The Effects of Student Discipline on School Climate in a School

Using Positive Behavior Interventions and Supports

Philip C. McGrath
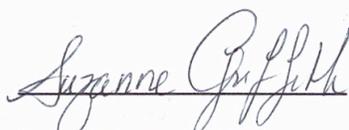
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Introduction

Since the wake of violence of the 1990's and 2000's in public schools, alarmed parents, students, and lawmakers expect educators to respond more effectively to school discipline by implementing tougher policies, such as "zero tolerance." However, these reactive approaches may actually heighten the incidence and severity of behaviors (Safran & Oswald, 2003). Last year (2009-10), Northwestern Middle School (NMS) implemented the Positive Behavior Interventions and Supports (PBIS) program, school wide (SWPBIS), aimed to teach students appropriate, positive behavior so that negative behaviors will not develop. PBIS is a proactive, rather than reactive approach to discipline (Osher, Bear, Sprague & Doyle, 2010).

However, has the use of PBIS (and the lowering of discipline referrals) improved overall school climate at NMS?

Hoffman, Hutchinson and Reiss (2009) write that positive school climate has been linked to improved student behavior, academic achievement, and motivation. Further, the authors write that many factors such as motivation, collaborative decision-making, equity and fairness, caring and sensitivity, and order and discipline all have an effect on school climate.

This study attempts to ask: to what extent does discipline, *on its own*, have an impact school climate?

In an era of tight school budgets and a demand from the public for improved schools, it seems if one factor (discipline) instead of several (motivation, collaborative decision-making, equity and fairness, or caring and sensitivity) could be focused on for improvement of school climate, this could potentially be economical, time saving, and most beneficial to students.

Problem Statement:

Some research has shown that the school climate of a middle school is affected by student behavior. Negative student behavior can have a negative effect on school climate. The purpose of PBIS is to prevent negative behaviors through a proactive rather than reactive approach.

Hypothesis:

A school that implements a behavior modification program, such as PBIS, and has a decrease of office disciplinary referrals will have an increase of positive school climate.

Limitations:

This study will be limited to one school through the duration of one school year. The subject will be limited to subjects of convenience. The subjects will be limited to one grade level of the middle school, the 6th grade.

Delimitations:

This study will not analyze the direct effect of PBIS on student behavior; why or why not discipline referrals have increased or decreased. The study will only report whether discipline referrals have increased or decreased (and to what extent) while using the PBIS program.

This study will not explore the role of PBIS and school climate on middle school students' academics.

The study will not examine factors outside of the school day that might shape school climate (the economy, home life, extracurricular activities, for example).

This study will not examine how tangible items such as books, gym equipment, and computers effect school climate.

This study will not examine how class size and any other situational factor effect school climate.

Assumptions:

The researcher assumes that NMS has implemented and uses PBIS in its intended and correct way.

Definitions of Terms:

School climate: The quality and consistency of interpersonal interactions within the school community that influence children's cognitive, social, and psychological development (Hoffman et al., 2009).

Skyward: Skyward Educator Access Plus is an online student management suite used at NMS for all student information, grades, attendance, personal information, and discipline referrals.

Summary of Study:

The focus of this study will be to examine school discipline and school climate at a school using PBIS. The study will compare discipline data (collected through Skyward) and school climate data (collected through a school climate survey from the Wisconsin Department of Instruction), once at the beginning and end of the school year, to explore a possible connection (and to what extent) between a lowering of discipline referrals and an increase in school climate.

Significance:

This study aims to observe if improving one factor (student discipline) increases the overall climate of the school. School climate has an important impact on students' lives at school, their behavior, academics, and motivation (Hoffman et al., 2009). Further, Syvertsen, Flanagan and Stout (2009) report that middle school students who perceive their schools as having a positive climate will be more likely to break "the code of silence" and report to an authority figure if they hear something dangerous is going to happen in the school.   Kupermine, Leadbeater, Emmons and Blatt (1997) state that school climate might even affect a broader range of outcomes, including self-esteem.

The results of this study will add to the knowledge on school climate and behavior modification programs, such as PBIS. If using the PBIS program to effect student behavior does improve the students' perception of school climate, schools can focus on this one factor (discipline) as opposed to the many factors researchers have identified that effect school climate. This could potentially save schools time, money, and effort.

