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# Student's perception of school climate

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## Student's Perception of School Climate

Graduate Thesis/Project

Submitted to the Faculty

Of the School Psychology Program

College of Liberal Arts
ROCHESTER INSTITUTE OF TECHNOLOGY

By

Jodi Peake

In Partial Fulfillment of the Requirements
for the Degree of
Master of Science and
Advanced Graduate Certificate

Rochester, New York

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Student's Perception of School Climate

Jodi L. Roberts

Rochester Institute of Technology

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#### Abstract

The purpose of this study was to investigate student's perception of school climate in the middle school. More specifically, this study examined school climate as it relates to student's academic achievement, attendance, and disciplinary referrals. Participants consisted of 29 females and 14 males in grades 6<sup>th</sup>, 7<sup>th</sup>, and 8<sup>th</sup> and their parents from a rural middle school located in upstate New York. School climate was measured using the Student version of the Yale Child Study School Development Program, School Climate Survey-Revised Version (Emmons, Haynes, & Comer, 2002). Parents reported on their child's school performance. Data analysis consisted of a One Way Analysis of Variance (ANOVA), Pearson Product-Moment Correlations, and Stepwise Multiple Regression Analysis. Results indicated that student-teacher relations are related to academic achievement and that student interpersonal relationships affect whether students attend school. Developmentally, students at the start of middle school have a greater perception that teachers treat them fairly. As they grow older this belief decreases.

#### **CHAPTER ONE**

## Overview of the study

School climate has long been associated with student behaviors and attitudes. Researchers have suggested that students' perceptions and experiences of school influences the development of their self-esteem, self-perception, and health behaviors. In turn, these issues affect student's present and future health and well-being (Garralda, 1992). Due to the fact that school plays an instrumental role in a student's self-identity, the school can be either a risk factor or a resource for the development of a student's health behaviors and general health. The risk is most apparent when examining students with negative perceptions of school. Students who dislike school are also those most likely to be failing academically and those at greatest risk of adopting unhealthy behaviors, exhibiting psychosomatic problems, and experiencing reduced quality of life (Jessor, 1990). Students who dislike school are more likely to be alienated from the classroom and find areas where they can rebel against the authority of school.

It is clear that school plays a significant part in a child's life. Research has evaluated the affect that school climate has on student behavior. One study that looked at the effects of individual and school characteristics on a variety of outcomes showed that school characteristics (e.g., rewards and punishments, good working conditions, responsiveness to students' needs, clear academic goals, good group management in the classroom, firm leadership, and a balance of student intellectual abilities) were related to positive school outcomes (e.g., academic achievement and regular attendance) (Rutter, Maughan, Mortimore, & Ouston, 1979).

School climate is a broad term that can be conceptualized in a variety of ways. Likewise, school climate is also conceptualized by different levels. A focus of this study is school climate at the student-teacher relationship level. Research suggests that one of the many characteristics

associated with a positive view of school is good relationships with teachers (Voelkl, 1995). Although many students begin school with the skills necessary to promote positive relationships with peers and adults, other students may be less prepared to meet teacher expectations. Many students are not aware of their teacher's expectations because the expectations are unclear, or are different from those expectations at home (Lane, Pierson, & Givner, 2004). Teachers also may not be aware of their own expectations for student behavior and that expectations vary across different groups of teachers (Brophy, 1986, 1996). Expectations may also change as students advance, primarily as student's transition from elementary to middle school (Blyth, Simmons, & Carlton-Ford, 1983; Seidman, Allen, Mitchell, & Feinman, 1994) and from middle to high school (Isakson & Jarvis, 1999). Finally, expectations may be different at schools serving at-risk populations or in communities with different degrees of wealth (Walker, Ramsey, & Gresham, 2004). With our current knowledge of the importance of student-teacher relationships, it is crucial for educators to assess what techniques can be implemented in the classroom and schoolwide to help foster these relationships. Although there is a vast amount of research into school climate and student teacher relationships, there are no studies that concurrently look at studentteacher relationships and its impact on attendance, grades, and disciplinary referrals as outcome measures.

#### Definition of Terms

To clarify the meaning of positive school climate it is important to define the use of the term. This is necessary because of the similar, yet polarizing concepts of school climate and school culture. "School climate refers to the quality and consistency of interpersonal interactions within the school community that influence children's cognitive, social, and psychological

development. These interactions include those among staff, between staff and students, among students, and between home and school" (Haynes, Emmons, & Ben-Avie, 1997).

School culture is a broader term indicative of the underground stream of norms, values, beliefs, traditions, and rituals that have built up over time as people work together, solve problems, and confront challenges. School culture is a set of informal expectations and values that shapes how people think, feel, and act in schools. It is often the role of the principals, teachers, and parents to help identify and maintain a student focused cultures within a school (Peterson & Deal, 1998).

