THE RELATIONSHIP BETWEEN SCHOOL CLIMATE AND RECIPROCAL TRUST IN HIGH SCHOOLS

A Doctoral Research Project
Presented to
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School of Education
The Sage Colleges

In Partial Fulfillment of the
Requirements for the
Degree of Doctor of Education
In Educational Leadership

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September 14, 2009

Abstract

This research was designed to examine the relationship between reciprocal trust in schools and school climate. Trust in schools was measured as the trust perceptions of teachers, principals, and parents. School climate with its four dimensions – collegial leadership, teacher professionalism, academic press, and community engagement – was measured through the perceptions of teachers. By incorporating parent and principal perceptions, this study was intended to supplement the body of research linking trust and school climate. Surveys were used to collect the perceptions of teachers, principals and parents from a non-random sample of 11 high schools in the state of New York. A total of 11 principals (100%), 139 teachers (63%), and 150 parents (23%) returned usable surveys. All data were aggregated to the school level using the means from completed survey items. The levels of reciprocal trust and the school climate data were then statistically analyzed using the non-parametric Spearman's rho test. The major findings of this study indicated that of the three types of reciprocal trust examined, only two were significantly related to either school climate or one of its four dimensions. Reciprocal parent-teacher trust was significantly related to community engagement, and reciprocal teacher-principal trust was significantly related to collegial leadership. Results indicated that none of the schools in the study had a high level of reciprocal trust regardless of the role groups considered. Both the findings of this study and those of previous research indicate that the more collegial the leadership practices of the principal, the more the principal and teachers trust one another, and the more open a school is to working collaboratively with parents

and the community, the more parents and teachers trust one another. Based on these findings, it is recommended that school system leaders take into consideration the importance of not only community support, but also of the level of trust that exists between the school and the community.

Acknowledgements

This dissertation would not have been possible without the support and friendship of so many caring individuals. First and foremost, I could not have persevered through the past several years of intensive study and research and the crafting of this dissertation without my husband and sons. It is to them that I dedicate this work. To my husband, Larry, thank you for believing in me and for always being there. To Larry and our three sons, David, Alex, and Logan, thank you for helping me to stay focused, making me laugh, and giving me the space to write when I needed it. I love you all deeply. You *are* my life.

Next, I would like to thank my dissertation committee chair, Dr. Connie Frazer, for her patience, direction, feedback, and the occasional *gentle* push. To my committee members, Dr. Jim Butterworth and Dr. Vicki Metzgar, thank you for providing valuable comments and support, especially as this project came to a close. Thank you also to the faculty of the doctoral program at Sage. During the past two plus years, I have grown both personally and professionally due to the many thought-provoking materials I have read and the in depth projects that I have worked on.

To the members of Cohort 1, the first Educational Leadership doctoral cohort at Sage, thank you from the bottom of my heart for your insights, wisdom, and friendship. I made seventeen lifelong friends and will forever remember and remain a part of the *community of learners* we became during our many late nights and long Saturdays spent together.

And, in closing, I want to lovingly thank my parents, Bob and Betty Hayden, for igniting in me an insatiable desire to keep learning, for instilling in me the firm belief that my dreams, whatever they may be, are achievable, and for teaching me the strong work ethic and sense of determination necessary to keep taking one step forward, no matter how small.

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CHAPTER 1: INTRODUCTION

Climate is a term used to describe the personality of an organization, such as a school, and school climate is defined as "the relatively enduring quality of the school environment that is experienced by participants, affects their behavior, and is based on their collective perception of behavior in schools" (Hoy & Tarter, 1997, p. 6). While this definition implies that school climate is a single quality, it is actually comprised of four separate dimensions. As described by Tschannen-Moran, Parish, and DiPaola (2006), the four dimensions of school climate are (a) collegial leadership, which "characterizes the relationships between principals and teachers" and "refers to the behavior of the principal that is supportive and collegial and is not perceived to be overly directive or restrictive" (p. 397), (b) teacher professionalism, which characterizes "the connections that teachers have with one another" and "refers to behavior that shows that teachers are committed to their work and are willing to work cooperatively with one another" (p. 397), (c) academic press, which "refers to a schoolwide tone that is serious, orderly, and focused on academics" (p. 397), and (d) community engagement, which "describes the degree to which the school can count on involvement and support from parents and community members and the extent to which the school provides the community with information about its accomplishments" (p. 398). Each of these different dimensions of school climate helps build and promote different trust relationships (Hoy, Smith, & Sweetland, 2002).

Trust is a vital component in healthy and open organizational climates, including those in schools and businesses. The literature suggests that trust

perceptions, whether individual or relational, play a key role in the success of schools, including through correlations with student achievement (Bryk & Schneider, 2002; Goddard, Tschannen-Moran, & Hoy, 2001), collaboration within and among role groups (Tschannen-Moran, 2001; Adams & Forsyth, 2006), and school climate (Hoy et al., 2002; Hoy, Tarter, & Kottkamp, 1991; Tschannen-Moran & Hoy, 1998).

One of the purposes of this study was to investigate the relationship between reciprocal parent-teacher trust and school climate, including each of school climate's four dimensions: collegial leadership, teacher professionalism, academic press, and community engagement. This study incorporated parent perceptions of trust into the existing body of research linking trust and school climate. If an important element in building an open and healthy school climate is a high level of reciprocal parent-teacher trust, then it is vital to assess both school climate and trust levels.

The body of research based on trust perceptions from the faculty perspective is much larger than that based on the trust perceptions of multiple role groups, such as principals, teachers, parents, and students. However, a limited number of studies on parent perceptions of trust indicates a link between parent trust and school effectiveness (Forsyth & Adams, 2004; Forsyth, Barnes, & Adams, 2006).

So often, parents are missing from the table when it is time to discuss how to boost student achievement. In some cases, this is an oversight by those making the arrangements, but all too frequently the parent voice is missing due to negative attitudes and stereotypical perceptions of parents by educational administrators,

teachers, and policymakers. In their case study, Smrekar and Cohen-Vogel (2001) found that "enduring beliefs about parents limit communication between the home and school to bitter confrontations about children's academic and behavioral problems" (p. 499-500). It is time to take a closer look at not only bringing that parent voice to the table, but also at the importance of working together to open the school doors and welcome parents and families in as members of the team rather than as obstacles to overcome.

Research shows that family involvement positively impacts a child's educational experiences, including academic achievement and school attendance (Epstein, 2005). Open and healthy school climates where administrators, teachers, and parents work collaboratively in trusting relationships, serve to decrease barriers to trust (Tschannen-Moran, 2001). Rather than building relationships with parents by chance or relying on parents to build them, schools need to build trusting relationships with parents in purposeful and planned ways (Adams, Forsyth, & Mitchell, 2009). Understanding both current trust levels and the openness and health of the school climate are two tools available to help educators along the road to building environments where trusting relationships can develop and grow.

Purpose Statement

The purpose of this quantitative study was to examine the relationship between school climate and reciprocal trust through survey data from high school parents, teachers, and principals in New York State. The predictor variable investigated, school climate, was defined as the openness and health of interpersonal relationships in a school community and was measured both

collectively and in its four dimensions: collegial leadership, teacher professionalism, academic press, and community engagement. The criterion variable investigated, trust, was defined as "one's willingness to be vulnerable to another based on the confidence that the other is benevolent, honest, open, reliable, and competent" (Tschannen-Moran, 2004, p. 17). Reciprocal trust was defined as "the proximity of trust levels between role groups" (Forsyth & Adams, 2004, p. 264).

Research Questions

1. Is the level of reciprocal parent-teacher trust related to school climate?
2. Is the level of reciprocal parent-principal trust related to school climate?
3. To what extent is each of the four dimensions of school climate related to the level of reciprocal parent-teacher trust?
4. To what extent is each of the four dimensions of school climate related to the level of reciprocal teacher-principal trust?
5. In schools with a high level of reciprocal parent-teacher trust, which of the four dimensions of school climate is most closely related to the level of parent trust in school?

Definition of Terms

For the purpose of this study, the following definitions of terms apply:

- High School: a public high school with grade configurations of 9-12 or 10-12 and 16 or more faculty members within New York State, excluding New York City.
- School Climate: the extent to which teachers perceive a school to be open and healthy in terms of these four dimensions:

- Collegial leadership: refers to the extent to which teachers perceive "the behavior of the principal to be supportive and collegial and not perceived to be overly directive or restrictive" (Tschannen-Moran et al., 2006, p. 397).
- Teacher professionalism: refers to the extent to which teachers perceive "that other teachers are committed to their work and are willing to work cooperatively with one another" (Tschannen-Moran et al., 2006, p. 397).
- Academic press: refers to the extent to which teachers perceive that the "school wide tone is serious, orderly, and focused on academics" (Tschannen-Moran et al., 2006, p. 397).
- Community engagement: refers to the extent to which teachers perceive the "degree to which the school can count on involvement and support from parents and community members and the extent to which the school provided the community with information about its accomplishments"(Tschannen-Moran et al., 2006, p. 398).

- Trust: the extent to which one perceives "one's willingness to be vulnerable to another based on the confidence that the other is benevolent, honest, open, reliable, and competent" (Tschannen-Moran, 2004, p. 17).

Limitations

This study had several limitations including sample, focus and data collection methods. Though efforts were made to randomly select schools from a defined population of public high schools in the state of New York outside of New York City, the final sample was self-selected based on the willingness of school principals to participate in the study. This combined with the small sample size (N = 11) make generalizability beyond the scope of this study limited.

This study focused solely on the relationship between reciprocal trust and school climate, thus other variables not studied may have affected the results. No causal effect could be determined due to the correlational nature of the study.

Lastly, all data were collected through survey instruments thus measured via self-report and self-selection. Findings were based solely on the perceptions of individuals on a particular day, which may have been affected by external events at the time of survey completion.

CHAPTER 2: REVIEW OF THE LITERATURE

This review of the literature relevant to school climate and reciprocal trust is one of evolution and relationships. To fully understand how and why school climate is defined and interpreted, one must review the evolution of school climate measures through the years from their conception as frameworks in the 1960s (Halpin & Croft, 1963; Miles, 1965, 1969), through the development and revision of separate measures for open schools and healthy schools (Hoy & Clover, 1986; Hoy & Feldman, 1987; Hoy et al., 1991; Hoy & Sabo, 1998), and ending with the rationale that brought both of these measures together into a single construct and instrument, the School Climate Index (SCI) (Hoy, Hannum & Tschannen-Moran, 1998; Hoy et al., 2002; Tschannen-Moran et al., 2006; Tschannen-Moran, 2009b).

With an understanding of the various measures of trust, a conversation can begin regarding trust and relationships in schools, including the importance of remembering that trust levels, as measured by surveys, are perceptions of trust (Barnes, Adams, & Forsyth, 2004; Forsyth & Adams, 2004; Gareis & Tschannen-Moran, 2004; Hoy & Tschannen-Moran, 1999), Teachers, parents, and principals all use different lenses to view their trust relationships, and, as such, perceptions may differ from one group to another. However, much of the research done previously related to trust in schools has relied upon faculty perceptions of trust (Goddard et al., 2001; Hoy, Sabo, & Barnes, 1996; Hoy et al., 2002; Tschannen-Moran & Hoy, 2000).

The literature also suggests that family-school relationships have an impact on a child's education (Epstein, 2005). Family involvement positively impacts a child's educational experiences, including academic achievement and school attendance (Epstein, 2005). Christenson (2004) included both parent and educator psychological barriers to family-school partnerships including parents' "suspicion about treatment from educators," educators' wariness "of interacting with families or fear of conflict" and home-school atmospheres permeated by "a blaming and labeling attitude" (pp. 88-89). Open and healthy school climates, where teachers and parents work collaboratively in trusting relationships decrease these barriers (Tschannen-Moran, 2001).

School Climate

Differences Between Climate and Culture

Two words often used interchangeably when discussing schools and organizations are climate and culture. Each term, however, identifies a different concept of the organization. Prior to delving deeper into the literature on school climate, it is imperative to explain both the distinctions between the two and the reasons for studying climate rather than culture.

Organizational culture can be defined as "a system of shared orientations that hold the unit together and give it a distinctive identity" (Hoy & Tarter, 1997, p. 4). Hoy and Tarter (1997) noted that there is disagreement about what is shared and described three levels of abstraction that are useful in examining organizational culture. The most abstract level of culture is a set of collective assumptions shared by members of an organization. At the middle level of abstraction, where much of

the current work on organizational culture takes place, it is a set of shared values. And, last, at its more tangible level of abstraction, culture is a set of shared behavioral norms. Culture, regardless of the level of abstraction, describes the character of an organization.

Climate is a term used to describe the personality of an organization and can be defined as a set of shared perceptions that influence the behavior of members of an organization (Pace & Stern, 1958; Tagiuri, 1968). School climate, in particular, is defined as "the relatively enduring quality of the school environment that is experienced by participants, affects their behavior, and is based on their collective perception of behavior in schools" (Hoy & Tarter, 1997, p. 6).

From a scientific research standpoint, measuring organizational culture is a daunting task requiring extensive anthropological and time-consuming methods of data collection. Organizational climate, on the other hand, is much easier to measure and study scientifically, for it is defined not by shared orientations, but, rather, by shared perceptions, which can be measured statistically using survey research (Hoy & Tarter, 1997). Additionally, school climate, according to the literature, seems to be relatively stable over time and helps distinguish one organization from another (Hoy et al., 1991; Hoy & Sabo, 1998). Scientific research has demonstrated time and again significant correlations between school climate and other variables including student achievement (Hoy et al., 1991; Hoy & Sabo, 1998; Tschannen-Moran et al., 2006) and trust (Hoy et al., 1991; Hoy et al., 2002; Tschannen-Moran & Hoy, 2000).

Frameworks for and Measures of Open and Healthy School Climates

Two early conceptual frameworks of school climate, one using an open to closed continuum (Halpin & Croft, 1963) and the other using a healthy to sick continuum (Miles, 1965), have continued to be used in scientific research from their inception in the 1960s to the present day. Based on these early frameworks, survey instruments to measure the openness and health of school climates have been developed and refined, including the Organizational Climate Description Questionnaire (OCDQ) and the Organizational Health Inventory (OHI) (Hoy & Clover, 1986; Hoy & Feldman, 1987; Hoy et al., 1991; Hoy & Sabo, 1998; Hoy et al., 1998; Hoy et al., 2002; Tschannen-Moran et al., 2006). Each iteration of these measures sought to build upon earlier works and strove to further refine the associated framework and increase the usefulness and accuracy of data collected.

Open Climate Framework and the OCDQ through the years

Halpin & Croft (1962, 1963) developed their conceptual framework and measure, the OCDQ, simultaneously, basing their work on the guiding assumptions that "a 'desirable' organizational climate is one in which it is possible for leadership acts to emerge easily," that such "leadership tasks must be initiated," and that "such acts can be initiated either by the designated leader or by members of the faculty" (Halpin & Croft, 1963, p. 1). They also took the position that perceptions of behavior are what motivate action; therefore the actual behavior of the leader or group is less important than how the faculty perceives school behavior.

Beginning with a bank of 1,000 survey items, Halpin & Croft (1962, 1963) used a series of empirical, conceptual and statistical tests to ultimately end up with a 64-

item instrument, which was the fourth version of the OCDQ. This version was administered to the entire professional staff of 71 elementary schools from six different regions of the country resulting in data from 1,151 respondents. Using factor analysis, each of the 64 items was assigned to one of eight dimensions, four of which pertain to the characteristics of the group as a group – disengagement, hindrance, esprit, and intimacy – and four of which pertain to the characteristics of the principal as leader – aloofness, production emphasis, thrust, and consideration. Descriptions of each subset are presented in Table 1. Using a rough school climate continuum from open to closed, the 71 participating schools were clustered into six basic climate profiles – open, autonomous, controlled, familiar, paternal, or closed. Descriptions of each profile are presented in Table 2.