Literature Review

Introduction

This literature review is organized three sections. The first section reviews literature that defines and explains what school climate is and what the research reveals about school climate's effect on students. The second section defines and explains the Positive Behavior Interventions and Supports (PBIS) program and explores how it is implemented in schools and its impact on the school environment. The third section reviews literature that explores disciplinary practices effect on school climate/organizational health.   Having an understanding of these literature areas will aid in the analysis of the findings at NMS.

School Climate

School climate has long been an interest to researchers because of its importance in school (Anderson, 1982). However, due to the mass of research, the multitude of variables, methodologies, theories, and models, school climate is not easily defined.

         To conceptualize what school climate is Anderson (1982) uses the analogy: "Personality is to the individual what 'climate' is to the 'organization'" (p. 369). Anderson explains the four variables that appear to be tied to the total environmental quality (ecology, milieu, social system, and culture). Building characteristics and school size are the main focuses in the ecology variable. Building characteristics include the age, characteristics, and size of the building, as well as class size. Anderson explains milieu is the characteristics of persons or groups within the school environment. Several factors of this variable effect the school environment. For example, it is suggested teacher stability (teacher characteristics) is important. Accordingly, the author reports teacher attitudes toward work (teacher morale) correlate with school environment. There are several factors in the social system variable that effect school environment, such as shared teacher decision-making, good communication, and teacher-student relationships.   Culture is the final variable and includes three important factors: teacher commitment, expectations, and rewards and praise.

         Peterson and Skiba (2001) define school climate as the overall feelings students and staff have about the school environment over a period of time. These feelings have to do with

how comfortable each individual feels, how they feel their learning (or teaching) is supported, and how safe they feel in school. The authors write that school climate is a reflection of the school environment.

Hoffman et al. (2009) identifies 15 key components of a healthy, supportive school climate. Several items overlap with Anderson's variables that affect school environment: achievement motivation, collaborative decision making, equity and fairness, general school climate, order and discipline, parent involvement, school-community relations, staff dedication to student learning, staff expectations, leadership, school building, sharing of resources, caring and sensitivity, student interpersonal relations, and student teacher relations.

Kupermine et al. (1997) also write that it is likely middle school students' perceptions of climate reflect informal aspects of school life (peer attitudes toward school, relationships with teachers) and formal ones (policies for enforcing discipline).   Kupermine et al. found that there is evidence that school climate and the climate of classrooms within the school are different, but overlapping, constructs. A school with overall positive school climate might have classrooms with poor climate and vice versa.

Research suggests a positive school climate has a positive effect on students and, conversely, negative school climate has a negative effect on students. Hoffman et al. (2009) write that school climate has been linked to improved student behavior and academic achievement, student learning, student failure, student delinquency, absenteeism, suspension, and low motivation. Similarly, Peterson and Skiba (2001) hypothesize that comfortable and supportive feelings would support effective and efficient learning and teaching as well as positive student behaviors and attitudes, and on the contrary, negative feelings such as concern, fear, frustration, and loneliness would negatively affect learning and behavior.

Further, Kupermine et al. (1997) state a positive and supportive school climate might help boys in their adjustment to middle school because boys are more likely than girls to report and to be seen by teachers as having externalizing problems, problems needing to be disciplined at school. Boys with more negative school climate perceptions may be those who are more subject to discipline.

In summary, the literature (Anderson, 1982; Hoffman et al., 2009; Kupermine et al., 1997; Peterson & Skiba, 2001) defines school climate as the overall feeling a student (or teacher) has about the school. The literature makes the point that school climate is a reflection of the school environment, which is the collection of factors that include student-teacher respect (and likewise teacher-student respect), quality of the building and materials, the feelings of safety, caring, and encouragement, and discipline. A positive school climate will impact the student in a positive way whereas a negative one will impact the student negatively, as indicated below.

School climate has been shown in research to effect student behavior.   Wang, Selman, Dishion, and Stormshak (2010) found that students who perceive a more positive school climate in sixth grade had a lower probability of experiencing problem behaviors in seventh and eighth grade.

Wang et al. (2010) begin their research by stating that if we wish to support healthy adolescents, we must foster the school climate and not simply the individual. To do this, the authors identified several characteristics, similar to those listed above, that comprise school climate: academic focus, discipline and order, peer relationships, and student-teacher relationships. This study applied an ecological framework to examine the link between school climate and development of problem behaviors using a three-wave longitudinal data set comprised of sixth grade student's perceptions of school climate.