#### **CHAPTER TWO**

#### Literature Review

The effect of schooling on students has long been of interest to educational researchers and practitioners. Research into the field has addressed the concerns of both what to look at in schools and how to measure it. The subject of school climate, however, is multifaceted (Anderson, 1982). Studying human behavior in schools involves "ordering and conceptualizing a buzzing confusion of simultaneous existing, multilevel, mutually interacting variables" (Argyris, 1958, p.501). An extensive body of research has addressed these concerns using the construct of school climate. The following literature review covers a broad conceptualization of school climate as well as a review of the past research. It presents findings about the sources and consequences of school climate, as well as several theoretical models, ways to measure school climate, and research findings that are being used to improve school climate.

## What is School Climate?

School climate refers to the quality and consistency of interpersonal interactions within the school community that influence children's cognitive, social, and psychological development (Haynes, Emmons, & Ben-Avie, 1997). These interactions include those among both staff and students, between staff and students, and between home and school (Haynes et al.). Students achieve academically and develop positively in school communities in which interpersonal relationships ensure that successful implementation of policies focus on the student's academic and social growth. The school community, staff, parents, and students interpersonal interactions each play a role in contributing to the climate of the school.

Although the concept of school climate has been studied extensively, there is currently a lack of agreement as to the definition of the construct. Tagiuri (1968) developed a definition of

school climate in which he devised a taxonomy of climate-related terms. This taxonomy provided an effective system for organizing the school climate literature. Tagiuri defined climate and atmosphere as summary concepts dealing with the total environmental quality within an organization. According to Tagiuri, dimensions of an environment include its ecology, milieu, its social system, and its culture (Tagiuri, 1968).

Anderson (1982) conducted a comprehensive review of research studies in the area of school climate and provided a summary of the variables that appeared to be related to climate. Derived from Tagiuri's taxonomy, Anderson categorized ecology variables as those that include the physical and material variables in the school that are external to participants, such as building characteristics (cleanliness, lighting, and equipment), school size, and classroom size. Variables that represent characteristics of individuals in the school, such as teacher characteristics (number of years teaching), satisfaction, teacher morale, student body characteristics (demographic information), and student morale are referred to as milieu variables. Anderson describes social system variables as comprised of patterns or rules (formal and informal) of operating and interacting in the school. Examples of social system variables include administrative organization, instructional programming, ability grouping, administrator-teacher rapport, teacher shared decision making, communication, teacher-student relationships, student shared decision making, opportunity for student participation, and community school relationships. The last dimension that Tagiuri included in his definition of climate are culture variables. Culture variables reflect norms, belief systems, and values of various groups within the school such as teacher commitment, peer norms, cooperative emphasis, expectations, degree of consistency, consensus, and clear goals (Anderson, 1982).

Why is it important to study?

School climate is a complex construct that has been recognized as an important variable of effective schools.

School climate is the heart and soul of the school. It is about that essence of a school that leads a child, teacher, an administrator, or staff member to love the school and look forward to being there each school day. School climate is about that quality of a school that helps each individual feel personal worth, dignity, and importance, while simultaneously helping create a sense of belonging to something beyond ourselves. The climate of a school can foster resilience or become a risk factor in the lives of people who work and learn in school. A school's climate can define the quality of a school that creates healthy learning places; nurtures children's and parents' dreams and aspirations, stimulates teachers' creativity and enthusiasm, and elevates all of its members (Freiberg, 1999).

Research shows that school climate can affect many areas and people within schools. For example, a positive school climate has been associated with fewer behavioral and emotional problems for students (Kuperminc, Leadbeater, Emmons, & Blatt, 1997). In addition, specific research on school climate in high-risk urban environments indicates that a positive, supportive, and culturally aware school can shape the degree of academic success experienced by urban students (Haynes & Comer, 1993). Furthermore, researchers have found that positive school climate perceptions are protective factors for boys and may provide high-risk students with a supportive learning environment which can contribute to healthy development, as well as prevent antisocial behavior (Haynes, 1998). School climate research suggests that positive interpersonal relationships and optimal learning opportunities for students in all demographic environments

can increase achievement levels and reduce maladaptive behavior (McEvoy & Welker, 2000). Regarding the roles of teachers and administrators, Taylor and Tashakkori (1995) found that a positive school climate is associated with increased job satisfaction for school personnel. Finally, student perspectives are important during the transition from one school level to another. Attending a new school can be frightening for students. This anxiety can negatively affect student's perceptions of their school's climate and learning outcomes. Therefore, research has shown that providing a positive and supportive school climate for students is important for a smooth and easy transition to a new school (Freiberg, 1998). School climate, if positive, can provide an enriching environment, both for personal growth and academic success (Freiberg). Theoretical models explaining school climate:

One way to account for differences in the climate dimensions that researchers have focused on is to look at their relevant theoretical perspectives. Three theoretical orientations that have distinct biases about the environment that are fundamental for establishing climate are Input-Output theory, Sociological theory, and Ecological theory (Anderson, 1982). The Input-Output theory views the school as a firm that converts inputs into outputs. Each input is assumed in linear fashion to contribute somewhat to output; inadequate output calls for more of some input variables (money, time, materials, teaching techniques, etc.), or a shift in the allocation of the resource. In this economic view of schools, some combinations of school inputs are thought to create a climate in which positive school outputs are produced (Anderson, 1982). In educational terms, an example of this theory is when administrators purchase a new reading program for students to better prepare for a state exam (input). In return the students perform well on the state exam (output) and therefore, the school receives additional state funding.