Table 1

Definitions of Behavior Subsets in Halpin & Croft's (1963) Organizational Climate Description Questionnaire (OCDQ)

Characteristics of teacher behavior	
Disengagement	The teacher's tendency to not be "with it", that is, "to go through the motions" without commitment to the task at hand (p. 2).
Hindrance	The teachers' feelings that the principal burdens them with routine duties, committee work, and other unnecessary busy work (p. 2).
Esprit	Morale growing out of a sense of both task accomplishment and the satisfaction of social needs (p. 2).
Intimacy	The teacher's enjoyment of warm and friendly social relations with each other (p. 2).
Characteristics of principal behavior	
Aloofness	Formal and impersonal principal behavior; the principal goes by the "book" and maintains social distance from subordinates (p. 2).
Production emphasis	Close supervision. The principal is highly directive and not sensitive to faculty feedback (p. 3).
Thrust	Dynamic behavior in which the principal attempts to "move the organization" through the example the principal personally sets for teachers (p. 3).
Consideration	Warm, friendly behavior by the principal. The principal tries to be helpful and do a little something extra for the faculty (p. 3).

Table 2

Halpin & Croft's (1963) School Climate Profiles Along the Open to Closed Continuum

Climate type	Description of social interactions
Open	An energetic, lively organization which is moving toward its goals, and which provides satisfaction for the group members' social needs. Leadership acts emerge easily and appropriately from both the group and the leader. The members are preoccupied disproportionately with neither task achievement *nor* social-needs satisfaction; satisfaction on both counts seems to be obtained easily and almost effortlessly. The main characteristic of this climate is the "authenticity" of the behavior that occurs among all the members (p. 3).
Autonomous	One in which leadership acts emerge primarily from the group. The leader exerts little control over the group members; high *Esprit* results primarily from social-needs satisfaction. Satisfaction from task achievement is also present, but to a lesser degree (p. 3).
Controlled	Impersonal and highly task-oriented. The group's behavior is directed primarily toward task accomplishment, while relatively little attention is given to behavior oriented or social-needs satisfaction. *Esprit* is fairly high, but it reflects achievement at some expense to social-needs satisfaction. This climate lacks openness, or "authenticity" of behavior, because the group is disproportionately preoccupied with task achievement (p. 3).
Familiar	Highly personal, but under controlled. The members of this organization satisfy their social needs, but pay relatively little attention to social control in respect to task accomplishment. Accordingly, *Esprit* is not extremely high simply because the group members secure little satisfaction from task achievement. Hence, much of the behavior within this climate can be construed as "inauthentic" (p. 4).
Paternal	One in which the principal constrains the emergence of leadership acts from the group and attempts to initiate most of these acts himself. The leadership skills within the group are not used to supplement the principal's own ability to initiate leadership acts. Accordingly, some leadership acts are not even attempted. In short, little satisfaction is obtained in respect to either achievement or social needs; hence *Esprit* among the members is low (p. 4).
Closed	Characterized by a high degree of apathy on the part of all members of the organization. The organization is not "moving"; *Esprit* is low because group members secure neither social-needs satisfaction nor the satisfaction that comes from task achievement. The members' behavior can be construed as "inauthentic"; indeed, the organization seems to be stagnant (p. 4).

While Halpin & Croft's (1963) OCDQ and conceptual framework are indisputably one of the seminal works on school climate, controversy began soon after they were published. Questions arose regarding the utility of using six discrete climate types, the instrument's applicability in urban schools and secondary schools, the omission of teacher-student interactions from the framework, and the use of individual level data analysis rather than aggregated analysis techniques, to name a few (Hoy et al., 1991). These questions and others have sparked numerous subsequent studies resulting in multiple iterations of the OCDQ, including versions for the elementary, middle and secondary levels (Hoy & Clover, 1986; Hoy & Feldman, 1987; Hoy, Sabo, & Barnes, 1996).

Perhaps the largest cluster of studies based on the OCDQ is by Hoy and his colleagues spanning several decades. Hoy & Clover (1986) began with the reconstruction of the OCDQ into the OCDQ – Revised Elementary (OCDQ-RE) for elementary schools to address some of the concerns regarding the original work of Halpin & Croft. Then, due to the realization that secondary schools were fundamentally different organizations and more complex than elementary schools, several studies were conducted to develop versions for high schools, the OCDQ – Revised Secondary (OCDQ-RS) (Hoy & Feldman, 1987; Hoy et al., 1991; Kottkamp, Mulhern, & Hoy, 1987). And, finally, a middle school version, the OCDQ – Revised Middle (OCDQ-RM), of the instrument was also constructed (Hoy, Hoffman, Sabo, & Bliss, 1996; Hoy, Sabo, et al., 1996). As illustrated in Table 3, the various dimensions of organizational climate measured varied from instrument to instrument depending

on the level of the school. Also, even when the dimension was labeled the same from instrument to instrument, the accompanying definitions varied by level.

Though these individual versions of the OCDQ are still in use throughout the educational community, a new consolidated instrument and framework for evaluating both the openness and health of school climates was developed in the late 1990s (Hoy & Sabo, 1998). However, before discussing the resulting consolidated instrument, it is important to review the evolution of frameworks and measures of school climate from an organizational health perspective.

Healthy Climate Framework and developing the Organizational Health Index

While the OCDQ and its framework were developed simultaneously, the same cannot be said for the (OHI) and its framework. Miles (1965) was one of the first to use the health metaphor in terms of school climate. Miles saw healthy organizations as those that not only endure in their environments, but also those that continue to develop coping mechanisms and flourish over the long haul. Miles' framework consisted of ten dimensions of school health broken up into three categories – task needs, maintenance needs, and growth and development needs. These ten dimensions and their definitions are outlined in Table 4. Unfortunately, repeated attempts to develop a measure of school health based on Miles' work were unsuccessful (Clark & Fairman, 1983; Kimpston & Sonnabend, 1975; Miles, 1969).

Table 3

Definitions of Behavior Subsets in Different Versions of the Organizational Climate Description Questionnaire (OCDQ)

Characteristics of principal behavior			
	Elementary[a]	Middle[b]	Secondary[c]
Supportive	Supportive behavior reflects a basic concern for teachers. The principal listens and is open to teacher suggestions. Praise is given genuinely and frequently, and criticism is handled constructively. The competence of the faculty is respected, and the principal exhibits both a personal and professional interest in teachers (p. 26).	Supportive behavior is directed toward both the social needs and task achievement of the faculty. The principal is helpful, genuinely concerned with teachers, and attempts to motivate them by using constructive criticism and by setting an example through hard work (p. 125).	Supportive behavior is characterized by efforts to motivate teachers by using constructive criticism and setting an example through hard work. At the same time, the principal is helpful and genuinely concerned with the personal and professional welfare of teachers. It is directed toward both the social needs and task achievement of the faculty (p. 47).
Directive	Directive behavior is rigid, close supervision. The principal maintains constant monitoring and control over all teacher and school activities, down to the smallest detail (p. 26).	Directive behavior is rigid, domineering behavior. The principal maintains close and constant monitoring over virtually all aspects of teacher behavior in the school (p. 125).	Directive behavior is rigid and domineering supervision. The principal maintains close and constant control over all teachers and school activities down to the smallest details (p. 47).
Restrictive	Restrictive behavior hinders rather than facilitates teacher work. The principal burdens teachers with paper work, committee requirements, routine duties, and other demands that interfere with their teaching responsibilities (p. 26).	Restrictive behavior hinders rather than facilitates teacher work. The principal burdens teachers with paperwork, committee requirements, and other demands that interfere with their teaching responsibilities (p. 126).	
Characteristics of teacher behavior			
	Elementary[a]	Middle[b]	Secondary[c]
Collegial	Collegial behavior supports open and professional interactions among teachers. Teachers are proud of their school, enjoy working with their colleagues, and are enthusiastic, accepting, and mutually respectful of their colleagues (p. 27).	Collegial behavior supports open and professional interactions among teachers. Teachers like, respect, and help one another both professionally and personally (p. 126).	

Note. [a]Hoy et al., 1991. [b]Hoy & Tarter, 1997. [c]Hoy & Sabo, 1998.

Table 3 (continued)

Characteristics of teacher behavior (continued)			
	Elementary[a]	Middle[b]	Secondary[c]
Engaged			Engaged behavior is reflected by high faculty morale. Teachers are proud of their school, enjoy working with each other, and are supportive of their colleagues. Teachers are not only concerned about each other, they are committed to the success of their students (p. 47).
Committed		Committed behavior is directed toward helping students to develop both socially and intellectually. Teachers work extra hard to insure student success in school (p. 126).	
Intimate	Intimate behavior is cohesive and strong social relations among teachers. Teachers know each other well, are close personal friends, socialize together regularly, and provide strong social support for each other (p. 27).		Intimate behavior reflects a strong and cohesive network of social relationships among the faculty. Teachers know each other well, are close personal friends, and regularly socialize together (p. 47).
Frustrated			Frustrated behavior refers to a general pattern of interference from both administration and colleagues that distracts teachers from the basic task of teaching. Routine duties, administrative paperwork, and assigned nonteaching duties are excessive; moreover, teachers irritate, annoy, and interrupt each other (p. 47).
Disengaged	Disengaged behavior signifies a lack of meaning and focus to professional activities. Teachers are simply putting in time in non-productive group efforts; they have no common goals and are often negative and critical of their colleagues and the school (p. 27).	Disengaged behavior signifies a lack of meaning and focus in professional activities. Teachers simply are putting in their time; in fact, they are critical and unaccepting of their colleagues (p. 126).	

Note. [a]Hoy et al., 1991. [b]Hoy & Tarter, 1997. [c]Hoy & Sabo, 1998.

Table 4

Definitions of Miles' (1965) Ten Dimensions of Organizational Health Organized by Needs Focus

Task needs	
Goal focus	Goals of the system are reasonably clear to the system members and reasonably accepted by them. The goals must be achievable and appropriate with the demands of the environment (p. 18).
Communication adequacy	Communication is relatively distortion-free vertically, horizontally, and across the boundary of the system to and from the surrounding environment. Sensing of internal strains is good and prompt. People have the information they need (p. 18).
Optimal power equalization	The distribution of influence is relatively equitable. Subordinates can influence upward and perceive their boss can do likewise (p. 19).
Maintenance needs	
Resource utilization	Personnel are used effectively. People are neither overloaded nor idling. The fit between people's own dispositions and the role demands of the system is good (p. 19).
Cohesiveness	The organization knows *who it is.* Its members feel attracted to the organization and want to stay with it, be influenced by it, and exert their own influence in a collaborative style (pp. 19-20).
Morale	The organization displays a sense of well-being and group satisfaction (p. 20).
Growth and development needs	
Innovativeness	The organization invents new procedures, moves toward new goals, and produces new kinds of products to diversify itself and become more differentiated over time (p. 20).
Autonomy	The organization is neither passive nor rebellious to the environment. It demonstrates some independence from outside sources (pp. 20-21).
Adaptation	The systems ability to bring about corrective change in itself is faster than the change cycle of the surrounding environment (p. 21).
Problem-solving adequacy	The organization has well-developed structures and procedures for sensing the existence of problems, for inventing possible solutions, for deciding on the solutions, for implementing them, and for evaluating their effectiveness (p. 21).

After several attempts, Hoy and Feldman (1987) went back to the literature for another construct that might better lend itself to the development of an instrument to measure school health. They found what they were searching for in Parsons' (1958) theory of organizations, which contended that there are four basic problems all social systems must solve to successfully survive, grow, and develop. As interpreted by Hoy et al., (1991), schools must solve the problems of accommodating to their environment (adaptation), setting and implementing goals (goal attainment), maintaining solidarity within the school (integration), and creating and preserving a unique value system (latency).

Parsons (1967) also contended that the organization is different from other social systems because it is oriented towards a particular goal. He then outlined the three levels of an organization – technical, managerial and institutional. The technical level in schools is where teaching and learning occur, while the managerial level is where decisions are made regarding what is taught and who will teach. The institutional level is where the school interacts with its environment. Healthy schools are those in which all three levels work together and where interpersonal relationships between teachers, students and administrators are functional and positive. Healthy schools build the capacity to overcome obstacles, while unhealthy ones remain stuck behind such obstacles due to their lack of problem solving skills.

Hoy and Feldman (1987) defined and operationalized school health using Parsons' framework as theoretical underpinnings, while also keeping in mind Miles' ten dimensions of organizational health. The first Organizational Health Index (OHI)

developed was for the secondary level. Beginning with a pool of 95 items and a list of eight dimensions of organizational health, Hoy and Feldman conducted two studies using secondary schools in the state of New Jersey as participants. The first, utilizing a random sample of teachers from each of 72 different schools, helped to narrow the number of items to 44 and the number of dimensions of organizational health to seven. The final 44-item OHI-Secondary (OHI-S) was then tested on the faculty of 78 secondary schools in New Jersey, the original 72 plus six additional schools. A random sample of approximately five teachers from each school completed the OHI-S, resulting in a total of 1,131 participants. Data were then aggregated to the school level and analyzed. The results of the pilot study and final test of the OHI-S were supportive of seven distinct subsets of school health, each fitting into one of the three levels of Parsons' theory. After development of the OHI-S, two other versions were developed to measure organizational health in elementary schools, the OHI - Elementary (OHI-E) (Hoy, Tarter & Kottkamp, 1991), and middle schools, the OHI – Middle (OHI-M) (Hoy & Sabo, 1998). Table 5 outlines the dimensions of organizational health measured by each of the three instruments. Again, as with the OCDQ, there are variations in terminology and definition from level to level.

Table 5

Definitions of the Subsets in Different Versions of the Organizational Health Index (OHI)

Institutional level			
	Elementary[a]	Middle[b]	Secondary[c]
Institutional integrity	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 (p. 83).	Institutional integrity is the degree to which the school can cope with its environment in a way that maintains the educational integrity of its programs. Teachers are protected from unreasonable community and parental demands (p. 143).	Institutional integrity describes a school that has integrity in its educational program. The school is not vulnerable to narrow, vested interests of community group; indeed, teachers are protected from unreasonable community and parental demands. The school is able to cope successfully with destructive outside forces (p. 59).
Technical level / Teacher level			
	Elementary[a]	Middle[b]	Secondary[c]
Teacher affiliation	Teacher affiliation refers 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 (p. 83).	Teacher affiliation is a sense of friendliness and strong association with the school. Teachers feel good about each other, their job, and their students. They are committed to both their students and their colleagues and accomplish their jobs with enthusiasm (p. 143).	
Morale			Morale is the sense of trust, confidence, enthusiasm, and friendliness among teachers. Teachers feel good about each other and, at the same time, feel a sense of accomplishment from their jobs (p. 59).
Academic emphasis	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 (p. 83).	Academic emphasis is the extent to which the school is driven by a quest for academic excellence. High but achievable academic goals are set for students; the learning environment is orderly and serious; teachers believe in their students' ability to achieve; students work hard and respect those who do well academically (p. 143).	Academic emphasis refers to the school's press for achievement. High but achievable goals are set for students, the learning environment is orderly and serious, teachers believe students can achieve, and students work hard and respect those who do well academically (p. 60).

Note. [a]Hoy,et al., 1991. [b]Hoy & Tarter, 1997. [c]Hoy & Sabo, 1998.