Wang et al. (2010) had three main research questions: First, do students with more positive perceptions of school climate while they are in sixth grade have lower probability of engagement in problem behaviors in seventh and eighth grades? Second, for those who engage in problem behaviors, do students with more positive perceptions of school climate while they are in sixth grade engage in fewer problems behaviors in seventh and eighth grades? Third, does the students' gender moderate the relations between students' current perceptions of school climate and subsequent problem behaviors?

Wang et al. (2010) collected their data as part of the Next Generation Project, which was designed to help parents and teachers understand how to promote success, health, and well-being in the next generation of youth. 677 middle school students participated in the study.

Approximately 76% of participants were European Americans, 5% Asian or Pacific Islanders, 4% Hispanic, 1% African American, and 14% of others. Approximately 54% of the participants were female. 25% of participants were on free or reduced lunches.

Wang et al. (2010) used the Social Skills Rating System for students to self-report behavioral data, and the results were averaged to find the extent of externalized problem behaviors. Teachers were also given a reporting sheet, and the student and teacher results were compared finding the student's self-reporting reasonably reliable. Dishion and Stormshak's Social Nomination Measure was used to assess the students' perception of school climate.

Wang et al. (2010) found that students who perceive a more positive school climate in sixth grade had a lower probability of experiencing problem behaviors in seventh and eighth grade. Additionally, the authors report that the results indicate that positive student-teacher relationships and discipline and order were more substantially associated with lower probability that an adolescent would engage in problem behavior. The interaction of perception of school climate with gender was not statistically significant.

Wang et al. (2010) write that their findings provide a basis for schools to develop a plan to not just curb frequency of problem behaviors but also preventing problem behaviors before they begin. The authors conclude that because adolescents' perception of school climate is strong predictor of problem behavior, the findings highlight the importance of creating a positive school climate. They also suggest that with limited school resources, a focus on two specific dimensions (school discipline and order, and student-teacher relationships) may be most beneficial to reduce problem behaviors.

PBIS

Several studies define (and address a need for) PBIS as used in typical school settings and explore its impact on curbing negative behaviors.

Safran and Oswald (2003) establish a concern about the state of child and young adolescent negative behavior in schools and explain that the broad goal of PBS is to create and maintain a safer, more positive school environment. They maintain many variables, including the

environment, influence student behavior and propose that instead of taking a reactive approach to discipline, schools should be proactive (i.e., interventions and character education).

This proactive approach, as explained by the Safran and Oswald (2003), should be data-driven. PBS teams can use data to pinpoint specific behaviors and specific locations, such as noisiness in the hallway, and to establish intervention priorities. The authors state this data can also serve as a baseline to evaluate PBS effectiveness and, as the program progresses, data can be used to pinpoint new priority behaviors.

Safran and Oswald (2003) explain that once data has been used to ascertain behavioral priorities, the PBS team can implement a school-wide program that can then be tailored for specific areas and, lastly, to individual students. They cite several studies where negative behaviors have been greatly thwarted by using the PBS program, but also point out literature has failed to address the area of generalization, or the transfer of behavioral instruction from the site of direct instruction to other areas. The authors also explain the limitations of PBS with students with chronic behavior problems. The authors state there is a lack of research in this area.

Finally, Safran and Oswald (2003) present an argument in favor of PBS. First, they contend that collaborative teams can use data to establish behavioral priorities and preintervention baselines. Second, they explain that a well setup program does result in positive outcomes. Third, they maintain that PBS created for specific settings has demonstrated positive change, although direct instruction continues to have limited generalization. Fourth, they indicate, no one "model" fits all school settings, and therefore PBS can be changed to fit specific needs. The authors acknowledge the effectiveness of PBS as a whole, but again raise the concern of students with chronic behavior problems and the need for more research to be done.

Safran and Oswald (2003) also state a concern about leadership, staff ownership, and commitment to PBS and further research validating PBS results. The issue of social validity and treatment acceptability (how open staff, parents, and students are open to PBS) is also a largely unexplored issue, maintain the authors. Further, the authors suggest aside from using hard data (office referrals and suspensions) schools should develop a needs survey to decide where, how,

and with whom PBS is most needed, but restate the need of computerize system to best keep track of data to design, evaluate, and modify PBS.