Despite this view, no direct means of measuring climate are involved. As a result, the input-

output theory is criticized as holding a simplistic view which does not adequately address the complexities of school influences on outcomes or the interactions of school and student inputs (Averch, Carroll, Donaldson, Kiesling, & Pincus, 1974).

In comparison, sociological theory is used to assign those research perspectives that present the school as a cultural system of social relationships among family, teachers, students, and peers (Rutter, Maughan, Mortimore, Ouston, & Smith, 1979). Research considers how these relationships act to meet educational goals. Student behavior is seen as a function of the social processes of the school, its norms, expectations, evaluations, and relationships (Anderson, 1982). An example of this is evident when comparing the systems of a rural versus an urban school district. The sociological theory plays a role when evaluating the norms and behaviors of both students and staff in both systems. To the extent that schools differ in their social environments, they will differ in learning outcomes (Anderson, 1982). In comparison to the input-output theory, the sociological theory emphasizes the taxonomic categories of social system and culture. In early sociological climate studies, climate was strictly defined in terms of milieu (the average characteristics of participants) by using objective characteristics such as ability, Socio Economic Status (SES), or race. The trend toward more direct measures, as originally advocated by researchers like McDill, Meyers, and Rigsby (1967), has led researchers to measure climate by social systems and culture variables, separated from personal characteristics of the participants.

Ecological theory is also concerned with the social processes and culture of an environment and a view of behaviors as a whole. However unlike the sociological theory, it also attempts to embrace the ecological elements of the input-output model in its concern for (a) the creation, maintenance, and distribution of resources, and (b) the temporal and physical aspects of the environment (Anderson, 1982). Essentially, ecological theory claims to explore "the

functioning of the entire system" and views all variables as potentially modifiable for the benefit of student outcomes (Goodlad, 1975, p.203). This theory looks at both the input versus output variables of a school and compares it to the social relationships, norms, and behaviors among students and staff within a district.

### Measuring School Climate

School climate can either be a positive influence on the health of the learning environment or a significant barrier to learning. Thus, feedback about school climate can play an important role in school reform and development. Without continual sources of feedback, reforms may lose a sense of direction and experience a lack of knowledge about school based efforts and may forget about the perceptions of those who are key partners in the learning environment (Freiberg, 1998).

Tools for assessing school climate are fundamental for improving the schools learning environment. To develop a responsive action plan tailored to the needs of the school, the climate of the school must be clearly described prior to intervention. This information can be gathered from sources such as students, teachers, support staff, administrators, parents, and community members. This information permits school personnel to emphasize relative areas of strengths and areas that need to be improved (Freiberg, 1999).

Two types of school climate measures are indirect and direct. Indirect measures are those where data collection does not require direct interactions with individuals, but rather uses cumulative data collected throughout the school year. Several examples are student attendance, frequency of discipline referrals, suspensions, teacher rates of turnover, or student mobility rates. Indirect measures may also document physical aspects of the building such as cleanliness, maintenance, lighting, or display of student artwork or academic work (Freiberg, 1999).

In contrast, direct measures entail gathering information from participants. Direct measures most often involve the use of climate surveys, questionnaires, interviews, or focus groups. Direct measures of school climate are based on perceptions of individuals within the school setting or in the surrounding community (Freiberg, 1999). Traditionally there are student, teacher, and administrative perceptions of school climate with a range of view points. For example, teachers within the same school most likely have similar view of the school in regards to the general level of discipline, respect for students, level of parental involvement, or quality of leadership (Freiberg). However, it is also possible that different groups within the school may have differing perceptions of the school climate. Some may argue that these differences reflect differences between groups rather than the climate of the school. Despite the differences, individuals involved in efforts to improve the schools climate must be aware of working to ensure the school is a positive place to be for all students (Freiberg).

