the MEAP scores also
Table 5
Sparta MEAP Scores

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Seventh grade</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>mathematics</td>
<td>30.5</td>
<td>21.8</td>
<td>52.3</td>
<td>61.7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Seventh grade</td>
<td>33.1</td>
<td>37.9</td>
<td>25.3</td>
<td>31.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>reading</td>
<td>41.6</td>
<td>30.8</td>
<td>27.1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eighth grade</td>
<td>37.5</td>
<td>47.6</td>
<td>32.4</td>
<td>25.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>science</td>
<td>30.1</td>
<td>27.1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. Sat. = satisfactory; Mod. = moderate.

demonstrated a need for improvement.

Data from the survey items can be found in Table 6.

Middleville had a mean average for importance of 3.98. This was a high rating which indicated the teachers had placed high importance on these leadership behaviors. Nine of the items were placed above the 4.00. These were Items 1, 2, 3, 8, 9, 11, 13, 14, and 15. None of the items were rated below 3.50. This school, as did High Plain, agreed with the previous cited studies.

The mean average for existence was 3.65. This would be an average rating. Items 7, 8, and 14 were rated high in existence. There were three items which fell below the 3.50 mark. These were Items 6, 10, and 16. Item 6 stated: "Learning time is protected from disruptions." Item 6 also indicated a discrepancy of 1.00. This item
Table 6
Mean Scores of Middleville Middle School

<table>
<thead>
<tr>
<th>Item no.</th>
<th>Importance mean</th>
<th>Existence mean</th>
<th>Discrepancy mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>4.28</td>
<td>3.83</td>
<td>0.45</td>
</tr>
<tr>
<td>2</td>
<td>4.28</td>
<td>3.78</td>
<td>0.50</td>
</tr>
<tr>
<td>3</td>
<td>4.22</td>
<td>3.89</td>
<td>0.33</td>
</tr>
<tr>
<td>4</td>
<td>3.78</td>
<td>3.59</td>
<td>0.19</td>
</tr>
<tr>
<td>5</td>
<td>3.94</td>
<td>3.47</td>
<td>0.47</td>
</tr>
<tr>
<td>6</td>
<td>3.94</td>
<td>2.94</td>
<td>1.00</td>
</tr>
<tr>
<td>7</td>
<td>3.72</td>
<td>4.00</td>
<td>-0.28</td>
</tr>
<tr>
<td>8</td>
<td>4.35</td>
<td>4.06</td>
<td>0.29</td>
</tr>
<tr>
<td>9</td>
<td>4.29</td>
<td>3.71</td>
<td>0.58</td>
</tr>
<tr>
<td>10</td>
<td>3.71</td>
<td>3.06</td>
<td>0.65</td>
</tr>
<tr>
<td>11</td>
<td>4.12</td>
<td>3.65</td>
<td>0.47</td>
</tr>
<tr>
<td>12</td>
<td>3.76</td>
<td>3.53</td>
<td>0.23</td>
</tr>
<tr>
<td>13</td>
<td>4.00</td>
<td>3.94</td>
<td>0.06</td>
</tr>
<tr>
<td>14</td>
<td>4.18</td>
<td>4.00</td>
<td>0.18</td>
</tr>
<tr>
<td>15</td>
<td>4.00</td>
<td>3.75</td>
<td>0.25</td>
</tr>
<tr>
<td>16</td>
<td>3.65</td>
<td>3.21</td>
<td>0.44</td>
</tr>
<tr>
<td>17</td>
<td>3.65</td>
<td>3.75</td>
<td>-0.10</td>
</tr>
<tr>
<td>18</td>
<td>3.71</td>
<td>3.38</td>
<td>0.33</td>
</tr>
<tr>
<td>Average</td>
<td>3.98</td>
<td>3.65</td>
<td>0.33</td>
</tr>
</tbody>
</table>

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.
related a problem with learning time which was being disrupted and, therefore, would affect achievement of the students. The mean score was 2.94. This was a low rating. Item 10 stated: "Classroom visits to observe instruction followed by productive feedback are done frequently by the principal." The mean score was 3.06. Item 16 stated: "Student achievement is one important criterion in determining teacher recognition." The mean score was 3.26. These demonstrate a need for improvement.

