

2002

School climate : a review of literature

Sarah Galloway
University of Northern Iowa

Copyright ©2002 Sarah Galloway

Follow this and additional works at: <https://scholarworks.uni.edu/grp>

Part of the [Educational Psychology Commons](#), and the [Educational Sociology Commons](#)

Let us know how access to this document benefits you

Recommended Citation

Galloway, Sarah, "School climate : a review of literature" (2002). *Graduate Research Papers*. 717.
<https://scholarworks.uni.edu/grp/717>

This Open Access Graduate Research Paper is brought to you for free and open access by the Graduate College at UNI ScholarWorks. It has been accepted for inclusion in Graduate Research Papers by an authorized administrator of UNI ScholarWorks. For more information, please contact scholarworks@uni.edu.

School climate : a review of literature

Abstract

The purpose of this paper is to review the current literature and research on school climate to determine how school climate affects achievement, social, emotional and behavioral development, school safety, and school attendance and completion. Reviewing these outcomes for students leads the author to address principles for school climate measurement and improvement, as presented in the school climate literature. The measurement and improvement programs are reviewed in the context of school psychologists contributing to climate interventions.

SCHOOL CLIMATE:
A REVIEW OF LITERATURE

A Research Paper
In Partial Fulfillment
of the Requirements of the Degree
Master of Arts in Education: Educational Psychology

Sarah Galloway
University of Northern Iowa

August 2002

This Research Paper by: Sarah Galloway

Entitled: School Climate: A Review of Literature

has been approved as meeting the
research paper requirement for the Degree of

Master of Arts in Education: Educational Psychology

Donald W. Schmits

Director of Research Paper

Barry J. Wilson

Co-Reader of Research Paper

Donald W. Schmits

Graduate Faculty Advisor

Barry J. Wilson

Head, Department of Educational
Psychology & Foundations

8.2.02

Date Approved

TABLE OF CONTENTS

CHAPTER	Page
I. INTRODUCTION	4
Purpose	5
Importance	5
Structure	5
II. REVIEW OF LITERATURE	7
Characteristics of a Positive School Climate	7
Table 1. Ingredients of a healthy supportive school climate	8
History of School Climate Research	9
Organizational Climate	9
Health Metaphor	9
School Effects and Input-Output Theory	10
Ecological Metaphor	11
Research on Student Outcomes Associated with Climate	12
Academic Outcomes	12
Achievement	12
School performance in low-income children	15
Social, Emotional, and Behavioral Outcomes	18
Academic failure and antisocial behavior	18
Social adjustment and behavior	19
Self-esteem	21

School Safety	22
School Attendance and Completion	23
Best Practices in Promoting Positive School Climate	24
Measurement	25
Programs and Methods to Promote Positive School Climate	26
Large-scale effort	26
One schools effort to improve its climate	28
Improvement efforts targeting specific climate elements	31
Critique of School Climate Research	35
School Psychologist's Role	38
III. SUMMARY/CONCLUSIONS	40
Questions and Future Directions	43
References	44

Chapter 1

Introduction

Based on a review of over 200 references, Anderson (1982) stated that school climate influences many outcomes for students, such as the development of cognition and affect, values, and a sense of satisfaction with one's self. Anderson (1982) also found that there was a general consensus among researchers that student behavior could be explained and predicted if the influences of school climate could be understood. Although school climate is difficult to define, there is agreement among researchers that the construct of school climate is an influential one that is worthy of further study (Anderson, 1982).

School climate is defined in a variety of ways by educators, students, parents, and researchers (Lehr & Christenson, 2001). Lehr and Christenson (2001) caution readers of school climate literature to recognize the variety of operational definitions used to study the construct of school climate. This caution applies to this review as well, but despite the many ways of defining climate, combined data from many studies points to the importance of the school environment in student outcomes (Lehr & Christenson, 2001). For the purposes of this review of literature, a school's climate is defined as "its atmosphere for learning. It includes the feelings people have about the school and whether it is a place where learning can occur. A positive climate makes a school a place where both staff and students want to spend a substantial portion of their time; it is a good place to be" (Howard, Howell, & Brainard, 1987, as cited in Lehr & Christenson, 2001, p. 929). This definition is fitting for this review because it frames climate as the

“feel” of a school rather than accepting one operational definition, such as parent perceptions or values and beliefs of school staff.

Purpose

The purpose of this paper is to review the current literature and research on school climate to determine how school climate affects achievement, social, emotional and behavioral development, school safety, and school attendance and completion.

Reviewing these outcomes for students leads the author to address principles for school climate measurement and improvement, as presented in the school climate literature. The measurement and improvement programs are reviewed in the context of school psychologists contributing to climate interventions.

Importance of the Review

A review of school climate literature is necessary because attempts to influence the growth and development of students at the systems level are becoming increasingly important as support systems in schools are in danger of losing funding. School climate appears in the educational literature as a potential positive factor in student development, but there is a lack of consensus on what school climate is and the mechanisms by which it enhances outcomes for students. By reviewing the literature on four student outcomes, this paper will attempt to clarify some of the principles needed to transform the abstract concept of climate into actual advances for students.

Structure

First, the author presents characteristics of a positive school climate. Then the development of the field of school climate research is summarized, including common

metaphors and theories used to study climate. Next, research in four areas of student outcomes is considered: achievement, social, emotional and behavioral development, school safety, and school attendance and completion. Following the review of how school climate affects these four areas, best practices in promoting positive school climate are considered. These practices include measurement of climate as well as programs and strategies that can be used to promote positive school climate. The improvement models discussed include a large-scale school reform plan that includes school climate improvement components, a specific climate improvement effort developed and implemented at one school, and several strategies that target specific climate elements. The author critiques the school climate research and addresses the role of the school psychologist in promoting positive school climate. Finally, this paper addresses directions and questions for future research.

Chapter 2

Review of Literature

Characteristics of a Positive School Climate

The school environment has been shown to have a strong influence on the growth and development of young people (Lehr & Christenson, 2001). Schools that have positive climates support the growth and development of young people in several areas, ranging from academic achievement to social emotional learning. Before looking at the specific student outcomes related to positive school climate, it will be helpful to review some of the ingredients of a positive school climate.

A review of school climate research by Haynes, Emmons and Ben-Avie (1997) generated a list of ingredients of a healthy and supportive school climate. This list includes student motivation, collaborative decision making, equity and fairness, order and discipline, parent involvement, and positive school community relations. Other features of a positive climate focus on the staff: their dedication to student learning, their expectations, and the principal's leadership. Characteristics of the school building and resources are also factors in climate, as are relationships among students and between students and staff. This list is presented and described more fully in Table 1. Lehr and Christenson (2001) state that there is substantial overlap between lists of school climate components, with most components applying to all students. Comparing the list in Table 1 to a list by the American Association of School Administrators (AASA) (Sweeney, 1988) demonstrates this overlap. The AASA list includes these attributes of a "winning" school climate: "a supporting, stimulating environment, student-centered, positive

expectations, feedback, rewards, a sense of family, closeness to parents and community, communication, achievement, trust,” (Sweeney, 1988 p. 1). The right combination of these characteristics builds the foundation for a successful school (Sweeney, 1988).