Table 5 (continued)

Managerial level / Administrative level			
	Elementary[a]	Middle[b]	Secondary[c]
Collegial leadership	Collegial leadership refers to behavior by the principal that is friendly, supportive, open, and guided by norms of equality. At the same time, however, the principal sets the tone for high performance by letting people know what is expected of them (p. 83).	Collegial leadership is principal behavior that is friendly, supportive, open, and guided by norms of equality. But, at the same time, the principal sets the tone for high performance by letting people know what is expected of them (p. 143).	
Initiating structure			Initiating structure is task- and achievement-oriented behavior. The principal makes his or her attitudes and expectations clear to the faculty and maintains definite standards of performance (p. 59).
Consideration			Consideration is principal behavior that is friendly, supportive, and collegial. The principal looks out for the welfare of faculty members and is open to their suggestions (p. 59).
Resource influence	Resource influence describes the principal's ability to affect the action of superiors to the benefit of teachers. Teachers are given adequate classroom supplies, and extra instructional materials and supplies are easily obtained (p. 83).		
Principal influence		Principal influence is the principal's ability to influence the actions of superiors. Influential principals are persuasive with superiors, get additional consideration, and proceed relatively unimpeded by the hierarchy (p. 143).	Principal influence is the principal's ability to influence the actions of superiors. The influential principal is persuasive, works effectively with the superintendent, and simultaneously demonstrates independence in thought and action (p. 59).
Resource support		Resource support is the extent to which classroom supplies and instructional materials are readily available; in fact, even extra materials are supplied if requested (p. 143).	Resource support refers to a school where adequate classroom and instructional materials are available and extra materials are easily obtained (p. 59).

Note. [a]Hoy,et al., 1991. [b]Hoy & Tarter, 1997. [c]Hoy & Sabo, 1998.

The OHI helped schools to place themselves on a continuum from healthy to unhealthy. Regardless of which version of the OHI one uses, there is one common denominator: school health is about the quality of interpersonal relationships within a school. In schools with healthy climates, the interpersonal relationships are harmonious at all levels of the organization. On the opposite end of the continuum, schools with unhealthy climates have interpersonal relationships that aren't just strained; they are entirely depleted, leaving the school quite an unwelcoming place and one not conducive to quality work and learning.

Like the OCDQ before it, these individual versions of the OHI are still used throughout the educational community, often side by side with the matching version of the OCDQ. They work in tandem to provide a comprehensive picture of school climate from both the openness and health perspectives (Hoy & Sabo, 1998; Hoy & Tarter, 1997). However, this comprehensive picture can sometimes contradict itself and, more often than not, leads to confusion when trying to make comparisons between local schools and scholarly research articles and across scientific research studies (Hoy et al., 1998). For this reason, in the late 1990s, Hoy and his colleagues began developing a consolidated instrument and framework to examine both the openness and health of school climate using a single instrument suitable for all school levels.

Consolidating the Organizational Climate Description Questionnaire and the Organizational Health Index

For many years, the OCDQ and the OHI were used side by side to analyze school climates in terms of their openness and health based on the perceptions of

school faculty. Unfortunately, due to the number of different measures, including versions of each for the elementary, middle and secondary levels, comparison of results was often difficult. Additionally, several subsets on the OCDQ were similar to those on the OHI, which led to even more confusion. Thus, the next phase of school climate research involved consolidation of the OCDQ and the OHI into a single measure, the Organizational Climate Index (OCI), suitable for all three levels of the educational system and providing a basis for comparison of results across schools and scientific research studies (Hoy et al., 1998; Hoy & Sabo, 1998; Hoy et al., 2002). Tschannen-Moran et al. (2006) further refined the OCI into the SCI, the instrument used in this study.

The Organizational Climate Index and the School Climate Index

Since research conducted using both the OCDQ and the OHI supported the idea that open schools tended to be healthy and healthy schools tended to be open, Hoy and his colleagues began investigating whether or not a concise instrument could be developed to measure both the openness and health of schools. Hoy, Tarter, & Bliss (1990) began down this road by investigating the health and openness subsets of both the OHI and OCDQ for secondary schools in relation to student achievement and teachers' commitment to the school. An interesting finding from this study was that academic achievement and institutional integrity had a significant negative correlation ($r = -.34$, $p < .01$), indicating that the better a school is at protecting itself from those outside the institution, such as parents and community members, the lower the student achievement (Hoy et al., 1990).

Hoy and his colleagues, through several studies (Hoy et al., 1998; Hoy & Sabo, 1998), used statistical analyses to determine that the twelve subsets of the OCDQ and the OHI, could be reduced to four strong dimensions of school climate – collegial leadership, professional teacher behavior, achievement press, and institutional vulnerability (see Table 6). Again, the institutional vulnerability dimension proved problematic. Institutional vulnerability was negatively correlated with all three measures of student achievement – math ($r = -.36$, $p < .01$), reading ($r = -.36$, $p < .01$), and writing($r = -.35$, $p < .01$) (Hoy & Sabo, 1998). These consistently negative correlations between institutional vulnerability and student achievement led Hoy & Sabo to conclude that "although teachers like to be buffered from outside forces, schools that feel pressure from the community are more likely to have higher levels of student achievement. Based on this conclusion, Hoy & Sabo renamed the institutional integrity dimension to environmental press.

Table 6

Definitions of Dimensions in Hoy, Smith, & Sweetland's (2002) Organizational Climate Index (OCI)

OCI Dimension	Definition
Institutional vulnerability / Environmental press	Institutional vulnerability is the extent to which the school is susceptible to a few vocal parents and citizen groups. High vulnerability suggests that both teachers and principals are unprotected and put on the defensive (Climate Instrument section, ¶ 5).
Collegial leadership	Collegial leadership is principal behavior directed toward meeting both social needs of the faculty and achieving the goals of the school. The principal treats teachers as colleagues, is open, egalitarian, and friendly, but at the same time sets clear expectations and standards of performance (Climate Instrument section, ¶ 5).
Professional teacher behavior	Professional teacher behavior is marked by respect for colleague competence, commitment to students, autonomous judgment, and mutual cooperation and support of colleagues (Climate Instrument section, ¶ 5).
Achievement press	Achievement press describes a school that sets high but achievable academic standards and goals. Students persist, strive to achieve, and are respected by both students and teachers for their academic success. Parents, teachers, and the principal all exert pressure for high standards and school improvement (Climate Instrument section, ¶ 5).

The literature from this point forward regarding the OCI used three terms to describe this dimension – institutional integrity, institutional vulnerability, and environmental press – interchangeably, even within the same source (Hoy & Sabo, 1998; Hoy et al., 2002). To eliminate confusion, it will be referred to as environmental press from here forward in the literature review to distinguish it from the institutional integrity dimension of the OHI.

Using the four dimensions of school climate in Table 6, Hoy et al. (2002) developed a single measure for school climate, the OCI, which worked appropriately in high schools, thus eliminating the need for using both the OCDQ and the OHI. Still, the environmental press dimension acted as the anti-thesis of the other three dimensions. Their findings included the negative relationship between collegial leadership and environmental press ($r = -.45$, $p < .05$), the negative relationship between faculty trust in colleagues ($r = -.24$, $p < .05$) and faculty trust in the principal ($r = -.33$, $p < .01$). These findings, when taken together, led to the conclusions that environmental press "appears to be an aspect of climate that is least related to building trusting relationships in schools; it plays only a secondary role" (Discussion section, ¶ 8). They then suggested that the only likely dimension missing from the OCI is one that accounts for the positive aspects of school-community relations.

DiPaola and Tschannen-Moran (2005) picked up where Hoy et al. (2002) left off and made an interesting discovery, causing a paradigm shift in the way schools' relationships with their environments are both measured and considered in terms of school climate. They examined the relationship between student achievement and

teachers' perceptions of their schools' approach to its environment to better understand two competing concepts – bridging and buffering.

Bridging activities are generally more cooperative and serve the purpose of engaging the school with its environment to increase the interdependence of the two. In schools that view their communities as potential resources, principals and school leaders are more likely to try and bridge the teaching and learning community of the school with the resources of the community. Shared decision making teams are an example of a bridging strategy designed to enable the school to work cooperatively with parents and community members to give them a voice in school policy.

On the other hand, DiPaola and Tschannen-Moran (2005) described buffering activities, which generally serve the purpose of controlling elements of the school's external environment, such as parents and community groups. These types of strategies are used by schools that view their communities as threats, thus principals and school leaders are more likely to build buffers such as strict policies regarding when and how community members can communicate with the school or policies and practices to prevent parents from interfering with the teaching process. The goal of buffering strategies is to keep the school as independent as possible from the community, thus protecting and insulating the teaching and learning environment from outside influence.

For this study, DiPaola & Tschannen-Moran (2005) developed a new measure of bridging, the community engagement measure, to assess teachers' perceptions of the extent to which the school builds positive connections with their communities. As

there was an existing measure of buffering, the environmental press subscale of the OHI, they used it to assess teachers' perceptions of the extent to which the school buffered itself from the intrusion of the community. Along with these measures for bridging and buffering, a third variable, student achievement was operationalized as the results of the 8th grade Virginia Standards of Learning tests in two areas – math and English, reading, research, and literature (English).

In this study, DiPaola and Tschannen-Moran (2005), collected survey data at 74 middle schools in the state of Virginia, with two random samples of teachers at each school chosen to complete one of the two surveys during a regularly scheduled faculty meeting. The return rates were nearly 100% resulting in data from 1,083 teachers. Half of the teachers responded to the institutional integrity subscale of the OCI, to measure their perceptions of the school's buffering activities, and the other half responded to the new measure developed specifically for this study to measure their perceptions of the school's bridging activities. Findings included a difference in the relationship between student outcomes and either bridging or buffering activities. There was a weak correlation between buffering and English achievement ($r = 0.31$, $p < .05$), and no correlation between buffering and math achievement. Bridging, on the other hand, was moderately correlated to both English achievement ($r = .63$, $p < .01$) and math achievement ($r = .64$, $p < .01$). In this case, the strength of the correlations is not as important as the differences in the trends of correlation of student achievement to either bridging or buffering.

This evidence supports the conclusion that school leaders must recognize that "influences between the school and the environment are as significant as

relationships within the organization to the creation and maintenance of high functioning schools" (DiPaola & Tschannen-Moran, 2005, p. 61). A principal's choice to buffer the school from its environment, including parents and other community members, by controlling access to teachers and limiting the amount of outgoing information, can actually lead to decreased student achievement. On the other hand, a principal's choice to utilize bridging strategies, such as shared decision making teams and frequent sharing of information through newsletters and the school's website, can not only increase the interdependence of the school and community, but can also lead to increased student achievement. Building such coalitions with the community requires the school leader to be willing to "exchange some degree of control, including control of information, for some commitment of continued support from the community" (DiPaola & Tschannen-Moran, 2005, p. 65).

In light of these findings, Tschannen-Moran and DiPaola's next step was to morph the OCI into a new measure of school climate that would include a new dimension, community engagement, in place of the institutional integrity or environmental press dimension, which had proven to be detrimental to student outcomes (Tschannen-Moran et al., 2006).

The Organizational Climate Index becomes the School Climate Index

The final step on the journey of understanding school climate as it is used in this survey is Tschannen-Moran et al.'s (2006) refinement of the OCI into a new and improved climate measure, the SCI. Based on their previous work (DiPaola & Tschannen-Moran, 2005), the four dimensions of the OCI – collegial leadership, professional teacher behavior, achievement press, and environmental press (see

Table 6) were re-evaluated. Three of the dimensions were renamed and/or redefined to strengthen the concepts – collegial leadership, teacher professionalism, and academic press – and a new dimension, community engagement, which measured bridging activities, took the place of environmental press, which measured buffering activities (see Table 7).

Table 7

Definitions of School Climate Dimensions in Tschannen-Moran, Parish, & DiPaola's (2006) School Climate Index (SCI)

SCI Dimension	Definition
Community engagement	Community engagement is the extent to which the school fosters a constructive relationship with its community. It describes the degree to which the school can count on involvement and support from parents and community members and the extent to which the school provides the community with information about its accomplishments (p. 398).
Collegial leadership	Collegial leadership refers to the behavior of the principal that is supportive and collegial and is not perceived to be overly directive or restrictive (p. 397).
Teacher professionalism	Teacher professionalism refers to behavior that shows that teachers are committed to their work and are willing to work cooperatively with one another (p. 397).
Academic press	Achievement press refers to a schoolwide tone that is serious, orderly, and focused on academics (p. 397).

Tschannen-Moran et al. (2006) tested the SCI by examining the relationship between each of the SCI's four dimensions – collegial leadership, teacher professionalism, academic press, and community engagement – (see Table 7) and student learning, as measured by three Virginia Standards of Learning eighth grade tests, English, math and writing. Approximately one-third of the teachers at 82 middle schools from throughout the state of Virginia were asked to complete the SCI, while the other two-thirds took alternate surveys as part of a larger study on middle schools in Virginia. Surveys were completed at a regularly scheduled faculty meeting resulting in a 100% return rate. All data were aggregated to the school level. Three of the four dimensions of school climate – teacher professionalism, academic press, and community engagement - were significantly related to student achievement. Of the three, community engagement showed the strongest relationships to each of the three student achievement outcomes being examined, English ($r = .65$, $p < .01$), math ($r = .68$, $p < .01$), and writing ($r = .53$, $p < .01$). Collegial leadership, though not related to student achievement in this study, was significantly related to each of the three other dimensions of school climate – teacher professionalism ($r = .51$, $p < .01$), academic press ($r = .48$, $p < .01$), and community engagement ($r = .33$, $p < .01$). The significant correlation between community engagement and student outcomes supports the conclusion that schools are more likely to produce higher-achieving students when parents and community members actively participate in school programs and respond to the needs of the school (Tschannen-Moran et al., 2006).

School Climate and Trust

The study of school climate and the study of trust in schools have a comingled history with seminal studies in the 1980s (Hoy & Kupersmith, 1985) and 1990s (Hoy & Tschannen-Moran, 1999), both resulting in findings that linked elements of school climate and trust in schools. Hoy and Kupersmith (1984) collected survey data from 944 teachers in 46 elementary schools to investigate the relationship between trust levels in schools and teacher perceptions of principal authenticity, meaning "the extent to which subordinates described their leader as accepting responsibility for actions, as being non-manipulating, and as demonstrating a salience of self over role" (Henderson & Hoy, 1982, p. 124). Hoy and Kupersmith (1984) found that principal authenticity had moderately strong relationships with both teacher trust of principal ($r = .68$, $p < .01$) and teacher trust of organization ($r = .55$, $p < .01$) and, at a weaker level, teacher trust of colleagues ($r = .29$, $p < .05$).

Similarly, Tschannen-Moran and Hoy (1998) investigated the relationship between trust and school climate with survey data collected from 2,741 teachers at 87 middle schools. One-third of the teachers took the OHI-RM, another third took the OCDQ-RM, and the final third took a trust survey, which grew out of the work of Hoy and Kupersmith (1984). Tschannen-Moran and Hoy's (1998) results were consistent with earlier studies examining teachers perceptions of both trust in the principal and trust in colleagues (Hoy, Hoffman, et al., 1996; Hoy & Kupersmith, 1985; Hoy, Sabo, et al., 1996). They found that different aspects of school climate are related differently to different types of teacher trust. Teacher trust in colleagues was most strongly

related to teacher professionalism (Beta = .635, $p < .01$), and collegial leadership had the strongest relationship with teacher trust of principal (Beta = .677, $p < .01$).

Since school climate and faculty trust are significantly related, the next question requiring attention is: how is trust defined and measured? The next section in this literature review will attempt to answer that question (Hoy & Tschannen-Moran, 1999; Tschannen-Moran, 2004) and will review some of the literature related to relational and reciprocal trust (Bryk & Schneider, 2002; Forsyth & Adams, 2004).

Trust

Hoy and Tschannen-Moran (1999) established the current paradigm for the scientific examination of trust in schools defining trust as "one's willingness to be vulnerable to another based on the confidence that the other is benevolent, honest, open, reliable, and competent" (Tschannen-Moran & Hoy, 2000; Tschannen-Moran, 2004, p. 17). This study looks at relational trust, or, more specifically, reciprocal trust, which can be operationally defined as the proximity of trust levels between two role-groups (Forsyth & Adams, 2004, p. 264).