Items 1, 3, 5, 6, 9, 10, 11, 12, 13, 15, 16, and 18 fell below the 66% range in the raw tally (see Appendix I). Only five teachers marked Items 6 and 16 as in existence always or usually. This only represents one third of the teachers. Item 6 was low in all three areas. This item referred to learning time being protected and indicated an area of concern. Items 10 and 16 were addressed in two of the areas.

The teachers believed Items 7 and 17 were in existence more than they were important to them. Item 7 stated: "The principal effectively runs meetings which have a clear agenda where discussion is limited to relevant topics." Sixteen teachers indicated this happened always or usually. Item 17 stated: "Student achievements are featured in school and community newspapers, newsletters, and other news media." Thirteen teachers indicated this was happening always or usually. These two areas were marked high in both importance and existence by the teachers which indicated in these areas the principal was having an effect.

Learning time disruption could have an effect on the achievement scores of the students. This area should be studied to find the cause so
that learning will not be disrupted. Items 10 and 16 also need investiga-
tion and improvement.

The MEAP scores for Middleville have improved in mathematics
and science. The reading scores have declined 11.6% (see Table 7).
The students' scores in this building were low. The low scores indicated
a number of students not achieving. However, the improvement in two
areas was important to note. This would indicate a school which had
improved. The large decline in the reading scores was also significant.
Items 6, 10, and 16 need attention.

<table>
<thead>
<tr>
<th>Table 7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Middleville MEAP Scores</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Test area</th>
<th>1993</th>
<th>1991</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Sat.</td>
<td>Mod.</td>
</tr>
<tr>
<td>Seventh grade</td>
<td></td>
<td></td>
</tr>
<tr>
<td>mathematics</td>
<td>17.9</td>
<td>19.3</td>
</tr>
<tr>
<td>Seventh grade</td>
<td></td>
<td></td>
</tr>
<tr>
<td>reading</td>
<td>21.2</td>
<td>24.0</td>
</tr>
<tr>
<td>Eighth grade</td>
<td></td>
<td></td>
</tr>
<tr>
<td>science</td>
<td>37.5</td>
<td>32.4</td>
</tr>
</tbody>
</table>

*Note. Sat. = satisfactory; Mod. = moderate.*

The teachers' perception scores agreed with the MEAP scores.
The students have improved over the last two years. The teachers
believed the principal's leadership was average and could improve in
some areas.
Summary

The purpose of this study was to determine whether the teachers perceived the leadership behaviors in the building to be effective, and if the leadership behaviors have an effect on the achievement scores of the students. This chapter has presented the data results from the surveys and the 1993 MEAP scores of the students in the three middle schools.

High Plain Middle School teachers placed high importance on the leadership behaviors of the principal. The rating was 4.23. They also agreed the behaviors were in existence to a high degree. The rating was 3.86. There were three areas in need of improvement. These areas were Items 10, 16, and 18. Item 10 needs the most attention of the three.

The overall rating was good. The staff placed importance on the behaviors and indicated they did exist. The ratings were the highest of the three schools in both areas. The 1993 MEAP scores were also the best of the three schools. This would agree with the findings. The principals with the highest ratings had the highest student achievement.

Middleville Middle School had the second best rating for importance of the three schools. The rating was 3.98. The teachers believed all the behaviors were important to them. They placed none below the 3.50 mark.

The teachers believed the behaviors were in existence with a rating of 3.65. This was an average rating. The teachers placed three areas below 3.50. These were Items 6, 10, and 16. There were 12
items below the 66% range in the raw data column. Nine of the items were very close to the acceptable range. Three of them were too low. Items 6, 10, and 16 were again too low. These three areas need attention for improvement.

The overall rating for the school indicated teachers were interested in the behaviors. They believed most of the behaviors were in existence, but a few need improvement. The MEAP scores showed a school which was improving a little. The principal was not rated as high as the principal at High Plain and the 1993 MEAP scores did not improve as much either.

Sparta Middle School had the lowest rating of importance for the three schools. The score for importance was 3.76. They place four of the areas below the 3.50 mark. This indicated these areas were not very important to them.

The rating for existence was 3.56. This was not a high rating and indicated a need for attention to these behaviors. None of the behaviors were rated above the 4.00 mark for existence. They also placed 13 items below the 66% range in the raw data column.

Sparta Middle School showed the least improvement on the MEAP scores. The 1993 MEAP scores for the school declined in science and reading and improved slightly in mathematics.