Many researchers have developed direct measures of school climate. Direct measures assess multiple factors and individuals within the school system. (Freiberg, 1998). The School Climate Survey contains seven dimensions of school climate and specifically assesses students' perceptions in the following areas: achievement motivation, fairness, order and discipline, parent involvement, sharing of resources, student interpersonal relationships, and student-teacher relationships (Haynes, Emmons, & Comer, 1993). The Charles F. Kettering Ltd. (CFK) School Climate Profile is also widely used to measure school climate. This survey consists of four sections and is given to teachers, administrators, and students. Part A, the General Climate Factors, is comprised of the following eight subscales: respect, trust, high morale, opportunity for input, continuous academic and social growth, cohesiveness, school renewal, and caring (Johnson et al., 1996; Johnson & Johnson, 1993, 1997). Additional scales have been created

which assess issues such as security maintenance, administration, guidance, student activities, and teacher-principal interactions (Hanna, 1998). These measures include the Comprehensive Assessment of School Environments (Keefe & Kelley, 1990), the Organizational Climate Index (Hoy, Smith, & Sweetland, 2002), and the Organizational Climate Description Questionnaire (Halpin & Croft, 1963).

#### Research

Numerous studies have examined the relationship between characteristics associated with school climate and truancy or dropout rates. Characteristics associated with dropout include weak adult authority, a climate of low expectations, large school size, and an absence of caring adult relationships (Wehlage & Rutter, 1986). Bryk and Thum (1989) found that 67% of the school level variance in rates of student absenteeism could be explained by a variety of school level factors. Absenteeism was lower is schools with a strong academic push, high student participation in academic pursuits, an orderly environment, few disciplinary problems, less internal differentiation between curriculum, and where perceived quality of teaching was high. Additional research found that a smaller school size contributed to engaging students at-risk, and student attendance was better in schools where adult authority and discipline policies were perceived as fair and effective (Rumberger, 1995). By using data from the National Education Longitudinal Survey, statistical analyses revealed an increase of one standard deviation in the proportion of students who reported a fair discipline policy reducing the mean odds of dropping out by 21%. Findings from these studies support the idea that internal features of schools can affect the outcomes of absenteeism and dropout for all students. This is especially true for youths who are at-risk of school failure (Rumberger, 1995).

School climate has also been associated with students' behaviors and attitudes. Student's perceptions and experiences in school impact the development of their self-esteem, self-perception and health behaviors. Consequently, these issues affect students' present and future health and well-being (Garralda, 1992). Due to the fact that school plays an instrumental role in a student's self-identity, the school can be both a risk and resource for the development of student's health behaviors and general health. The risk is most apparent when examining students with negative perceptions of school. These students who dislike school are also those most likely to be failing academically and those at greatest risk of adopting unhealthy behaviors, exhibiting psychosomatic problems and experiencing reduced quality of life (Jessor, 1990). Students who are not satisfied with school are more likely to feel alienated from school and to find ways where they can rebel against the authority of school.

Research suggests that characteristics associated with a positive view of school are student participation in school life and a good relationship with teachers (Voelkl, 1995). These findings relate to findings concerning job satisfaction among adults (Dwyer & Ganster, 1991). Karasek and Theorell (1990) have developed an expansive theoretical model of psychosocial work environments for adults, indicating that (a) a relatively high degree of autonomy and control, (b) reasonable level of demands, and (c) good social support from management and colleagues are positively associated with job satisfaction. The students' concept of autonomy is formed by rules, a framework for the activities in school, and the responsibilities they are given (Karasek & Theorell, 1990). Each school has a set of rules directing the behavior of students, teachers, and school activities. The perceived fairness of these regulations and extent to which the students have been allowed to participate in their development are likely to impact the way they adjust to the school environment and, therefore, how they feel about school (Karasek &

Theorell, 1990). Efficient and concerned classrooms have discipline and structure. Lack of order can result in insecurity among students and harassment in the classrooms. In their analyses of effective classrooms, Lunenburg and Schmidt (1989) found that by keeping classroom management in a non-authoritarian mode, students can experience that regulation of behavior is also a way to care for them as individuals and the class as a group.

The work demands placed on students relate to evaluation of academic performance. In their managerial position teachers play a critical role in making clear demands, as well as how the student is expected to fulfill these demands. If the student believes that the teacher expects more than he or she feels capable of achieving, he or she is likely to experience stress (Perry, Kelder, & Komro, 1993). As a result, increased levels of stress can decrease the level of satisfaction with school (Mackay & Cox, 1978).

It could be argued that a student's poor academic performance could result in having a poor view of school climate. Both good relationships and social support from fellow students and teachers may reduce stressful experiences as a result of differences between needs, expectations, and resources (Steptoe, 1991). Social support and positive relationships may contribute to satisfaction with school despite poor academic ability. This is because the student feels valued as an individual, and is then allowed to maintain a positive self-worth (Covington & Beery, 1976). Students' relations with teachers may possibly be the most influential component in this association. If students feel that they are cared for and are allowed to participate actively in discussions and planning of the classroom program, poor academic performance may be a less important factor influencing negative perceptions of school (Berner, 1993).