The body of research based on trust perceptions from the faculty perspective is much larger than that based on the trust perceptions of multiple role groups, such as principals, teachers, parents, and students. Despite this, the literature suggests that trust perceptions, whether individual or relational, play a key role in the success of schools, including correlations with student achievement (Bryk & Schneider, 2002; Goddard et al., 2001), collaboration within and among role groups (Adams & Forsyth, 2006; Tschannen-Moran, 2001), and school climate (Hoy et al., 1991; Hoy et al., 2002; Tschannen-Moran & Hoy, 1998).

Components of Trust

Simply defining trust as "one's willingness to be vulnerable to another based on the confidence that the other is benevolent, honest, open, reliable, and competent" (Tschannen-Moran, 2004, p. 17) does not give a clear picture of the many faces of trust. Therefore, breaking down this definition word by word will increase understanding of the true and complex nature of trust relationships. *One's willingness* implies that the decision to trust is just that, a choice, and that it is made, initially, at the intrapersonal level. The decision one must make is whether or not *to be vulnerable to another*. This part of the definition brings the interpersonal dynamic of trust into play and also implies interdependence, for if one is not dependent upon another for something then there is no risk involved and no need for trust to be present. It is this interdependence and risk that brings about vulnerability (Tschannen-Moran, 2004). To make this decision, one uses his/her personal knowledge and beliefs along with prior experiences, current conditions, and a multitude of other considerations about another to make a judgment call regarding their level of *confidence that the other* is or is not trustworthy, particularly in terms of whether the other is *benevolent, honest, open, reliable, and competent*.

Benevolence

Benevolence is defined as "confidence that one's well-being will be protected by the trusted party" (Hoy & Tschannen-Moran, 2003, p. 186). If someone is benevolent, their actions will be in the best interest of others, will be protective of other's interests and will indicate care not only for the current situation, but also care about the relationship. Having confidence in the benevolence of another means

believing that the thing one cares about will be protected and not harmed. Benevolence often is associated with a person's reputation and can be negatively impacted by a single harmful act, since word of such acts seems to travel faster than those of positive ones (Tschannen-Moran, 2004).

Honesty

Honesty is also a critical component of trust. Hoy and Tschannen-Moran (2003) defined it as the character, integrity, and authenticity of the trusted party'' (p. 186). Here, again, a person's reputation can play a key role, since beliefs about a person's character, integrity and authenticity are often based on prior acts. To believe that someone is honest, one believes that the person will be truthful and can be relied upon to keep his or her promises. Honesty also encompasses the belief that another person has integrity, meaning that a person's purported beliefs and values match his or her actions. Do they walk the talk and talk the walk? (Tschannen-Moran, 2004).

Openness

Openness is defined as ''the extent to which there is no withholding of information from others'' (Hoy & Tschannen-Moran, 2003, p. 186). When information is shared openly, it is because one party believes the other will not use it in a harmful way and demonstrates one party's trust in another, thus breeding reciprocal trust. Likewise, the act of withholding information communicates a lack of trust in others and often breeds distrust and promotes miscommunication. Particularly in schools, the open sharing of influence and control is key to building trust relationships, as the more a person is trusted with power and authority, the more they feel trusted and respected (Tschannen-Moran, 2004).

Reliability

Reliability, as defined by Hoy and Tschannen-Moran (2003) is "the extent to which one can count on another person or group" (p. 186) and means that one can be consistently counted on to do the right thing. Predictability and reliability are not the same thing, for predictability can be either positive or negative, while reliability implies that the person delivers as expected time and again. Trusting that someone will be reliable means that one is confident that the other can be relied upon to come through each and every time (Tschannen-Moran, 2004).

Competence

Hoy and Tschannen-Moran (2003) defined competence as "the extent to which the trusted party has knowledge and skill" (p. 186). One's competence is judged by his/her ability to perform as expected using a certain level of skill and according to certain appropriate standards. In schools, for example, students trust that the teachers have a certain level of skill in their teaching abilities and content knowledge to competently teach the subject. Competence also implies that the person will do what is necessary to maintain and enhance their level of skill over time. Just because one is competent today does not mean they will automatically be competent five years from now. Another difficulty with competence is that one's perceived level of skill does not always match his or her actual level of skill, sometimes creating situations of distrust (Tschannen-Moran, 2004).

Measures of Trust

Based on this comprehensive definition of trust, surveys were developed to measure the levels of trust in schools from multiple viewpoints. These included

surveys for teachers (Hoy & Tschannen-Moran, 2003), parents (Forsyth & Adams, 2004), students (Barnes et al., 2004), and principals (Gareis & Tschannen-Moran, 2004) to measure their trust perceptions for each of the other groups. Each of these surveys measures trust indirectly by asking participants to report the degree to which they view others as being benevolent, honest, open, reliable, and competent. When used together, these surveys allow trust in schools to be examined multi-directionally, meaning a comparison can be made, for example, of the level of trust teachers have in parents and the level of trust parents have in teachers. This comparison results in a way to examine relational and reciprocal trust in schools., including the three types of reciprocal trust investigated in this study – reciprocal parent-teacher trust, reciprocal parent-principal trust, and reciprocal teacher-principal trust.

Each of these instruments was assessed for its reliability and validity. However, the focus was more on the internal consistency of the instrument and on its content and construct analysis rather than on stability. Therefore, while the Chronbach's alpha coefficient and factor analysis results are reported fairly consistently throughout references to these instruments, there is very little information reported about how stable the instrument is over time.

Relational and Reciprocal Trust

These instruments provide tools to examine trust uni-directionally and multi-directionally in schools between the various role groups, including parents and teachers, students and teachers, parents and principals, students and principals, and teachers and principals. The majority of studies thus far have concentrated on trust

from the perspective of faculty members (Goddard et al., 2001; Hoy, Sabo, et al., 1996; Hoy et al., 2002; Tschannen-Moran & Hoy, 2000). In recent years, Forsyth, Adams and their colleagues began a series of investigations evaluating, assessing, or exploring trust from the parent and student perspectives (Adams & Forsyth, 2006; Mitchell & Forsyth, 2004) including those specifically investigating relational and reciprocal trust, particularly that between parents and teachers (Forsyth & Adams, 2004; Forsyth et al., 2006).

Forsyth and Adams (2004) argued that readiness and potential for collective action reside in reciprocated, high trust relationships between constituent role groups, such as principals, faculty, parents and students, in schools. In an effort to distinguish between relational trust and reciprocal trust, they built upon Bryk and Schneider's (2002) relational trust theory, which viewed trust as a web of social exchanges intertwined with the operations of the school. Increasing and maintaining relational trust in and between role groups, argued Bryk and Schneider (2002), "requires synchrony in mutual expectations and obligations" (p. 20). "When this synchrony is achieved within all of the major role sets that comprise a school community," (p. 21) schools function well as organizations.

Relational trust does not imply that synchrony exists in the levels of trust between groups, nor does it refer to the specific level of trust (e.g. low or high) between groups. Therefore, Forsyth and Adams (2004) began using the term reciprocal trust, meaning that two criteria were satisfied: proximity and level. For example, reciprocal parent-teacher trust means that parents have a high level of trust for teachers and teachers have a high level of trust for parents. Both levels are

high and thus proximate to each other. On the other hand, reciprocal parent-teacher distrust would be present if the opposite were true, such as if parents had a low level of trust for teachers and teachers had a low level of trust for parents.

The difficulty came when Forsyth and Adams (2004) tried to create a variable to measure the term reciprocal trust, specifically parent-teacher reciprocal trust, so they devised a three-step process. First, they measured various levels of trust by surveying 15 parents, 10 teachers, and 15 students at each of 79 schools (22 elementary, 30 middle, and 27 high) using the Parent Trust Scale, the Faculty Trust Scale, and the Student Trust Scale. Second, each school was assigned classifications of low, medium or high for both parent trust of school and teacher trust of parents. Last, those two classifications were compared to judge their proximity to each other and a value of low, medium, or high was assigned for reciprocal parent-teacher trust.

Forsyth and Adams (2004) investigated the relationship between these reciprocal parent-teacher trust values and several other variables, including social structure, which was measured using the Collaboration Survey (Tschannen-Moran, 2001), school performance, a variable combining student test scores, attendance rates, and academic excellence rates, and socioeconomic status (SES), based on free and reduced lunch rates. They found a significant positive relationship between reciprocal parent-teacher trust and school performance ($r = .58$, $p < .01$), suggesting, "multidirectional trust perceptions are associated with higher school performance" (p. 269). Reciprocal parent-teacher trust also correlated highly and significantly with all of the other variables investigated including school

performance ($r = .58$, $p < .01$), SES ($r = -.41$, $p < .01$), parent collaboration ($r = 46$, $p < .01$), teacher-principal collaboration ($r = .43$, $p < .01$), and teacher-to-teacher collaboration ($r = .52$, $p < .01$). These analyses led them to question the ways in which trust is discerned by one role group of another (Forsyth, 2008; Adams, 2008; Adams et al., 2009).

Why School Climate and Trust Matter

Table 8 summarizes a sampling of studies linking school climate and trust to student achievement, collaboration, and each other.

Table 8

Summary of Select Research on School Climate and Trust

Author, Year, & Instruments	Variables	Methods	Conclusions
Hoy, Tarter & Bliss (1990) OHI OCDQ-RS Organizational Commitment Questionnaire (OCQ)	▪ School climate ▪ School health ▪ Organizational commitment ▪ Student achievement (SA) ▪ Socioeconomic status (SES)	▪ Sample –58 elementary schools (100% return) ▪ 872 teachers ▪ Scores on statewide reading and math tests ▪ Statewide SES composite index score	▪ SES was strongly related to both school health and SA ▪ The OHI explained more of the variance in organizational commitment than the OCDQ ▪ Teacher frustration aspect of school climate and institutional integrity aspect of school health had strong negative relationships with SA ▪ Resource allocation and academic emphasis aspects of school health had positive strong relationships with SA
Tarter, Sabo & Hoy (1995) OCDQ-RM Hoy & Kupersmith (1985) Trust Scales	▪ Supportive leadership ▪ Faculty collegiality ▪ School effectiveness ▪ Faculty trust in the principal ▪ Faculty trust in colleagues	▪ Sample – 87 middle schools (100% return) ▪ 2,777 teachers	▪ Only supportive leadership was significantly related to trust in the principal ▪ Only faculty collegiality was significantly related to trust in colleagues ▪ Both trust in the principal and trust in colleagues made significant independent contributions to explaining school effectiveness
Tschannen-Moran & Hoy (1998) OHI-RM OCDQ-RM Hoy & Kupersmith (1985) Trust Scales	▪ Environmental press ▪ Collegial leadership ▪ Teacher professionalism ▪ Academic press ▪ Teacher trust in colleagues ▪ Teacher trust in the principal	▪ Sample – 85 middle schools (100% return) ▪ Survey data from 2,741 teachers	▪ Teacher trust in colleagues was significantly related to teacher professionalism ▪ Teacher trust in the principal was significantly related to collegial leadership
Goddard, Tschannen-Moran & Hoy (2001) Faculty Trust Scale (FTS)	▪ Teacher trust in students & parents ▪ Student achievement ▪ SES	▪ Sample – 47 elementary schools (90% return) ▪ Survey data from 452 teachers ▪ Reading & math test data	▪ Trust variations in schools were strongly related to differences in schools' SES ▪ Trust was a significant positive predictor of differences among schools in student achievement

Table 8 (continued)

Author, Year, & Instruments	Variables	Methods	Conclusions
Tschannen-Moran (2001) FTS Collaboration Survey – Principal Collaboration Survey – Faculty	▪ Collaboration with principal ▪ Collaboration among colleagues ▪ Collaboration with parents ▪ Trust in the principal ▪ Trust in colleagues ▪ Trust in client	▪ 45 elementary schools ▪ Survey data from 898 teachers (99% return) and 45 principals (100% return)	▪ The three levels of collaboration were moderately related to each other. ▪ Collaboration with the principal was significantly related to both trust in the principal and trust in clients. ▪ Collaboration with colleagues was related to both trust in colleagues and trust in the principal. ▪ Collaboration with parents was strongly correlated to trust in clients and was also correlated with trust in the principal and trust in colleagues. ▪ "In schools where there is a high level of trust, there is likely to be a high level of collaboration" (p. 324)
Tschannen-Moran, Parish, & DiPaola (2006) SCI	▪ School Climate - Collegial leadership - Teacher professionalism - Academic press - Community engagement ▪ Student achievement ▪ SES	▪ 82 middle schools ▪ Survey data from 2,355 teachers ▪ Test scores on statewide English, math and writing tests ▪ Free and reduced price lunch data	▪ Collegial leadership was not significantly related to any of the student achievement measures. ▪ Community engagement was the most strongly related to student achievement and teacher professionalism showed the weakest relationship to student achievement. ▪ School climate made a significant independent contribution over and above the impact of SES in explaining the variance in student achievement for all three student achievement measures.
Tschannen-Moran (2009) SCI Enabling Structure Scale FTS	▪ Teacher professionalism ▪ Professional orientation of principals ▪ Faculty Trust in the principal ▪ Faculty trust in colleagues ▪ Faculty trust in clients	▪ 80 middle schools ▪ Survey data from 2,355 teachers	▪ Professional orientation of principals was strongly related to faculty trust in the principal and weakly related to faculty trust in colleagues and clients. ▪ Teacher professionalism was most strongly related to faculty trust in colleagues, with a slightly less strong relationship to professional orientation of principals. ▪ Faculty trust in clients was related to all of the other variables.

Conclusion

This review of literature illuminates frequent questions regarding the lack of studies examining trust between teachers, principals, parents and students in schools with data collected from members of each group. Those questions were the kernels of inquiry which led this researcher to wonder why more research had not been done on trust from the perspective of parents and principals and if, as with trust from the faculty perspective, there were links between reciprocal trust in schools and school climate. Though there is an abundance of literature on the importance of family-school connections and parental involvement for students' academic achievement (Adams & Christenson, 2000; Anderson & Minke, 2007; Christenson, 2004; Epstein, 2005; Epstein & Saunders, 2006), it is only in the past year or two that studies have more carefully explored an understanding of how trust is formed within and among these school role groups (Adams et al., 2009; Chhuon, Gilkey, Gonzalez, Daly, & Chrispeels, 2008; Cosner, 2009; Tschannen-Moran, 2009a). Gaining insight into the links between reciprocal trust and school climate, as this study intended, will lend further support for such research in the future. Forsyth (2008) explained it when he said: "It is quite clear from other evidence that expanding trust perceptions beyond those of teachers prevents underestimation of the critical empirical roles trust plays in many school consequences" (p. 19).

CHAPTER 3: METHODS

Purpose Statement

The purpose of this descriptive study was to examine the relationship between school climate and reciprocal trust through survey data from high school parents, teachers, and principals in New York State. The predictor variable being investigated, school climate, was defined as the openness and health of interpersonal relationships in a school community and was measured at four levels: collegial leadership, teacher professionalism, academic press, and community engagement. The criterion variable being investigated, trust, was defined as "one's willingness to be vulnerable to another based on the confidence that the other is benevolent, honest, open, reliable, and competent" (Tschannen-Moran, 2004, p. 17). Reciprocal trust was defined as "the proximity of trust levels between role groups" (Forsyth & Adams, 2004, p. 264).

Research Questions

This study was designed to answer these research questions:

1. Is the level of reciprocal parent-teacher trust related to school climate?
2. Is the level of reciprocal parent-principal trust related to school climate?
3. To what extent is each of the four dimensions of school climate related to the level of reciprocal parent-teacher trust?
4. To what extent is each of the four dimensions of school climate related to the level of reciprocal teacher-principal trust?