The ratings of the principal behaviors were the lowest of the three schools. The 1993 MEAP scores were also the lowest of the three schools. This also agreed with the previous findings that the highest ratings of the principals had the greatest effect on the achievement scores of the students.
There were areas of concern which were cited more than once in each of the three school buildings. These areas were Items 10 and 16. Item 10 related to teacher evaluation and Item 16 related to teacher recognition and student achievement.

Overview

A summary, discussion, conclusion, and recommendations from the study are presented in the final chapter in the study.
CHAPTER V

SUMMARY, CONCLUSION, AND RECOMMENDATIONS

Summary

The purpose of this study was to investigate the perceptions of the staff with regard to the principal's leadership behaviors and if it influenced the achievement of students in the building. The study reported data with regard to the perceptions of the teachers and the achievement level of the students.

A brief overview of the study is presented in this chapter. The research design, conclusions drawn from the literature, and methodology are also included. This is followed by a summary of the findings and recommendations for further research.

Overview of the Research Design

The study was a descriptive study which used a survey research design to focus upon the following questions: Do the teachers perceive the principal's leadership to be effective or ineffective? What was the students' achievement level? Are the students achieving in accordance to the principal's rating? The sample of this study consisted of three middle schools located in Prairie View, Michigan. A questionnaire, Professional Staff Perceptions (Rauhauser, 1987) was used to collect the perceptions of the teachers in each of the buildings. The teachers designated if the behavior was important to them and whether the
behavior existed.

The Michigan Educational Assessment Program (MEAP) scores (Michigan Department of Education, 1993) of the seventh and eighth grade students were collected and used to compare to the perceptions of the teachers. The tests were seventh grade mathematics and reading and eighth grade science.

A review of the literature of what made schools effective was conducted. The review of the literature gave the following findings:

1. Strong leadership was cited (Brookover & Lezotte, 1977; Edmonds, 1979) as being very important to the educational process.

2. The principal's leadership behavior specifically was cited by Edmonds (1979), Andrews and Sober (1987), and Heck and Marcouledes (1993) as having the greatest impact on student achievement.

3. Teachers who believe the principal to be effective appeared to be more motivated to teach and this had a greater effect on student achievement (Edmonds, 1979).

Review of Methodology

The group of teachers was selected from the Prairie View Public Schools. There were three middle schools used in the survey with 33 teachers surveyed from each of the buildings. The three middle schools were High Plain, Middleville, and Sparta. Each group ($N = 33$) represented a sample of the larger population. The total group ($N = 99$) was contacted in July of 1994 with the permission of the administration and asked to respond to the Professional Staff Survey. A follow-up reminder
was sent 2 weeks later. The final response tally, Middleville, \( n = 18 \); Sparta, \( n = 15 \); and High Plain, \( n = 12 \) represented 45% of all of the surveys. This was subjected to the analysis presented in Chapter IV.

Discussion of Findings

The analysis of the findings from the teacher surveys indicated areas of concern. The teachers cited areas in each of the buildings which needed attention. Overall, they indicated the leadership behavior of the principal was effective. The survey also indicated areas where the teachers placed less importance on an item than did the principal.

High Plain Middle School teachers stated all the leadership behaviors were important to them. They also believed the behaviors were in existence. The teachers cited three areas of concern. The first area referred to the principal observing in the room, but not giving productive feedback frequently. The second area referred to the principal not giving rewards which recognize teacher and student service to others as well as personal achievement. The third referred to student achievement as a criteria for teacher recognition. The teachers placed importance in these areas. However, in these schools the principals did not practice these leadership behaviors to the expectations of the teachers.

The MEAP scores related to the overall perceptions of the teachers. The scores in mathematics and science improved while the reading score declined 6.1%. The MEAP composite scores were not high. Of the seventh grade 50% did not pass the mathematics test, 40% did not pass the reading test, and 27% did not pass the science test.
The Sparta Middle School teachers did not place importance in all of the areas of behavior for the principal. Four of the areas were rated as not being important to them. The teachers indicated 3 areas of existence which needed improvement and 13 areas in the raw data column. The teachers believed frequent productive feedback from classroom observations was not happening. They did not believe student achievement was a criterion for teacher recognition. The teachers indicated this area was of less importance to them than it was to the principal. Finally, they also believed featuring student achievement in the news could be improved.

