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The relationship of organizational health and school safety to student achievement

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**THE RELATIONSHIP OF ORGANIZATIONAL HEALTH AND SCHOOL SAFETY
TO STUDENT ACHIEVEMENT**

A Dissertation

Presented to

The Faculty of The School of Education

The College of William and Mary

Williamsburg, Virginia

In Partial Fulfillment

Of the Requirements for the Degree

Doctor of Education

by

Harriet Ling Jaworowski

April 2003

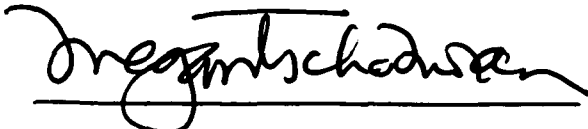
**THE RELATIONSHIP OF ORGANIZATIONAL HEALTH AND SCHOOL SAFETY
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by Harriet Ling Jaworowski

Approved April 2003



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DEDICATION

This work and the journey in the process are dedicated to my family without whom it would have been impossible. My gratitude for my parents and their unwavering support through every crisis and opportunity in my life is endless. Their emphasis on the importance of education throughout my life has brought me to this moment of realizing a dream. This dedication includes my children, the lights of my life. Their willingness to help and support me was yet another expression of their love. My prayer is that they will see an example of perseverance and dedication to something valuable.

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THE REALTIONSHIP OF ORGANIZATIONAL HEALTH AND SCHOOL SAFETY TO STUDENT ACHIEVEMENT

Abstract

Educators are compelled by federal and state legislation to investigate multiple aspects of the school organization to address factors that may increase student achievement. This study addressed this issue by investigating organizational health and school safety in urban elementary schools and their relationships to student achievement. The study explored elementary school teachers' perceptions regarding organizational health and school safety. This data was correlated to student achievement on the Virginia Standards of Learning Tests in English and mathematics for fifth grade.

The Organizational Health Inventory (OHI) for elementary schools was used to survey teachers' perceptions of institutional integrity, collegial leadership, resource influence, teacher affiliation, and academic emphasis in 24 urban elementary schools in Virginia. The School Safety Survey (SSS) gathered data on teachers' perceptions of school safety. The fifth grade Virginia Standards of Learning (SOL) tests in the areas of English and mathematics were the measurement tools for student achievement. This study compared the overall health indices and the subscale scores of organizational health to school safety, achievement in English, and achievement in mathematics. It further investigated the relationship between school safety and achievement in English as well as achievement in mathematics.

The study showed that there was a strong positive relationship between organizational health and safety, organizational health and student achievement in both English and mathematics, and school safety and student achievement in both English and mathematics. Regression analysis of the subscales of organizational health revealed that academic emphasis

had a strong independent effect on student achievement in English and mathematics. Correlation and regression analysis with regard to organizational health and safety indicated that organizational health had an independent effect on English, but not mathematics.

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**THE RELATIONSHIP OF ORGANIZATIONAL HEALTH AND SCHOOL SAFETY
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CHAPTER ONE: THE PROBLEM

Introduction

The changing landscape of American education in recent years has elevated the need for understanding the factors that make for effective schools. With growing accountability for student learning, educators search every aspect of the school environment for opportunities to increase its effectiveness. Federal and state attention to achievement for all students has brought educational reform to the forefront of the national, state, and local political agenda as well.

School reformers and researchers suggest that organizational climate and health are important aspects of effective schools. School climate has been identified with Edmond's (1979) model for effective schools, which includes constructs such as strong administrative leadership, high performance expectations, a safe environment, an emphasis on basic skills, and a system for monitoring student achievement. The degree to which the climate promotes openness, collegiality, professionalism, trust, loyalty, commitment, pride, academic excellence, and cooperation is a measure of a healthy work environment (Hoy, Tarter, & Kottkamp, 1991). School climate is a term that refers to teachers' perceptions of their work environment (Hoy & Tarter, 1997). It is

the relatively enduring quality of the school environment that is experienced by participants, affects their behavior, and is based on their collective perceptions of behavior in schools (Hoy and Miskel, 2001, p. 190).

Educational researchers may also analyze the climate of the school workplace through the use of a health metaphor. Parsons, Bales, and Shils (1953) defined organizational health as an

organization's ability to adapt to its environment, and attain goals while maintaining a cohesive working structure. A healthy school is one that not only survives but also continues to grow over the long term (Hoy & Tarter, 1997; Hoy, Tarter, & Kottkamp, 1991). Healthy schools have also been associated with increased levels of student achievement in secondary schools (Hoy & Hannum, 1997; Hoy & Tarter, 1997; Hoy, Tarter, & Bliss, 1990; Hoy, Tarter & Kottkamp, 1991; Hoy & Woolfolk, 1993).

Beyond the internal environmental aspects of a school there are external factors that influence its success. School safety is one external factor affecting the internal environment that has come to the forefront (Edmonds, 1979). Traumatic, life-threatening events in elementary and secondary schools during the past decade have heightened public concern over school safety. Currently, fifty million students attend public schools in America. Each school day, sixteen thousand crimes are committed at school – one every six seconds (Fisher & Kettl, 2000). In schools with high percentages of students below grade level in reading skills and with high minority populations, students and teachers experience higher victimization (Quarles, 1993).

There is extensive evidence that effective school discipline is a result of educational practices and the techniques of school and classroom management used by staff members rather than a result of the composition of the student population. These effective school discipline strategies also result in increased student achievement (Brookover, et al., 1982). With recent violent events in schools, administrators often turn to the criminal justice system instead of seeking educational solutions. Safety in schools is a compelling public issue. Frieberg (1999) noted that a school should be a place where students want to go and where parents want them to be.

Need for the Study

Current accountability for student achievement brought by federal and state agencies implores researchers to examine relationships among organizational health, school safety, and student achievement. Organizational health and school safety are both factors that may have a relationship to increased student achievement in schools, thus creating more effective schools. This study provides educational leaders with a deeper understanding of the constructs that may enable them to make improvement toward more effective schools.

To be more specific, this study allows educational leaders to understand how organizational health relates to school safety and student achievement. It also provides insight into the relationship between school safety and student achievement. Increased understanding of these relationships could have implications for staff development, school facility issues, and other areas within the control of the administrator to affect student achievement.

Conceptual Framework

This study examines the relationship of organizational health to school safety as well as the relationship of each of the subscales of organizational health to school safety. It also considers the relationship of organizational health and its subscales to student achievement. Finally, it investigates the relationship between school safety and student achievement.

Federal legislation of 2001 in the form of *No Child Left Behind*, state and local accountability laws, and federal, state, and local policies cause educators to analyze many aspects of the school organization. These aspects may include internal and external factors incorporated in organizational health and school safety. Because schools are multidimensional organizations whose effectiveness is influenced by the relationships within the school building and the relationship of the school to its external environment, the degree to which a school

organization can effectively deal with these factors influences student achievement (Edmond, 1979; Hoy & Hannum, 1997; Hoy & Tarter, 1997; Hoy, Tarter, & Bliss, 1990; Hoy, Tarter, & Kottkamp, 1991; Hoy & Woolfolk, 1993).

The concepts of organizational climate and health have been studied in business and psychology, as well as in education (Halpin & Croft, 1963; Hoy & Hannum, 1997; Litwin & Stringer, 1968; Tagiuri, 1968). Throughout these studies there have been many definitions and descriptions of the dimensions of climate and health. Researchers have also developed instruments to measure these constructs. Using health as a metaphor, Hoy and Tarter (1997) developed a framework within which to study organizational health. This framework provides the basis for this study and incorporates five dimensions within organizational health: institutional integrity, collegial leadership, resource influence, teacher affiliation, and academic emphasis. Measuring these five dimensions provides a better understanding of the organizational health of the school.

While organizational health is an internal factor of the school structure, there are external factors that must be considered as well. One of these factors is school safety. Research on school safety has primarily produced statistical evidence of the frequency of threats to school personnel and students (Fisher & Kettl, 2000; Gable, Manning, & Bullock, 1997; NCES, 2000; Quarles, 1993; Shen, 1997; Trump, 1996). Although this is informative it does not provide specific information about the perceptions within a school building. Even more important, it does not offer information that administrators may use to improve the safety of their facility.

To satisfy the need for a measure of school safety, a requirement of the long-range plan for the district of study, Johnston (2000) developed a definition and instrument to measure perceptions of school safety. This instrument gathers responses to determine teachers', parents',

and students' perceptions of the safety of the facility. It includes eighteen statements related to specific issues of school safety across the school district. These include safety within the building, on the school grounds, at sporting events, and on the school bus. It also seeks information regarding school rules and teacher responsibilities. For the purposes of this study, data on teachers' perceptions are used because organizational health is measured through teachers' perceptions.

Statement of the Problem

Federal and state mandates from 1990 through 2001 have legislated accountability for student achievement. Educators are now under great pressure to demonstrate adequate yearly progress for all students in all school populations. This study addresses this issue by exploring the possible relationships among organizational health, school safety, and student achievement in urban elementary schools. It investigates these relationships first through teacher perceptions of organizational health and school safety and then determines the individual relationships of organizational health and school safety to student achievement on the fifth grade Virginia Standards of Learning (SOL) tests in English and mathematics.

Research Questions

This study posits that there may be a relationship between teacher perceptions of organizational health and school safety in urban elementary schools. It further predicts that there is a relationship between each of these constructs and student performance on statewide tests. This study seeks to answer the following question: What is the relationship of organizational health and school safety to student achievement?

The more specific questions are

1. **What is the relationship between urban elementary school organizational health, as measured by the Organizational Health Inventory (OHI) and its subscales, and school safety as measured by the School Safety Survey (SSS)?**
2. **What is the relationship between urban elementary school organizational health, as measured by the Organizational Health Inventory (OHI) and its subscales, and student achievement on the Virginia Standards of Learning English: Reading, Research, and Literature Test in grade five?**
3. **What is the relationship between urban elementary school organizational health, as measured by the Organizational Health Inventory (OHI) and its subscales, and student achievement on the Virginia Standards of Learning Mathematics Test in grade five?**
4. **What is the relationship between urban elementary school safety, as measured by the School Safety Survey (SSS), and student achievement on the Virginia Standards of Learning English: Reading, Research, and Literature Test in grade five?**
5. **What is the relationship between urban elementary school safety, as measured by the School Safety Survey (SSS), and student achievement on the Virginia Standards of Learning Mathematics Test in grade five?**

Limitations of the Study

Because participating schools were not randomly selected this study is limited. These schools participated as a part of a district-wide study. The implication is that findings cannot be generalized to all elementary schools. This in turn affects the external validity of the study.