Table 1
Ingredients of a Healthy Supportive School Climate

Component	Description
1. Achievement motivation	Students believe they can learn and want to learn.
2. Collaborative decision making	Parents, students, and staff are all involved in decisions that affect the school.
3. Equity and fairness	Students are treated with equity and fairness regardless of ethnicity or gender.
4. General school climate	Interactions within the school community are characterized by feelings of trust and respect.
5. Order and discipline	Student behavior is appropriate to the school setting.
6. Parent involvement	Parents participate frequently in school life.
7. School-community relations	The community is involved in supporting the school.
8. Staff dedication to student learning	Teachers exert effort to get students to learn.
9. Staff expectations	Staff expect that students will do well academically and lead successful lives.
10. Leadership	The principal guides the direction of the school and the creation of a positive climate.
11. School building	The appearance of the school building.
12. Sharing of resources	All students have equal access to school activities, materials, and equipment.
13. Caring and sensitivity	The principal shows consideration for the needs of students, parents, and school staff.
14. Student interpersonal relations	Caring, respect, and trust exist among students.
15. Student-teacher relations	Caring, respect, and trust exist between students and teachers.

Source: Haynes, Emmons, & Ben-Avie (1997).

History of School Climate Research

Organizational Climate

School climate research has evolved out of organizational climate and school effects research (Anderson, 1982). Organizational climate research developed in the field of business, as business researchers in the early 1960s became interested in how environmental and situational influences impacted the productivity of individual workers (Anderson, 1982). Haplin and Croft (1963) began using the organizational climate paradigm as a way to examine the climate of a school. The approach of Haplin and Croft emphasized the behaviors of the teachers and principals and was based on the teachers' perceptions of climate.

Health Metaphor

Around the same time that Haplin and Croft (1963) were researching organizational climate, the metaphor of health was also being used as a way to describe climate (Hoy & Feldman, 1999). The health metaphor was first used by Miles (1969) as a way to talk about schools. A healthy school, one with a positive climate, was one that thrived in its environment by continuously developing and expanding its ability to cope over time (Hoy & Feldman, 1999). A healthy school was considered able to handle outside disruptions and direct its energy towards the mission of the school. The original conceptualization of organizational health put forth by Miles has not been reliably and validly operationalized, but the concept of a healthy school remains a part of school climate research and there are current organizational health instruments available to assess school climate.

School Effects Components and Input-Output Theory

As a companion to organizational climate research, early school effects research focused on observable characteristics of the school that influenced student achievement (Kuperminc, Leadbeater, Emmons, & Blatt, 1997). Examples of characteristics studied were tangible resources (e.g. books) and years of experience for teachers. In this precursor to school climate research, school effects researchers compared the amount of resources put into a school with the achievement outcomes of the school (Anderson, 1982). Early approaches such as these to study school climate are related to an economic theory of inputs and outputs (Anderson, 1982). The underlying assumption of this theory is that the correct combination of inputs can be assembled to create the desired output. However, no consistent relationship between the resources put into schools and the outcomes for students was discovered (Good & Weinstein, 1986).

Based on input-output theory, observable features of a school were found not to influence student achievement, and thus it was assumed that differences among schools did not account for differences in student achievement. This early research considered only the existence of resources in schools and not how the resources were used. Current research in school climate focuses more on the utilization of resources at a school than on the resources themselves (Good & Weinstein, 1986).

Ecological Metaphor

The field of school climate research differentiated itself from school effects research and shifted from a focus on physical elements of the school to a focus on unobservable elements that make up a school's environment. Similar to the approach

taken by Haplin and Croft (1963) in examining the organizational climate of schools, the unobservable elements include the behavior of teachers and principals as well as the values shared by students and staff (Kuperminc et al., 1997). These ideas were extended as research began to focus on teacher and student perceptions of school climate. This shift tended towards an ecological view of the school rather than an input-output view. Ecological theory is one of the foundational theories behind school climate research (Anderson, 1982). Ecological theory views the school from the systems level, considering the whole school and its social processes (Anderson, 1982). From this ecological perspective, all variables within the system of the school are potentially alterable to influence outcomes for students (Anderson, 1982).

The social-ecological theory extends elements of the ecological theory by focusing on perceptions held by teachers and students of the social climate of the school (Kuperminc et al., 1997). According to this theory, different individuals experience unique phenomena within the same school setting, thus the perception of the environment is what determines an individual's experience rather than objective characteristics of the environment itself (Kuperminc et al. 1997).

Research on Student Outcomes Associated with School Climate

The general premise behind research in school climate is that healthy climates promote student growth and development while unhealthy climates become risk factors in the lives of students (Anderson, 1982). Research on school climate has demonstrated relationships between school climate and some specific outcomes for students (Lehr & Christenson, 2001). School climate issues affect four areas in particular: achievement,

social, emotional and behavioral development, school safety, and school attendance and completion. The following will be a review of school climate research that relates these four topics.

Academic Outcomes

Achievement. Research in the field of school effectiveness converged on the idea that certain school factors are related to higher levels of student achievement (Purkey & Smith, 1983). Differences in student achievement between schools were generally found to be greater than individual student differences would predict (Good & Weinstein, 1986). In a review of effective schools literature, Purkey and Smith (1983) state that the success of a school, in terms of enhancing student learning, is largely determined by its climate.

Part of the existing body of school climate research is aimed at investigating the link between climate and student achievement. Brookover, Schweitzer, Schneider, Beady, Flood, and Wisenbaker (1978) examined the relationship between school climate and the academic achievement of elementary school students through a factor analysis. In this early study, school climate was defined as the academic norms, beliefs, and expectations of the school. It was hypothesized that the climate of a school was separate from the composition of the school and that climate could explain the variation in achievement between schools when variables such as socio-economic status (SES) and racial composition could not.

The instrument used by Brookover et al. (1978) was a questionnaire developed and pre-tested on elementary school students from low SES schools. The items on the

questionnaires were designed to provide measures on 14 school climate variables that were gathered by the factor analysis into three categories: student, teacher, and principal. The student cluster included variables such as sense of academic futility, future evaluations and expectations, and academic norms. The teacher category included ability and quality of education, expectations for high school completion, and perception of principal's expectations. The principal factors referred to parent expectations, efforts to improve, and expectations for students.

The dependent variable of achievement was measured with the mean achievement of fourth grade students on a state-wide assessment of reading and mathematics skills (Brookover et al., 1978). To test the ability of climate variables to aggregate high and low achieving schools, the relationship between climate and achievement was compared to the relationship between school composition variables and achievement. The school composition variables used in this study were SES and racial composition.

There were three groups of students in the sample: a representative state sample, a black sample, and a white sample. The state sample of 68 schools was a random sample of schools containing fourth and fifth grade students. The black sample was composed of seven majority black schools from the state sample and 23 majority black schools selected from the state population of majority black schools containing fourth and fifth grade students. In all, 4,737 students, 177 teachers, and 30 principals participated from this group. The white sample was composed of 61 schools from the state sample that had 50% or more white students. From these 61 schools, 6,729 students, 276 teachers, and 61 principals participated in the study.