The teachers indicated two other items not being as important to them as the item was in existence. First, they did not believe the principal evaluating them based on instructional improvement was important to them. They acknowledged it existed more than it was important. Secondly, the area of student and teacher recognition was not as important to them as it was in existence either.

The MEAP scores of Sparta Middle School declined the most of the three schools in reading and science. The students did improve slightly in the mathematics area. The scores showed 52.3% did not pass the mathematics test, 41.6% the reading test, and 30.0% the science test. Both the MEAP scores and the teachers perception ratings indicated a need for improvement by the principal.

Middleville Middle School had the second best rating of the three schools. The teachers believed all of the behaviors were important to them. They agreed all were in existence with the exception of three. These areas were Items 6, 10, and 16. Item 6 was marked low in all
areas and referred to learning time for the students not being protected. This indicated a need for improvement in this area. The teachers indicated the areas of classroom observations followed by effective feedback and student achievement as criteria for teacher recognition as areas needing attention also.

The teachers indicated two items as being important to them. They also stated these items were in existence to a greater degree than they placed importance. The first indicated the principal conducted effective meetings. The second indicated student achievement was recognized in school and community newspapers, newsletters, and other news media.

The MEAP scores for Middleville Middle School did demonstrate improved student achievement in mathematics and science. The reading scores declined 11.6%. The MEAP scores indicated 62.8% did not pass the mathematics test, 54.8% did not pass the reading test, and 30.1% did not pass the science test.

There were two areas which were cited in all three of the schools as needing attention. Items 10 and 16 were marked low in more than one of the criteria in all of the schools. Item 10 stated: "Classroom visits to observe instruction followed by productive feedback are done frequently by the principal." Item 16 stated: "Student achievement is one important criteria in determining teacher recognition."

Discussion

Andrews, Berube, and Basom (1991) inferred the teachers' perceptions of the instructional leader was the single most important
predictor of student achievement. Edmonds, as cited in Andrews, Berube, and Basom (1991), indicated there was a connection to student performance and strong leadership in the effective schools. Good et al. (1979) indicated the achievement level of students increased when education and teachers focused on the improvement of instruction and classroom management skills.

Studies have indicated neither resources nor policies have had an effect on student achievement, but principals did have an effect. A strong leader has been defined as someone with a vision, the ability to communicate, the ability to create trust in the work place, and the ability to persuade those involved to adopt desirable and reachable goals.

The survey results from the teachers of the three schools indicated areas which needed attention by the principal. They also indicated areas about themselves which needed attention because they believed they existed more than they desired. The criteria used did not indicate the teachers believe the leadership to be ineffective with the exception of Sparta Middle School. According to other studies, this would indicate the students in High Plain and Middleville were being successful on the MEAP test.

Andrews, Berube, and Basom (1991) has indicated studies have found a correlation between the teachers' perceptions of a strong leader and student achievement. Student achievement scores were greater in the schools where the leader was viewed as strong. In this study, the ranking of the principal agreed with the previous studies. High Plain had the best rating and the most improvement on the MEAP. Middleville had the second best rating and the second best on the MEAP test. Sparta
had the most problem areas and the lowest rating by the teachers and the least improvement on the MEAP test.

Conclusion

Based on the data collected, the surveys ranked the leadership at High Plain as being the strongest. Middleville was ranked second, and Sparta was ranked third. The data collected from the MEAP scores indicated a number of students were having a problem and not being successful. High Plain and Middleville had improved in two areas on the MEAP, while Sparta declined in two areas over the last 2 years. High Plain improved the most in two areas and declined the least in the third. Sparta declined the most in two areas and only improved slightly in the other. Middleville declined the most in reading.

The strongest leadership and strongest MEAP scores were at High Plain. The second strongest leadership and MEAP scores were at Middleville. Sparta had the lowest teacher rating and declined the most on the MEAP. This indicated Sparta needed the most improvement by the leadership.

This study was undertaken in the belief that the leadership in the building does have an effect on student achievement. If, as was indicated in Andrews, Basom, and Basom (1991) and Good et al. (1979), there is a connection between strong leadership and student achievement, then all schools should strive for the strongest leadership possible.

Good et al. (1979) and Andrews, Basom, and Basom (1991) indicated studies found a correlation between the teachers’ perceptions of a strong leader and student achievement. The data collected from
this study agree with these findings. The building with the strongest leader, as identified by the teachers, had the best MEAP scores. The second strongest had the second best MEAP scores, and the third had the third best MEAP scores with regard to improvement.