The study is further limited by the test used to collect student achievement data. The Standards of Learning tests are criterion-referenced tests developed to assess only Virginia Standards of Learning. Additionally, this study does not address socio-economics as a variable

although other studies show a strong relationship between organizational health and achievement even when controlling for socio-economics (Hoy & Feldman, 1987; Hoy & Hannum, 1997; Hoy, Tarter, & Bliss, 1990, Hoy & Woolfolk, 1993; Sabo, Barnes, & Hoy, 1996). The high mobility of this student population in an urban military setting is also a limitation of the study. The high-accountability, standards-based environment of this educational setting pleads for data on other factors that could affect student achievement. Both the organizational health and the school safety instruments have high validity and reliability.

Finally, the study relies on the perceptions of teachers as self-reported on the instruments. Responses are then vulnerable to their thoughts, actions, events of the day, observations, and individual willingness. Representatives from the school district office administered the surveys during faculty meetings at the end of the school day, which also influences responses due to fatigue, attitude, and other distractions.

Definitions of Terms

Organizational health is defined as the degree to which the institutional, administrative, and teacher levels work in harmony and the school meets functional needs as it successfully copes with disruptive forces and directs its energies toward its mission. The dimensions of health represent the basic needs of a school: to adapt to community demands, achieve goals, satisfy teacher needs, and create a cohesive community of learners. The health of a school organization has three levels: institutional, administrative, and teacher or technical (Hoy & Tarter, 1997).

Safety is defined as freedom from danger, risk or injury (Merriams-Webster's Collegiate Dictionary, 1993). Teachers' perceptions of safety are brought to light through survey items that include:

- **People feel safe in the building.**
- **Teachers in my school appear confused or unsure about how much authority they have to act in disciplinary or other student safety situations.**
- **The school administration acts on student violations of school rules.**

The *Virginia Standards of Learning* are defined as statements of knowledge and skills that every child is expected to learn (Virginia Department of Education, 2001, p.3). These are measured on a criterion referenced statewide test developed specifically for the state of Virginia and based on its Standards of Learning. The Standards of Learning Tests measure students' content knowledge and processing skills related to the Virginia Standards of Learning. This study uses the English: Reading, Literature, and Research and the mathematics tests for fifth grade.

CHAPTER TWO: REVIEW OF THE LITERATURE

Organizational Health

The study of the nature of the workplace has long been of interest to scholars of educational organizations, but only recently to researchers and school practitioners. The concept of the character of the work place has been studied under several labels including organizational character, atmosphere, ecology, field, situation, and more recently, climate and culture. Though teachers and administrators use these terms freely, there has been little common understanding of climate or culture (Hoy, et al., 1991). Because of the ambiguity of these terms, many researchers have attempted to clarify and operationalize them.

Prior to the late 1980's there were two problems in using "climate" as a term for study. First, there was a lack of common understanding of the meaning of school climate. Secondly, there was little empirical evidence linking school climate to student achievement (Hoy, et al., 1991). Student achievement has been the ruler by which federal, state, and local agencies set benchmarks for effective schools. Therefore, school climate has been associated with reform movements in education and has also been identified with Edmond's (1979) model of effective schools in which he proposes that strong administrative leadership, high performance expectations, a safe and orderly environment, an emphasis on basic skills, and a system of monitoring student achievement constitute the type of environment needed for increased student achievement (Hoy, et al., 1991).

Educational organizational researchers made the initial operational efforts in this field (Halpin & Croft, 1963; Pace & Stern, 1958) and scholars of business organizations soon recognized it as well (Tagiuri, 1968). Litwin and Stringer (1968) suggested that perception is a

critical component of climate and defined it as based on the collective perceptions of the people who work in the environment. The climate of an organization may be loosely conceived as the personality of the organization. That is, climate is to the organization as personality is to the individual (Hoy, et al., 1991).

In another effort to define and study organizational climate properties of schools, the health metaphor was used by Miles (1965). He developed ten properties of healthy organizations.

These properties include:

- 1. Goal focus – Participants accept and are aware of the goals of the organization.**
- 2. Communication adequacy – Information travels reasonably well through the organization without distortion and in a timely manner.**
- 3. Optimal power equalization – Distribution of power and influence is equitable.**
- 4. Resource utilization – Resources, including personnel, are used effectively.**
- 5. Cohesiveness – Participants are attracted to the organization, take pride in being a part of it, and wish to remain there.**
- 6. Morale – Personal response of the members is a sense of well-being.**
- 7. Innovativeness – The organization’s ability to create new procedures, goals, and objectives and to become more differentiated over time.**
- 8. Autonomy – The organization refrains from responding passively or destructively to its environment.**
- 9. Adaptation – The organization retains effective contact with its surroundings.**

10. Problem-solving adequacy – The organization solves its problems with minimal difficulty and mechanisms are strengthened rather than weakened in the process.

These ten properties were divided into three areas of need. The first three properties - goal focus, communication adequacy, and optimal power equalization - reflect *task needs* of the organization. Resource utilization, cohesiveness, and morale reflect *maintenance needs* or internal needs of the organization. Innovativeness, autonomy, adaptation, and problem solving adequacy reflect *growth and developmental needs* (Miles, 1965).

Kimpston and Sonnabend (1975) were among the first to measure organizational health using Miles' conceptual framework. Their instrument, the Organizational Health Description Questionnaire (OHDQ), showed some serious problems in that of the 50 items, 30 did not load clearly on any of the factors determined by factor analysis. There have been several additional attempts to operationalize Miles' concept of organizational health including work by Fairman and his colleagues (Childers & Fairman, 1985; Clark & Fairman, 1983), to no avail.

In 1987, Hoy and Feldman created a preliminary version of the Organizational Health Inventory incorporating Miles' (1969) as well as Parsons' (1953) concepts of health. Parsons et al. (1953) stated that all social organizations, including schools, must solve four basic problems if they are to survive, to grow, and to prosper. Each must accommodate its environment, set and implement goals, maintain a cohesive system, and create and preserve a distinct culture. Parsons explained that, to solve these problems, schools have three levels of control over activities – *the technical, the managerial, and the institutional*. The *technical* is concerned with the primary mission of the school, the *managerial* controls the internal coordination of the school, and the *institutional* level connects the school to the community (Hoy & Hannum, 1997). This Parsonian concept provided the theoretical basis for defining and operationalizing school health:

A healthy school is one in which the technical, managerial, and institutional levels are in harmony and the school is meeting both its instrumental and expressive needs as it successfully copes with disruptive external forces and directs its energies toward its mission (Hoy, et al., 1991, p. 68).

From this definition, Hoy and his associates developed and piloted the Organizational Health Inventory for Secondary Schools (OHI-S). It contained 95 potential items and sampled 72 urban, suburban, and rural New Jersey schools. The instrument was then refined to 44 items reflecting seven dimensions of school health. These seven dimensions included institutional integrity, principal influence, consideration, initiating structure, resource support, morale, and academic emphasis.

Hoy and his associates defined institutional integrity as the school's ability to cope with its environment and maintain the integrity of its programs. Principal influence was the principal's ability to influence superiors. The principal's friendly, supportive, and collegial behavior defined consideration. Adequate classroom materials and supplies composed the resource support dimension. Morale was the collective sense of friendliness, openness, enthusiasm, and trust among faculty members. And academic emphasis asserted that there was a true quest for excellence in the academic programs of the school (Hoy, et al., 1991).

Additional research (Fiedler, 1972; Kottkamp, Mulhern, & Hoy, 1987; Herriott & Firestone, 1984) illustrated that elementary schools are different from secondary schools in structure, complexity, and climate. From these findings and overall success with the secondary instrument, Hoy and his colleagues developed the Organizational Health Inventory for Elementary Schools (OHI-E). They piloted this instrument in 78 elementary schools in New

Jersey. The 44-item, seven-dimension secondary instrument became a 37 item, five-dimension survey. The dimensions for elementary schools included institutional integrity, collegial leadership, resource influence, teacher affiliation, and academic emphasis. These five dimensions composed three levels of control similar to Parsons' – institutional, administrative, and teacher. Definitions of these dimensions on the final version of the instrument were somewhat different.

Institutional

Institutional issues refer to the connection between the school and its external environment. The school needs to be accepted as a legitimate institution in the community, deserving of recognition and support. On the other hand, the school must also be able to protect itself and maintain its independence from community pressures that will, inevitably, work to influence its operation. This area covers the backing and support that teachers and others in the schools receive to be able to do their jobs without undue restriction from outside influences.

***Institutional Integrity* describes a school that has integrity in its educational program. The school is not vulnerable to narrow, vested interests of community groups; indeed, teachers are protected from unreasonable community and parental demands. The school is able to cope successfully with destructive outside forces (Hoy & Tarter, 1997, p. 30).**

Administrative

Managerial functions included in the administrative dimension are broken into two major areas, collegial leadership and resource influence.

Collegial leadership refers to behavior by the principal that is friendly, supportive, open, and guided by norms of equity. At the same time, however, the principal sets the tone for high performance by letting people know what is expected of them.

Resource influence describes the principal's ability to affect action of superiors to the benefit of teachers. Teachers are given adequate classroom supplies, and extra instructional materials and supplies are easily obtained (Hoy & Tarter, 1997, p. 30).

Teacher

Teachers are the professional core of the school and have a major impact on organizational health. As with the administrative area, the teacher level includes two dimensions, teacher affiliation and academic emphasis.

Teacher affiliation refers to a sense of friendliness and strong affiliation with the school. Teachers feel good about each other and, at the same time, have a sense of accomplishment from their jobs. They are committed to both their students and their colleagues. They find ways to accommodate to the routine, accomplishing their jobs with enthusiasm.

Academic emphasis refers to the school's press for achievement. The expectation of high achievement is met by students who work hard, are cooperative, seek extra work, and respect other students who get good grades (Hoy & Tarter, 1997, p. 31).

Extensive research on school climate and organizational health has been done in the last two decades. The measure of organizational health predominantly used was the Organizational Health Inventory (OHI) in elementary, middle, and high schools, though not all levels were studied equally. Hoy and his associates surveyed teachers at faculty meetings without the presence of school administrators. The school was the unit of analysis because the variables reflect organizational properties (Hoy, et al., 1991).

The measures used in each study included the OHI and, in some cases, a comparison to another instrument such as the Decision Involvement Analysis (DIA) (Sabo, Barnes, & Hoy, 1996). Comparisons to other instruments were for studies in which organizational health was correlated to other variables that could affect the overall health of the organization and its teachers.