The school climate questionnaires were administered to students, teachers, and principals in each school. The strongest correlations between school climate variables and student academic achievement were between the student sense of academic futurity factor and achievement: state sample $r = .769$, black sample $r = .694$, white sample $r = .514$. The only other correlation between school climate variables and academic achievement that was above .6 was for teacher's present evaluations and expectations for high school completion, $r = .664$. These correlations are modest, although they were statistically significant.

The main results discussed by Brookover et al. (1978) were from a multiple regression analysis of the data. In this analysis, more of the variance in school achievement was accounted for by school climate than was accounted for by SES and racial composition. When school climate was considered first in the regression analysis, SES and racial composition added little to the explanation of the variance between schools. The SES and percent white factors explained only 5 to 10% of the variance in achievement beyond what was explained by climate, while 72% of the variance in average school achievement was explained by climate in the state sample. In the black sample, climate variables explained 36% of the variance beyond that explained by SES and percent of white students in the schools. The authors concluded that a positive school climate was more influential in high achievement than specific demographic features of the student population. That is, schools with high achievement and a large proportion of low SES students were characterized as having positive school climates.

The methods used in the Brookover et al. (1978) study were strong in that they assessed multiple perspectives of climate and had a large number of participants, but the evidence of influence on student achievement is still a bit limited. This study did demonstrate that school climate is a factor separate from school composition, as each factor contributed differently to the variance in student achievement. The authors conclude that characteristics of the school's composition do not necessarily improve the school's climate (Brookover et al., 1978). They acknowledge that they were unable to determine what did influence climate. The relationships between climate factors and achievement point to the possibility of climate improvements influencing student achievement, but the factors that truly create climate must first be identified.

School performance in low-income children. Building upon the ideas of early achievement research, recent studies have investigated the role of school climate in the school performance of low-income children. Esposito (1999) investigated the relationship between school climate in urban, low-income schools and problems in student behavior and achievement. Esposito argued that understanding the role of the school environment as a risk or protective factor in child development is essential to promoting the growth and development of children in poverty.

Esposito (1999) examined the relationship between school climate and school performance. The design was longitudinal, following students from kindergarten to second grade. School climate was examined as a determinant in school success and operationally defined as the opinions of parents about the school. The measure of parent opinion was the School Climate Survey (Form A) developed by Kelley, Glover, Keefe,

Halderson, Sorenson, and Speth (1986, as cited in Esposito, 1999). The School Climate Survey has 46 items requiring responses on a 5-point Likert scale (1=strongly agree, 5=strongly disagree). The items on this instrument loaded onto five school climate factors: teacher/student relationships, administration, security/maintenance, student academic orientation, and parent and community-school relationships. The dependent variables for school performance included parent-rated school adjustment, teacher-rated social skills and academic competence, and achievement. Achievement was measured by student performance on the Woodcock-Johnson standardized test.

The participants in the study were all families of children who attended preschool at Head Start. Due to attrition during the two years of data collection, the sample decreased from 189 at kindergarten to 152 students in second grade. Roughly 80% of the sample was African American, 18% Hispanic, and 2% Caucasian.

The strongest association found between overall school climate and children's academic and social development was the correlation between parents' perception of their children's adjustment to school and parents' perception of the climate of the school (Esposito, 1999). Although this correlation was statistically significant at the $p < .001$ level, the coefficients were small: $r = .24$ for kindergarten, $r = .38$ for first grade, and $r = .33$ for second grade. When parents rated the climate of the school positively, they rated their children as being well adjusted to it. The practical significance of these statistically significant results may be small, but they show promise in the influence of school climate on student adjustment.

The teacher/student relationship factor showed the strongest correlation with children's adjustment to school, suggesting that parents view the relationships between teachers and students as centrally important to the overall climate of the school. The correlations between school adjustment and teacher-student relationships were also significant at the $p < .001$ level, but they were also small, ranging from $r = .27$ in kindergarten to $r = .43$ in first grade. The quality of relationships within the school was a strong contributing factor to the overall climate of the school. Interpersonal relationships are influential in parents' perceptions of school climate (Esposito, 1999). Again, these correlations are small, but the data provide insight into parents' views of climate. Identifying the important influence of relationships on parents' perceptions of climate points to relationships as an area the school can develop to improve climate.

A multiple regression analysis was conducted on the school climate and achievement data. All of the variance explained by climate was slight (7% in reading, 14% in math), yet Esposito (1999) claims that climate influences children's academic achievement because of statistically significant results. Although the question of practical significance must be considered, the existence of a relationship greater than that expected by chance between climate and achievement merits further investigation. This is especially true for at-risk students such as those in this sample, for whom climate can either become a risk or protective factor (Freiberg & Stein, 1999).

Social, Emotional and Behavioral Outcomes

Academic failure and antisocial behavior. Along with specific learning outcomes, school climate has been researched as a factor influencing the social,

emotional, and behavioral development of young people. In a critical review of antisocial behavior, academic failure, and school climate, McEvoy and Welker (2000) analyzed the connections between not only climate and academics, but also behavior in school. The goal of the expert opinions provided in this review was to address the need for programs that focus on improving both the academic and prosocial behavior of at risk students. The authors posited that there is a reciprocal relationship between academic failure and antisocial behavior, with each having an influence on the other. Attempts to treat individuals with antisocial behaviors have been largely ineffective, thus a shift in focus is needed. To prevent academic failure and antisocial behaviors and to effectively intervene in the lives of students who already exhibit these behaviors, the environment in which the behaviors occur must become the focus. The central component of an effective intervention or prevention program depends on the program's ability to identify and alter the climates in which academic failure and antisocial behavior occur.

McEvoy and Welker (2000) emphasize the need for school-wide changes, many of which relate to improving the school's climate and are aimed at increasing prosocial behavior and academic success. The school climate aspects of creating a successful intervention program to address school failure and antisocial behavior involve developing effective relationships among all of the people at a school and increasing the amount of child-adult contact time. For example, using service learning experiences to develop academic and social skills, providing opportunities for teachers to interact and learn from each other's practice, and reducing class sizes are potential climate improvements that may develop prosocial behaviors and promote academic success in at risk students. The

climate improvements may positively influence student school success and prosocial behavior because they address the interconnectedness of these factors. School climate improvements may be an important piece of effective programs to increase school outcomes for students who are at risk for school failure and antisocial behaviors because they focus on the environment, not just the individual students.

Social adjustment and behavior. Although McEvoy and Welker (2000) theorize about school climate rather than empirically test its effects on social adjustment, their logic points to another area that school climate research can potentially influence. A study by Kuperminc and colleagues (1997) investigated the role of climate as a general protective factor in adolescent development, thus addressing some of the ideas put forth by McEvoy and Welker (2000).