The data collected and analyzed in this study agrees with the other studies. The schools which have the strongest leaders have the most effect academically. This also holds true in these schools.

These schools do not appear to be effective schools, however. Edmonds (1979) was searching for characteristics which made the students successful. This means they would do well academically.

Recommendations

Based on the findings of this study, the following recommendations are suggested:

1. Middleville Middle School should do a follow-up study, researching why learning time is being disrupted.

2. Sparta Middle School should do a study on the decline of the MEAP scores and the perceptions of the teachers. It would be important to know why the teachers do not perceive some of the areas to be important to them.

3. The survey should be given to the principals, students, and community to be able to make a comparison of the perceptions of participants on the leadership behaviors.

4. Schools with low test scores whose teachers perceive their principal as being a strong leader should be studied. The factors limiting the academic progress of the students in the building should be studied.
The question would be: Are the limiting factors due to something beyond the control of the building or are the teachers misreading the leadership in the building?

5. Future studies should be done at all levels of education to further examine the perceptions of the teachers about the leadership behaviors and student achievement. The study should consider a cross section of schools, taking into account size, location, ethnic makeup, student and teacher migration, and community support.

Appropriate leadership training should then be developed if these studies support the above findings.

Closing Remarks

The effective school movement was conceived to create schools which would help students become successful. The studies have helped to increase the understanding of the factors necessary to improve student achievement. Student education grows increasingly more important every year. There continues to be a need for further study and appropriate training. The schools' responsibility is to continue to search for ways to help students learn and be successful.
Appendix A

Cover Letter
July, 1994

Dear _________________:

I am finishing my doctoral degree in educational leadership at Western Michigan University. My research topic is: "The Perception of Educational Leadership and its Effects on Student Achievement."

Achievement levels of students increase when teachers focus on the improvement of instruction and classroom management skills. Studies indicate school culture affects student attitudes and academic achievement. Leaders have the ability to change the culture to one of academic success where motivation to learn is expected and rewarded. Studies have also indicated a correlation between the teachers' perception of a strong leader and student achievement.

The intent of this study is to determine if the teacher perception of educational leadership has an effect on the achievement level of the students in the building.

Please complete the survey and return it in the self addressed stamped envelope. Your input is very important.

Thank you for your time and attention.

Sincerely,

David Anspaugh
Doctoral Candidate
Western Michigan University
Appendix B

Follow-up Letter
July, 1994

Dear ____________:

Recently you received a survey which measures teacher's perceptions of principal leadership behavior. This study focused on these perceptions as they relate to the students' achievement on the MEAP test. The findings of this study will be useful to determine if the leadership behavior has an effect on the students and their achievement.

If you have set this survey aside and have not returned it, there is still time to do so. The return of the material is greatly appreciated.

Thank you for your prompt attention and cooperation with this survey.

Sincerely,

David Anspaugh
Doctoral Candidate
Western Michigan University
Appendix C

Questionnaire
Survey of

PROFESSIONAL STAFF PERCEPTION

of

EFFECTIVE SCHOOLS CORRELATES

by

Bill Rauhauser, Ph.D.

INSTRUCTIONAL LEADERSHIP

Directions: Please circle the appropriate response for each category, importance and effectiveness, that most clearly states your position on the following items. (There are 18 items; your response to each item is important to this research.)

<table>
<thead>
<tr>
<th>Importance:</th>
<th>Existence:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. priority</td>
<td>1. always</td>
</tr>
<tr>
<td>2. very important</td>
<td>2. usually</td>
</tr>
<tr>
<td>3. important</td>
<td>3. sometimes</td>
</tr>
<tr>
<td>4. somewhat important</td>
<td>4. rarely</td>
</tr>
<tr>
<td>5. not important</td>
<td>5. never</td>
</tr>
</tbody>
</table>

1. The principal communicates openly and frankly with both staff and students.

2. The principal articulates expectations that all staff meet high instructional standards.

3. The principal has a clear understanding of the school’s mission and is able to state it in direct concrete terms.

4. The principal checks student progress frequently, relying on explicit performance data.
5. The principal evaluates teachers based on criteria which focuses on instructional improvements.

6. Learning time is protected from disruptions.

7. The principal effectively runs meetings which have a clear agenda where discussion is limited to relevant topics.

8. The principal is "highly visible" throughout the school.

9. Resources needed to ensure the effectiveness of instructional programs are available and allocated according to established instructional priorities.