Most of these quantitative studies were conducted in the state of New Jersey. Researchers stated that their samples were not randomly selected, which is difficult to accomplish in the educational arena. In all cases, however, efforts were made to select schools that represented a diverse population, all geographic and all socio-economic levels in the state of New Jersey. Some studies (Hoy & Feldman, 1987; Hoy, Tarter, & Bliss, 1990) indicated that urban schools were underrepresented in their study as well. Both of these characteristics lead to a problem with external validity. Population validity in these studies makes generalization to the defined population difficult, but the instrument itself has value as a diagnostic tool for individual schools and districts.

Internal validity was addressed in these studies such that all school faculties were surveyed in the same manner, and virtually all teachers in each school responded since the survey was given at regular faculty meetings.

Studies revealed that a positive relationship between organizational health and student achievement exists, and the relationship between these two crucial elements was strongest in middle and high schools. The relationships were not as clear in elementary schools due to the difference in the organizational structure of elementary schools as opposed to middle and high schools (Hoy & Hannum, 1997; Hoy & Feldman, 1987; Hoy, et al., 1990; Hoy & Woolfolk, 1993; Sabo, et al., 1996). The instrument was then revised and, although the elementary findings were not as clear, the current instrument is a frugal and reliable instrument that can be used as a diagnostic tool for administrators who are serious about change and improving school effectiveness.

There is much work to be done in the area of organizational health, particularly in urban elementary settings. Appendix A provides a summary of selected organizational health studies indicating the nature of the previous work and need for studies in urban elementary schools. There are more comparisons that could be made in the future that could include state-to-state comparisons, urban-to-rural comparisons, etc.

School Safety

The National Center for Educational Statistics (2000) reported that in 1998, students ages 12 through 18 were victims of over two million total crimes at school and, in that same year, over 250,000 were victims of violent crimes at school. The nonfatal victimization crime rate declined slightly, but the rate for those high school students who were threatened or injured with a weapon on school property was constant for the subsequent year. From July 1, 1997, through June 30, 1998, there were 60 school-associated violent deaths; 47 homicides, 12 suicides, and one student was killed by a law enforcement officer in the line of duty. The data from this report

shows a mixed picture of school safety. While some rates have declined, violence is still evident and indicates an environment that needs improvement in order to increase school effectiveness.

Aggression and violence in schools approaches epidemic proportions and teachers are not equipped to face the mounting challenge. They must, however, confront the problem of violence and lack of safety in schools on a daily basis. The stress of escalating violence in schools is taking a toll on students and teachers. Students resist going to school and teachers fear for their lives and property (Gable, Manning, & Bullock, 1997). Teachers across the country express increased fear for their own safety and the safety of their students (Trump, 1996).

The federal government, as well as state and local school systems, acknowledges the current condition of schools with regard to safety. However, none would suppose it to be a desirable atmosphere in schools. United States Secretary of Education, Richard Riley (1996) said, "No teacher should ever fear to walk into a classroom, and no child should ever stay home from school because he or she is afraid."

Over a five-year period from 1994 to 1998, teachers were victims of 1,755,000 nonfatal crimes at school. Approximately one third of these were violent crimes including rape or sexual assault, robbery, and aggravated and simple assault. This translates to 8.3% of teachers experiencing violent crimes at school (NCES, 2000). Teachers were threatened with injury at a rate of 6,250 per school day and 260 suffered an assault every school day nationwide (Fisher & Kettl, 2000). Because of underreporting, however, it is difficult to know the actual number of teachers who are victims of violence on a local, state, or national level (Quarles, 1993).

As the crime rate persists, teachers' perceptions of the safety of the school environment changes. This influences their effectiveness in the classroom and desire to enter or remain in the profession. Teacher perceptions of safety in the schools vary with the age of the students,

experience level of the teacher, and what the teacher perceives as victimization. Teacher perceptions rarely correspond to those of the public (Langdon, 1999). Teachers and non-teachers differ in what they perceive to be serious behavior problems. In addition, teachers' notions of what is "right" and "wrong" about schools is seldom based on scientific research or even trustworthy reports (Salkind, Adams, Dermer, Heinerikson, Jones, & Nash, 2000).

Teachers rank violence and verbal abuse of themselves as serious problems. In urban and suburban areas, weapons are identified more frequently in teachers' responses. Verbal abuse of teachers is perceived as a serious problem by 35% of teachers (Shen, 1997). In a later study, Graig, Henderson and Murphy (2000) indicate that prospective teachers may not be as likely to identify and respond to emotional or psychological victimization as they are to physical forms.

For the 1993-1994 school year, 17% of all teachers reported that they were threatened with injury or were physically attacked by a student. The percentage of teachers reporting weapons possessions as a serious problem in their school nearly doubled from 1990 to 1994 from almost 11% to about 20%. In the opinion of teachers, schools were less safe in 1994 than in 1987 or 1990. In addition to the toll this takes on teachers personally, those who worry about their safety have trouble teaching effectively and may leave the profession altogether (NCES, 2000). Teachers claimed that discipline was the main reason their colleagues left the profession (Langdon, 1996).

It is important to note that school safety is a serious problem that varies greatly across the country. Large urban school districts tend to have a greater incidence of violence than do smaller, more rural districts (NCES, 2000). As teacher perceptions of school safety change, so does their effectiveness in the classroom (NCES, 2000). This study seeks to determine what, if

any, relationships exist between school safety and student achievement on statewide tests in urban elementary schools.

Student Achievement

National and statewide curriculum standards have become a major focus of discussion in the educational as well as public arenas. With the publication of the NCTM Standards in 1989 by the National Council of Teachers of Mathematics (NCTM), the sprint began in the race to articulate what students should learn, how they should be taught, and what teachers needed to accomplish this task. Other national documents such as the National Science Education Standards from the National Research Council followed in 1996. Articulation of additional standards implies positive progress toward increased student achievement in the United States.

The promising results of national standards include defining the givens or premises upon which educators found educational philosophies and policies, thus providing clear common goals, and some degree of increased student achievement. The National Science Education Standards are based on these four basic premises: all students can learn, learning is an active process, classrooms should model the real world, and systemic change is necessary to accomplish these standards. Forty-nine of the fifty states have subsequently developed state documents reflecting or aligning with national standards. These state documents are, in general, more specific than the federal ones in terms of what is to be taught grade by grade, what form standards-based instruction should take, and what teachers need from state and local agencies.

Clear, common learning standards – manageable in number – promote student achievement (Schmoker & Marzano, 1999). However, other studies show that states such as North Carolina have articulated their standards and experienced success because of monetary incentives for teachers and consequences such as dismissal for those whose students were

lagging behind, (Steinberg, 1999). The effects seem to be more penal than achievement oriented. This implies that the presence of standards is not necessarily a positive influence to the educational organization.

The Third International Math and Science Study (TIMSS) data has been interpreted many ways. George Bracey reported in the Eighth Bracey Report that based on the TIMSS data, there just was not sufficient evidence to indicate that national standards produce higher student achievement. He also cited Richard Wolf's study of the TIMSS results, which again showed little to no relationship between having a national curriculum or syllabus and high student achievement.

Beyond the presence or absence of standards, what educators interpret as standards is not always clear (Goldsmith & Mark, 1999). Much teacher focus is centered on *what* is to be learned. What follows varies greatly depending on the teacher's content background and pedagogical skill in the classroom. These two variables result in various scenarios in the classroom, not all of which provide the intended result. An added conclusion of the TIMSS data indicated that there was a disparity between quantity and quality of standards. Demers (2000) warned educational leaders that they must assure that there is not a misuse of the standards. Demers references Bruce Albers', president of the National Academy of Sciences, summary of the impact of standards, which is broader than the fragmented interpretations in curricula, professional development, collegial discussion, and instruction. Educators recognize and display concern over lack of student understanding of the standards, but fail to recognize that teachers often fail in the same areas. Others view standards as minimal indicators, which thus produce minimal expectations and minimal understanding (Nelson, 1998).

Academic standards are difficult and expensive to implement (Toch, 1998). Science and mathematics educators have promoted hands-on, inquiry-based learning for children. However, with widespread budget cuts, many schools and teachers have been forced to abandon this form of pedagogy. Resourceful teachers have resorted to “scrounging” in support of the standards (Snyder, 1998). For many years, the New York City school system based their educational philosophy on standards-based education and the abolition of social promotion with admirable results in student achievement and attendance until budget cuts increased classroom size and reduced funds for equipment, materials, and programs to target underachievers.

The pressure of high stakes accountability associated with national and statewide testing has taken its toll on students and teachers. Although North Carolina has seen an increase in student achievement over the last decade, the result has been a narrowing of the curriculum to what is tested (Jones, Jones, Hardin, Chapman, Yarborough, & Davis, 1999). Jones, et al., (1999) found that teachers in North Carolina felt they must prepare their students for the test, and, therefore, what was not tested became less evident in the curriculum taught as the test time grew closer. Sixty-one percent of the teachers indicated that their students felt more anxious than before implementation of statewide tests. Seventy-seven percent of teachers felt that their morale was lower and 76% stated that they did not believe the test would improve the quality of education. More than 76% of teachers felt their jobs were more stressful than before the implementation of high stakes testing. It is important to note here that educators seek to improve student achievement for altruistic reasons as well as mandated ones.

With increased standards, there was an initial increase in failure rate, but promotion is better than retention for underachievers (Toch, 1998). The abolition of social promotion by many school systems has left few options for low performing students. If the repeaters remained

for an additional year there was a tendency for increased behavior problems and increased drop out rate. What often followed was parental backlash. Oharian (1999) suggested that as schools are standardized, more students drop out, and teachers, feeling the pressure, exit in great numbers. High stakes accountability also contributes to student and teacher stress.

Pipho (1999) cited the state of Virginia as an example of the high stakes accountability recoil. Baseline test scores for the Standards of Learning tests were lower than on the previous statewide test. These scores were not reported accurately; therefore, the public was given an incorrect picture of the current state of student achievement. This was corrected, but public perception of the Standards or Learning tests had already been shaped and it was not favorable.

Many have offered solutions to this dilemma. Kelly (2000) offers specific areas that she believes influence standards-based science instruction. Interdisciplinary integration, literacy-focused instruction, inquiry-based instruction, and novice teachers' knowledge of the National Science Education Standards are among these. Each of these implies specific pedagogical skills on the part of the teacher. Bay, Reys, and Reys (1999) offer the ten elements a teacher must experience for successful standards-based mathematics education. Their list includes administrative support, opportunities to study, sampling of the curricula, daily planning, interaction with experts, collaboration with colleagues, incorporation of new assessments, communication with parents, helping students adjust, and planning for transition. Again, there was an emphasis on the actions or needs of the teacher.