5. In schools with a high level of reciprocal parent-teacher trust, which of the four dimensions of school climate is most closely related to the level of parent trust in school?

Background Information

One of the purposes of this study was to investigate the relationship between reciprocal parent-teacher trust and school climate, including each of its four dimensions: collegial leadership, teacher professionalism, academic press, and community engagement. This study incorporated parent perceptions of trust into the existing body of research linking trust and school climate. If an important element in building an open and healthy school climate is a high level of reciprocal parent-teacher trust, then it is vital to assess both school climate and trust levels.

Climate is a term used to describe the personality of an organization, such as a school, and school climate is defined as "the relatively enduring quality of the school environment that is experienced by participants, affects their behavior, and is based on their collective perception of behavior in schools" (Hoy & Tarter, 1997, p. 6). While this definition implies that school climate is a single quality, it is actually comprised of four separate dimensions. As described by Tschannen-Moran et al. (2006), the four dimensions of school climate are (a) collegial leadership, which "characterizes the relationships between principals and teachers" and "refers to the behavior of the principal that is supportive and collegial and is not perceived to be overly directive or restrictive" (p. 397), (b) teacher professionalism, which characterized "the connections that teachers have with one another" and "refers to behavior that shows that teachers are committed to their work and are willing to

work cooperatively with one another" (p. 397), (c) academic press, which "refers to a schoolwide tone that is serious, orderly, and focused on academics" (p. 397), and (d) community engagement, which "describes the degree to which the school can count on involvement and support from parents and community members and the extent to which the school provides the community with information about its accomplishments" (p. 398). Each of these different dimensions of school climate helps build and promote different trust relationships (Hoy et al., 2002).

Trust is a vital component in a healthy and open organizational climate, including schools and businesses. The literature suggests that trust perceptions, whether individual or relational, play a key role in the success of schools, including correlations with student achievement (Bryk & Schneider, 2002; Goddard et al., 2001), collaboration within and among role groups (Adams & Forsyth, 2006; Tschannen-Moran, 2001), and school climate (Hoy et al., 1991; Hoy et al., 2002; Tschannen-Moran & Hoy, 1998).

The body of research based on trust perceptions from the faculty perspective is much larger than that based on the trust perceptions of multiple role groups, such as principals, teachers, parents, and students. However, a limited number of studies on parent perceptions of trust indicates a link between parent trust and school effectiveness (Forsyth & Adams, 2004; Forsyth et al., 2006).

Often, parents are missing from the table when it is time to discuss how to boost student achievement. In some cases, this is an oversight by those making the arrangements, but all too frequently the parent voice is missing due to negative

attitudes and stereotypical perceptions of parents by educational administrators, teachers, and policymakers. In their case study, Smrekar and Cohen-Vogel (2001) found that "enduring beliefs about parents limit communication between the home and school to bitter confrontations about children's academic and behavioral problems" (p. 499-500). It is time to take a closer look at not only bringing that parent voice to the table, but also at the importance of working together to open the school doors and welcome parents and families in as members of the team rather than an obstacle to overcome.

Research shows that family involvement positively impacts a child's educational experiences, including academic achievement and school attendance (Epstein, 2005). Open and healthy school climates where administrators, teachers, and parents work collaboratively in trusting relationships, serve to decrease barriers to trust (Tschannen-Moran, 2001). Rather than building relationships with parents by chance or relying on parents to build them, schools need to build trusting relationships with parents in purposeful and planned ways (Adams et al., 2009). Understanding both current trust levels and the openness and health of the school climate are two tools available to help educators along the road to building environments where trusting relationships can develop and grow.

Design

A review of the literature revealed a minimal number of trust studies involving data collected directly from parents (Forsyth & Adams, 2004; Forsyth et al., 2006). This descriptive study investigated the relationship between school climate and reciprocal trust. The predictor variable investigated, school climate, was a construct

comprised of four dimensions: collegial leadership, teacher professionalism, academic press, and community engagement. The criterion variable investigated, reciprocal trust, was based on the shared levels of trust between role groups in schools measured at multiple levels: parent trust in the school, parent trust in the principal, faculty trust in the principal, faculty trust in colleagues, faculty trust in clients (students and parents), principal trust in teachers, principal trust in clients (students and parents), and principal trust in parents.

Population and Sample

The population for this study was public high schools with grade configurations of 9-12 or 10-12 and 16 or more faculty members within New York State, excluding New York City. There were 440 schools in the population. Since participation in the study was predicated upon receiving permission from the school principal, non-random sampling procedures were necessary. The unit of analysis for this study was the school. Therefore, all data collected from individuals were aggregated to the school level. Participants at each school included the principal, teachers, and parents.

To obtain the sample pool of schools invited to participate, the researcher ranked all 440 schools in the population by free and reduced price lunch rate (FRPL) from highest to lowest. A random number generator was used to select a starting point for labeling every fourth school with an A, B, C, or D. The number generated was 371, so school 371 was labeled with an A to begin the cycle. The researcher then asked a colleague to randomly select a piece of paper from four, each with a different number (1, 2, 3, 4) which corresponded to a letter (A, B, C, D). The number

4 was chosen; therefore each school labeled with a D in the population was invited to participate. This resulted in an initial sample pool of 109 schools.

The researcher sent a letter requesting the school's support and participation in the study (Appendix A) to the principal of each school in the sample pool. The letter included a self-addressed stamped envelope and a "Letter of support and participation" as well as an "Opt out form" (Appendix B). The principal was asked to sign one of these and return it to the researcher. After four weeks, follow up phone calls were made to non-responding schools. These procedures resulted in eight participating schools. To increase the number of participating schools, the researcher used convenience sampling to select six additional schools. The principals of these additional schools were contacted initially by phone and asked to participate. Three schools were added in this manner, bringing the total number of participating schools to eleven.

Instrumentation

Four different survey instruments were used to collect data for the study. The School Climate Index (SCI) (Tschannen-Moran, 2009b) and the Faculty Trust Scale (FTS) (Tschannen-Moran, 2004) were self-administered by faculty members. The Principal Trust Scale (PrTS) (Tschannen-Moran, 2004) was administered to each principal by the researcher. The Parent Trust Scale (PaTS) (Tschannen-Moran, 2004) was self-administered by parents. Each of the four survey instruments is published, and the authors have granted permission for their instruments to be used for research purposes (Forsyth & Adams, 2004; Tschannen-Moran, 2004). The three trust scales each have a written permission statement at the bottom, and Dr. Tschannen-

Moran emailed permission to use and a scoring guide for the SCI to the researcher (Appendix C). Each instrument is explained in the following sections, including its content, format, items, reliability and validity.

School Climate Index

The SCI is a 28-item instrument, which includes four subscales and uses a five point Likert response set ranging from "never" to "very frequently." When broken into subscales, it measures four dimensions of school climate – collegial leadership (7 items), teacher professionalism (8 items), academic press (6 items), and community engagement (7 items) (Tschannen-Moran, 2009b). See Table 9 for all 28 items sorted by subscale. Tschannen-Moran et al. (2006) tested the reliability and validity of each subscale and the entire index. Internal consistency was assessed using Chronbach's alpha coefficient. The SCI demonstrated strong internal consistency (.96), as did the four subscales: collegial leadership (.93), teacher professionalism (.94), academic press (.92), and community engagement (.93). Along with content validity, construct validity was also evaluated using factor analysis, with items loading from .56 to .91 for collegial leadership, .66 to .83 for teacher professionalism, and .53 to .87 for both academic press and community engagement.

Table 9

School Climate Index (SCI) Items by School Climate Dimension

Item #	Survey item
Collegial leadership	
7	The principal is friendly and approachable.
8	The principal puts suggestions made by the faculty into operation.
16	The principal explores all sides of topics and admits that other opinions exist.
17	The principal treats all faculty members as his or her equal.
23	The principal is willing to make changes.
24	The principal lets faculty know what is expected of them.
25	The principal maintains definite standards of performance.
Teacher professionalism	
3	The interactions between faculty members are cooperative.
4	Teachers respect the professional competence of their colleagues.
11	Teachers help and support each other.
12	Teachers in this school exercise professional judgment.
13	Teachers are committed to helping students.
18	Teachers accomplish their jobs with enthusiasm.
19	Teachers "go the extra mile" with their students.
20	Teachers provide strong social support for colleagues.
Academic press	
5	The school sets high standards for academic performance.
6	Students respect others who get good grades.
14	Academic achievement is recognized and acknowledged by the school.
15	Students try hard to improve on previous work.
21	The learning environment is orderly and serious.
22	Students seek extra work so they can get good grades.
Community engagement	
1	Our school makes an effort to inform the community about our goals and achievements.
2	Our school is able to marshal community support when needed.
9	Parents and other community members are included on planning committees.
10	Community members are responsive to requests for participation.
26	Community members attend meetings to stay informed about our school.
27	Organized community groups (e.g., PTA, PTO) meet regularly to discuss school issues.
28	School people are responsive to the needs and concerns expressed by community members.

Note. Based on survey in Tschannen-Moran (2009).

Faculty Trust Scale

The FTS is a 26-item instrument, which includes three subscales and uses a six point Likert response set ranging from "strongly disagree" to "strongly agree" with some items reverse scored. When broken into subscales, the FTS measures three types of faculty trust – faculty trust in the principal (8 items), faculty trust in colleagues (8 items), and faculty trust in clients (students and parents) (10 items). See Table 10 for all 26 items sorted by subscale. Hoy and Tschannen-Moran (2003) tested the reliability and validity of each subscale. Internal consistency was assessed using Chronbach's alpha coefficient. Each of the three subscales demonstrated strong internal consistency: faculty trust in the principal (.98), faculty trust in colleagues (.93), and faculty trust in clients (.94). Construct validity was evaluated using factor analysis, with items loading from .83 to .97 for faculty trust in the principal, .65 to .85 for faculty trust in colleagues, and .75 to .90 for faculty trust in clients.

Table 10

Faculty Trust Scale (FTS) Items by Trust Subscale

Item #	Survey item
Faculty trust in the principal	
3	The teachers in this school have faith in the integrity of the principal.
5	The principal in this school typically acts in the best interests of the teachers.
6	Teachers in this school can rely on the principal.
10	Teachers in this school trust the principal.
14*	The principal doesn't tell teachers what is really going on.
15*	The principal of this school does not show concern for teachers.
23*	The teachers in this school are suspicious of most of the principal's actions.
25	The principal of this school is competent in doing his or her job.
Faculty trust in colleagues	
2	Teachers in this school typically look out for each other.
4	Even in difficult situations, teachers in this school can depend on each other.
7	Teachers in this school trust each other.
11	Teachers in this school are open with each other.
16	Teachers in this school have faith in the integrity of their colleagues.
18*	Teachers in this school are suspicious of each other.
20	When teachers in this school tell you something you can believe it.
21	Teachers in this school do their jobs well.
Faculty trust in clients (students & parents)	
1	Students in this school care about each other.
8	Teachers can count on parental support.
9	Teachers think that most of the parents do a good job.
12	Students in this school can be counted on to do their work.
13	Parents in this school are reliable in their commitments.
17	Teachers in this school trust the parents.
19*	Students here are secretive.
22	Teachers here believe that students are competent learners.
24	Teachers in this school believe what parents tell them.
26	Teachers in this school trust their students.

* Indicates reverse scored item

Note. Based on survey in Tschannen-Moran (2004).

Principal Trust Scale

The PrTS is a 20-item instrument, which includes three subscales and uses a six point Likert response set ranging from ‘‘strongly disagree’’ to ‘‘strongly agree’’ with some items reverse scored. When broken into subscales, the PrTS measures three types of principal trust – principal trust in teachers (9 items), principal trust in clients (students and parents) (6 items), and principal trust in parents (5 items). See Table 11 for all 20 items sorted by subscale. Gareis and Tschannen-Moran (2004) tested the reliability and validity of each subscale. Internal consistency was assessed using Chronbach’s alpha coefficient. Each of the three subscales demonstrated strong internal consistency: principal trust in teachers (.87), principal trust in clients (.87), and principal trust in parents (.86). Construct validity was evaluated using factor analysis, with items loading from .45 to .84 for principal trust in teachers, .52 to .73 for principal trust in clients, and .50 to .77 for principal trust in parents.

Table 11

Principal Trust Scale (PrTS) Items by Trust Subscale

Item #	Survey item
Principal trust in teachers	
1	Teachers in this school are candid with me.
4	I have faith in the integrity of my teachers.
6	I believe in my teachers.
8*	I question the competence of some of my teachers.
9*	I am often suspicious of teachers' motives in this school.
12	When teachers in this school tell you something, you can believe it.
13	Even in difficult situations, I can depend on my teachers.
17	My teachers typically look out for me.
18	I trust the teachers in this school.
Principal trust in clients	
3	Students here really care about the school.
5	Students in this school can be counted on to do their work.
7	Most students in this school are honest.
10	Most students are able to do the required work.
11	I trust the students in this school.
19	Students in this school are reliable.
Principal trust in parents	
2	I can count on parents to support the school.
14	Parents in this school have integrity.
15	Parents in this school are reliable in their commitments.
16	Most parents openly share information with the school.
20	Most parents here have good parenting skills.

* Indicates reverse scored item

Note. Based on survey in Tschannen-Moran (2004).

Parent Trust Scale

The PaTS is a 25-item instrument, which includes two subscales and uses an eight point Likert response set ranging from "strongly disagree" to "strongly agree". When broken into subscales, the PaTS measures two types of parent trust – parent trust in the school (10 items) and parent trust in the principal (5 items). See Table 12 for all 20 items sorted by subscale. Forsyth et al. (2006) tested the reliability of each subscale. Internal consistency was assessed using Chronbach's alpha coefficient of internal consistency. Each of the two subscales demonstrated strong internal consistency: parent trust in the school (.99) and parent trust in the principal (.99). No information on validity could be located for this instrument.

Table 12

Parent Trust Scale (PaTS) Items by Trust Subscale

Item #	Survey Item
Parent trust in the school	
1	This school is always ready to help.
2	This school has high standards for all kids.
3	This school keeps me well informed.
4	Kids at this school are well cared for.
5	This school always does what it is supposed to.
6	At this school, I know I'll be listened to.
7	I never worry about my child when he/she's there.
8	This school is always honest with me.
9	This school does a terrific job.
10	I really trust this school.
Parent trust in the principal	
11	The principal of the school… treats everyone with respect.
12	The principal of the school… is always ready to help.
13	The principal of the school… is good at his/her job.
14	The principal of the school… has high standards for all students.
15	The principal of the school… is always there when you need him/her.
16	The principal of the school… keeps an open door.
17	The principal of the school… is always honest.
18	The principal of the school… knows how to make learning happen.
19	The principal of the school… can be counted on to do his/her job.
20	The principal of the school… invites both criticism and praise from parents.
21	The principal of the school… owns up to his/her mistakes.
22	The principal of the school… is well intentioned.
23	The principal of the school… likes to talk to parents.
24	The principal of the school… is very reliable.
25	The principal of the school… is trustworthy.

Note. Based on survey in Tschannen-Moran (2004).

Data Collection Procedures

The principal of each participating school was contacted to arrange a date for the administration of the principal survey and delivery of the faculty and parent packets to be distributed between January and May 2009. On the arranged date, the principal was given a folder containing the PrTS, the principal cover letter (Appendix D), and a pencil. The principal cover letter explained the project, the nature of the principal's participation, the benefits and risks, confidentiality, and it also explained the voluntary nature of their participation. The cover letter instructed participants not to answer those questions with which they felt uncomfortable.