Kuperminc and colleagues (1997) examined the relationship between school climate and the social adjustment of adolescents in order to investigate the role of a positive school climate in protecting against maladjustment. The School Climate Survey (Haynes, Emmons, & Comer, 1993; as cited in Kuperminc et al., 1997) was used to assess climate while multiple measures of internalizing and externalizing problems were used as measures of adjustment. The School Climate Survey is a 47-item instrument that assesses student perceptions of school climate characteristics including those listed in Table 1. To measure externalizing and internalizing behaviors, a self-report and teacher report measure were used. Subjects were 499 sixth through eight grade students at a large urban school district in New York state. The sample was economically and ethnically diverse (Kuperminc et al, 1997).

Differences were found between boys and girls on the behavioral and school climate measures (Kuperminc et al., 1997). School climate perceptions explained 16% of the variance for boys ($p < .001$) on self-reported externalizing problems, while school climate only explained 2% of the variance for girls on the same measure. Also for boys, 2% of the variance on the teacher-reported internalizing problems was explained by climate. For girls there was no association with internalizing measures. School climate perceptions explained more internalizing and externalizing problems for boys than for girls. Although the direction of the relationship is not clear, the authors claim that the adjustment of boys may be facilitated by a supportive school climate. The practical significance of these multiple regression statistics may be limited, but the difference between boys' and girls' responses to climate are worth noting for future research.

The statistically significant ($p < .001$) finding for boys' externalizing problems and climate suggests that the often disruptive externalizing behaviors of boys may be susceptible to changes in school climate. It would, of course, be necessary to identify the proper elements of school climate to change. African American boys who had positive perceptions of school climate were reported as having fewer externalizing problems than their peers with negative climate perceptions, thus Kuperminc et al. (1997) suggest that school climate may serve as a protective factor against "culturally linked risk" (p. 85) for boys with externalizing problems.

One finding of this study contrasts the achievement studies previously reviewed in this paper. Student grade point average was not significantly associated with school climate perceptions. Although grade point average was not the measure used by

Brookover et al. (1978) or Esposito (1999), one would expect standardized achievement test data to correlate with grade point average. The lack of significant relationships in Kuperminc et al. (1997) suggest that more research is needed to determine the effect of school climate on student achievement.

Self-esteem. Hoge, Smit, and Hanson (1990) examined school climate as a possible influence on middle school students' self-esteem. Upon reviewing self-esteem research, Hoge and colleagues stated that school climate impacts self-esteem, with climates that encourage creativity and provide students with opportunities to make choices being associated with high self-esteem. Also, the more autonomous students felt in their school, the higher their self-esteem (Ryan and Grolnick, 1986, as cited in Hoge et al., 1990). During a two-year longitudinal study, Hoge et al. examined the relationship of several variables, including school climate, to student self-esteem. The subjects were sixth graders when the study began and were from two suburban Midwestern middle schools, representing diverse socioeconomic backgrounds. Ninety-five percent of the sample were white. Self-esteem was measured with three established self-esteem instruments and climate was measured in the spring of each school year using the 23-item Quality of School Life Scale created by Epstein and McPartland (1975, as cited by Hoge et al., 1990).

Data from a regression analysis demonstrates a relationship between school climate and two types of self-esteem: general and academic (Hoge et al., 1990). On the general, or global, self-esteem measure, school climate explained about 14% of the variance in student self-esteem ($p < .05$) in both sixth and seventh graders. For academic

self-esteem, roughly 17% of the variance was explained by school climate ($p < .05$) for the sixth graders while 16% was explained for the seventh graders ($p < .05$).

Hoge et al. (1990) point to measuring specific elements of school climate as a direction for future research on climate and self-esteem. Determining which aspects of climate influence student self-esteem would be essential in developing a climate improvement project aimed at developing student self-esteem. As with the previous studies reviewed, it is difficult to isolate specific climate elements that influence this student outcome. Although this research failed to illuminate specific features of climate that influence self-esteem it shows that school climate does have the potential to influence student self-esteem and suggests the need for further research in this area.

School Safety

Another major component of school life that school climate can promote is the safety level of a school. In a position statement on prevention and responding to school violence, the National Association of School Psychologists (NASP) recognized that changing the conditions of a school that are conducive to violent acts is a way to prevent violence (NASP, 1999). A positive school climate is not conducive to violence. The Surgeon General's report on youth violence also acknowledged improving the social climate of a school as a component of an effective violence prevention program.

Ethical considerations prohibit experimental research on violence in schools, but there is evidence from instances of school violence that violent youth are often alienated from the general school population (Dwyer, 1999). A positive school climate has the potential to prevent this alienation and thus increase the safety of a school. In a NASP

report of school violence, school climate was cited as an essential component of a school safety program (Furlong, G. Morrison, Chung, Bates, & R. Morrison, 1999). Creating a positive school climate can change the conditions in a school that directly or indirectly support violent behavior (Furlong et al., 1999).

School Attendance and Completion

In a review of literature on high school dropouts, Rumberger (1987) found that students' dislike of school was selected as a reason for dropping out by the largest percentage of dropouts regardless of ethnicity or gender. In a sample of 235 males in St. Louis, Robins and Ratcliff (1980) report that 75% of those in the sample who were truant in elementary school and high school eventually dropped out. Dislike of school is a common reason given for dropping out or being truant (Rumberger, 1987). School climate research focuses on making schools places where students want to be, thus there is a connection to truancy and dropout prevention.

Students do not want to remain in a school where they feel they are not welcome or wanted (Haynes et al., 1997). Such negative perceptions of climate variables suggest that students who dislike school and feel alienated from school will choose to be anywhere but school. Student attendance drops when the climate of the school has unnecessarily restrictive rules, high teacher turnover, racial differences between students and teachers, and violence in school (Rohrman, 1993 as cited in Dougherty, 1999). Creating and maintaining a positive school climate is one strategy to prevent student absenteeism (Haynes et al., 1997).

In their study of the relationship between school completion and perceived school climate, Worrell and Hale (2001) reported that when reflecting back on the climate of their high school while no longer in high school, dropouts rated school climate more negatively than graduates. It is difficult to know exactly what factors of school climate are negatively perceived by students who drop out of school, but there is potential to keep at risk students from dropping out if climate can be improved.

Best Practices in Promoting Positive School Climate

Developing and maintaining a positive school climate requires persistent effort by the staff of a school as well as the community that supports the school (Haynes et al., 1997). There is not one standard way to create a positive climate in every school. Each school must tailor a school climate improvement plan to meet its own needs, but there are some general guidelines that can facilitate the creation of a positive school climate (Lehr & Christenson, 2001). Fraser (1999) proposes a general framework for school climate improvement. First, a school should assess its current climate using an instrument that fits the needs of their school and assesses both student and teacher perceptions of climate. Next, the data from the assessment should be used to give feedback to the staff of a school and to develop interventions to change targeted areas. After the interventions are in place, the same instrument should be used to reassess the climate of the school and see if any change has occurred.

Measurement

It is difficult to objectively measure school climate, as the attempts to use input-output theory to identify school differences demonstrated (Creemers & Reezigt, 1999).