Instead of seeing standards and testing as the problem, even critics can sometimes find a way to use the data to support reform ideas (Pipho, 1998). Longitudinal studies of this data could provide a profile of academic attainment of individual students. Pipho summarizes the work of William Sanders, director of the Tennessee Value-Added Assessment System, to suggest that the

single most important factor affecting academic growth of student populations is differences in effectiveness of individual classroom teachers. Additionally, the effects of class size and the degrees of heterogeneity of prior achievement in a classroom are but two factors whose impact on student academic gain pales in comparison with the differences in teacher effectiveness. Perhaps the most devastating finding, which has been verified by other research, suggested that teacher effects are cumulative and additive, with little evidence of later compensatory gain, and further, they can be measured for at least three years.

Signing of the *No Child Left Behind* educational reform bill in 2001 by President Bush created even greater concern over student achievement and accountability among administrators and teachers. The criteria call for adequate yearly progress for all students regardless of race, gender, socio-economic status, or disability. The information from this study may provide educators with a way to identify specific changes they can make within their organization to improve student achievement and meet federal and state accountability criteria

CHAPTER THREE: METHODOLOGY

Introduction

Accountability for effectiveness of schools in America has urged school administrators to seek avenues for improvement within their school organizations. This study addressed the relationships of organizational health and school safety to student achievement and sought to answer the following question: What is the relationship of organizational health and school safety to student achievement?

The more specific questions were:

1. What is the relationship between urban elementary school organizational health, as measured by the Organizational Health Inventory (OHI) and its subscales, and school safety as measured by the School Safety Survey (SSS)?
2. What is the relationship between urban elementary school organizational health, as measured by the Organizational Health Inventory (OHI) and its subscales, and student achievement on the Virginia Standards of Learning English: Reading, Research, and Literature Test in grade five?
3. What is the relationship between urban elementary school organizational health, as measured by the Organizational Health Inventory (OHI) and its subscales, and student achievement on the Virginia Standards of Learning Mathematics Test in grade five?
4. What is the relationship between urban elementary school safety, as measured by the School Safety Survey (SSS), and student achievement on the Virginia Standards of Learning English: Reading, Research, and Literature Test in grade five?

- 5. What is the relationship between urban elementary school safety, as measured by the School Safety Survey (SSS), and student achievement on the Virginia Standards of Learning Mathematics Test in grade five?**

Directional Hypothesis

This study predicted that there was a positive correlation between organizational health as measured by the OHI and school safety as measured by the SSS. It also predicted a positive relationship between organizational health and achievement of fifth grade students in urban elementary schools as measured by the Virginia Standards of Learning Tests in English and mathematics. It further anticipated a similar correlation between school safety as measured by the School Safety Survey (SSS) and student achievement on the same tests.

Research Design

This was a study of 24 elementary schools in an urban Virginia school district. The school served as the unit of analysis for the study. Preexisting data from administration of the OHI, SSS, and the Virginia Standards of Learning tests were used with permission from the school district. Representatives of the school district administered the OHI and SSS in faculty meetings without the presence of any administrative staff. Teachers returned the surveys to the representatives upon completion. Verification of the scanned forms insured that any missing responses were actually lack of response on the form and not error on the part of the scanning equipment.

Organizational Health

The school district collected and reported mean scores by question by school from the OHI. These scores were used to calculate subscale scores for each dimension according to the method prescribed by Hoy and Tarter (1997).

Step 1: Each item was given the appropriate score based on the number of their response (1, 2, 3, or 4). Items 6, 8, 14, 19, 25, 19, 30, and 37 were reverse scored since they are negative statements.

Step 2: An average school score was calculated for each item. The scores were rounded to the nearest hundredth.

Step 3: The average school item scores were added as follows:

Institutional integrity = 8+14+19+25+29+30

Collegial leadership = 1+3+4+10+11+15+17+21+26+34

Resource influence = 2+5+9+12+16+20+22

Teacher affiliation = 13+23+27+28+32+33+35+36+37

Academic emphasis = 6+7+18+24+31

These five subscale scores were used to represent the health profile of each school. In order to compare scores between schools, the scores were standardized using the average scores and standard deviations of each dimension from a large, diverse population of schools in New Jersey. The means and standard deviations are as represented in Table 1.

Table 1

Means and Standard Deviations Used for Standardization of Scores

Dimension	Mean (M)	Standard Deviation (SD)
Institutional integrity (II)	16.06	2.77
Collegial leadership (CL)	24.43	3.81
Resource influence (RI)	20.18	2.48
Teacher affiliation (TA)	26.32	2.98
Academic emphasis (AE)	14.66	1.59

Standardized scores were computed as follows:

Step 1: The school subtest scores were converted to standardized scores (SdS) with a mean of 500 and a standard deviation of 100 using the following formulas:

$$\text{Sds for II} = 100(\text{II}-16.06)/2.77+500$$

$$\text{SdS for CL} = 100(\text{CL}-24.43)/3.81+500$$

$$\text{SdS for RI} = 100(\text{RI}-20.18)/2.48+500$$

$$\text{SdS for TA} = 100(\text{TA}-26.32)/2.98+500$$

$$\text{SdS for AE} = 100(\text{AE}-14.66)/1.59+500$$

An overall index of school health was computed using the following formula:

$$\text{Health} = (\text{SdS for II}) + (\text{SdS for CL}) + (\text{SdS for RI}) + (\text{SdS for TA}) + (\text{SdS for AE})/5$$

The standardized scores and the overall health index were interpreted similarly for each school. That is, a score of 500 was average, a score above 600 (one standard deviation above the mean) was considered a very healthy school, and a score below 400 (one standard deviation below the mean) was considered very unhealthy.

School Safety

The school district collected and reported mean scores by question by school on the SSS. Items 7,11, and 17 were reversed scored. Question 18 was deleted due to low reliability and response rate. A safety score was calculated for each school as the mean of questions 1-17 and 19.

Student Achievement

The Virginia Department of Education collected and published student achievement data through its statewide testing program. The test scores used for this study included fifth grade English: Reading, Literature, and Research and Mathematics.

Participants and Setting

This study examined elementary schools in an urban community that included a large military installation. Due to the frequency of military assignment changes, this was a very mobile community. The district served 23,250 students and employed 1,522 teachers. The student teacher ratio at the time of data collection in grades K-5 was 13:1. Half of the elementary schools in this study had a free or reduced lunch rate of 50 % or more. The 24 elementary schools involved in this study included three fundamental schools and two year-round schools.

In fundamental programs, instruction attempted to build characteristics within each child that include responsibility, confidence, pride in accomplishment, and a positive self-image. Major emphasis was placed on basic academic skills, subject matter, and fostering good study habits. Year-round programs offered 180 days of school on a calendar, which began in August and ended in June. Twenty-five optional days of extended learning were scheduled into three intercessions during the school year. The intersession periods provided remedial as well as

enrichment programs. Parents could also opt to have their children be on vacation during intercession periods.

The district addressed school readiness through a number of intervention programs. *Gaining Readiness Out of Waiting*, a pre-kindergarten program offered to children who turned five years of age in October, November, or December, allowed students who did not meet the September 30 deadline to have a pre-kindergarten experience. *Success for All*, a comprehensive program emphasizing prevention and early intervention for children in kindergarten through fifth grade was also offered. This program addressed language development, phonemic awareness, and reading. Additional reading programs included *Reading Recovery* and *Accelerated Reader*.

Population

The unit of analysis for the study was the school because organizational properties are reflected in the variables (Hoy, et al., 1991). This nonrandom sample of 24 elementary schools in an urban Virginia school district was used to test the hypotheses of the study. All instructional staff present at each faculty meeting responded to the OHI. It was not possible to select a random sample and thus this was a descriptive study of elementary schools in one Virginia school district.

Internal validity factors such as experimental mortality, differential selection, maturation, and testing were not significant. Population validity was a definite threat to external validity. While the findings may not be generalizable to all elementary schools or school districts, there may be substantial support for other school districts seeking similar measures of factors, which may influence school effectiveness.

Instrumentation

Organizational Health Inventory (OHI)

The OHI for elementary schools is a 37-item questionnaire on which teachers describe the extent to which specific behaviors occur in their school. Respondents mark a 4-point Likert scale: *rarely occurs, sometimes occurs, often occurs, and very frequently occurs*. (Hoy & Tarter, 1997). All items were descriptive statements to which respondents were asked to indicate the extent to which each statement characterized their school. No item was included unless there was consensus among the researchers (Hoy & Feldman, 1987). When Hoy and his associates in Ohio tested the final version, its reliability and validity were evaluated. The alpha coefficients for each subtest ranged from .87 to .95 (Hoy & Feldman 1987).

The health of a school organization has three levels: institutional, administrative, and teacher or technical. . The institutional level connects the school with its environment and is measured as the *institutional integrity* dimension of health (Hoy& Tarter, 1997). Sample items include:

- The school is vulnerable to outside pressures.
- Teachers feel pressure from the community.
- The school is open to the whims of the public.

The administrative level controls the managerial functions of the organization and is measured as *collegial leadership and resource influence* (Hoy& Tarter, 1997). *Collegial leadership* is measured through such items as:

- The principal discusses classroom issues with teachers.
- The principal conducts meaningful evaluations.
- The principal is friendly and approachable.

Resource influence is illustrated and measured by items such as:

- The principal is able to influence the actions of his or her superiors.
- Teachers receive necessary classroom supplies.
- Supplementary materials are available for classroom use.

The teacher or technical level of health is concerned with the teaching-learning process and is measured through two dimensions: *teacher affiliation* and *academic emphasis* (Hoy &

Tarter, 1997). *Teacher affiliation* is exemplified through items such as:

- Teachers exhibit friendliness to each other.
- Teachers express pride in this school.
- There is a feeling of trust and confidence among the staff.

Academic emphasis is determined through responses to items such as:

- Students neglect to do homework. (Reverse scored)
- Students respect those who get good grades.
- Students try hard to improve on previous work.

The school district converted Hoy's survey to a scannable version so that completed surveys could be scanned and data placed directly into spreadsheets. A sample copy of the instrument and a list of items that compose the five subscales of the OHI are attached in Appendix B.

School Safety Survey

Staff members in the school district developed the SSS in 1997 in response to the need for a measure of internal and external community opinion of school safety to satisfy requirements in the school district's long-range plan. The district conducted focus groups with

elementary, middle, and high school students, teachers, and parents. Issues and concerns in these focus groups became the source material for an initial set of survey items.