Each principal received a bag with 20 faculty packets for distribution to faculty members beginning with those who work with 11th grade students. Each packet was in an envelope with a label thanking the participant (Appendix E) and contained a cover letter (Appendix F), the FTS, the SCI, and a self-addressed stamped envelope to mail the completed surveys to the researcher. Each principal also received a bag with 60 parent packets for distribution to 11th grade students in two to four English classes, depending on class size. The bag had instructions to the 11th grade English teacher attached (Appendix G). Each parent packet was in an envelope with a label thanking the participant (Appendix H) and contained a cover letter (Appendix I), the PaTS, and a self-addressed stamped envelope to mail the completed survey to the researcher. The cover letters explained the project, the nature of their participation, the benefits and risks, and the voluntary nature of their participation. The cover letters also instructed participants not to answer those questions with which they felt uncomfortable.

Data Analysis Techniques

Once collected, the data were analyzed using the Predictive Analysis Software (PASW), formerly the Statistical Package for the Social Sciences (SPSS). Data were aggregated at the school level by averaging the scores for each item within each instrument. The mean scores for each variable and factor were then determined by averaging the scores for all survey items within each instrument and/or subscale. Reciprocal trust levels were determined by comparing the mean trust scores of the two different role groups and assigning an ordinal value ranging from low reciprocal trust (one) to high reciprocal trust (five). Descriptive statistics including the mean, standard deviation, and range were calculated. Correlations and non-parametric statistical analyses were used to answer the research questions.

To prepare the data for use in PASW, all surveys were assigned a code based on the school code, the role group code, and order in which they were received. Role groups were assigned 01 for principals, 02 for parents, and 03 for faculty. For example, the tenth parent survey from school six was coded 060210, with the first two digits representing the school code, the second set of two digits representing the role group of parents, and the third set of two digits representing that this was the 10^{th} parent survey received. As faculty completed two different surveys, this method of coding allowed for both surveys to be coded with the same code, thus maintaining the integrity of the source. Once coded, surveys were scanned into Portable Document Format (PDF) files for use during the data entry phase of data collection and were named with their code followed by the abbreviation for the

instrument scanned (PaTS, PrTS, FTS, or SCI). The original survey instruments and envelopes were then stored in a waterproof and fireproof safe.

Data from the survey instruments were then entered by hand into an Excel workbook using the double entry method. This method was chosen to ensure the accuracy of the data and to enter the data such that it could easily be imported into computerized statistical software for analysis. The double entry method involves creating three worksheets for each school: A, B, and C. Data from each survey were entered twice, once on data entry sheet A and once on data entry sheet B. The third sheet, cross check sheet C, used formulas to crosscheck the entries in both sheets A and B, displaying a zero if the data matched and the difference if they did not. Several rules of entry were adopted to deal with omitted questions and questions with more than one response. The data were entered as "-1" if the participant omitted the question or if two or more responses more than one number apart were selected, for example if both "4" and "6" were bubbled, "-1" was entered. If, however, two adjacent responses were selected, the data were entered as an average of the two numbers. For example, if both "4" and "5" were bubbled, "4.5" was entered. Of the 441 surveys received, twelve were deemed unusable because greater than 25% of the questions were omitted.

Once complete, the Excel files were imported into PASW and statistical analyses were used to answer the research questions. Since the school was the unit of analysis, all individual responses were aggregated to the school level by taking the mean for each item. Means and standard deviations were calculated for each variable and subscale: parent trust (parent trust in the school, parent trust in

principal), faculty trust (faculty trust in principal, faculty trust in colleagues, faculty trust in clients), principal trust (principal trust in teachers, principal trust in clients, principal trust in parents), and school climate (collegial leadership, teacher professionalism, academic press, community engagement).

Relational trust values were then calculated by first standardizing the trust scores for each trust scale using formulas from Tschannen-Moran (2004), each based on the standard deviation and mean of a normative sample of schools. (see Table 13) The means and standard deviations for the FTS are based on a sample of 97 high schools in Ohio, 66 middle schools in Virginia, and 146 elementary schools in Ohio. The means and standard deviations for the PrTS are based on a sample of 642 principals in Virginia and Ohio. The means and standard deviations for the PaTS are based on 428 parents for parent trust in schools and 417 parents for parent trust in principal.

Table 13

Formulas for Computing Standardized Scores

Variable	Formula for computing the standardized score
Principal trust in teachers (PrTT)	(sPrTT) = 100 (PrTT - 4.911) / .618 + 500
Principal trust in clients (PrTCl)	(sPrTCl) = 100 (PrTCl - 4.827) / .587 + 500
Principal trust in parents (PrTPa)	(sPrTPa) = 100 (PrTPa - 4.502) / .719 + 500
Parent trust in the school (PaTS)	(sPaTS) = 100 (PaTS - 5.78) / 1.68 + 500
Parent trust in the principal (PaTPr)	(sPaTPr) = 100 (PaTPr - 5.8) / 1.68 + 500
Faculty trust in the principal (FTPr)	(sFTPr) = 100 (FTPr - 4.512) / .662 + 500
Faculty trust in colleagues (FTCo)	(sFTCo) = 100 (FTCo - 4.399) / .357 + 500
Faculty trust in clients (FTCl)	(SFTCl) = 100 (FTCl) - 3.685) / .349 + 500
Collegial leadership (CL)	(sCL) = 100(CL – 3.946)/ .4127 + 500
Teacher professionalism (TP)	(sTP) = 100(TP – 4.089)/.218 + 500
Academic press (AP)	(sAP) = 100(AP – 3.631)/ .276 + 500
Community engagement (CE)	(sCE) = 100(CE – 3.48)/.343+ 500

Note. Formulas are based on normative sample means and standard deviations and are from Tschannen-Moran (2004).

Next, these standardized values were categorized into low, medium-low, medium, medium-high or high levels of trust according to the ranges in Table 14, which is based on scale with a mean of 500 and a standard deviation of 100 (Tschannen-Moran, 2004).

Table 14

Trust Level Categorizations

Trust Level Categorization	Standardized Score
Low	< 350
Medium-Low	350 – 450
Medium	450 – 550
Medium-High	550 – 650
High	> 650

Note. Based on Tschannen-Moran (2004).

The proximity of trust levels was then compared to determine the reciprocal trust value from 1 to 5 with 1 being low reciprocal trust and 5 being high reciprocal trust. See Table 15 for a detailed breakdown of this categorization.

Table 15

Reciprocal Trust Level Categorizations

Reciprocal trust level category	Trust level 1	Trust level 2
Low	Low	Low
Low	Low	Medium low
Low	Low	Medium
Low	Low	Medium high
Low	Low	High
Medium low	Medium low	Medium low
Medium low	Medium low	Medium
Medium low	Medium low	High
Medium	Medium	Medium
Medium	Medium low	Medium high
Medium	Medium	Medium high
Medium high	Medium high	Medium High
Medium high	Medium	Medium high
High	High	High
High	Medium high	High

Note. Based on Forsyth & Adams, 2004, p. 265.

Prior research studies examining the relationship between trust, school climate and other variables have used Pearson correlation (Forsyth & Adams, 2004) and bivariate correlations (Tschannen-Moran et al., 2006). Correlational analyses in this study were conducted using Spearman's rho, which is the non-parametric equivalent of these methods, but which makes no assumptions about the relationship between the variables. This method of analysis was chosen due to this study's small sample size (n = 11).

Comparisons were made between school climate and each of its four dimensions – collegial leadership, teacher professionalism, academic press, and community engagement. Then, comparisons were made between each of the three levels of reciprocal trust – reciprocal parent-teacher trust, reciprocal parent-principal trust, and reciprocal teacher-principal trust – and school climate and each of its four dimensions.

Ethical Safeguards

The Human Subjects Board of the Sage Colleges approved this project prior to the beginning data collection (Appendix J). All participants were informed of the voluntary nature of participation and were given the option to opt out. Principals of participating schools will receive a report with the results of each trust scale, each level of reciprocal trust, and the results of the SCI and its dimensions. Individual responses will not be identifiable, as all scores are aggregated to the school level. Also, since these published results are collective, the scores of individual schools are not distinguishable.

CHAPTER 4: RESULTS

Introduction

This study investigated the relationship between various types of reciprocal trust in schools (parent-teacher, parent-principal, and teacher-principal) and school climate including its four dimensions (collegial leadership, teacher professionalism, academic press, and community engagement).

Reciprocal trust levels were measured through the use of role specific trust surveys administered to parents, teachers, and the principal. Parents completed the Parent Trust Scale (PaTS), a twenty-five-item instrument designed to measure parent trust in the school and parent trust in the principal, by responding to each item using an eight-point Likert scale ranging from "strongly disagree" (one) to strongly agree" (eight). Teachers completed the Faculty Trust Scale (FTS), a twenty-six-item instrument designed to measure faculty trust in the principal, faculty trust in colleagues, and faculty trust in clients (parents and students), by responding to each item using a six-point Likert scale ranging from "strongly disagree" (one) to "strongly agree" (six). Principals completed the Principal Trust Scale (PrTS), a twenty-item instrument designed to measure principal trust in teachers, principal trust in clients (students and parents), and principal trust in parents, by responding to each item using a six-point Likert scale ranging from "strongly disagree" (one) to "strongly agree" (six). Teachers who completed the FTS also completed the School Climate Index (SCI), a twenty-eight-item instrument, was used to measure school climate and its four dimensions (Tschannen-Moran, 2009b). Teachers responded to

each item using a five-point Likert scale ranging from never (one) to very frequently (five).

Surveys were completed by a total of 11 principals (100%), 139 teachers (63%), and 150 parents (23%) from 11 public high schools in New York with student populations ranging from a low of 300 to a high of 2900.

Findings

To answer the research questions, data were analyzed using the Predictive Analysis Software (PASW), formerly the Statistical Package for the Social Sciences (SPSS). Data were aggregated at the school level by averaging the scores for each item within each instrument. The mean scores for each variable and factor were then determined by averaging the scores for all survey items within each instrument and/or subscale. Reciprocal trust levels were determined by comparing the mean trust scores of the two different role groups and assigning an ordinal value ranging from low reciprocal trust (one) to high reciprocal trust (five). Correlations and non-parametric statistical analyses were then used to answer the research questions.

Descriptive statistics including the mean, standard deviation, and range are presented in Table 16. Means and standard deviations for the normative sample are given for comparison (Tschannen-Moran, 2004) (see Chapter 3: Data Analysis section for a description of how the data were converted to levels).

Table 16

Descriptive Statistics for Trust and School Climate

Parent Trust Scale (PaTS) Variable	Mean	S. D.	Mean for normative sample	S. D. for normative sample
Parent trust (PaT)	5.685	.705	---	---
Parent trust in the school (PaTS)	5.530	.578	5.780	1.680
Parent trust in the principal (PaTPr)	5.789	.865	5.800	1.680
Faculty Trust Scale (FTS) Variable	**Mean**	**S. D.**	**Mean for normative sample**	**S. D. for normative sample**
Faculty trust (FT)	4.137	.324	---	---
Faculty trust in the principal (FTPr)	4.265	.782	4.512	.662
Faculty trust in colleagues (FTCo)	4.487	.277	4.399	.357
Faculty trust in clients (FTCl)	3.754	.480	3.685	.349
Principal Trust Scale (PrTS) Variable	**Mean**	**S. D.**	**Mean for normative sample**	**S. D. for normative sample**
Principal trust (PrT)	4.682	.273	---	---
Principal trust in teachers (PrTT)	4.667	.351	4.911	.618
Principal trust in clients (PrTCl)	4.939	.449	4.827	.587
Principal trust in parents (PrTPa)	4.400	.522	4.502	.719
School Climate Index (SCI) Variable	**Mean**	**S. D.**	**Mean for normative sample**	**S. D. for normative sample**
School climate (SC)	3.724	.226	---	---
Collegial leadership (CL)	3.744	.494	3.946	.413
Teacher professionalism (TP)	4.015	.163	4.089	.218
Academic press (AP)	3.500	.319	3.631	.276
Community engagement (CE)	3.565	.317	3.480	.343

Note. Means and standard deviations for the normative samples are from Tschannen-Moran (2004) for the trust scales and Tschannen-Moran, Parish, & Dipaola (2006) . There were no means and standard deviations given for scores on the overall instruments.

Table 17 is a frequency table of the various levels of reciprocal trust for schools in this study.

Table 17

Reciprocal Trust Levels – Frequency (N = 11)

Type of reciprocal trust	Low	Medium low	Medium	Medium high	High
Teacher-Parent	2	3	3	3	0
Parent-Principal	1	2	6	2	0
Teacher- Principal	1	7	1	2	0
Total	4	12	10	7	0

Note. Collapsing of standardized trust scores based on formulas in Tschannen-Moran (2004) and reciprocal trust chart in Forsyth and Adams (2006).

A correlation matrix showing the relationships between school climate and its four dimensions – collegial leadership (CL), teacher professionalism (TP), academic press (AP), and community engagement (CE) – is illustrated in Table 18. It shows that teacher professionalism was not significantly related to overall school climate. However, consistent with the findings of Tschannen-Moran et al. (2006), the other three dimensions – collegial leadership (r_s = .782, p = .01), academic press (r_s = .764, p = .01), and community engagement (r_s = .645, p = .05) – were significantly related to overall school climate. Academic press was also significantly related to community engagement (r_s = .673, p = .05).

Table 18

Correlation Analysis of School Climate and Its Dimensions

(N = 11)	2	3	4	5
1. School climate	.782**	.573	.764**	.645*
2. Collegial leadership		.564	.255	.164
3. Teacher professionalism			.427	.027
4. Academic press				.673*
5. Community engagement				

* p < .05 (2-tailed)
** p < .01 (2-tailed)

Reciprocal Parent-Teacher Trust and School Climate

Question one asked: Is the level of reciprocal parent-teacher trust related to school climate? The data in Table 19 show that there was no statistically significant relationship between reciprocal parent-teacher trust and school climate.

Table 19

Correlation Analysis of Reciprocal Trust and School Climate

(N = 11)	School climate	Collegial leadership	Teacher professionalism	Academic press	Community engagement
Reciprocal parent-teacher trust	.173	-.164	-.061	.408	.661*
Reciprocal parent-principal trust	.080	-.115	-.164	.314	.314
Reciprocal teacher-principal trust	.554	.819**	.148	.021	.079

* p < .05 (2-tailed)
** p < .01 (2-tailed)

Reciprocal Parent-Principal Trust and School Climate

Question two asked: Is the level of reciprocal parent-principal trust related to school climate? The data in Table 19 show that there was no statistically significant relationship between reciprocal parent-principal trust and school climate.

Reciprocal Parent-Teacher Trust and the Four Dimensions of School Climate

Question 3 asked: To what extent is each of the four dimensions of school climate related to the level of reciprocal parent-teacher trust? As presented in Table 19, the data show that of the four dimensions of school climate: collegial leadership, teacher professionalism, academic press, and community engagement, only one had a statistically significant relationship to the level of reciprocal parent-teacher trust. Community engagement demonstrated a strong and positive relationship with reciprocal parent-teacher trust (r_s = .661, p <. 05) explaining 44% of the variance.

Reciprocal Teacher-Principal Trust and the Four Dimensions of School Climate

Question 4 asked: To what extent is each of the four dimensions of school climate related to the level of reciprocal teacher-principal trust? Of the four dimensions of school climate: collegial leadership, teacher professionalism, academic press, and community engagement, only one shows a statistically significant relationship with the level of reciprocal teacher-principal trust. The data in Table 19 indicate that collegial leadership demonstrates a strong and positive relationship with reciprocal teacher-principal trust (r_s = .819, p < .01) explaining 53% of the variance.

High Reciprocal Parent-Teacher Trust and the Four Dimensions of School Climate

Question 5 asked: In schools with a high level of reciprocal parent-teacher trust, which of the four dimensions of school climate is most closely related to the level of

parent trust in the school? The frequencies in Table 17 show that none of the schools in the sample had a high level of reciprocal parent-teacher trust; therefore this question could not be directly addressed.