From previous research we also know that differences in culture and political systems are important to the students' perception and satisfaction with school (Hirsch, 1994). Traditionally,

the focus of the Eastern European school system has been the attainment of knowledge delivered in an authoritarian manner, whereas the Western European system is generally more concerned with development of the individual and utilizes student involvement in teaching (Hirsch, 1994). As student involvement is considered to promote students' satisfaction with school, lower satisfaction with school may be expected among the students in Eastern Europe than in Northern and Western Europe. Although this was the case prior to 1990, presently the political situation in the east has changed the focus of the school and made it more similar to that of the west (Hirsch, 1994).

Positive school climate has also been associated with higher levels of parent and student satisfaction. In a study of 122 elementary schools, Griffith (1997) found parental satisfaction with schools was best predicted by parental perceptions of a positive school climate. This was followed by the school's informing parents of their child's educational progress. A positive correlation of student satisfaction also demonstrated a more favorable perception of school climate. School staff who perceived a positive school climate also tended to have higher levels of job satisfaction and showed greater self-efficacy (Griffith, 1997).

Current research indicates that high performance schools display a variety of common traits. A high performance school provides ample space for students and teachers to spread out, reflect, interact, exchange information, and examine or test ideas (Berner, 1993). Secondly, the appearance of the school is inviting. Students, teachers, and the local community want to be there (Berner, 1993). High performance schools have adequate natural lighting that improve productivity, and minimizes the risk of an adverse health effect. In addition, the school is designed to reduce stress by being comfortable.

Student and teacher comfort is specified as the most important aspect. When students are comfortable learning becomes easier. Being comfortable is a combination of several different factors such as adequate space, noise control, lighting, temperature control, and sanitation (Berner, 1993). The classroom is the most important area of a school, as it is where students and teachers spend most of their time and where the learning process occurs. The following conditions help make the classroom a better learning environment. Lighting in classrooms should focus on the front of the classroom and over the student's desks. Glare from hard surfaces is distracting and must be avoided. The effective lighting of schools has been related to high performance test scores across time (Berner, 1993).

Classes should be designed to accommodate students so that the number of students does not exceed 20 (Berner, 1993). A fewer number of students in each classroom will increase teacher and student interaction and communication. Classrooms should be designed with effective communication in mind. Students should be able to easily see and hear the instructor and other students. The noise in the classroom must be controlled to levels that do exceed 68db. When the noise level exceeds 68 or 69 db, students begin to have difficulty understanding what is being said and become easily distracted (Berner, 1993).

Technology is at the center of today's educational process, especially for mathematical and analytical skills (Berner, 1993). Computers in classrooms are essential. Tools, such as the Internet, allow the exchange of information, but must be positioned and used in environments that do not cause distraction. Increasingly, students can learn through virtual classrooms when the teacher is not accessible. Comfortable surroundings aid in this form of learning (Berner, 1993).

The temperature and indoor climate of the school are also important. A temperature of 68 to 72 degrees is ideal year round (Berner, 1993). Schools must be designed with good ventilation. Equipped filters and cleaning units must be functional so that they keep dust out of the air. Odors can also distract students, but can be removed with good ventilation. The design of schools is a very important factor when dealing with sanitation related to moisture. Building roofs that leak or will not stop water are harmful. Water in classrooms leads to mold that can cause allergic reactions. High humidity and standing water also creates an environment that is favorable to bacteria growth and can spread diseases (Berner, 1993).

The cleanliness of schools is also an important aspect of school environments. Clean schools not only lower the threat of illness, but also convey a thoughtful message to the students and teachers (Berner, 1993). Cleaning and maintenance of schools is vitally important and is often underemphasized. Students feel better going to clean classes and sitting in clean desks and surroundings. Sanitation in schools is important because young children face health risks, especially respiratory infections (Berner, 1993).

Although current research does not report any relationship between the age of the building and student outcomes (e.g., attendance, achievement, and behavior), Rutter et al. (1979) noted that behavior and academic attainment tended to be better when the school was clean and in good decorative condition. Rutter et al. also found an inverse relationship between the amount of student work displayed and graffiti in the building. Generally schools exhibiting a positive culture are clean. They not only display students' work, the schools also exhibit pictures, plants, posters and icons that help depict a positive school atmosphere. Evidence of the importance of academic symbols is clearly visible throughout the school (Rutter et al., 1979).

The safety of students is a topic of great concern to students, teachers, parents, administrators, government officials, and policymakers across the country. Prevention of violence has become a leading priority for public schools throughout America (Mehas et al., 1998). Because methodological discrepancies have produced differential results in the research related to school violence, there are ongoing debates over the question of whether or not violence-related incidents in schools have actually increased. However, most people perceive the problem of school violence as critical and worsening. A school should be a place in which every student feels safe.