The initial survey items were referred to the district-wide Safe Schools Steering Committee for review. This committee then sent the document to the school-based safe schools committees, and their comments were incorporated into the second draft of items. These were then reviewed by senior administrators in the district and sent back to the Safe Schools Steering Committee. A field test draft of items was generated from these reviews.

The field test was conducted with elementary, middle, and high school students and teachers (five of each). Items were adjusted to assure clarity and readability, and the final survey was formatted into a scannable design for optical scanner scoring.

The survey contains eighteen statements related to specific issues in school safety across the district with a general satisfaction item completing the instrument. Respondents are asked to indicate how often they feel the statement is true. The scale range includes *rarely*, *sometimes*, *often*, *very often*, and *don't know*. Responses of *don't know* were dropped from the analysis. Results were reported as means on the individual items. The percentage of qualifying responses was also reported. Sample items include:

- People feel safe in the building during the school day.
- The school has clear, consistent rules for student behavior.
- It is safe to stay in the school after students have left the building.

Each response had a numerical value ranging from 1 (*rarely*) to 4 (*very often*). The higher the score, the more positive the response from the participant. Three items (numbers 7, 11, 17) were worded to reverse score, the lower responses yielding the more positive opinion. The reverse scoring was taken into account by recoding responses for analysis.

In 1999, the district staff used Statistical Package for the Social Sciences (SPSS) (SPSS, Inc., 1999) to verify validity and reliability. Cronbach's Coefficient Alpha measured how well a set of items or variables gauged a single unidimensional construct. Calculated values for this instrument ranged from .86 to .92, indicating that the instrument measured the constructs with relative consistency across parents, students, and staff at all three levels. Elementary employees had a reliability coefficient of .87 (Johnston, 2001).

Since the instrument purports to measure the degree to which respondents believe that things are going well with different aspects of safety in the school environment, responses tend to indicate levels of satisfaction. The district staff statistically examined validity of the instrument by taking the global mean for items 1 through 18 and correlating it with the mean on the general satisfaction item. The Pearson Correlation between the global mean and the general satisfaction mean was statistically significant ($p < .01$) for each of the populations surveyed. Validity for elementary employees was .72 (Johnston, 2001).

Virginia Standards of Learning Tests

Data for student achievement were drawn from two fifth-grade Virginia Standards of Learning (SOL) tests, English: Reading, Research and Literature and mathematics. These tests are given annually to fifth grade students in the spring of each year to assess student knowledge of the Virginia Standards of Learning. Construct validity for the SOL tests was established by correlations between the SOL tests, the ninth edition Stanford 9 Achievement test, and the Virginia Literacy Passport test.

A state level committee reviewed the technical characteristics of the SOL tests. The committee found that test questions did assess the content of the Standards of Learning. The Virginia Department of Education Content Review Committee, made up of educators with

expertise in the tested content areas, thoroughly reviewed all test items. Measurement experts were also involved in the test development process. The test developers used multiple indicators to determine item difficulty as applied to the demographics of students in Virginia. The committee determined that “there was ample evidence in the Technical Manual that procedures used to investigate the content validity were adequate” (Hambleton, Crocker, Cruse, Dodd, Plake, & Poggio, 2000, p. 3).

Reliability for the SOL tests was based on the Kuder-Richardson Formula 20 (KR-20). The fifth-grade English: Reading, Research and Literature test was found to have a reliability of .89 and the fifth-grade mathematics test had a reliability of .88 (Virginia Department of Education, 1999). Table 2 provides a summary of the instruments used in this study.

Table 2

Summary of Instruments

Variable	Instrumentation
Organizational Health (Institutional Integrity, Collegial Leadership, Resource Influence, Teacher Affiliation, and Academic Press)	Organizational Health Inventory for Elementary Schools (OHI) (Hoy & Tarter, 1997)
School Safety	School Safety Survey (SSS)
Student Achievement (English: Reading, Literature, and Research and mathematics)	Virginia Standards of Learning Tests

Data Analysis

The researcher used statistical analysis to determine relationships and independent effects of each subscale using SPSS. Mean scores and standard deviations were calculated for overall organizational health, institutional integrity, collegial leadership, resource influence, teacher affiliation, academic press, school safety, student achievement on the Virginia Standards of Learning English: Reading, Literature, and Research test, and student achievement on the mathematics test. Correlations and multiple regressions were calculated to determine what, if any, relationships were present. These results may not be generalizable to any other population from this study since the units of analysis were not randomly selected. Table 3 indicates the analysis used for each research question.

Table 3

Data Analysis by Question

Question	Data Analysis
What is the relationship between urban elementary school organizational health, as measured by the Organizational Health Inventory (OHI) and its subscales, and school safety as measured by the School Safety Survey (SSS)?	Correlation Multiple Regression
What is the relationship between urban elementary school organizational health, as measured by the Organizational Health Inventory (OHI) and its subscales, and student achievement on the Virginia Standards of Learning English: Reading, Research, and Literature Test in grade five?	Correlation Multiple Regression
What is the relationship between urban elementary school organizational health, as measured by the Organizational Health Inventory (OHI) and its subscales, and student achievement on the Virginia Standards of Learning Mathematics Test in grade five?	Correlation Multiple Regression
What is the relationship between urban elementary school safety, as measured by the School Safety Survey (SSS), and student achievement on the Virginia Standards of Learning English: Reading, Research, and Literature Test in grade five?	Correlation
What is the relationship between urban elementary school safety, as measured by the School Safety Survey (SSS), and student achievement on the Virginia Standards of Learning Mathematics Test in grade five?	Correlation

Ethical Safeguards and Considerations

Consideration was made for the privacy of teachers and schools. No data is identifiable to any specific individual or school. All information is confidential. Schools were identified numerically and individual inventories by page number only. A copy of the letter of permission to use the OHI and SSS data is provided in Appendix C. Permission to proceed with this study was granted by the Human Subjects Committee of the School of Education at The College of William and Mary.

CHAPTER 4: RESULTS

Introduction

This study investigated the relationships among the concepts of organizational health, school safety, and student achievement. It was designed to determine if organizational health and its five dimensions (institutional integrity, collegial leadership, resource influence, teacher affiliation, and academic emphasis) had a significant relationship to school safety. It also examined the relationship of organizational health and its subscales to student achievement on the Virginia SOL Tests in English and mathematics. It further investigated the relationship between school safety and student achievement on the Virginia SOL Tests in English and mathematics.

The school district under study used the Organizational Health Inventory (OHI) for elementary schools to survey all faculty members in the context of a faculty meeting without the presence of their administrator. District office staff administered the surveys. This resulted in returned surveys from 702 teachers in 24 urban elementary schools in one school district between November 1999 and May 2000.

The School Safety Survey (SSS) was also administered to the same teachers during the same time period in order to measure perceptions of safety in the schools. The school was used as the unit of analysis for both instruments. The OHI and SSS mean scores by item by school were obtained with permission from the school district. Cronbach's alpha was used to determine internal consistency of both instruments.

The data for student achievement from the May 2000 SOL tests were collected from the Virginia Department of Education in March 2003. SOL scores were calculated by converting raw scores to standard scores on a scale from 100 to 600. A score of 400 is considered a passing

score on each test. A score of 500 or greater is considered pass advanced. Correlations and multiple regressions were used to analyze this data and answer the research questions.

Findings

Table 4 provides reliability information for the OHI and SSS. Institutional integrity showed lower reliability than any of the other subscales of the OHI. Conclusions will be cautiously drawn from this data since the importance of the school's ability to shelter itself from unwarranted pressure and influence from the community cannot be minimized.

Table 4

Instrument Reliabilities

Instrument/Construct	Number of Items	Reliability
OHI	37	.96
Institutional Integrity	6	.54
Collegial Leadership	10	.80
Resource Influence	7	.85
Teacher Affiliation	9	.87
Academic Emphasis	5	.91
Safety	18	.94

The five research questions were answered through analysis of data using SPSS. Descriptive statistics were computed for organizational health, school safety, and student achievement in English and mathematics on the fifth grade SOL test. Table 5 describes the mean scores for responses to the OHI and each of its dimensions, the SSS, and scaled scores on the SOL tests. The mean scaled scores on the English and mathematics SOL tests represent the mean of all the mean scores for the schools in the study.

Table 5*Descriptive Data*

Variable	Mean	Standard Deviation	Minimum	Maximum
OHI	533.50	53.47	448.00	624.00
Institutional Integrity	519.50	30.16	473.00	577.00
Collegial Leadership	690.79	82.49	564.00	839.00
Resource Influence	458.98	89.22	322.00	645.00
Teacher Affiliation	585.75	77.92	398.00	706.00
Academic Emphasis	412.88	64.56	286.00	545.00
SSS	3.41	.17	3.08	3.79
English SOL Test	420.98	23.91	379.00	466.30
Math SOL Test	411.31	24.78	372.60	459.40

Organizational Health and Safety

The first research question asked: What is the relationship between urban elementary school organizational health, as measured by the Organizational Health Inventory (OHI) and its subscales, and school safety as measured by the School Safety Survey (SSS)? The data in Table 6 indicate that there was a strong, positive correlation between organizational health and safety ($r = .74, p < .01$). Correlation analysis also showed a strong, positive relationship between safety and four of the subscales of organizational health: collegial leadership ($r = .64, p < .01$), resource influence ($r = .57, p < .01$), teacher affiliation ($r = .55, p < .01$), and academic emphasis ($r = .71, p < .01$). Regression analysis revealed that the subscales accounted for 61% of the variance. None of the subscales of organizational health showed a significant independent effect on school safety due to the high correlation of the subscale themselves as seen in Tables 6 and 7.