Conclusion

Significant relationships were found between only two sets of variables examined in this study. Of the four dimensions of school climate, only collegial leadership was significantly related to the level of reciprocal teacher-principal trust, and only community engagement was significantly related to the level of reciprocal parent – teacher trust. Neither the level of reciprocal parent-teacher trust nor the level of reciprocal parent-principal trust was significantly related to school climate. Both the relationships and the lack of relationships in these findings argue for further exploration of trust between role groups in schools, including implications for practitioners and recommendations for future research.

CHAPTER 5: RECOMMENDATIONS AND CONCLUSIONS

This research was designed to examine the relationship between reciprocal trust in schools and school climate. Trust in schools was measured as the trust perceptions of teachers, principals, and parents. School climate with its four dimensions – collegial leadership, teacher professionalism, academic press, and community engagement – was measured through the perceptions of teachers. By incorporating parent and principal perceptions, this study was intended to supplement the body of research linking trust and school climate.

The following research questions were asked:

1. Is the level of reciprocal parent-teacher trust related to school climate?
2. Is the level of reciprocal parent-principal trust related to school climate?
3. To what extent is each of the four dimensions of school climate related to the level of reciprocal parent-teacher trust?
4. To what extent is each of the four dimensions of school climate related to the level of reciprocal teacher-principal trust?
5. In schools with a high level of reciprocal parent-teacher trust, which of the four dimensions of school climate is most closely related to the level of parent trust in school?

Surveys were used to collect the perceptions of teachers, principals and parents from a non-random sample of 11 high schools in the state of New York. At each school, 30 teachers, one principal, and 60 parents were asked to complete role specific trust surveys measuring their perceptions of trust in the other role groups in order to ascertain the level of reciprocal trust between these role groups: teacher-

principal, teacher-parent, principal-parent. Additionally, the same 30 teachers were asked to complete a school climate survey to measure their perceptions of the school climate in their building. A total of 11 principals (100%), 139 teachers (63%), and 150 parents (23%) returned usable surveys. All data were aggregated to the school level using the means from completed survey items. The levels of reciprocal trust and the school climate data were then statistically analyzed using the non-parametric Spearman's rho test to see if the relationships were significant at either the $p < .05$ or $p < .01$ level.

The major findings of this study indicated that of the three types of reciprocal trust examined, only two were significantly related to either school climate or one of its four dimensions. Reciprocal parent-teacher trust was significantly related to community engagement at the .05 level ($r_s = .661$), and reciprocal teacher-principal trust was significantly related to collegial leadership at the .01 level ($r_s = .819$). Results indicated that none of the schools in the study had a high level of reciprocal trust regardless of the role groups considered.

Since the majority of reciprocal trust relationships were at the medium to medium-low levels, there appeared to be a general lack of trust between parents, teachers and principals in participating schools. The significant relationships between collegial leadership, achievement press, and community engagement with overall school climate support the multi-faceted nature of school climate.

Conclusions

Reciprocal Parent-Teacher Trust and School Climate

Question one asked: Is the level of reciprocal parent-teacher trust related to school climate? Findings of this study did not show a significant relationship between reciprocal parent-teacher trust and school climate. Since previous studies on school climate have consistently analyzed it by dimensions, the lack of a direct relationship between reciprocal parent-teacher trust and overall school climate found in this study are neither supported nor disputed by earlier research studies.

Reciprocal Parent-Principal Trust and School Climate

Question two asked: Is the level of reciprocal parent-principal trust related to school climate? Findings of this study did not show a significant relationship between reciprocal parent-principal trust and school climate. Similar to question one, previous studies on school climate have consistently analyzed it by dimensions rather than as an overall variable. Therefore, the finding of no direct relationship between reciprocal parent-principal trust and school climate are neither supported nor disputed by earlier research studies.

Reciprocal Parent-Teacher Trust and the Four Dimensions of School Climate

Question three asked: To what extent is each of the four dimensions of school climate related to the level of reciprocal parent-teacher trust? In this study, of the four dimensions of school climate, only community engagement demonstrated a strong and positive relationship with reciprocal parent-teacher trust ($r_s = .661$, $p < .05$) explaining 44% of the variance. Collegial leadership, teacher professionalism,

and academic press did not demonstrate statistically significant relationships with reciprocal parent-teacher trust. These findings are consistent with earlier findings.

Tschannen-Moran et al. (2006) found that "schools that engage their communities or enable parents and other community members to assist in school improvement may be rewarded with higher student achievement" (p. 408). This is consistent with the work of Adams and Christenson (2000) who found that, though a primary way to enhance trust between families and the school is to improve home school communication, a better predictor of trust is actually the nature of parent-teacher interactions rather than the frequency of those interactions.

The more open a school is to working collaboratively with parents and the community, the more parents and teachers trust one another. Therefore, schools need to seek ways to build connections with community organizations and parents. For example, rather than only holding parent-teacher conferences during regular school hours, schools could offer to schedule them both during the day and in the evening in order to increase parental participation and to demonstrate to parents the school's willingness to meet them halfway. Another connection building strategy would be to increase the flow of positive communication from the school to parents through individual phone calls from teachers.

Reciprocal Teacher-Principal Trust and the Four Dimensions of School Climate

Question four asked: To what extent is each of the four dimensions of school climate related to the level of reciprocal teacher-principal trust? Of the four dimensions of school climate, only collegial leadership demonstrated a strong and positive relationship with reciprocal teacher-principal trust ($r_s = .819$, $p < .01$)

explaining 53% of the variance. Teacher professionalism, academic press, and community engagement did not demonstrate statistically significant relationships with reciprocal teacher-principal trust.

This finding is similar to the findings of earlier studies by Hoy and his colleagues, who also found strong correlations between teacher trust of principal and school health, especially collegial leadership (Hoy & Kupersmith, 1985; Hoy, Sabo, et al., 1996; Tschannen-Moran and Hoy, 1998). Principals willing to trust teachers are more likely, in turn, to be trusted (Tschannen-Moran, 2003), supporting the conclusion that principal behavior leads to teacher trust in the principal. Both the findings of this study and those of previous research indicate that the more collegial the leadership practices of the principal, the more the principal and teachers trust one another. Tarter and Hoy (1988) concluded "effective principals were not only intellectual leaders in their schools, but also colleagues who serve and support" (p. 23), thus building confidence and trust.

Therefore, the more supportive and collegial a principals' behavior is perceived, the more principals trust teachers and the more teachers trust the principal. For example, principals who share information openly with faculty are more likely to be viewed by teachers as trustworthy. This in turn can create an environment where teachers are more willing to seek out the principal's guidance and to see the principal as a collaborative partner rather than as someone who withholds information from staff and is merely an authority figure they have to deal with when necessary.

High Reciprocal Parent-Teacher Trust and the Four Dimensions of School Climate

Question five asked: In schools with a high level of reciprocal parent-teacher trust, which of the four dimensions of school climate is most closely related to the level of parent trust in the school? In the current study, there were no schools with high levels of reciprocal trust. Recognizing that this was a small and conveniently drawn sample of schools, there is a possibility that there may be a lower level of trust among and between role groups in high schools in the state of New York outside of New York City when compared to the schools in the normative samples. Bryk and Schneider (2002) theorize that relational trust is formed on three levels. It is formed from personal beliefs, interactions with others, and collective consequences. In light of Forsyth et al.'s (2006) assertion that "a school community's trust environment is a rather powerful predictor of school consequences" (p. 136), it is important for school system leaders to take into consideration the importance of not only community support, but also of the level of trust that exists between the school and the community.

Recommendations for Further Research

The study of both trust and school climate continue to be developing areas. The findings of this study indicate several directions for further research. One would be a similar follow up study involving more schools to investigate the apparent lack of highly trusting relationships between parents, teacher, and principals in high schools in upstate New York. By replicating this study with more than thirty schools in the sample, the trust data would not need to be standardized against the normative sample and could stand on its own. Using non-standardized scores to

assign reciprocal trust values might provide different results when compared to similarly collected school climate data.

Additionally, follow up research using case study methods may increase understanding of the findings in this study. By interviewing principals, parents, and teachers from the same school, insights might be gained into the thought processes behind trust discernments with that school. A longitudinal case study could provide data specific to how the four dimensions of school climate interact with the different types of trust in schools.

Last, since little evidence of instrument stability was found during the literature review, further investigations into this area could increase the strength of the findings of this and previous studies on trust. For example, administration of the trust surveys in a test-retest assessment would lead to stronger reliability data for each instrument. Increased reliability and stability would decrease the suspicion that trust data is affected by the timing of the administration of the survey.

REFERENCES

Adams, C. M. (2008). Building trust in schools: A review of the empirical evidence. In W. K. Hoy & M. DiPaola (Eds.), *Improving schools: Studies in leadership and culture* (pp. 29-54). Research and theory in educational administration. Charlotte, NC: Information Age Publishing.

Adams, C. M., & Forsyth, P. B. (2006, April). *Promoting a culture of parent collaboration and trust: An empirical study*. Paper presented at the annual meeting of the American Educational Research Association, San Francisco. Retrieved August 30, 2008, from http://pdfs.scarecroweducation.com/RL/EJS/RLEJSPRWinter2007.pdf

Adams, C. M., Forsyth, P. B., & Mitchell, R. M. (2009). The formation of parent-school trust: A multilevel analysis. *Educational Administration Quarterly, 45*(1), 4-33. (ERIC Document Reproduction Service No. EJ826820)

Adams, K. S., & Christenson, S. L. (2000). Trust and the family-school relationship: Examination of parent-teacher differences in elementary and secondary grades. *Journal of School Psychology, 38*(5), 477-497. (ERIC Document Reproduction Service No. EJ617586)

Anderson, K. J., & Minke, K. M. (2007). Parent involvement in education: Toward an understanding of parents' decision making. *Journal of Educational Research, 100*(5), 311-323. (ERIC Document Reproduction Service No. EJ767724)

Barnes, L. B., Adams, C. A., & Forsyth, P. B. (2004). *Student trust of principal: Scale development.* Poster presented at the Annual Meeting of the American Educational Research Association. San Diego, CA.

Bryk, A. S., & Schneider, B. (2002). *Trust in schools: A core resource for improvement*. New York: Russell Sage Foundation.

Chhuon, V., Gilkey, E. M., Gonzalez, M., Daly, A. J., & Chrispeels, J. H. (2008). The little district that could: The process of building district-school trust. *Educational Administration Quarterly, 44*(2), 227-281. (ERIC Document Reproduction Service No. EJ787882)

Christenson, S. L. (2004). The family-school partnership: An opportunity to promote the learning competence of all students. *School Psychology Review, 33*(1), 83-104. (ERIC Document Reproduction Service No. EJ683435)

Clark, E., & Fairman, M. (1983). Organizational health: A significant force in planned change. *NASSP Bulletin, 67*(464), 108-113. (ERIC Document Reproduction Service No. EJ286645)

Cosner, S. (2009). Building organizational capacity through trust. *Educational Administration Quarterly, 45*(2), 248-291. (ERIC Document Reproduction Service No. EJ833142)

DiPaola, M. F., & Tschannen-Moran, M. (2005). Bridging or buffering? The impact of schools' adaptive strategies on student achievement. *Journal of Educational Administration, 43*(1), 60-71. (ERIC Document Reproduction Service No. EJ802831)

Epstein, J. L. (2005, September). *Developing and sustaining research-based programs of school, family, and community partnerships: Summary of five years of NNPS research*. Retrieved September 8, 2008, from Johns Hopkins University, Center

on School, Family, and Community Partnerships Web site: http://www.csos.jhu.edu/p2000/pdf/ Research%20Summary.pdf

Epstein, J. L., & Sanders, M. G. (2006). Prospects for change: Preparing educators for school, family, and community partnerships. *Peabody Journal of Education, 81*(2), 81-120. (ERIC Document Reproduction Service No. EJ736324)

Forsyth, P. B. (2008). The empirical consequences of school trust. In W. K. Hoy & M. DiPaola (Eds.), *Improving schools: Studies in leadership and culture* (pp. 1-27). Research and theory in educational administration. Charlotte, NC: Information Age Publishing.

Forsyth, P. B., & Adams, C. M. (2004). Social capital in education: Taking stock of concept and measure. In W. K. Hoy & C. G. Miskel (Eds.), *Educational administration, policy, and reform: Research and measurement* (pp. 251-278). Research and theory in educational administration. Greenwich, CT: Information Age.

Forsyth, P. B., Barnes, L. L., & Adams, C. M. (2006). Trust-effectiveness patterns in schools. *Journal of Educational Administration, 44*(2), 122-141. (ERIC Document Reproduction Service No. EJ801615)

Gareis, C. R. & Tschannen-Moran, M. (2004, April). *Principals' sense of efficacy and trust.* Paper presented at the annual meeting of the American Educational Research Association, San Diego.

Goddard, R. D., Tschannen-Moran, M., & Hoy, W, K. (2001). A multilevel examination of the distribution and effects of teacher trust in urban elementary schools. *Elementary School Journal*, *102*(1), 3-17. (ERIC Document Reproduction

Service No. EJ637784)

Halpin, A. W., & Croft, D. B. (1962, August). *The organizational climate of schools* (Research project, Contract No. SAE 543-8639). Washington, DC: U.S. Office of Education. (ERIC Document Reproduction Service No. ED002897)

Halpin, A. W., & Croft, D. B. (1963). *The organizational climate of schools.* Chicago: Midwest Administration Center of the University of Chicago.

Henderson, J. E., & Hoy, W. K. (1982, March). *Leader authenticity: The development and test of an operational measure.* Paper presented at the annual meeting of the American Educational Research Association, New York. (Eric Document Reproduction Service No. ED219408)

Hoy, W. K., & Clover, S. I. R. (1986). Elementary school climate: A revision of the OCDQ. *Educational Administration Quarterly, 22*(1), 93-110. (ERIC Document Reproduction Service No. EJ337441)

Hoy, W. K., & Feldman, J. A. (1987). Organizational health: The concept and its measure. *Journal of Research and Development in Education, 20*(4), 30-37. (ERIC Document Reproduction Service No. EJ357467)

Hoy, W. K., Hannum, J., & Tschannen-Moran, M. (1998). Organizational climate and student achievement: A parsimonious and longitudinal view. *Journal of School Leadership, 8*(4), 336-359. (ERIC Document Reproduction Service No. EJ568569)

Hoy, W. K., Hoffman, J., Sabo, D., & Bliss, J. (1996). The organizational climate of middle schools: The development and test of the OCDQ-RM. *Journal of*

Educational Administration, 34(1), 41-59. (ERIC Document Reproduction Service No. EJ522719)

Hoy, W. K., & Kupersmith, W. J. (1985). The meaning and measure of faulty trust. *Educational and Psychological Research, 5*, 1-10.

Hoy, W. K., & Kupersmith, W. J. (1984). Principal authenticity and faculty trust: Key elements in organizational behavior. *Planning and Changing, 15*(2), 80-88. (ERIC Document Reproduction Service No. EJ309958)

Hoy, W. K., & Sabo, D. J. (1998). *Quality middle schools: Open and healthy*. Thousand Oaks, CA: Corwin Press.

Hoy, W., Sabo, D. J., & Barnes, K. (1996). Organizational health and faculty trust: a view from the middle. *Research in Middle Level Education Quarterly, 19*(3), 21-39. (ERIC Document Reproduction Service No. EJ524900)

Hoy, W. K., Smith, P. A., & Sweetland, S. R. (2002). The development of the Organizational Climate Index for high schools: Its measure and relationship to faculty trust. *High School Journal, 86*(2), 38-49. (ERIC Document Reproduction Service No. EJ787163)

Hoy, W. K., & Tarter, C. J. (1997). *The road to open and healthy schools: A handbook for change* (Middle and secondary school ed.). Thousand Oaks, CA: Corwin Press.