10. Classroom visits to observe instruction followed by productive feedback are done frequently by the principal.

11. The principal provides support to teachers on student discipline.

12. At the principal’s initiative, teachers work together to coordinate the instructional program within and between grades.

13. Excellence in achievement and behavior is recognized by the school.

14. All students know about the rewards and what they need to do to receive them.

15. Awards are set at different levels of performance providing all students with opportunities for success and recognition.

16. Student achievement is one
important criterion in determining teacher recognition.

17. Student achievements are featured in school and community newspapers, newsletters, and other news media.

18. Rewards for teachers and students recognize service to others as well as personal achievement.

Thank you for your participation in this research.
Appendix D

Approval Letter From the Human Subjects
Institutional Review Board
Date: June 2, 1994
To: David Auspaugh
From: Kevin Hollenbeck, Chair
Re: HSIRB Project Number 94-05-15

This letter will serve as confirmation that your research project entitled "Teacher's perception of instructional leadership and student achievement" has been approved under the exempt category of review by the Human Subjects Institutional Review Board. The conditions and duration of this approval are specified in the Policies of Western Michigan University. You may now begin to implement the research as described in the application.

You must seek reapproval for any changes in this design. You must also seek reapproval if the project extends beyond the termination date.

The Board wishes you success in the pursuit of your research goals.

Approval Termination: June 2, 1995

xc: Jenlenk, EL
Appendix E

Letter of Permission From
Dr. Bill Rauhauser
TO WHOM IT MAY CONCERN:

This letter is written to give permission to David Anspaugh to use and reproduce the Survey of Perceptions of Effective Schools Correlates and its results for the purpose of obtaining his Doctoral degree.

Sincerely,

Bill Rauhauser
Bill Rauhauser, Ph.D
# Michigan Education Assessment Program

**OCTOBER 1994**

**ESSENTIAL SKILLS READING**

**GRADE 7**

## I. Distribution of Constructing Meaning Scores

<table>
<thead>
<tr>
<th>Score</th>
<th>Percent of Students</th>
<th>Percent of Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>356-357</td>
<td>11.7</td>
<td>270</td>
</tr>
<tr>
<td>358-359</td>
<td>11.0</td>
<td>270</td>
</tr>
<tr>
<td>360-361</td>
<td>10.7</td>
<td>270</td>
</tr>
<tr>
<td>362-363</td>
<td>10.0</td>
<td>270</td>
</tr>
<tr>
<td>364-365</td>
<td>9.3</td>
<td>270</td>
</tr>
<tr>
<td>366-367</td>
<td>8.6</td>
<td>270</td>
</tr>
<tr>
<td>368-369</td>
<td>7.9</td>
<td>270</td>
</tr>
<tr>
<td>370-371</td>
<td>7.2</td>
<td>270</td>
</tr>
<tr>
<td>372-373</td>
<td>6.6</td>
<td>270</td>
</tr>
<tr>
<td>374-375</td>
<td>6.0</td>
<td>270</td>
</tr>
<tr>
<td>376-377</td>
<td>5.3</td>
<td>270</td>
</tr>
<tr>
<td>378-379</td>
<td>4.6</td>
<td>270</td>
</tr>
<tr>
<td>380-381</td>
<td>3.9</td>
<td>270</td>
</tr>
<tr>
<td>382-383</td>
<td>3.3</td>
<td>270</td>
</tr>
<tr>
<td>384-385</td>
<td>2.5</td>
<td>270</td>
</tr>
</tbody>
</table>

## II. Relationship Between Constructing Meaning Scores and Other Test Components

### TOPIC FAMILIARITY OF INFORMATIONAL SELECTION

<table>
<thead>
<tr>
<th>Topic</th>
<th>Story Selection</th>
<th>CONSTRUCTING MEANING</th>
<th>Informational Selection</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIGH</td>
<td>MOD</td>
<td>LOW</td>
<td>Number of Students</td>
</tr>
</tbody>
</table>

THIS PORTION OF THE TEST HAS BEEN PHASED OUT

### KNOWLEDGE ABOUT READING

<table>
<thead>
<tr>
<th>Topic</th>
<th>Story Selection</th>
<th>CONSTRUCTING MEANING</th>
<th>Informational Selection</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIGH</td>
<td>MOD</td>
<td>LOW</td>
<td>Number of Students</td>
</tr>
</tbody>
</table>