Table 6

Correlation Analyses

	2.	3.	4.	5.	6.	7.	8.	9.
1. OHI	.43*	.73**	.84**	.82**	.85**	.55**	.45*	.74**
2. Institutional Integrity		.39	.17	.41*	.07	-.10	-.27	.22
3. Collegial Leadership			.39	.44*	.50*	.34	.13	.64**
4. Resource Influence				.60**	.79**	.44*	.48*	.57**
5. Teacher Affiliation					.62**	.48*	.41*	.55**
6. Academic Emphasis						.70**	.65**	.71**
7. English SOL							.87**	.65**
8. Math SOL								.53**
9. School Safety								

**p < .01

*p < .05

Table 7

Regression Analysis for OHI Subscales and Safety

Dependent Variable and Predictors	Beta	<i>t</i>	<i>p</i>
Safety			
Institutional Integrity	-.002	-.011	.992
Collegial Leadership	.358	1.918	.071
Resource Influence	.016	.065	.949
Teacher Affiliation	.106	.494	.627
Academic Emphasis	.449	1.594	.128

Note. $R^2 = .61$, Std. Error = .122, $p < .05$ *Organizational Health and English Achievement*

The second research question asked: What is the relationship between urban elementary school organizational health, as measured by the Organizational Health Inventory (OHI) and its subscales, and student achievement on the Virginia Standards of Learning English: Reading, Research, and Literature Test in grade five? Table 6 shows that there is a significant correlation

between organizational health and student achievement on the SOL test in English ($r = .55, p < .01$) with the OHI explaining 57% of the variance. Academic emphasis ($r = .70, p < .01$) revealed a strong positive correlation to success on the SOL test in English. Resource influence ($r = .44, p < .05$) and teacher affiliation ($r = .48, p < .05$) showed a moderately strong relationship to success on the SOL test in English. Regression analysis provided further information which showed that only academic emphasis had an independent effect on success on the English SOL as seen in Table 8.

Table 8

Regression Analysis for OHI Subscales and English

Dependent Variable and Predictors	Beta	<i>t</i>	<i>p</i>
English SOL			
Institutional Integrity	-.23	-1.195	.248
Collegial Leadership	.05	.229	.821
Resource Influence	-.32	-1.217	.239
Teacher Affiliation	.26	1.141	.269
Academic Emphasis	.79	2.639	.017
Note. $R^2 = .57$, Std. Error = 17.73, $p < .05$			

Organizational Health and Mathematics Achievement

The third research question asked: What is the relationship between urban elementary school organizational health, as measured by the Organizational Health Inventory (OHI) and its subscales, and student achievement on the Virginia Standards of Learning Mathematics Test in grade five? Table 6 provides data to indicate that there was a moderately strong relationship between organizational health and success on the SOL test in mathematics ($r = .45, p < .05$) with the OHI explaining 56% of the variance. There was a moderately strong relationship between success on the mathematics test and resource influence ($r = .48, p < .05$) and teacher affiliation (r

= .41, $p < .05$). Academic emphasis showed a strong positive relationship ($r = .65$, $p < .01$).

Regression analysis showed that only academic emphasis had a significant independent effect on student achievement on the SOL test in mathematics as seen in Table 9

Table 9

Regression Analysis for OHI Subscales and Mathematics

Dependent Variable and Predictors	Beta	<i>t</i>	<i>p</i>
Math SOL			
Institutional Integrity	-.35	-1.840	.082
Collegial Leadership	-.13	-.676	.508
Resource Influence	-.08	-.288	.777
Teacher Affiliation	.26	1.147	.266
Academic Emphasis	.64	2.137	.047

Note. $R^2 = .56$, Std Error = 18.53, $p < .05$

School Safety and English Achievement

The fourth research question asked: What is the relationship between urban elementary school safety, as measured by the School Safety Survey (SSS), and student achievement on the Virginia Standards of Learning English: Reading, Research, and Literature Test in grade five? Table 6 shows that there was a strong positive relationship between school safety and success on the SOL test in English ($r = .65$, $p < .01$) with safety explaining 43% of the variance as seen in Table 10.

Table 10

Regression Analysis for School Safety and English

Dependent Variable and Predictors	Beta	<i>t</i>	<i>p</i>
English SOL			
Safety	.65	4.044	.001

Note. $R^2 = .43$, Std. Error = 18.51, $p < .001$

School Safety and Mathematics Achievement

The fifth research question asked: What is the relationship between urban elementary school safety, as measured by the School Safety Survey (SSS), and student achievement on the Virginia Standards of Learning Mathematics Test in grade five? Table 6 shows a strong positive relationship between school safety and student achievement on the SOL test in mathematics ($r = .53, p < .01$) with safety explaining 28% of the variance as seen in Table 11.

Table 11

Regression Analysis for School Safety and Mathematics

Dependent Variable and Predictors	Beta	<i>t</i>	<i>p</i>
Mathematics SOL			
Safety	.53	2.955	.007

Note. $R^2 = .28$, Std. Error = 21.44, $p < .01$

Additional Results

Table 6 also provides correlation values between English SOL test results and the mathematics test results. Though this was not a question asked in this study, it shows a high correlation between success on the English SOL test and the mathematics test ($r = .87, p < .01$). Additionally, regression analysis for the OHI and the SSS to success on the English SOL test shows that these two factors explain 44% of the variance and that safety had an independent effect as well as seen in Table 12.

Table 12***Regression Analysis for OHI, Safety and English***

Dependent Variable and Predictor	Beta	<i>t</i>	<i>p</i>
English SOL			
OHI	.551	2.245	.036
Safety	.137	.558	.583

Note. $R^2 = .44$, Std. Error = 18.81, $p < .05$

Table 13 shows results for this same regression analysis with the mathematics test. The OHI and safety accounted for only 29% of the variance in this case. Neither of the concepts had an independent effect on success on the mathematics test.

Table 13***Regression Analysis for OHI, Safety and Mathematics***

Dependent Variable and Predictor	Beta	<i>t</i>	<i>p</i>
Mathematics SOL			
OHI	.450	1.634	.117
Safety	.112	.107	.688

Note. $R^2 = .29$, Std. Error = 21.859, $p < .05$

These data reveal strong positive relationships among organizational health, school safety, and student achievement. Organizational health and four of its subscales, collegial leadership, resource influence, teacher affiliation, and academic emphasis, showed strong to moderately strong positive relationships to school safety. Organizational health and three of its

subscales, academic emphasis, resource influence, and teacher affiliation, showed a significant positive relationship to achievement on the English SOL test. Results were nearly identical with regard to the SOL Test in mathematics. Regression analysis revealed that academic emphasis had an independent effect on English and mathematics test scores. Correlations between school safety and student achievement on the English SOL test as well as the mathematics SOL test revealed a strong positive relationship.

CHAPTER FIVE: CONCLUSIONS

Summary

Introduction

Standards-based, high-stakes testing and state and federal accountability have triggered a great sense of urgency to show increases in student achievement for *all* students in American education. Administrators seek avenues by which to improve the performance of students on these benchmark tests. Beyond the obvious pedagogical issues, there are additional internal and external influences that may affect student achievement. Two of these influences are organizational health and school safety. Attention to these factors is important because a healthy school organization has been linked to increased student achievement on standardized tests (Hoy & Hannum, 1997; Hoy & Feldman, 1987; Hoy, et al., 1990; Hoy & Woolfolk, 1993; Sabo, et al., 1996). School safety has been intuitively linked to student achievement, but little empirical data exists to support this assumption. Therefore, this study is an important link between the statistical evidence of the perceptions of school safety and its relationship to student achievement.

This study investigated the concepts of organizational health, school safety, and student achievement. It sought to reveal any relationship between organizational health and school safety, organizational health and student achievement, and safety and student achievement. The design also provided an opportunity to study the relationships of the five subscales of organizational health (institutional integrity, collegial leadership, resource influence, teacher affiliation, and academic emphasis) to safety and student achievement. The Organizational Health Inventory (OHI) for elementary schools measured teachers' perceptions of the five dimensions of organizational health as well as the overall health of the organizations. The

School Safety Survey (SSS) provided data on teacher perceptions of internal and external school safety. The fifth grade Virginia Standards of Learning Tests in English: Reading, Literature, and Research and mathematics supplied evidence of student achievement.

Limitations

The selection of schools limits the study. Schools participated as a part of a district-wide research project that included all schools in the district. The sample included a relatively small sample of schools from one school district. The implication is that findings cannot be generalized to all elementary schools, which affects the external validity of the study.

The study relied on the perceptions of teachers as self-reported on the instruments. Consequently, responses were vulnerable to their thoughts, actions, events of the day, observations, and individual willingness. The school district staff administered the surveys during faculty meetings at the end of the school day, which also influenced responses due to fatigue, attitude, and other extracurricular distractions.

The study was further limited by the test used to collect student achievement data. The Standards of Learning tests are criterion-referenced tests developed to assess only Virginia Standards of Learning. Additionally, this study did not address socio-economics as a variable although other studies show that organizational health is strongly related to achievement even when controlling for socio-economics (Hoy & Hannum, 1997; Hoy, Tarter, & Bliss, 1990).

Discussion of Findings

The study produced important and significant results. These findings have similarities to previous studies with regard to organizational health and student achievement (Hoy & Hannum, 1997; Hoy & Tarter, 1997; Hoy, Tarter, & Bliss, 1990; Hoy, Tarter & Kottkamp, 1991; Hoy &

Woolfolk, 1993). More importantly, it found a significant relationship between organizational health and school safety as well as school safety and student achievement.

The descriptive data showed that of the five subscales within organizational health, collegial leadership had the greatest mean value. The low end of the range of values was above the New Jersey norm. This may mean that teachers in these schools consistently felt that the principal was friendly, open, equitable, and set high expectations for the performance of the faculty. This unusually positive perception of the principal may influence other correlations found in the study. It is important to note that there was no significant correlation between collegial leadership and student achievement in this study. However, a meta-analysis supports the notion that the principal's influence on student learning is indirect (Hallinger & Heck, 1996).

Academic emphasis had the lowest mean value of all the subscales implying that the teachers did not perceive these schools as organizations that had high expectations for student achievement. In addition, they did not perceive their schools as places that encouraged respect for those who display high academic achievement.

The mean value for safety indicated that teachers perceived these schools as a safe place to be, in general. The minimum, maximum, and mean values were above the midpoint of the scale. Mean values for student achievement in English and mathematics on the Virginia SOL tests were above the passing benchmark score of 400. In general, scores in English were slightly higher than in mathematics. It should be noted that these scores were from the second year of implementation of a new statewide test. There was a significant gain from the baseline year.

Organizational Health and Safety

Organizational health showed a very strong and positive correlation to school safety. This implies that when teachers perceived the organization as healthy, that is, "the institutional,

administrative, and teacher levels work in harmony and the school is meeting functional needs as it successfully copes with disruptive forces and directs its energies toward its mission” (Hoy & Tarter, 1997, p.30), they also perceived it to be a safe place.

At the institutional level, institutional integrity did not show a significant correlation to school safety. As discussed earlier, this dimension showed low reliability on this instrument. Thus, it did not correlate positively to any other concepts in the study except for other internal dimensions of organizational health.