In summary, Safran and Oswald (2003) explain the benefits and successes of PBS through its data driven, proactive approach and state PBS can indeed help schools reshape disciplinary practices.

Similarly, Luiselli, Putnam, and Sunderland (2002) write that PBIS has a positive effect on behavioral issues. Their longitudinal evaluation of whole-school discipline practices lasted four years in a public middle school, and they state their evaluation is one of the few reports illustrating the long-term results from whole-school discipline practices.

The study was conducted at a public middle school (grades 6-8) located in a rural Massachusetts community comprised of middle-to upper-middle-class families. The participants were the entire study body over the 4 year time period. The number of students enrolled at the school for each year of the study was 635. About 7% of the student population qualified for free or reduced lunch.

Luiselli et al. (2002) explain their primary dependent measure was the number of discipline slips issued each academic school year. A discipline slip was issued by a teacher for various reasons, including disruptive-antisocial behavior (disturbances in the building or being disrespectful to staff), vandalism behavior (destruction of school property or stealing), and substance use (smoking and drug or alcohol possession).

Luiselli et al. (2002) describe the specifics of the PBIS program used in the school for their study, and the characteristics are typical of any PBIS program (a collaborative group of students, teachers and administrators; a three-tiered behavior system; targeted behaviors chosen by the PBIS team; and a rewards system). The authors explain in detail the rewards system used at the school. For example, tri-monthly drawings were used for students who maintained a good GPA, had good attendance, and followed school rules. The school also passed out "Caught Being Good" (CBG) cards to student who exemplified good behavior or specific targeted behavior. These CBG cards would also be drawn on a regular basis for rewards.

As a result of the school's efforts, Luiselli et al. (2002) report a decrease frequency in detentions for each year the whole-school program was in effect. For the disruptive-antisocial behavior category, the detentions dropped from 1,326 to 599 (1326, 1127, 717, 599); for the vandalism behavior category, the detentions fell from 11 to 5 (11, 15, 8, 5); and for the substance use behavior category, the detentions fell from 9 to 1(9, 6, 6, 1).

Luiselli et al. (2002) state that the primary data that shows an improvement in student behavior was the number of detentions issued over the 4-year period. The measure, they admit however, is not as precise as data generated from direct classroom observations.

Sprague, Nishioka, and Smith (2007) performed an evaluation of the Safe Schools/Healthy Students (SS/HS) interventions in three Oregon communities. In years prior to the study, these Oregon communities saw a dramatic increase in substance abuse and behavior issues in school, including one tragedy, a school shooting. Three school districts within these communities implemented Positive Behavior Supports (PBS) as one SS/HS component. PBS was implemented in elementary, middle, and high school. For the first year of the project, a PBS coordinator was hired and was responsible for marketing, training, consulting, and maintaining a quality implementation in the program. By the end of the third year, 90% of school successfully implemented PBS.

Sprague et al. (2007) report their evaluation used descriptive, longitudinal designs to document the processes of the SS/HS project. Due to the complex and overlapping relationship between elements of the project (a mental health component was also implemented), the authors used various control and comparison groups. Their goal was to provide the school districts with hard data that could be used to evaluate key school safety outcomes.

The Oregon School Safety Survey (OSSS) was used as one source of data to evaluate and assess the programs (Sprague et al. 2007). The data from the schools indicate a decrease in the perception of overall risk (-9.69%) and an increase in the perceived presence of overall protective factors (+4.63%). The authors also report that the amount of office discipline referral decreased over the course of the study. Also there was a decrease of out-of-school suspensions, which was mirrored by an increase of in-school-suspensions—a practice encouraged by

SWPBIS. Finally, the authors report that the overall data from the OSSS suggest that PBS has helped establish the schools as warm, welcoming, and safe climates.

Discipline and School Climate/Organizational Health

Bradshaw, Koth, Bevans, Ialongo, Leaf (2008) examine the effects of PBIS on the school environment. They hypothesize a school that has implemented PBIS will have an overall better organizational health—a characteristic of the school environment that has been linked with positive student and staff outcomes, as measured by the OHI (Organizational Health Inventory).