Objective information (e.g., school size or the composition of the student body) does not explain differences between schools (Brookover et al., 1978). For lack of reliable objective measures, climate is often operationalized as individual's perceptions of climate (Creemers & Reezigt, 1999). Perceptions of climate may differ among individuals in the same school, but effective climate improvement efforts target multiple aspects of the climate, thus differences in perception highlight various areas in which the school can improve. Beginning with a vision of a school and comparing that vision with the perceptions of the school's members helps to illuminate areas for growth.

Freiberg and Stein (1999) divide the measurement of school climate into two types: direct and indirect measures. Direct measurement of climate involves a person interacting with the citizens of a school and collecting data. Surveys, observations, interviews, focus groups, video taping, journal narratives, and student drawings are some common direct measures of climate. Journal entries and drawings enable young children to express how they feel about school even if they cannot articulate those feelings. Indirect measures of climate do not require direct interaction with the people in the school. Data is collected from existing data sources such as records of attendance, visits to the nurse's office, discipline referrals, suspensions and expulsions, staff turnover and student mobility rates, and student achievement. Other indirect measures, for example a physical analysis of the building or measure of overall noise level, can be gathered by an outside researcher without interacting directly with the students or teachers in the school.

A broad range of specific school climate assessment instruments exist (Lehr & Christenson, 2001), but it is beyond the scope of this review to discuss them. Lehr and

Christenson (2001) present some important general considerations regarding school climate assessment instruments. Some climate instruments are published assessments, complete with data on their statistical properties. Other instruments are locally developed to informally assess the climate of a specific building. These personalized instruments may lack normative data, but their intimate connection to the school or district where they are both used and developed can bolster their merit. Any climate instrument should be grounded in the theoretical literature related to climate assessment and change.

Programs and Methods to Promote Positive School Climate

There are many specific programs designed to promote positive school climates (Lehr & Christenson, 2001). This paper reviewed a large-scale effort at school climate improvement, an effort designed and implemented at a single school, and several strategies that target individual elements of a school's climate.

Large-scale effort. School climate improvement often takes place within larger school reform programs (Lehr & Christenson, 2001). The Comer School Development Program is an example of a comprehensive school improvement program that targets school climate (Haynes, 1998). The Comer School Development Program aims to promote children's growth and development in six areas: physical, language, ethical, social, psychological, and academic. The program has three major components:

1. a school planning team composed of parents and school personnel
2. a student and staff support team made up of mental health professionals and experts in child development

3. a parent team created through a parent involvement program aimed at engaging parents in the life of the school (Haynes, 1998).

The school planning team uses input from the other two teams as it coordinates and manages the school program. The student and staff support team works to identify and address issues affecting students in developmentally and socially appropriate ways. The parent team supports the school through parent involvement. (Haynes, 1998). A pilot parent involvement program was associated with significant improvement in children's perceptions of school climate. In a pilot program of the parent involvement component, including parents in planning activities and making decisions about the school contributed to enhancing the school's climate, as perceived by students and teachers (Haynes, Comer, & Hamilton-Lee, 1989).

In the Comer School Development Program, the three teams work together, governed by principles of consensus-building, collaboration, and no-fault problem-solving, to address school climate improvement goals. The teams identify their climate improvement goals using data from an initial school climate assessment (Haynes, 1998). Climate is assessed periodically as the program progresses. A sustained effort by all of the involved teams is needed to continue to promote positive school climate.

One school's effort to improve its climate. It is possible for a school to conduct a school climate improvement effort apart from a large school reform effort. The process described in Andringa and Fustin (1991) is an example of one elementary school faculty's effort to promote positive school climate. Consistent with the literature on school improvement, the staff first conducted a needs assessment. The results of that

assessment showed that many of the teachers' concerns grouped in the area of school climate. The principal invited a university professor to aid the staff in developing a climate improvement project and planning for change.

All members of the staff were required to participate in the project, with four teachers serving as an effective schools committee that facilitated discussion among the other forty teachers. The teachers were divided into four subcommittees: ten teachers with one teacher facilitator. Each staff member was asked to bring three concerns about the school climate to a meeting. The majority of the concerns collected concerned interactions between the school and parents and the community, relationships between teachers and administrators, and relationships between teachers and students (Andringa & Fustin, 1991).

The staff worked to develop their own instrument to determine the discrepancies between their vision of what their school should be and what they felt their school actually was. Andringa and Fustin (1991) highlight this process of instrument development as a strength of the effort. The explicit concerns of teachers were used in the instrument, rather than relying on an existing instrument that might not address all of the concerns expressed. The items on the instrument that yielded the largest discrepancies between the ideal and actual school were targeted for change. These eight items included four points to be addressed by the administration and four issues to be addressed by the faculty. Dividing the concerns in this way involved the whole school community in the improvement effort. To facilitate this school change effort, the school

board allowed eight half-days of release time over a two-year period for the school to work on this collaborative effort.

Over this two-year period, the staff clarified the eight targeted concerns into objectives and ranked them. They first focused on the highest ranked item, developing a plan showing who was responsible for implementation and a time line for completion. As soon as the plan was completed, implementation by the four groups of teachers began. The staff used a consensus-making process to assure that each member felt heard (Andringa & Fustin, 1991).

Each group targeted one objective for change and planned specific activities to met the objective (Andringa & Fustin, 1991). The first group addressed this objective: the community supports the school's teaching program. One of their activities was to expand a program to recognize and honor students who demonstrate academic excellence. Students were recognized through newsletters and signs and photographs in the school. Also a recognition dinner for students and parents was held at the end of the school year for students who were on the honor roll for three or more grading periods.

The second group targeted the objective of teachers' input into school decisions by developing and applying a principal evaluation instrument (Andringa & Fustin, 1991). This gave teachers a voice in the decisions of the school. The objective that students believe the school program is meaningful and relevant to their present and future needs was the focus of the third group. They developed activities aimed at increasing school spirit and increasing student awareness of the importance of their school work. To

recognize the importance of school work, student work was displayed in classrooms and in the hallway, and class activities were highlighted in the school newsletter.

The fourth objective was covered by the final group: the school supports parent growth by providing opportunities for parents to be involved in learning activities. The activities in this area included developing and distributing the school newsletter and providing parent training programs. All activities were carried out over a two-year period with each group beginning implementation by the end of the first year (Andringa & Fustin, 1991).

The effective schools committee of four teachers, the principal, and the university consultant continued to meet, supervise, and facilitate to assist in the execution the plans. After two years a new needs assessment was carried out to address current concerns. The teachers agreed that significant change had occurred, although some felt it was too much change. Acknowledged strengths of the climate change effort were increased communication, improved service to students, and resolution of identified problems. Weaknesses pointed out were loss of instruction time due to half-day release times, lack of compensation for planning time outside of the school contract, and perceptions that not everyone upheld their responsibilities (Andringa & Fustin, 1991).

The project described by Andringa and Fustin (1991) demonstrates how a school-wide effort can affect positive change on a school climate. Teachers and administrators were empowered to identify and meet the needs of their school. This process could be individualized to fit other school buildings and generalized to address district-wide concerns.