At the administrative level, collegial leadership and resource influence both showed a strong positive correlation to school safety. Teachers perceived the principal to be a leader with whom they could discuss instructional issues as professionals. They also perceived the principal to be friendly, approachable, and fair. They believed there were definite standards for performance and that evaluations were meaningful and appropriate. In these schools, necessary instructional materials were provided and the principal was able to garner additional resources when needed. Teachers perceived that the principal’s recommendations to superiors were taken seriously.

When teachers perceived the principal to be their ally in the improvement of instruction, they also perceived it to be a safe school environment. Teachers felt safe in the building and on the school grounds. They felt there were clear rules for student behavior and that the principal addressed any violations of these rules.

At the teacher or technical level, teacher affiliation and academic emphasis showed a strong correlation to school safety. When teachers identified with the school, showed pride and commitment in their work, and trusted other staff members, they also felt that school was a safe

place to be. When teachers perceived their school as a place that set high academic goals and valued academic performance, they also viewed it as a safe school.

Organizational Health and Student Achievement

The results of this study were similar to previous studies of the relationship between organizational health and student achievement (Hoy & Hannum, 1997; Hoy & Feldman, 1987; Hoy, et al., 1990; Hoy & Woolfolk, 1993; Sabo, et al., 1996). There was a moderately strong positive relationship between organizational health and student achievement in English and mathematics. Resource influence, teacher affiliation, and academic emphasis each showed a positive correlation to achievement. Regression analysis of the subscales indicated that academic emphasis had a strong independent effect on performance in English and mathematics.

When teachers in this study believed that the principal was able to acquire the necessary instructional materials as well as influence superiors on their behalf, student achievement increased. When they felt a strong affiliation with the school itself, that is, they took pride in their school, identified with the school, and were committed to their students, student achievement increased. And when academic emphasis was a positive force in the school, students who earned good grades were respected and encouraged and achievement increased.

School Safety and Student Achievement

The results of the study of school safety and student achievement were unique and showed strong positive relationships. When teachers perceived the school to be a safe place, students performed well in English and mathematics. There was a stronger correlation to English achievement than to mathematics achievement.

When teachers felt safe in the school building and on the school grounds, student achievement was higher. When teachers clearly understood their responsibility and level of

authority with regard to student discipline, student achievement increased. And when teachers felt principals clearly understood their level of responsibility and authority to affect student discipline, students performed better on benchmark tests.

Implications

The results of this study have profound implications for practitioners as well as researchers in the field of education. It is apparent that when the school organization is perceived to be healthy, there is also a perception of safety and students perform better on standardized tests. The study also showed that when the school is perceived as a safe place, student achievement increases. Thus, for the practitioner, there are implications with regard to building relationships that foster a healthy school climate and managing the internal and external factors of the school in order to ensure a safe environment. This study provided data to indicate that behavior on the part of the principal and the teachers might have an impact on student achievement. Though the principal's direct influence was not apparent in this study, the indirect influence of building a healthy organization and safe environment were revealed. It also indicated that there is a relationship between principal behaviors and school safety.

It is no surprise that academic emphasis had a strong positive correlation and an independent effect on student achievement in English and mathematics. The purpose of schools is to facilitate the teaching-learning process. Therefore, academic success for all students is the implicit goal of all school organizations. When the administrators and the teachers set high expectations for students and positively recognize those who achieve, student achievement increases. Students generally work to the standard set for them and often surprise even their teachers with what they can accomplish when teachers do not predetermine the students

academic ability. Students are also more likely to openly express themselves in written and oral assignments when academic achievement is respected in the school.

Availability of instructional resources can impact student achievement in English.

Students make greater strides when necessary materials and resources are present to facilitate the teaching-learning process. English achievement requires higher order thinking and an expression of self in oral and written form. Absence of readable text, illustrative samples of multiple genres, and an environment which differentiates instruction negatively impacts student achievement.

Availability of resources has a similar impact on student achievement in mathematics.

As stated in the National Council of Teachers of Mathematics Standards, mathematics should be taught using manipulatives and offer opportunities for inquiry and real world application. When resources are not available to facilitate this form of teaching and learning, student achievement may not reach its true potential. Mathematics cannot be effectively taught or learned through textbooks alone. Encouragement and respect for those who achieve academically has an impact on achievement in mathematics as well. Academic emphasis of this sort creates an environment in which students seek ways to improve their work and increase achievement.

The high correlation of teacher affiliation to student achievement in English and mathematics implies that a sense of community may have a bearing on student achievement.

When teachers believe they belong to the school community and that the community includes all individuals in the building, there is a sense of efficacy, trust, and support for all. Positive encouragement is an outgrowth of such an environment. When students feel this support from their teachers, student achievement has the potential to increase.

These data show that when the principal is able to garner resources, when teachers have a strong sense of belonging in the school, and when student achievement is valued, scores on standardized tests are higher.

As students mature and develop cognitively, so does their level of social concern and inhibition. These data represented achievement of fifth grade students. In all cases, this was the highest grade level in the school building. This contributes to a sense of confidence in fifth graders. However, social pressure from peers as well as relationships with teachers may play a part in what students are willing to reveal about themselves. When academic achievement is not respected in the school, students do not feel secure in striving for excellence.

School safety may also play a role in the teaching-learning process. When teachers do not perceive school to be a safe place, one of the most basic human needs is not met. Therefore, their ability to focus on teaching and learning may be overshadowed by their need for safety. Administrators and teachers must also understand their role in student discipline. When rules are not clear and consistent or when violation of school rules is not addressed, school safety is at risk. External security of the school facilities may be a factor as well. Some of these issues may require assistance from the community at large as well as agencies in the community that have authority to affect change in community safety as a whole.

The evidence provided suggests that organizational health may be an important factor in effective schools and leads to the question of what can be done to improve it? The implication for administrators is one of diagnosis, planning, and organizational development. Before improvement can be made, administrators must review their data to identify any discrepancies that may exist between their perceptions and those of their teachers as well as what is desired and

what is the reality. Hoy and Tarter (1997) suggest a model that incorporates the input of all professionals within the school building. They outline the steps as follows:

- **Identify the problem – discrepancies in the profile**
- **Establish a problem-solving team – usually the teachers in the school**
- **Take on the problem – the teachers and principal come to an understanding of the difficulty**
- **Diagnose the problem – the team diagnoses the causes of the problem**
- **Develop an action plan – the team develops an action plan by examining alternatives and consequences and then selects a course of action.**
- **Evaluate your progress– assess the progress of the plan by collecting new data and evaluating discrepancies.**

This type of data provides an opportunity for school improvement based on data driven decisions and stakeholder participation.

The same may be said for school safety. Statistics related to the safety of a school are specific to the number of events or incidences where rules were violated, individuals were harmed, or the school was vulnerable to threats to personal safety in its external physical environment. The perceptions of teachers may or may not be in line with this data. Again, the administrator should consider all data when searching for discrepancies and follow through with a specific plan of action in order to address the problem. Safety includes internal issues as well as external forces. Internal safety is reflected in emotional and physical safety for all members of the school community. Clear expectations for student behavior at school positively affect the internal safety of the school. Relationships among administrators, teachers, and students affect the emotional safety of all students. These relationships may be influenced by the health of the

organization as well as the vulnerability of the organization to external forces, physical or otherwise.

External safety may be addressed by a simple audit of facility breaches in security. It may also include raising awareness to threats and providing guidelines for avoiding unsafe situations. In extreme cases, there may be a need to address external school safety with members of the community who are in a position to assist in improving the safety of the environment surrounding the school building.

Student achievement, as has been indicated in this study, may be influenced by the health of the organization and the perceptions of safety within the school. There should be a concerted effort on the part of the principal to build the relationships that foster an emphasis on and respect for achievement. Additionally, as far as it is within the power of the administrator or the school system to do so, all individuals in the school need to perceive that school is a place where it is safe to work and learn.

Recommendations for Further Research

Further research to investigate organizational health, school safety, and student achievement is necessary in order to advance the understanding in the body of knowledge. This limited study of a non-random selection of 24 urban elementary schools is only a beginning. Thus, it would be beneficial to replicate the study to include more schools in Virginia as well as those in other states where similar benchmark tests are required. Because the statistics on safety violations in schools are more predominant in middle and high schools, future studies that include school safety should include schools at these levels. A comparison of urban schools to schools in rural areas of the country may also reveal differences and relationships not evident in this study. Perceptions of safety from students, parents, teachers, and administrators might

reveal valuable information from different populations of stakeholders in the school. Data that would allow a comparison of principals' perceptions to teachers' perceptions would be valuable in identifying issues within a school building that might be addressed to improve the organizational health. Studies should be done to compare these populations within schools.

Additionally, it would be interesting to look more closely at the differences in student achievement in English and mathematics compared to the internal verses external aspects of school safety. That is, is there a difference in achievement in either of these content areas when correlated to the emotional, social aspects of safety or to the personal, physical aspects of safety?

Final Thoughts

Researchers have studied and written about organizational health for the past two decades and numerous studies have addressed student achievement. Data on school safety provides one picture of the "state of schools." This study attempted to bring these three factors together in an effort to provide valid data from which administrators might build more effective schools. This study's findings suggest that organizational health and more specifically resource influence, teacher affiliation, and academic emphasis play a part in student achievement. It also suggests that there is a relationship between organizational health and school safety. The more unique finding is what we have always known intuitively. That is, when teachers perceive school to be a safe place, this influences students and their achievements in English and mathematics increase. As this body of data grows, it is the desire of this researcher that positive change toward more effective schools will occur. This should lead to an environment that is healthy, safe, and a place where *all* students can achieve

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Appendix A

Summary of Selected Organizational Health Studies

Authors & Date	Design	Sample	Predictor & Criterion Variables or Dependent Variables	Statistics	Comments
Golazewski, T.J., Milstein, M.M., Duquette, R.D., London, W.M. (1984)	Quantitative - Pretest-Posttest Control group Personal: Environmental Fit Scheme	Four Buffalo City Elementary Schools - Agreement with school district, principals voluntarily agreed to participate - 4 of 9 who volunteered selected based on similarity of demographics - Faculties of three randomly assigned to organizational-based (OB), individual-based (IB), and combined OB and IB interventions	Perceptions of organizational stress, personal manifestations and health status as measured by the Buffalo Teacher Stress Inventory Project Spring 1982	ANOVA - significant at .01 for most factors	Middle of the road schools of those volunteering - Only 9 of 50 principals volunteered - Definition of stress unclear - Mortality an issue because of the stress itself. Those feeling most stress are most likely to drop out. Multiple incentives given to those who stayed. - Ave. age < 40.
Hoy, W. K., Hannum, J.W. (1997)	Quantitative - Descriptive	Study unit is the school - 86 NJ middle schools in which all teachers at faculty meeting responded to survey, schools not randomly selected, but representation included urban, suburban and rural from diverse geographic areas as well as all socioeconomic levels in the state based on the state's measure of SES, schools with 15+ faculty members, 15 of 21 counties represented.	Organization Health Inventory for Middle Schools (OHI-RM) a 45-item instrument that measures aspect of school climate. Descriptive statements to which teachers respond on a 4-point Likert-type scale from rarely to very frequently; Student achievement measured using NJ Eighth Grade Early Warning Test (EWT) given to all eighth graders in the state. SES measured by district factor groups (DFG) as computed by the state of NJ	Means, standard deviations and correlations @ between health and each aspect of student achievement p=.01 and multiple regression analyses	Generalizable only to NJ.