Bradshaw et al. (2008) first explain what PBIS is and the seven features of school-wide PBIS, the sole focus of the study. The seven features include: a PBIS team (comprised of six to eight staff members and an administrator, all who establish an action plan); a behavior support coach, who provides on-site training; three to five positively stated school-wide behavioral expectations regarding student behavior; plans for defining and teaching the expectations on a regular basis; a school wide system to reward students who exhibit expected positive behaviors; a system for responding to behavioral violations; and finally, a formal system to collect, analyze and use disciplinary data. The authors state that the research indicate schools that implement school-wide PBIS have a reduction of disciplinary referrals, though little is known on the effects this has on overall organizational health.

According to Bradshaw et al. (2008), organizational health is comprised of the following core features: resource influence, staff affiliation, academic emphasis, collegial leadership, and institutional integrity. For example, staff affiliation (defined as the sense of positive interactions between colleagues and shared commitment to students) is hypothesized to increase since the PBIS models emphasize collaboration and joint decision-making between staff.   The authors lay out the anticipated impact of PBIS on the other areas of organizational health and they argue that all would see a positive impact.

Bradshaw et al. (2008) report that the data to measure such an impact came from a large-scale longitudinal group of randomized elementary educators, all of whom were sent an individually addressed anonymous survey packet. The survey used was the Organizational Heath Inventory, which the authors explain is widely used and is a previously validated measure

consisting of 37 items that measure the aspects of organizational health. The recipients of the survey consisted of teachers from 21 schools that were randomized to the intervention condition (PBIS) and 16 schools assigned to the comparison condition (no PBIS/comparison). The comparison schools agreed to refrain from implementing PBIS for the duration of the study, 4 years. The response rate was 80% to 86% across the study period.

Bradshaw et al. (2008) found, as hypothesized, that staff in schools who implemented PBIS showed improvements in several aspects of their school's organizational health. The authors report a significant growth in the organizational heath of all areas previously noted, except collegial leadership or institutional integrity. The authors admit that the specific mechanisms by which PBIS influenced the organizational health are unknown.

Bradshaw et al. (2008) explain a few limitations to their study, such as the reliance on staff-report measures, especially since the staff was knowledgeable about the school's intervention status. They also grant that the Hawthorn effect has a potential to influence the results.

In conclusion, Bradshaw et al. (2008) state their study was an initial effort to understand the effects of PBIS on the school environment. They explain the findings indicate that the implementation of school-wide PBIS is associated with improvements in several aspects of organizational health. The authors state that several studies are underway to explore the improvement in organizational health has an effect on academic achievement and reduction of behavioral issues.

Conclusion

Simply, school climate is the overall perception a student (or staff member) has about the learning environment. School climate varies along a continuum from negative to positive, and many factors may influence how a student perceives this climate. Diverse research suggests that some factors may have a greater influence on the climate of a school than others. Though a rich collection of information exists on school climate (the definition and importance of school climate), student discipline, and the role of PBIS in schools, little information is available about the influence of PBIS as a single factor on school climate. The research has shown that behavior

modification programs, such as PBIS, have had a positive effect in schools by lowering the incidences of problem behavior. As Wang et al. (2010) suggest, the influencing role of a few factors on school climate (as opposed to the several outlined above) should be studied further to best assist schools, which often deal with limited resources, such as money and time. Once the most effective ways of improving a school climate are identified, schools can implement these changes which, as research has shown, will lead to a host of other positive outcomes.

Methodology

The school climate of a middle school is affected by many factors, including student discipline. As the literature review has shown, negative student behavior can have a negative effect on school climate and, equally, positive behavior can have a positive effect on school climate. The purpose of this study is to assess the effect of student discipline on school climate at a school using PBIS.

Subjects and Setting

The subjects of this study were 6th grade students who were in their first year using PBIS methodology.

Northwestern Middle School is located in a rural school district, the School District of Maple. It had 331 enrolled students during the 2009-10 school year. The Wisconsin Department of Public Instruction has posted the following demographics for the 2009 school year: 2.4% American Indian, 2.1% Asian, .9% Hispanic, 1.5% Black, 93.1% White, 31.1% economically disadvantaged, 15.4% special needs, and 100% English proficient, and 45% of the population is female and 55% is male. Reviewing past years of this DPI data shows a consistency in all abovementioned demographic information, and the researcher will safely assume the 2010-11 school year demographics will be consistent.

To help ensure reliability, the entire sixth grade class (around 112 students) was used as a sample.