Improvement efforts targeting specific climate elements. School climate improvement does not have to be a piece of a larger effort; there are smaller scale strategies that can address specific aspects of school climate. Using positive climate to prevent school violence involves not tolerating a violent subculture in a school (Furlong et al., 1999). Factors that can protect schools from this subculture of violence include having a large number of academically skilled students, valuing academic excellence, and having discipline procedures that are fair, but firm. Focusing solely on security and discipline may alienate students and create a climate that discourages trusting interactions, thus undermining positive climate. Schools must strike a balance between excessive security and punishment and an atmosphere of trust and respect where students feel comfortable reporting threats and other possible acts of violence to adults.

A more generalized effort to target elements of climate for improvement is proposed by Freiberg (1999). This program involves collecting feedback from students as they change schools or graduate from high school. Freiberg (1999) suggests that collecting student feedback is an essential component of meeting student needs in school. An example program to collect feedback involves administering a concerns survey and conducting entrance and exit interviews with students as they transition into or out of a school (i.e., from elementary to middle school, middle to high school). Student interviews are taped and the data is organized to provide teachers with a picture of the aspects of school that create anxiety in the incoming students or to provide feedback from exiting students on how the school could have served them better. The information gathered from these interviews can be used in teacher in-services to help teachers plan

their activities for the coming year. Students who have dropped out of school are also interviewed to find out what aspects of school they liked and disliked.

In a sample of 338 elementary school students, 52% of students surveyed feared being sent to the principal in middle school. In the same sample, 43% of students feared taking tests and 40% feared giving presentations in front of others (Freiberg, 1999). The middle school teachers were able to look at this information over the summer and consider it as they planned to teach these students in the coming year. Some teachers changed their getting-to-know you activities based on the students' fear of presentations, having the students introduce themselves in small groups on the first day rather than to the whole class at once. Other teachers invited the principal into the classroom during orientation activities so students could become less fearful of him. Simple changes such as these can improve student perceptions of climate and make schools more pleasant places for students to be. By addressing some of students' fears about school, teachers can work to improve the climate of the school and positively affect the growth and development of their students.

There are other ways to make the school environment more suited to student needs. Students who are involved in extra-curricular activities are more likely to attend school regularly, especially when a consequence of non-attendance is loss of privilege to participate in preferred activities (Dougherty, 1999). Students who are involved in school also feel a greater sense of ownership and belonging, sentiments characteristic of students with high self-esteem (Brooks, 1999). Participation in activities increases students' sense of belonging at school, thus making school a place where students want to be. Schools

should provide opportunities for student involvement in addition to sports and musical activities, such as academic clubs or clubs with themes chosen by students. High student engagement is another feature of positive climates (Haynes, et al., 1997) that could be met by welcoming student interests into the school environment in the form of co-curricular and extra-curricular activities.

Brooks (1999) also presents strategies to improve school climate and thus positively affect student self-esteem and motivation. Some suggestions include creating a welcoming atmosphere that demonstrates fairness and makes expectations clear, and delegating responsibilities to students so they can develop competency and contribute to the classroom. In addition, Brooks recommends teaching students to make decisions and solve problems, giving positive feedback and encouragement, and teaching students to learn from and deal with mistakes. These recommendations fit well with Brooks' definition of climate, but they do not seem very concrete or easily applicable.

A final climate assessment and improvement strategy illustrates how several small changes can affect the school climate and improve student behavior. Freiberg (1998) explains that the climate of a school can be greatly influenced not only by interactions in the classroom, but also by what happens in common areas of the school. The climate of cafeteria, in particular, can influence student behavior and set a tone for the climate of the entire school.

Freiberg (1998) describes a cafeteria that was recognized by the middle school teachers as "from hell" (p. 25). The teachers wanted strategies to improve discipline in order to stop the fights that daily broke out in the cafeteria during the morning breakfast

hour. Upon observing the cafeteria, which had the capacity to seat 300 students at folding chairs and tables, Freiberg was struck by the high noise level of the room. Children 4 through 12 arrived between 7:00am and 7:30am and scrambled to sit by their friends so they could talk, while a lunchroom aide used a public address system to name specific students who needed to sit down and be quiet. In addition to this noise, all of the machines were running loudly while noise from moving pots and pans in the kitchen could clearly be heard. Students emptied their trays into a metal trash can by banging them on the side of the can. In an effort to maintain order, the adults in the room shouted at students. There were also very few positive interactions between adults and students in the room.

In a meeting with the faculty of the school, Freiberg (1998) explained the relationships between stress and noise levels. Sometimes, student behavior can be a natural response to an unhealthy situation. From just a short observation, Freiberg observed that the stress level in the cafeteria led to aggressive student behavior. Freiberg identified the noise level as a contributing factor to the student behavior in the cafeteria. The faculty then used a Cafeteria Ambient Noise Checklist to identify the sources of noise in the room. The checklist included noises such as the public address system, adults speaking in raised voices, banging of trays, pots, and pans, and machine noise. It also included suggestions for reducing that noise such as eliminating the public address system, providing lessons in table manners, organizing meals times with seat assignments, time limits, and a cafeteria manager.

The staff of this school used the checklist to identify sources of noise in the cafeteria and then identified elements to change (Freiberg, 1998). Interactions between adults and children were improved by training aides to relate positively to children, and having a teacher greet the students as they entered the serving line. The banging of trays on the trash can was replaced with a sponge on a stick that wiped the food into the can. Also, the public address system was replaced by adults approaching students to speak with them directly.

Freiberg (1998) reports that in this school the results of the changes in noise level were dramatic. The cafeteria staff commented that their work environment was more pleasant than it had ever been and within two weeks of the changes, the daily fights during breakfast had stopped. Freiberg summarizes this effort to change climate by saying that even small adjustments in schools can create considerable positive changes in climate.

Critique of School Climate Research

Anderson (1982) acknowledges that there are many gaps in the understanding of school climate. The interactions between the variables of a school that create its climate are also decidedly unclear. These problems are evident in the research reviewed here. When each of the four student outcomes discussed is considered independently, school climate appears related to each outcome, even if only in terms of statistical significance or by expert opinion. Yet, considering the body of school climate research as a whole, one has to wonder whether the same construct is being researched. There seems to be quite a difference between parent perceptions of climate, the operational definition used

by Esposito (1999), and a school's academic norms, the operational definition used by Brookover et al. (1978). It is difficult to determine if these are all really measuring the same phenomenon.

One question regarding the research on the relationship between achievement and school climate is: do high achievers simply rate school climate more favorably than low achievers because they are doing well in school? It is possible that school climate may not influence high achievement, but rather that high achievement may lead students to view school climate more positively (Schmitt et al., 1999). Brookover et al. (1978) used student perceptions of climate and thus the relationship between climate and achievement may be subject to the bias of high achievers. The direction of this relationship cannot be determined, however. Kuperminc et al. (1997) argued that it may be the perception of school climate that matters most, not an objective measure of climate; therefore if a positive climate co-occurs with high achievement it does not matter if it is the achievement that influences climate perceptions. The positive climate perceptions themselves are the important factor.