Anderson (1998) surveyed recent school safety research and found that changing a school's internal climate can have a significant positive effect on the feeling of safety in the school community. Sherman et al. (1997) reviewed studies that examined school climate and concluded that how schools are run is directly related to the level of behavioral disruptions in schools. For example, schools in which administration and faculty lack communication have lower teacher morale and higher student disorder, and schools where rules and reward structures are unclear, and where there are vague consequences (e.g., lowering of grades due to misbehaviors), experience more disorder. In addition, schools in which students do not believe they belong and feel uncared for by school personnel experience higher levels of disorder (Sherman et al., 1997). Sherman outlined additional school climate factors that contribute to unsafe schools. Schools that ignore misconduct, schools in which teachers and administrators have disagreement about or do not know the rules, and schools where students do not believe in the rules are examples of an unsafe school. On the other hand, factors such as high expectations among school staff, students, and parents for student achievement, orderly school and classroom environments, high morale among school staff and students, positive treatment of students,

active engagement of students, and positive social relationships among students positively impact school climate (Sherman et al., 1997). Sherman's research suggests that school violence is an expression of the school climate.

### Gaps in the Literature

Students' perceptions of school events, the nature of teachers' expectations, and the patterns of interaction between students and teachers have an impact on their academic attitudes and behaviors. The way students look at situations, places, and things reflects the way they view the school and influences the conclusions and decisions they make in the world. A student's perception of an event is a personal interpretation of information from their own perspective.

(http://www.gifted.uconn.edu/siegle/SchoolPerceptions/printversion.pdf)

Despite abundant research in the areas of the physical environment of a school, school safety, differences in school culture, and student-teacher relationships in school climate in middle and high schools, at present, there has been no research that uses a combination of indirect and direct measures simultaneously to look at students' perceptions of school climate in the middle school population. The following study will use both of these measurement tools concurrently in order to evaluate how students perceive their school in addition to their current functioning within the school. Students' perceptions about the quality and consistency of interpersonal interactions within the school will be compared to their academic achievement, attendance, and disciplinary referrals.

## **CHAPTER THREE**

## Methodology

Research Questions/Hypotheses

This study addresses the following research questions:

- 1. Do students' perceptions of school climate vary across grades?
- 2. Does school performance as measured by academics, discipline, and attendance, differ among the three grades?
- 3. Is there a relationship between students' perception of school climate and school performance as measured by achievement, disciplinary referrals, and attendance?
- 4. Do school climate factors based on student's perception add additional predictors of academic achievement beyond that of discipline problems and attendance records?

### **Participants**

Potential participants of this study included approximately 300 6<sup>th</sup>, 7<sup>th</sup>, and 8<sup>th</sup> graders enrolled at a rural Middle school located in Upstate NY. Of these 300 students, 43 students and their parents participated in the study. They consisted of 29 females and 14 males. By grade their distribution included 12, 6th graders, 18, 7th graders, and 13, 8th graders. All of the participants who responded to the survey were Caucasian (100%).

#### Instruments

school climate

School climate was measured using the Student version of the Yale Child Study School Development Program, School Climate Survey-Revised Version (Emmons, Haynes, & Comer, 2002). The survey consists of 37 items based on a likert type scale (3 = Agree; 2= Not Sure; 1 = Disagree). It measures the following factors: Order and Discipline, Parent Involvement, Sharing of Resources, Student Interpersonal Relations, and Student-Teacher Relations. Internal

consistency reliability alpha coefficients for the survey ranged from .62 to.90. Internal consistency with reliability coefficients for specific scales are as follows: Fairness: .90, Order and Discipline: .68, Parent Involvement: .62, Sharing of Resources: .77, Student Interpersonal Relations: .86, and Student-Teacher Relations: .89.

## school performance

Parents reported on their child's school performance. This was accomplished by a survey form developed for this study that asked parents three questions: On the last report card your child's average grade fell between; since the beginning of the school year the number of disciplinary referrals your child has received is; and since the beginning of the school year how many days of school has your child missed?

"Please circle the most appropriate response based on your child's school performance for the 2005-2006 academic year":

Disciplinary Referrals:	0	1-2	3-4	>5	
Absences:	0	1-3	3-5	5-7	>8
Academic Achievement:	>90	80-90	70-80	<70	

#### **Procedures**

The first step toward completion of data collection was to obtain approval from the Rochester Institute of Technology's Institutional Review Board (See Appendix). The principal investigator submitted the IRB proposal and was granted full approval in support of this research study. This study was part of a larger study that used other questionnaires and participants. Following approval the researcher informed students of the opportunity to participate in the study across video annoucements during homeroom. The researcher began by introducing herself

and explaining why she chose to undergo the study at their school. The researcher then went on to describe what social science research is and the benefits the students would gain in participating in the study. Finally, the students were provided a definition of what school climate is and what would be asked of them as participants in the study. The school district provided the names and addresses of all the students and a total of 300 combined consent forms were then mailed home to each parent and student in grades 6<sup>th</sup>, 7<sup>th</sup>, and 8<sup>th</sup> describing the study, as well as a definition of the terms (See Appendix). Parents and students who agreed to participate in the study then mailed the consent form to the principle investigator. Only those children and parents who signed the consent form were included in the study. Of the 300 combined consents, 65 were sent back to the principal investigator (22% return). However, 22 of the combined consents had to be excluded as the participants did not complete the data analyses. Following a one month time period, the principal investigator mailed home the surveys in addition to a postage paid envelope to return to the researcher. All participants were assigned identification numbers. These ID numbers were used in place of names on all survey forms. Only the researcher and faculty supervisor had access to the names of the participants. Once the results were coded in SPSS the original data linking data to their name was destroyed.