Instrumentation and Procedure

The subjects' perception of school climate was measured by an online school climate survey supplied by the Wisconsin Department of Public Instruction (DPI). The survey was implemented by Northwestern Middle School's PBIS team (one of the tenants of PBIS is that data should drive practices). The survey is credited on the DPI website to Victoria Bernhardt, taken from her book Data Analysis for Comprehensive Schoolwide Improvement.

The DPI suggests, in order to show a truer sense of school climate, that the survey be administered not at the beginning or ending of the year, but at midpoints; therefore, NMS's PBIS team surveyed students in at the end of the first quarter of the school year (October) and at the

beginning of the fourth (May). The DPI also suggests the survey be administered during the same class periods for all students; therefore, the 6th grade students took the survey in their advisory class periods within the span of two school days. The survey was administered by each advisory teacher (there are six); all whom have been trained and were given a script to follow for administering the climate survey.

Each student took the survey individually on a randomly assigned computer in one of the school's computer labs. Students were directed by their advisory teacher to navigate to the URL of the climate survey found on the DPI website. Students created a username, which is only known to the student and is only used once. The DPI does not record usernames; usernames are only a means to login to the survey. Further, data results provided by DPI of the survey do not include any identification (username) on how each student answered the survey. The survey itself has a unique alphanumerical identification that is needed to log in and was given to students directly before they took the climate survey, and it is highly unlikely the students would remember the alphanumerical identification to log in on their own at a later time.

Two surveys are available, an elementary and high school version. The elementary survey is recommended up to grade 8. The survey is free to use.

Table 1: Sample from the Student Climate Survey (Complete survey: Appendix 1).

	When I am at school, I feel:	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1.	I belong.	○	○	○	○	○
2.	I am safe.	○	○	○	○	○
3.	I have fun learning.	○	○	○	○	○
4.	I like this school.	○	○	○	○	○

Permission has been obtained by Northwestern Middle School's building principal to use school climate survey data (obtained by the PBIS team) and Skyward discipline data (compiled by the building principal) for the purpose of this study.

Student discipline referrals are tallied by the Skyward Educator Access Plus system, an online student management suite used at NMS for all student information, grades, attendance, personal information, and discipline referrals.

Student discipline data for this study is anonymous and confidential. The data used in this study is simply the totals of discipline referral as indicated by a report created by the Skyward system. No student identification information was collected for this study.

The results of the school climate survey can be compared to discipline referrals to establish if the data supports a relationship between PBIS and school climate. To establish if the 2010-11 6th graders at NMS is a typical class, end of year detention assignment totals can be looked at for each 6th grade class going back 2 years. The current 6th grade core teachers have been in the same positions for several years (and have been using PBIS for the last two school years), so the researcher assumes discipline practices are fairly consistent with previous years.

Results

The purpose of this study is to examine negative behaviors (discipline issues) and school climate

in a school using the behavior modification system PBIS. 6th grade students at Northwestern

Middle School participated in a climate survey to measure their perceptions of school climate.

Throughout the school year, discipline referrals were tallied. This data will show a rise, fall, or no

change in school climate and discipline referrals.

First, however, detention data from past 6th grade classes was collected to determine if

the study group was typical. During the 2008-09 school year, 65 detentions were assigned, in

2009-10, 54, and in 2010-11, 63 (Graph 1). Each class was roughly the same size, 105 to 112

students.