Authors & Date	Design	Sample	Predictor & Criterion Variables or Dependent Variables	Statistics	Comments
Hoy, W. K., Feldman, J.A. (1987)	Quantitative - Descriptive, test of the instrument	Seventy-eight secondary schools in NJ who agreed to participate. School sample not randomly selected, but representation included urban, suburban and rural from diverse geographic areas as well as all socioeconomic levels in the state based on the state's measure of SES. Urban schools underrepresented.	Organization Health Inventory for Secondary Schools (OHI-RM) a 44-item instrument that measures seven dimensions of school climate/organizational health. Descriptive statements to which teachers respond on a 4-point Likert-type scale from rarely to very frequently	Mean scores, item correlation and factor analysis as well as second-order factor analysis	NJ only. Urban schools underrepresented. School participation voluntary.
Hoy, W.K., Tarter, C.J., Bliss, J.R. (1990)	Quantitative - Descriptive, comparative	872 teachers in 58 secondary schools in an Eastern industrial state. School sample not randomly selected, but representation included urban, suburban and rural from diverse geographic areas as well as all socioeconomic levels in the state based on the state's measure of SES. Large urban schools underrepresented.	Organizational Climate Description Questionnaire-Rutgers Secondary a 34-item survey measuring five dimensions of organizational climate and addressing the psychometric issues - Organizational Health Inventory a 44-item survey measuring similar dimensions and built on Parsonian social system theory. Descriptive statements to which teachers respond on a 4-point Likert-type scale from rarely to very frequently. Academic performance measured using the High School Proficiency Test (HSPT) a NJ statewide test in reading, writing and math. SES measured using state calculations of DFG.	Means, Standard Deviations, Reliabilities and Correlations, $p=.01$ in most calculations	NJ only. Large urban schools underrepresented.

Authors & Date	Design	Sample	Predictor & Criterion Variables or Dependent Variables	Statistics	Comments
Hoy, W.K., Woolfolk, A.E. (1993)	Quantitative - Descriptive	179 teachers randomly selected from 37 elementary schools in NJ representation included urban, suburban and rural from diverse geographic areas as well as all socioeconomic levels in the state based on the state's measure of SES - 27 drawn from districts above average in wealth as determined by the state. Sample skewed toward more advantaged districts.	Teacher Efficacy Scale (Woolfolk and Hoy version) measuring general and personal teaching efficacy and OHI-E a 39-item survey measuring six dimensions of school health. Descriptive statements to which teachers respond on a 4-point Likert-type scale from rarely to very frequently. Each sale has high reliability.	Means, standard deviations and correlation and regression analyses	Sample skewed toward more advantaged districts.
Sabo, D.J., Barnes, K., Hoy, W.K. (1996).		Sample unit is the school. Eighty-six middle schools in which virtually all teachers responded to a battery of instruments. Schools were not randomly selected, but representation included urban, suburban and rural from diverse geographic areas as well as all socioeconomic levels in the state based on the state's measure of SES	OHI-M a 45-item survey measuring six dimensions and having great reliability. Teachers respond on a 4-point Likert-type scale. Decision involvement Analysis (DIA) a 27-item questionnaire consisting of managerial and technical areas. Teachers responded based on their amount of participation and their desire to do so. Descriptive statements to which teachers respond on a 4-point Likert-type scale from rarely to very frequently	Means, Standard Deviations zero-order correlation coefficients and multiple regression analyses. p=.01	NJ only.

Appendix B
Sample Surveys

Organizational Health Inventory Fall 2000 Elementary Faculty

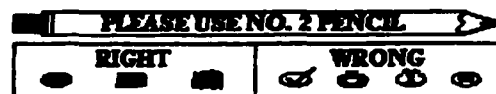
School I.D. Number



0	0	0
1	1	1
2	2	2
3	3	3
4	4	4
5	5	5
6	6	6
7	7	7
8	8	8
9	9	9

Your Gender

Male Female



Your Race/Ethnic Origin

African American
 White (Not Hispanic)
 Other

Very Frequently Occurs

Often Occurs

Sometimes Occurs

Rarely Occurs

	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. The principal gets what he or she asks for from superiors.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. The principal accepts questions without appearing to snub or quash the teacher.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Students neglect to complete homework.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. The school is vulnerable to outside pressures.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. The principal treats all faculty members as his or her equal.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. Teachers are provided with adequate materials for their classrooms.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. Community demands are accepted even when they are not consistent with the educational program.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16. Teachers receive necessary classroom supplies.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18. Students respect others who get good grades.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20. The principal's recommendations are given serious consideration by his or her superiors.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
22. Supplementary materials are available for classroom use.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
24. Students seek extra work so they can get good grades.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Items that Compose the Five Subscales of the OHI

Institutional Level

<i>Institutional Integrity Items</i>	<i>Questionnaire Number</i>
1. The school is vulnerable to outside pressures.	8 *
2. Community demands are accepted even when they are not consistent with the educational program.	14 *
3. Teachers feel pressure from the community.	19 *
4. Select citizen groups are influential with the board.	25 *
5. The school is open to the whims of the public.	29 *
6. A few vocal parents can change school policy.	30 *

Administrative Level

<i>Collegial Leadership Items</i>	<i>Questionnaire Number</i>
1. The principal explores all sides of topics and admits that other options exist.	1
2. The principals discuss classroom issues with teachers.	3
3. The principal accepts questions without appearing to snub or quash the teacher.	4
4. The principal treats faculty as his or her equal.	10
5. The principal goes out of his or her way to show appreciation to teachers.	11
6. The principal lets faculty know what is expected of them.	15
7. The principal conducts meaningful evaluations.	17
8. The principal maintains definite standards of performance.	21
9. The principal looks out for the personal welfare of faculty members.	26
10. The principal is friendly and approachable.	34

<i>Resource Influence Items</i>	<i>Questionnaire Number</i>
1. The principal gets what he or she asks for from superiors.	2
2. Extra materials are available if requested.	5
3. The principal is able to influence the actions of his or her superiors.	9
4. Teachers are provided with adequate materials for their classrooms.	12
5. Teachers receive necessary classroom supplies.	16
6. The principal's recommendations are given serious consideration by his or her superiors.	20
7. Supplementary materials are available for classroom use.	22

Technical Level

<i>Teacher Affiliation Items</i>	<i>Questionnaire Number</i>
1. Teachers in this school like each other.	13
2. Teachers exhibit friendliness to each other.	23
3. Teachers express pride in this school.	27
4. Teachers identify with the school.	28
5. Teachers accomplish their jobs with enthusiasm.	32
6. The learning environment is orderly and serious.	33
7. There is a feeling of trust and confidence among the staff.	35
8. Teachers show commitment to their students.	36
9. Teachers are indifferent to each other.	37 *

<i>Academic Emphasis Items</i>	<i>Questionnaire Number</i>
1. Students neglect to complete homework.	6 *
2. Students are cooperative during classroom instruction.	7
3. Students respect others who get good grades.	18
4. Students seek extra work so they can get good grades.	24
5. Students try hard to improve on previous work.	31

* Scored in reverse.

Safe School Questionnaire EMPLOYEES

School Name: _____



- Use a No. 2 pencil only
- Fill in bubble completely
- Erase completely to change
- Do not fold or staple

Your Gender

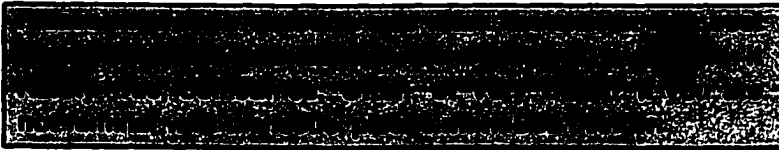
Male Female

Your Race/Ethnic Origin

African American
 White (Not Hispanic)
 Mixed
 Other

Position

Teacher /Certified Staff
 Administrator
 Other Staff



	Rarely	Sometimes	Often	Very Often	Don't Know
1. People feel safe in the building during the school day.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. The school has clear, consistent rules for student behavior.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. Students feel the rules are fair.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. It is safe to stay in the school after students have left the building.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. The school building is generally safe from outside interference or intruders.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. Students feel safe and secure on the school bus.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. Teachers in my school appear confused or unsure about how much authority they have to act in disciplinary or other student safety situations.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. School grounds are generally safe from outside interference or intruders.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. People feel safe at varsity or J.V. sporting events.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10. People feel comfortable entering and leaving the school for school-sponsored evening activities.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
11. Administrators in my school appear confused or unsure about how much authority they have to act in disciplinary or other student safety situations.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12. Supervision on the school fields, playground and/or other outside areas assure student safety.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
13. The school administration acts on student violations of school rules.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
14. Teachers are clearly aware of their responsibilities related to school and student safety.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
15. Students feel safe in non-classroom areas like the cafeteria, corridors, locker rooms, restrooms, and the like.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
16. Students are free from sexual harrassment at school.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
17. Students threaten others in the school with physical harm.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
18. Portable classrooms present safe, secure environments for students and staff.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
19. In general, I am satisfied with the level of safety in this school.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please write any comments you may have on the back of this form

Appendix C

Letter of Permission

December 15, 2000

Harriet L. Jaworowski
408C Bosley Ave.
Suffolk, VA 23434

Dear Mrs. Jaworowski:

You have permission to use the OHI data collected by _____ in October
2000. These data may be used for research purposes only. Names or any other
identifiers for individuals, for schools, or for the _____ may not be used
in any publication that may emerge from your use of these data.

Yours truly,



Vita**Harriet Ling Jaworowski**

Birth date: February 18, 1957

Birthplace: Hampton, South Carolina

Education: 1986 - 1991 The University of South Carolina
Columbia, South Carolina
Master of Science Education

1975-1979 Furman University
Greenville, South Carolina
Bachelor of Science in Biology