## Data Analyses

In order to address the preceding research questions for this study data analysis consisted of the following: A One Way Analysis of Variance (ANOVA), Pearson Product-Moment Correlations, and Stepwise Multiple Regression Analysis.

#### CHAPTER FOUR

#### Results

To determine if there were gender differences across the dependent variables for school climate in school performance, Independent Sample t-tests were performed. No gender differences were obtained across these variables (p > .05) therefore data analysis combined both genders to form the sample sizes by grade level.

Displayed in Table 1 are the means and standard deviations for the school climate factors by grade level. Separate one-way ANOVA's with grade level as the independent variable were conducted for each of the school climate factors followed by subsequent Post Hoc analyses. Of all the school climate factors only Fairness showed a significant main effect for grade level (F 2,37 = 3.8, p < .05). A Student Newman Keuls multiple comparison analyses showed that the 6<sup>th</sup> grade mean was significantly higher than the 7<sup>th</sup> and 8<sup>th</sup> grade mean on the factor of Fairness.

Displayed in Table 2 are means and standard deviations for School Performance factors for Academic Achievement, Attendance, and Discipline. Three, One Way ANOVA's with grade as the independent variable were conducted for School Performance in Academic Achievement, Discipline, and Attendance. None of the ANOVA's proved to be significant (F 2,40 = .35, p > .05; F 2.40 = 1.06, p > .05; F 2.40 = .25, p > .05; respectively) revealing that across the grade levels achievement, attendance, and discipline were similar.

Displayed in Table 3 are Pearson Product Moment Correlations between school climate factors and school performance factors. A statistically negative correlation was obtained for student interpersonal relationships with attendance (r = -.39, p < .05) and a statistically significant positive correlation was obtained for student-teacher relations and school achievement (r = .33, p = < .05).

In order to address the last research question a Step-Wise Multiple Regression was conducted. Academic Achievement was used as the dependent variable and school climate factors and attendance and disciplinary factors were used as the independent variables. A significant R = .42 was obtained accounting for 18% of the variance (F1 .33 = 7.46, p < .01). The stepwise multiple regression model showed that only Fairness was a significant predictor of academic performance with an identical value R = .42 obtained by the Pearson Product Correlation.

## **CHAPTER FIVE**

#### Discussion

The objective of this study was to determine if students' perceptions of school climate vary across grades and to see if school performance as measured by academics, discipline, and attendance, differs among 6<sup>th</sup>, 7<sup>th</sup>, and 8<sup>th</sup> grade. Additionally, this study was interested in finding if there was a relationship between students' perception of school climate and school performance as measured by achievement, disciplinary referrals, and attendance and determining if school climate factors based on student's perception add additional predictors of academic achievement beyond that of discipline problems and attendance records.

As indicated in the literature review, a positive school climate is an atmosphere for learning where parents, teachers and students want to spend the majority of their time learning, communicating and pursuing education (Brainard, Howell, & Howard, 1987). A review of the literature revealed that positive school climate has been associated with fewer behavioral and emotional problems for students (Kuperminc, Leadbeater, Emmons, & Blatt, 1997). To date however, no study has used a combination of indirect and direct measures to simultaneously look at students' perceptions of school climate in the middle school population.

One major factor that this study found that affects the student's overall view of school climate is the relationship they have with teachers. Results of this study indicate that student-teacher relationships are associated with academic achievement. Students who feel that they can talk to their teachers about their problems and who care about them are more likely to succeed academically. Additionally, those students who feel their teacher are fair to everyone and believe they can do well have a more positive view of school climate and are more likely to succeed.

The quality of children's relationships with their teachers is increasingly recognized as a contributor to school success. Pianta et al. (1995) found that after two years, kindergarten children who have negative relationships with their teachers have been found to have increased levels of behavior problems, as compared to their peers who had positive relationships with their teachers. Current studies have also found that children with conflicting teacher relationships in kindergarten and first grade are significantly less cooperative in school and are less likely to enjoy school when compared to their peers who have a better, more healthy student-teacher relationship (Ladd & Burgess, 2001).