Freiberg and Stein (1999) state that using multiple perspectives of school climate yields more paths toward potential improvement. Much of the research on climate reviewed here does assess perceptions of more than one group in the school community. This is a strength that points to higher reliability in climate measures. Esposito (1999) used only parent opinions of climate rather than multiple reporters. This definition of climate may have been appropriate because the students in the sample were kindergarten through second graders who may not have a clear sense of the climate in their schools.

The measurement instruments used in the empirical studies reviewed here follow general best practices in climate measurement: they are either established instruments with reliability and validity information available, or they are instruments developed to meet the needs of a particular school or district. An important point to consider regarding school climate improvement is that “positive school climates change as the needs of people within the schools change, reshaping to meet new needs” (Kaplan & Geoffroy, 1990). Being involved in improving a school’s climate is a constant process, one that has to be a part of the daily life of the school. The success of the program described by Andringa and Fustin (1991) points to the importance of staff ownership of improvement efforts. There are practical less far-reaching ways to positively influence a school’s climate, but even these efforts should not be entered into without full consideration of the commitment involved.

A general critique of school climate research is that there is a tendency in the literature for school climate to be used as a catch-all term for anything that is going wrong or right in a school. While the research suggests that school climate influences a variety of student outcomes, caution should be exercised in categorizing all school issues under the heading of climate. To focus only on climate improvement would not be in the best interest of students. School climate is a construct that needs to continue to be studied and refined in order to be practically influential in schools.

School Psychologist’s Role

As a general rule, school psychologists have not had much involvement in the field of school climate. In the past five years, only two articles focusing on school

climate appeared in the major journals for school psychology. A recent addition to the contributions of school psychologists to the school climate literature is in *Best Practices IV*, in which Lehr and Christenson (2001) review school climate research and point out ways for school psychologists to be involved.

The National Association of School Psychologists recognizes the importance of climate by highlighting elements in the climates of safe schools. NASP also acknowledges positive school climate as an intervention to reduce violence and disruption. School-wide efforts such as peer mediation and improved classroom management can help create a climate of safety and teach students life-long methods of nonviolent conflict resolution (Skiba, Peterson, Miller, Boone, McKelvey, Fontanini, Strom, & Simmons, 2001). School psychologists who are concerned with these types of programs would do well to increase their knowledge of school climate.

In their pilot parent program to increase school climate, Haynes et al. (1989) involved a school psychologist as a parent liaison and program facilitator. They argue that school psychologists are uniquely suited to promote parental involvement because of their "training in human development, group dynamics, and human learning and their sensitivity to relationship issues." (Haynes et al., 1989 p. 90). School psychologists can help to develop positive school climates by valuing parent involvement and working to increase it. They can also encourage other school personnel to value and solicit parental input in the decision making processes of the school.

Hertz-Lazarowitz and Od-Cohen (1992) describe a community-wide effort to improve school climate that was developed and carried out by a school psychologist. The

school psychologist had skills to work with the community and to train teachers to use the curriculum of the program. This systems-level intervention was evaluated as successful largely because of the unique skills the school psychologist brought to the program.

School psychologists can have a key role in school climate improvement efforts. School climate assessment and improvement practices lend themselves to opportunities for school psychologists to participate. School psychologists who are knowledgeable of assessment instruments can help school personnel select an appropriate instrument to assess the climate of a school. For example, if schools are using exit and entrance interviews and surveys to gather feedback from students, school psychologists are well suited to assist in the analysis of data and in structuring in-services so that staff learn from the data collected. School psychologists can also help create opportunities for students to get involved by sponsoring clubs or serving as mentors to at-risk students. Effective school psychologists are in an ideal position to connect schools with community and business organizations with whom they can partner.

Chapter 3

Summary/Conclusions

The concept of school climate is an attractive one and it is tempting to look for ways that it influences many outcomes for students. The research reviewed here points to several student outcomes that climate can influence, but the strength of the relationships is not as strong as one would like in order to claim practical significance.

Brookover et al. (1978) demonstrated a relationship between elementary school climate and student achievement, with school climate explaining 72% of the variance in average school achievement in a state sample, and 36% of the variance beyond that explained by SES and racial composition of the school in a sample of black schools. These results suggest that there is a relationship between school climate and student achievement, but they did not point to any specific elements of climate that could be improved to improve achievement. Until these elements can be delineated, the effectiveness of climate interventions to improve achievement will be limited.

Esposito (1999) pointed out a relationship between parent perceptions of climate and low-income students' adjustment to school. Statistically significant correlations ($r=.24$ to $r=.38$, $p<.001$) were found between parents' perception of their children's adjustment to school and parents' perception of the climate of the school. Parents also viewed relationships between teachers and students as important to the overall climate of the school ($r=.27$ to $r=.43$, $p<.001$). These results suggest that the improving the quality of the relationships between teachers and elementary students can potentially impact the overall climate of the school.

According to Kuperminc et al. (1997), school climate is related to student self-esteem and can be a protective factor against maladjustment, especially for African American boys. School climate perceptions explained 16% of the variance for boys ($p < .001$) on self-reported externalizing problems. Also, African American boys who had positive school climate perceptions were reported by teachers as having fewer externalizing problems than their peers with negative climate perceptions. These findings suggest that school climate can serve as a protective factor against risk for boys with externalizing problems. In this case, the perceptions of climate were the key factor rather than an objective element in the school. In designing interventions to improve climate, knowing which factors of a school's climate influence the perceptions of the target population would be beneficial. Areas targeted by teachers may not influence the perceptions of students. The results stated by Kuperminc et al. (1997) suggest that student input into climate improvement plans is important, especially when boys with externalizing problems are the target population.

Research reviewed also points to a relationship between school climate and student self-esteem. Hoge et al. (1990) report that 14% of the variance ($p < .05$) in global self-esteem in middle school students could be explained by school climate. For academic self-esteem as well, 16 to 17% of the variance ($p < .05$) was explained by school climate. Hoge et al. were not able to isolate specific elements of school climate that influenced student self-esteem.

This review also addressed expert opinions on the relationship between school safety and school climate. A safe school is characterized by a climate that focuses on

academic excellence and has firm, yet fair discipline procedures (Furlong et al., 1999). Decreasing the alienation that students feel from their school can potentially prevent violence in the school. A positive school climate has the potential to increase students' sense of belonging to the school and thus increase the safety of a school (Dwyer, 1999). The recommendations of organizations such as NASP that climate be improved to prevent violence are rather vague. Further explanation of the connection between school climate and school safety would aid the development of effective prevention plans.

School attendance and completion were related to climate, in that students who dislike school are likely to not attend or even drop out (Rumberger, 1987). Developing and sustaining a positive school climate is one approach to preventing student absenteeism (Haynes et al., 1997). Worrell and Hale (2001) reported that high school dropouts rated school climate more negatively than graduates. The research reviewed here does not point to exact factors of school climate that influence the school climate perceptions of school dropouts, but it does suggest that there is potential to keep at risk students in school by improving climate.