### STUDENT'S SELF-REPORT OF PERFORMANCE, EFFORT, AND INTEREST

<table>
<thead>
<tr>
<th>Topic</th>
<th>Story Selection</th>
<th>CONSTRUCTING MEANING</th>
<th>Informational Selection</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIGH</td>
<td>MOD</td>
<td>LOW</td>
<td>Number of Students</td>
</tr>
</tbody>
</table>

### III. PROPORTIONS REPORT

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>% Satisfactory (CAT 3)</td>
<td>26.0</td>
<td>37.3</td>
<td>55.0</td>
<td>61.2</td>
</tr>
<tr>
<td>% Moderate (CAT 2AB)</td>
<td>41.1</td>
<td>29.0</td>
<td>36.5</td>
<td>27.6</td>
</tr>
<tr>
<td>% Low (CAT 1)</td>
<td>34.1</td>
<td>32.9</td>
<td>30.5</td>
<td>31.2</td>
</tr>
</tbody>
</table>

**NOTE:** For detailed information, see the MEAP HANDBOOK.
Appendix G

Raw Data From High Plain Middle School
### Raw Data High Plain Middle School

<table>
<thead>
<tr>
<th></th>
<th>P</th>
<th>VI</th>
<th>I</th>
<th>SI</th>
<th>NI</th>
<th>A</th>
<th>U</th>
<th>S</th>
<th>R</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>9</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>7</td>
<td>2</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>9</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>7</td>
<td>3</td>
<td>0</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>3</td>
<td>8</td>
<td>3</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>9</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>4</td>
<td>3</td>
<td>5</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>5</td>
<td>4</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>5</td>
<td>4</td>
<td>4</td>
<td>3</td>
<td>1</td>
<td>0</td>
<td>2</td>
<td>6</td>
<td>2</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>6</td>
<td>7</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>2</td>
<td>6</td>
<td>3</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>7</td>
<td>4</td>
<td>5</td>
<td>2</td>
<td>0</td>
<td>1</td>
<td>4</td>
<td>5</td>
<td>2</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>8</td>
<td>11</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>11</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>9</td>
<td>5</td>
<td>5</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>3</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>10</td>
<td>3</td>
<td>4</td>
<td>4</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>6</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>11</td>
<td>9</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>5</td>
<td>6</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>12</td>
<td>5</td>
<td>4</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>3</td>
<td>5</td>
<td>1</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>13</td>
<td>8</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>6</td>
<td>4</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>14</td>
<td>9</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>6</td>
<td>3</td>
<td>1</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>15</td>
<td>7</td>
<td>3</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>5</td>
<td>5</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>16</td>
<td>1</td>
<td>6</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>5</td>
<td>4</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>17</td>
<td>6</td>
<td>3</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>4</td>
<td>4</td>
<td>1</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>18</td>
<td>3</td>
<td>6</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>5</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>111</td>
<td>60</td>
<td>27</td>
<td>10</td>
<td>8</td>
<td>74</td>
<td>76</td>
<td>35</td>
<td>20</td>
<td>11</td>
</tr>
</tbody>
</table>
Appendix H
Raw Data From Sparta Middle School
### Raw Data Sparta Middle School

<table>
<thead>
<tr>
<th>#</th>
<th>P</th>
<th>VI</th>
<th>I</th>
<th>SI</th>
<th>NI</th>
<th>A</th>
<th>U</th>
<th>S</th>
<th>R</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>8</td>
<td>5</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>4</td>
<td>5</td>
<td>5</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>9</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>7</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>9</td>
<td>3</td>
<td>1</td>
<td>0</td>
<td>2</td>
<td>5</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>4</td>
<td>3</td>
<td>7</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>5</td>
<td>6</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>5</td>
<td>3</td>
<td>5</td>
<td>4</td>
<td>2</td>
<td>1</td>
<td>3</td>
<td>7</td>
<td>3</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>6</td>
<td>6</td>
<td>5</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>7</td>
<td>2</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>7</td>
<td>3</td>
<td>7</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>4</td>
<td>5</td>
<td>4</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>8</td>
<td>8</td>
<td>4</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>8</td>
<td>3</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>9</td>
<td>5</td>
<td>6</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>9</td>
<td>4</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>10</td>
<td>1</td>
<td>7</td>
<td>5</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>8</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>11</td>
<td>11</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>4</td>
<td>5</td>
<td>4</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>12</td>
<td>4</td>
<td>5</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>3</td>
<td>5</td>
<td>4</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>13</td>
<td>8</td>
<td>5</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>6</td>
<td>4</td>
<td>4</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>14</td>
<td>4</td>
<td>6</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>15</td>
<td>3</td>
<td>7</td>
<td>3</td>
<td>0</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>6</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>16</td>
<td>0</td>
<td>4</td>
<td>9</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>10</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>17</td>
<td>2</td>
<td>6</td>
<td>5</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>6</td>
<td>3</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>18</td>
<td>2</td>
<td>5</td>
<td>6</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>6</td>
<td>5</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>89</td>
<td>93</td>
<td>48</td>
<td>15</td>
<td>26</td>
<td>54</td>
<td>91</td>
<td>84</td>
<td>30</td>
<td>11</td>
</tr>
</tbody>
</table>
Appendix I