As a result of the association between student-teacher relationships and students' academic achievement, research has been conducted to assist educators in improving their classroom management skills and creating relationships with their students (Morganett, 1991). One way that teachers can build these relationships is by taking the time to talk with the students. Teachers can talk or listen to a student individually, or in a group, at the beginning or end of class, regarding his or her day (Morganett, 1991).

Positive student-teacher relationships are a key too when building unity in the classroom (Morganett, 1991). Students take on a sense of responsibility, rather than the teacher. The child's need to become a valued member of a group is encouraged (Letts, 1994). Classroom management and successful teaching are strongly correlated with what teachers do on the first day of school to establish a productive classroom environment (Letts, 1994). Effective teachers establish clear expectations for all students while enforcing them consistently. According to Letts (1994), when students feel as if they are involved in the process of creating of their own rules and expectations, they will be more likely to abide by them and create a safe environment.

Early adolescence is a time in which school belonging and other students are likely to have a significant influence on a child's motivation to attend school (DeRidder, 1988).

According to the dropout literature, if students do not identify with the school at least minimally, they will ultimately begin the process of dropping out of school (DeRidder, 1988). One key feature to a student's sense of connecting to their school is their interpersonal relationships.

Similarly this study found that student interpersonal relationships are dependent upon school attendance. Those student's who reported less absences were more likely to have a positive view of their student-interpersonal relationships (DeRidder, 1988).

School belonging is influenced by student relationships and student-teacher relationships.

A key element to a students' sense of belonging to a school is the extent to which he or she feels personally accepted and respected, especially by teachers. When children believe that teachers are on their side, they are more likely to believe they have the resources necessary to be successful. From a developmental perspective, at the beginning of middle school, students have a greater perception that teachers treat them fairly. As they grow older this belief decreases.

This study had several limitations. The sample for this study was limited to a rural school district of approximately 300 students, and all of the participants were Caucasian. Additionally, this sample consisted of only middle school students in grades 6<sup>th</sup>, 7<sup>th</sup>, and 8<sup>th</sup>. The results cannot be generalized to other grade levels. Also, due to a poor response rate, external validity is weak. It is suggested that this study be replicated using a larger and more diverse population. In addition, further studies into school climate should utilize actual student attendance, grades, and disciplinary reports.

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Table1

<u>Descriptive Statistics for Students Perception of School Climate</u>

			Grad	le Level		
	6	th	7 <sup>t</sup>	h 	8 <sup>tl</sup>	1
School Climate Factor	M.	S.D.	M.	S.D.	M.	S.D.
Order and Discipline	2.0	.36	1.9	.41	2.0	.45
Parent Involvement	1.8	.70	1.8	.57	1.9	.51
Sharing of Resources	2.1	.67	2.0	.51	1.7	.62
Student Interpersonal Relations	2.2	.66	2.0	.62	2.0	.71
Student-Teacher Relations	2.6	.39	2.5	.50	2.7	.40
Fairness	2.6 <sup>b</sup>	.43	2.1a	.60	1.9 <sup>a</sup>	.67

Note- Means sharing the same superscript do not differ from each other. Means with different superscripts are significantly different from each other, p < .05.

## Likert Scale

School Climate Factor	Agree _	Not Sure	Disagree
Order and Discipline	3	2	1
Parent Involvement	3	2	1
Sharing of Resources	3	2	1
Student Interpersonal Relations	3	2	1
Student-Teacher Relations	3	2	1
Fairness	3	2	1

<sup>\*\*</sup> Note: Below is an outline of the measurement scale for this survey.

Table 2

<u>Descriptive Statistics of School Performance by Grade Level</u>

		Grade Level	·
	6 <sup>th</sup>	7 <sup>th</sup>	8 <sup>th</sup>
School Climate Factor	M. S.D.	M. S.D.	M. S.D.
Grades	3.58 .79	3.33 .84	3.46 .78
Discipline	1.00 .00	1.22 .43	1.31 .85
Attendance	2.00 .95	2.27 1.27	2.23 .93

Likert Scale

<sup>\*</sup>Note: Below is an outline of the measurement scale for this survey.

	4	3	2	1	
Grades	>90	80-90	70-80	<70	
	1	2	3	4	
Discipline	0	1-2	3-4	>5	
	1	2	3	4	5
Attendance	0	1-3	3-5	5-7	>8

Table 3

Pearson Product Moment Correlates of School Performance and School Climate Factors

		School Performance	ee
School Climate Factors	Ac. Ach.	Discipline	Attendance
Order and Discipline	.22	25	15
Parent Involvement	.19	06	.00
Sharing of Resources	.11	03	.18
Student Interpersonal Relations	.25	22	.39*
Student-Teacher Relations	.33*	17	25
Fairness	.18	.23	22

<sup>\*</sup> p<.05

Table 4

<u>Step-Wise Multiple Regression of School Climate Factor</u>

School Climate Factors	R	R Square	β	t
Student-Teacher Relationship	.429	.184	.429	2.731