Graph 1
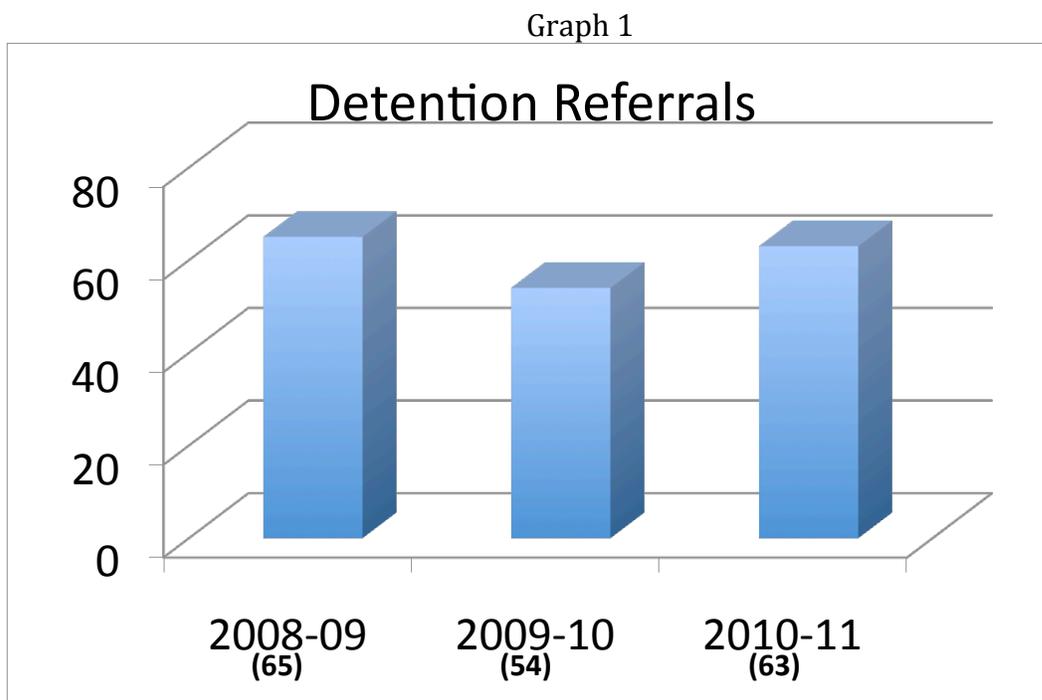
Second, to measure school climate, each 6th grade students participated in a school

climate survey provided by the Wisconsin Department of Instruction twice, once in the fall

(October) and once in the spring (May), to determine if school climate rose, fell, or stayed the

same throughout the school year (as measured by this survey). The likert survey is 31 questions

long, and each question provides five choices (one being *strongly disagree* and five being *strongly agree*). Adding the averages of each of the 31 questions together attained a total school climate score, and dividing the total school climate score by 31 gives the mean of responses. The higher the number, the better the school climate. The highest possible total school climate score is 155, and the highest mean would be 5.

NMS students first took the climate survey in the fall (October) and scored a total school climate score of 120.49, with a mean of 3.88. The survey was given again in the spring (May), and the total school climate score was 118.14, with a mean of 3.81.

109 students out of 112 completed the survey in the fall, and 106 out of 112 completed the survey in the spring.

The data shows a negative change in school climate from the fall to the spring. The total climate score has a change of -2.35, and the mean from the responses changed by -.06, a 1.6% decrease.

An item-by-item breakdown reveals a standard deviation of 0.4257 in October and 0.4199 in May. The overwhelming majority of individual item responses stayed within one standard deviation of the means from October and May (Appendix 1). A plot of student responses from October and May (Appendix 3) also shows a close mirroring of student responses from the two data sets.

Finally, discipline data was tracked throughout the 2010-11 school year to determine if discipline referrals increased, decreased, or stayed the same throughout the school year. Data is broken down by school quarters: In quarter 1 (September 1- November 4) 6th grade students had 24 discipline referrals; quarter 2 (November 8- January 21) 21 referrals; quarter 3 (January 24- April 1) 41 referrals; and quarter 4 (April 5- June 3) 38 referrals.

The data shows an increase of discipline referrals from the beginning of the school year to the end. Combining quarters for the first half of the year (45 referrals for semester 1) and comparing with the second half of the year (79 referrals for semester 2), shows a 43% increase occurs.