Raw Data From Middleville Middle School
<table>
<thead>
<tr>
<th>#</th>
<th>P</th>
<th>VI</th>
<th>I</th>
<th>SI</th>
<th>NI</th>
<th>A</th>
<th>U</th>
<th>S</th>
<th>R</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>11</td>
<td>5</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>5</td>
<td>5</td>
<td>8</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>12</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>9</td>
<td>5</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>3</td>
<td>11</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>8</td>
<td>3</td>
<td>4</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>4</td>
<td>3</td>
<td>10</td>
<td>3</td>
<td>2</td>
<td>0</td>
<td>1</td>
<td>11</td>
<td>3</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>5</td>
<td>6</td>
<td>8</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>4</td>
<td>5</td>
<td>5</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>6</td>
<td>5</td>
<td>10</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>4</td>
<td>7</td>
<td>7</td>
<td>0</td>
</tr>
<tr>
<td>7</td>
<td>5</td>
<td>5</td>
<td>6</td>
<td>2</td>
<td>0</td>
<td>4</td>
<td>12</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>8</td>
<td>11</td>
<td>4</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>8</td>
<td>5</td>
<td>3</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>9</td>
<td>10</td>
<td>5</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>8</td>
<td>5</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>10</td>
<td>5</td>
<td>6</td>
<td>2</td>
<td>4</td>
<td>1</td>
<td>2</td>
<td>5</td>
<td>4</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>11</td>
<td>8</td>
<td>7</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>5</td>
<td>4</td>
<td>6</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>12</td>
<td>3</td>
<td>10</td>
<td>2</td>
<td>3</td>
<td>0</td>
<td>3</td>
<td>7</td>
<td>4</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>13</td>
<td>5</td>
<td>9</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>5</td>
<td>6</td>
<td>6</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>14</td>
<td>9</td>
<td>4</td>
<td>2</td>
<td>3</td>
<td>0</td>
<td>5</td>
<td>8</td>
<td>5</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>15</td>
<td>6</td>
<td>7</td>
<td>3</td>
<td>2</td>
<td>0</td>
<td>4</td>
<td>7</td>
<td>4</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>16</td>
<td>4</td>
<td>6</td>
<td>5</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>4</td>
<td>8</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>17</td>
<td>5</td>
<td>6</td>
<td>3</td>
<td>3</td>
<td>1</td>
<td>2</td>
<td>11</td>
<td>2</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>18</td>
<td>5</td>
<td>6</td>
<td>3</td>
<td>4</td>
<td>0</td>
<td>2</td>
<td>6</td>
<td>6</td>
<td>3</td>
<td>1</td>
</tr>
</tbody>
</table>

Total: 124 113 40 34 13 66 120 86 46 8
Appendix J

Data Analysis Example
Effective Schools Correlates

School Name: Northeast

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Raw Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>#</td>
<td>Mean</td>
</tr>
<tr>
<td>1</td>
<td>3.99</td>
</tr>
<tr>
<td>2</td>
<td>3.94</td>
</tr>
<tr>
<td>3</td>
<td>4.14</td>
</tr>
<tr>
<td>4</td>
<td>4.14</td>
</tr>
<tr>
<td>5</td>
<td>3.66</td>
</tr>
</tbody>
</table>

A= 3.97 3.45 (6) 0.518 105 195 76 18 1 53 152 110 66 6
BIBLIOGRAPHY