Hoy, W. T., Tarter, C. J., & Bliss, J. R. (1990). Organizational climate, school health, and effectiveness: A comparative analysis. *Educational Administration Quarterly, 26*(3), 260-279. (ERIC Document Reproduction Service No. EJ411707)

Hoy, W. K., Tarter, C. J., & Kottkamp, R. B. (1991). *Open schools/healthy schools: Measuring organizational climate* (2000 ed.). Beverly Hills, CA: Sage. Retrieved January 20, 2009 from http://www.waynekhoy.com/open_schools.html

Hoy, W. K., & Tschannen-Moran, M. (1999). The five faces of trust: An empirical confirmation in urban elementary schools. *Journal of School Leadership, 9*(3), 184-208. (ERIC Document Reproduction Service No. EJ587651)

Hoy, W. K., & Tschannen-Moran, M. (2003). The conceptualization and measurement of faculty trust in schools: The Omnibus T-Scale. In W. K. Hoy & C. Miskel (Eds.), *Studies in leading and organizing schools* (pp. 181-208). Research and theory in educational administration. Greenwich, CT: Information Age Publishing.

Kimpston, R. D., & Sonnabend, L. C. (1975) Public secondary schools: The interrelationships between organizational health and innovativeness and between organizational health and staff characteristics. *Urban Education, 10*(1), 27-45. (ERIC Document Reproduction Service No. EJ120209)

Kottkamp, R. B., Mulhern, J. A., & Hoy, W. K. (1987). Secondary school climate: A revision of the OCDQ. *Educational Administration Quarterly, 23*(3), 31-48. (ERIC Document Reproduction Service No. EJ362236)

Miles, M. B. (1965). Planned change and organizational health: Figure and ground. In F. D. Carver & T. J. Sergiovanni (Eds.), *Organizations and human behavior: Focus on schools* (pp. 375-391). New York: McGraw-Hill. (ERIC Document Reproduction Service No. ED014123)

Miles, M. B. (1969). *The development of innovative climates in educational organizations*. Menlo Park, CA: Stanford Research Institute. (Eric Document Reproduction Service No. ED030971)

Mitchell, R. M., & Forsyth, P. B. (2004, November). *Trust, the principal, and student identification*. Paper presented at the annual meeting of The University Council for Education Administration, Kansas City, Missouri. Retrieved September 12, 2008, from http://coe.ksu.edu/ucea/2004/04ucea19.pdf

Pace, C. R., & Stern, G. G. (1958). An approach to the measurement of psychological characteristics of college environments. *Journal of Educational Psychology, 49*(5), 269-277.

Parsons, T. (1958). Some ingredients of a general theory of formal organization. In A. Halpin (Ed), *Administrative theory in education* (pp. 40-72). New York: Macmillan Company.

Parsons, T. (1967). *Social theory and modern society*. New York: Free Press.

Smith, P. A., & Hoy, W. K. (2007). Academic optimism and student achievement in urban elementary schools. *Journal of Educational Administration, 15*(5), 556-568. (ERIC Document Reproduction Service No. EJ800486)

Smrekar, C., & Cohen-Vogel, L. (2001). The voices of parents: Rethinking the intersection of family and school. *Peabody Journal of Education, 76*(2), 75-100. (ERIC Document Reproduction Service No. EJ654788)

Tagiuri, R. (1968). The concept of organizational climate. In R. Tagiuri & G. W. Litwin (Eds.), *Organizational climate: Explorations of a concept* (pp. 1-32). Boston:

Division of Research, Graduate School of Business Administration, Harvard University.

Tarter, C. J., & Hoy, W. K. (1988). The context of trust: Teachers and the principal. *The High School Journal,* 72, 17-24.

Tarter, C. J., Sabo, D., & Hoy, W. K. (1995). Middle school climate, faculty trust, and effectiveness: A path analysis. *Journal of Research and Development in Education, 29*(1), 41-49. (ERIC Document Reproduction Service No. EJ519134)

Tschannen-Moran, M. (2001). Collaboration and the need for trust. *Journal of Educational Administration, 39*(4), 308-331. doi:10.1108/EUM0000000005493

Tschannen-Moran, M. (2003). Fostering organizational citizenship: Transformational leadership and trust. In W. K. Hoy & C. G. Miskel, *Studies in Leading and Organizing Schools* (pp. 157-179). Greenwich, CT: Information Age Publishing.

Tschannen-Moran, M. (2004). *Trust matters: Leadership for successful schools*. San Francisco: Jossey-Bass.

Tschannen-Moran, M. (2009). Fostering teacher professionalism in schools: The role of leadership orientation and trust. *Educational Administration Quarterly, 45*(2), 217-247. (ERIC Document Reproduction Service No. EJ833143)

Tschannen-Moran, M. (2009). *Survey instruments to help you in your investigations of schools*. Retrieved September 8, 2008, from http://mxtsch.people.wm.edu/research_tools.php

Tschannen-Moran, M., & Hoy, W. K. (1998). Trust in schools: A conceptual analysis. *Journal of Educational Administration, 36*(3-4), 334-352. (ERIC Document Reproduction Service No. EJ571815)

Tschannen-Moran, M. & Hoy, W. K. (2000). A multidisciplinary analysis of the nature, meaning, and measurement of trust. *Review of Educational Research, 70*(4), 547-593. (ERIC Document Reproduction Service No. EJ642219)

Tschannen-Moran, M., Parish, J., & DiPaola, M. (2006). School climate: The interplay between interpersonal relationships and student achievement. *Journal of School Leadership, 16*, 386-415. (ERIC Document Reproduction Service No. EJ835451)

Appendix A

Letter of Request to Principals

Robin Hayden Young
March, 2009

Dear ,

I am a doctoral candidate under the direction of Dr. Connell Frazer, who teaches in the School of Education at Sage Graduate School. I am writing to request your school's participation in a research study exploring the relationships between school climate and trust. Your high school was selected for participation from the population of high schools in New York State outside of New York City.

The purpose of this research is to examine the relationship between school climate and trust through survey data from high school parents, teachers, and principals in New York State. The school is the unit of study, so all faculty and parent survey responses will be collected anonymously and aggregated at the school level. The principals' survey responses will be kept completely confidential. Participating schools will not be identified or associated with their specific data in any reports or publications, now or at any future date. The school will benefit from participation by contributing to the body of research knowledge on school climate and trust. Each participating school will receive a summary of the final results.

The nature and duration of the school's participation involves four steps:

1. Commitment to speak with the researcher to schedule a date for the researcher to visit the school for about fifteen minutes.
2. Commitment for the principal to fill out the principal survey during the scheduled visit.
3. Commitment to distribute a faculty packet to up to twenty faculty members who work with 11th grade students. Each packet will contain a self-addressed, stamped envelope so that faculty members may return completed surveys directly to the researcher, protecting the anonymity of faculty responses and eliminating the need for the school to collect the surveys.
4. Commitment to send parent survey packets home with up to sixty 11th grade students. The researcher will leave with the principal the sixty parent survey packets to be sent home with sixty different 11th grade students. These packets should be distributed to every student in two to three English classes, depending on class size. Each packet will contain a self-addressed, stamped envelope so that parents may return completed surveys directly to the researcher, protecting the anonymity of parent responses and eliminating the need for the school to collect the surveys.

If you have any questions concerning the research study, please call me at 518-555-5555, e-mail me at _____@sage.edu or contact Dr. Connell Frazer by phone at (518) 555-5555 or via e-mail at _____@sage.edu.

To participate in this study, please sign the "Letter of Support and Participation" portion of the attached form and return it in the enclosed self-addressed, stamped envelope. Should you prefer not to participate in this study, please complete the "Opt Out" section and return it in the enclosed self-addressed stamped envelope. This will help support the validity of my research methodology.

Thank you in advance for your time and consideration of my request. I look forward to hearing from you.

Sincerely,
Robin Hayden Young

Appendix B

Letter of Support and Participation/Opt Out Form

Letter of Support and Participation
In the research study: School Climate and Trust

The purpose of this research is to examine the relationship between school climate and trust through survey data from high school parents, teachers, and principals in New York State. The school is the unit of study, so all faculty and parent survey responses will be collected anonymously and aggregated at the school level. The principal survey responses will be kept completely confidential, and participating schools will not be identified or associated with their specific data in any reports or publications, now or at any future date. The school will benefit from participation by contributing to the body of research knowledge on school climate and trust. Each participating school will receive a summary of the final results.

The nature and duration of the school's participation involves four steps:

1. Commitment to speak with the researcher to schedule a date for the researcher to visit the school for about fifteen minutes.
2. Commitment for the principal to fill out the principal survey during the scheduled visit.
3. Commitment to distribute a faculty packet to up to twenty faculty members who work with 11th grade students. Each packet will contain a self-addressed, stamped envelope so that faculty members may return completed surveys directly to the researcher, protecting the anonymity of faculty responses and eliminating the need for the school to collect the surveys.
4. Commitment to send parent survey packets home with up to sixty 11th grade students. The researcher will leave with the principal the sixty parent survey packets to be sent home with sixty different 11th grade students. These packets should be distributed to every student in two to three English classes, depending on class size. Each packet will contain a self-addressed, stamped envelope so that parents may return completed surveys directly to the researcher, protecting the anonymity of parent responses and eliminating the need for the school to collect the surveys.

I understand that I may at any time during the course of this study revoke my consent or withdraw _____ High School from the study without any penalty.

I, _____, do hereby agree to allow _____ High School to participate in this research study.

Signed: _____ Date: _____
Title: _____

Opt Out of Participation
In the research study: School Climate and Trust

I, _____, do hereby decline to allow _____ High School to participate in this research study.

Signed: _____ Date: _____
Title: _____

If you have any questions concerning the research study, please call me at 518-555-5555, e-mail me at _____@sage.edu or contact Dr. Connell Frazer by phone at (518) 555-5555 or via e-mail at _____@sage.edu.

Appendix C

Letter from Dr. Tschannen-Moran

SCI and thank you

Megan Tschannen-Moran <n **Wed, Sep 24, 2008 at 10:13 AM**
To: Robin Young

Robin,

Here is the corrected scoring guide that I had attempted to upload onto my web site, but was apparently unsuccessful. Have fun with your study –it will be exciting to see what you learn!

All the best,

Megan Tschannen-Moran

The College of William and Mary
School of Education

Appendix D

Principal Cover Letter

Robin Hayden Young
March/April, 2009

Dear Principal,

Thank you for agreeing to participate in this study. This survey is part of research on school climate and trust that is being conducted by Robin Young, a doctoral candidate at Sage Graduate School in Troy, New York.

A summary report of the research study results without any identifying information except a general description of the sample will be sent to each participating school, and results will be published in Dissertation Abstracts and possibly other educational publications.

Your participation is voluntary. You may decline to complete the survey or you may skip any item that you feel uncomfortable answering. The surveys should take about ten minutes to complete. Completing and returning the survey grant consent for its use in this research study.

All responses are confidential. There are no correct or incorrect answers. The researchers are interested only in your frank opinion in order to determine the statistical relationships between the variables.

Please do not complete the survey if you are not a principal.

Once complete, please return it to the researcher.

If you have any questions, please feel free to call Robin Young at 518-555-5555.

Your time, insights, and perceptions are valuable resources. Thank you for sharing them!

Sincerely,

Robin Hayden Young

Appendix E

Faculty Envelope Label

To: <School Name> High School Faculty

We need your **anonymous input** on faculty perceptions!
You are 1 of only 20 faculty members at the high school
to receive this request.

Please take **just 10 minutes** to provide us with your important insights.
If you would return the enclosed surveys
within 2 weeks, it would be much appreciated!

Thank you in advance for your time!

Appendix F

Faculty Cover Letter

Robin Hayden Young
March/April 2009

Dear Faculty Member,

The enclosed surveys are part of research on school climate and trust that is being conducted by Robin Young, a doctoral candidate at Sage Graduate School in Troy, New York. Your school is one of 45 in New York State participating in this study. A summary report of the research study results without any identifying information except a general description of the sample will be sent to each participating school, and results will be published in Dissertation Abstracts and possibly other educational publications.

The data for my research study will be collected by surveying parents, teachers, and the principal. Without your help, this research study won't be possible. Since this study will compare schools, all individual survey data will be grouped together by school. This envelope contains two surveys, the *School Climate Index* and the *Faculty Trust Scale*.

Please keep in mind that your participation is completely voluntary. You may decline to complete the surveys or you may skip any item that you feel uncomfortable answering. The surveys should take about ten minutes to complete. Completing and returning the surveys grant consent for its use in this research study.

I have enclosed a self-addressed stamped envelope, so that you can return the completed surveys at no expense to you. I do not know the identity of the faculty members who received these packets, nor will it be possible for me to know which of those faculty members completed and returned the surveys.

All responses are anonymous. There are no correct or incorrect answers. The researchers are interested only in your frank opinion in order to determine the statistical relationships between the variables.

Please do not complete the surveys if you are not a teacher. If you have any questions, please feel free to call Robin Young at 518-555-5555.

Your time, insights, and perceptions are valuable resources. Thank you in advance for taking ten minutes to share them by completing the surveys and mailing them back to me in the enclosed envelope!

Sincerely,

Robin Hayden Young

Appendix G

Parent Packet Bag Instructions

Dear 11th Grade English Teacher,

Thank you for distributing these parent survey packets to your students as soon as possible. This bag contains 60 envelopes with the exact same contents.

Please distribute them to EVERY student in two of your English classes first, and then distribute the remaining surveys to every student in a third class. If necessary, please distribute the remaining packets to a fourth class.

If you have any questions, please feel free to contact me at (518) 555-5555 or via email at _____@sage.edu.

Thank you again,
Robin Young

Appendix H

Parent Envelope Label

Attention:
Parents/Guardians of 11th grade students

We need your **anonymous input** on parent perceptions!
You are 1 of only 60 parents at the high school
to receive this request.

Please take **just 10 minutes**
to provide us with your important insights.

Thank you in advance for your time!

Appendix I

Parent Cover Letter

Robin Hayden Young
March/April 2009

Dear Parent or Guardian,

I am a doctoral student in the School of Education at Sage Graduate School, located in Troy, New York. I am doing a research project about school climate and various levels of trust, including parent trust of the school and parent trust of the principal. Your 11th grader's school is one of 45 in New York State participating in the study, and the school agreed to assist by sending home this letter.

The data for my research study will be collected by surveying parents, teachers, and the principal. Without your help, this research study won't be possible. Since this study will compare schools, all individual survey data will be grouped together by school. This envelope contains a survey called the *Parent Trust Scale*. Please keep in mind that your participation is completely voluntary. I have also enclosed a self-addressed stamped envelope, so that you can return the completed survey at no expense to you.

Remember, all responses are anonymous, and no individuals will ever be identified. Also, since the school sent this packet home your 11th grader, I do not even know which parents received the survey. Please be as honest as possible in your responses, and skip any that you feel uncomfortable answering.

Thank you in advance for taking ten minutes to complete the *Parent Trust Scale* and mail it back to me in the enclosed envelope!

Sincerely,

Robin Hayden Young

Appendix J

Sage IRB Approval Letter

IRB Approval 08 09 009

Institutional Review Board Email <sageirb@sage.edu> **Wed, Nov 5, 2008 at 12:00 AM**

Your IRB project has been approved. You may begin now. A letter will follow.

You must complete the study following the procedures that have been approved. Any changes in procedures must be approved by the IRB in writing before you carry them out.

Be sure you follow all procedures required at the completion of the project. Notify the IRB if you discontinue the project. Notify the IRB if any human subject issues arise during the study.

Good Luck