The most promising pieces of research reviewed, in regard to present application, were the climate improvement project of Andringa and Fustin (1991) and the specific strategies outlined by Freiberg (1998, 1999). Using school climate in these contexts as a means to identify areas to change and then designing interventions targeted at those areas seems very practical. There is no need to isolate elements of climate other than those identified by the people conducting the project and living in the climate. The utility of interventions focusing on these practical strategies is promising.

Questions and Future Directions

After reviewing the current body of school climate research, the question still looms: Is this all the same construct? There is potential in the field of school climate. The research reviewed here examined various slices of this thing called climate. The breadth of the construct points to the importance of choosing a measurement instrument that addresses the specific climate concerns of a school. The effectiveness of climate improvement programs would be greatly aided if the programs could target specific aspects of climate that affect specific outcomes. This is not possible with the existing body of research.

School climate is sort of a magic bullet of school improvement: if this thing called climate can simply be positive, student outcomes in all areas will improve. While there is evidence that climate influences many areas of school life and student outcomes, there is a need to isolate specific climate elements in order to develop more effective interventions and uncover more robust statistical relationships.

Future research in the field of school climate should include investigation of differences in climate perception among groups of students. Slaughter-Defoe and Carlson (1997) suggest that ethnic differences in school climate expectations may be greater than research now shows. Gender differences such as those pointed out by Kuperminc et al. (1997) should also be further investigated. Freiberg (1999) points out that school climate, like the very air we breath, generally goes unnoticed until it goes bad. To encourage the growth and development of young people, school psychologists and other educators should begin to promote positive school climate before serious problems arise.

References

- Anderson, C. S. (1982). The search for school climate: a review of research. *Review of Educational Research, 52*, 368-420.
- Andringa, J. W., & Fustin, M. (1991). Learning to plan for and implement change: school building faculty responds. *Journal of Educational Research, 84*, 233-238.
- Ash, C., & Huebner, E. S. (1998). Life satisfaction reports of gifted middle-school children. *School Psychology Quarterly, 13*, 310-321.
- Brooks, R. B. (1999). Creating a positive school climate: strategies for fostering self-esteem, motivation, and resilience. In J. Cohen (Ed.), *Educating minds and hearts* (pp. 62-73). New York: Teachers' College, Columbia University.
- Esposito, C. (1999). Learning in urban blight: school climate and its effect on the school performance of urban, minority, low-income children. *School Psychology Review, 28*(3), p.365-377.
- Dougherty, J. (1999). *Attending to attendance*. Indiana: Phi Delta Kappa.
- Dwyer, K. P. (1999). Children killing children: strategies to prevent youth violence. In A. S. Canter and S. A. Carroll (Ed.), *Crisis prevention and response: a collection of NASP resources*. (pp. 1-6). Bethesda: NASP.
- Fraser, B. (1999). Using learning environment assessments to improve classroom and school climates. In H.J. Freiberg (Ed.), *School climate: measuring, improving, and sustaining healthy learning environments* (pp. 65-83). Philadelphia: Falmer.
- Freiberg, H. J. (1998). Measuring school climate: let me count the ways. *Educational Leadership, , 22-26*.

- Freiberg, H. J. (1999). Three creative ways to measure school climate and next steps. In H.J. Freiberg (Ed.), *School climate: measuring, improving, and sustaining healthy learning environments* (pp. 208-218). Philadelphia: Falmer.
- Furlong, M., Morrison, G. M., Chung, A., Bates, M. (1999). School violence. In A.S. Canter and S. A. Carroll (Ed.), *Crisis prevention and response: a collection of NASP resources*. (pp. 7-22). Bethesda: NASP.
- Haynes, N. M. (1996). Creating safe and caring school communities: Comer School Development Program schools. *Journal of Negro Education, 65*, 308-314.
- Haynes, N. M. (1998). Overview of the Comer School Development Program. *Journal of Education for Students Placed At Risk, 3(1)*, 3-9.
- Haynes, N. M., Comer, J. P., & Hamilton-Lee, M. (1989). School climate enhancement through parental involvement. *Journal of School Psychology, 27*, 87-90.
- Haynes, N.M., Emmons, C., & Ben-Avie, M. (1997). School climate as a factor in student adjustment and achievement. *Journal of Educational and Psychological Consultation, 8*, 321-329.
- Hertz-Lazarowitz, R., & Od-Cohen, M. (1992). The school psychologist as a facilitator of a community-wide project to enhance positive learning climate in elementary schools. *Psychology in the Schools, 29*, 348-358.
- Hoge, D. R., Smit, E. K., & Hanson, S. L. (1990). School experiences predicting changes in self-esteem of sixth- and seventh-grade students. *Journal of Educational Psychology, 82*, 117-127.

- Hoy, H. K., & Feldman, J. A. (1999). Organizational health profiles for high schools. In H.J. Freiberg (Ed.), *School climate: measuring, improving, and sustaining healthy learning environments* (pp. 84-102). Philadelphia: Falmer.
- Kaplan, L. S., & Geoffroy, K. E. (1990). Enhancing the school climate: new opportunities for the counselor. *The School Counselor*, 38, 7-12.
- Lehr, C. & Christenson, S. (2001). Best Practices in promoting a positive school climate. *Best practices in school psychology IV* (pp. 929-947). Washington, D.C.: National Association of School Psychologists.
- McEvoy, A. & Welker, R. (2000). Antisocial behavior, academic failure, and school climate. *Journal of Emotional and Behavioral Disorders*, 8, 130-140.
- NASP (1999). Position statement: preventing and responding to school violence. Retrieved December 20, 2001, from the NASP Web Site:
http://www.nasponline.org/information/pospaper_violence.html
- Robins, L. & Ratcliff, K. (1980). The long-term outcome of truancy. In L. Hersov & I. Berg (Eds.), *Out of school: modern perspectives in truancy and school refusal* (pp. 65-84). New York: Wiley & Sons, Ltd.
- Rumberger, R.W. (1987). High school dropouts: a review of issues and evidence. *Review of Educational Research*, 57, 101-121.
- Sabo, D. J. (1995). Organizational climate of middle schools and the quality of student life. *Journal of Research and Development in Education*, 28, 150-160.

- Schmitt, N., Sacco, J. M., Raney, S., Ramey, C., & Chan, D. (1999). Parental employment, school climate, and children's academic and social development. *Journal of Applied Psychology, 84*, 737-753.
- Skiba, R., Peterson, R. Miller, C., Boone, K., McKelvey, J., Fontanini, A., Strom, T., Simmons, A. (2001). The safe and responsive schools project: comprehensive planning for school violence prevention. *NASP Communique, 29*(7).
- Slaughter-Defoe, D. T., & Carlson, K. G. (1996). Young African American and Latino children in high-poverty urban schools: how they perceive school climate. *Journal of Negro Education, 65*, 60-70.
- Sweeney, J. (1988). *Tips for improving school climate*. Arlington, VA: American Association of School Administrators.
- Worrell, F. C. (2000). The reliability and validity of the instructional climate inventory-student form. *Psychology in the Schools, 37*(3), 291-298.
- Worrell, F. & Hale, R. (2001). The relationship of hope in the future and perceived school climate to school completion. *School Psychology Quarterly, 16* (4), 370-388.