Graph 2

Discipline Referrals Assigned to 6th Grade Students

Quarter 1	Quarter 2	Quarter 3	Quarter 4
(24)	**(21)**	**(41)**	**(38)**
Sept.-Nov.	**Nov.-Jan.**	**Jan.-Apr.**	**Apr.-Jun.**
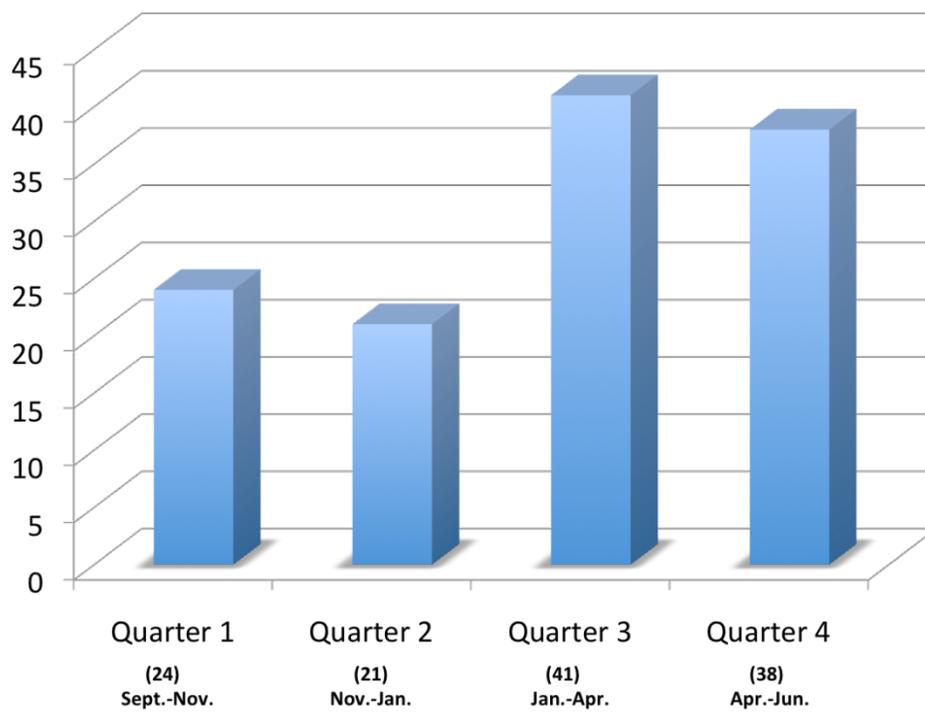
Discussion

Summary of the Study

This study investigated school climate at a school using the Positive Behavior Intervention and Supports (PBIS) methodology. The researcher hypothesized that student discipline and school climate have an inverse relationship, and if discipline referrals went down (as they should at a school using PBIS) school climate would increase.

School climate was measured using a school climate survey provided by the Wisconsin Department of Public Instruction (DPI). The survey was administered to Northwestern Middle School's 6th grade students twice, once in the fall (October) and once in the spring (May) in order to establish a rise, fall, or no change is the students' perception of school climate. Student discipline data was tracked throughout the school year using the Skyward Educator Access Plus system and a rise, fall, or no change was noted. School climate data and discipline data were compared to see a possible correlation.

Discussion of Data

First, the past years' detention data reveals that the current (2010-11) 6th grade class is a typical group. Each class for the past three years typically had similar numbers of detention referrals, therefore the current group is typical for NMS. Second, the data reveals virtually no change in the students' perception of school climate from the beginning of the school year (October) to the near end (May). The total school climate score, obtained by adding the students' averaged individual responses, was 120.49 in the fall and 118.14 in the spring, a change of -2.35 or a 1.6% decrease. The data reveals the students' perception of school climate had an insignificant decrease throughout the course of the school year despite a 43% increase of discipline referrals (41 referrals for semester 1 and 79 referrals for semester 2).   Further, only one negative response (1 for "strongly disagree" or 2 for " disagree") was reported by students; all individual responses stayed above 3 (neutral) with the exception of question 7, which states, "I have choices in what I learn" (See Appendix 2 and 3). This single item is, perhaps, something NMS could consider looking at.

The researcher hypothesized that if discipline referrals decreased, school climate would improve and, conversely, if discipline referrals increased, school climate would decrease. The data suggests that at NMS, discipline did not have an interaction with the students' perception of school climate.

Bradshaw et al. (2008) hypothesized that a school that has implemented PBIS will have an overall better organizational health (school climate), and found, as hypothesized, that staff in schools who implemented PBIS showed improvements in several aspects of their school's organizational health. The authors report a significant growth in the organizational heath. The authors admit that the specific mechanisms by which PBIS influenced the organizational health are unknown. This study was an attempt to identify one specific mechanism (discipline) that does have an effect on students' perception of school climate and found as discipline referrals increase, students' perception of school climate remind constant. This suggests that school discipline alone does not have a significant impact on overall school climate.

As pointed out in the review of literature, several factors including student-teacher respect (and likewise teacher-student respect), quality of the building and materials, the feelings of safety, caring, and encouragement, and discipline all have an effect on school climate (Anderson, 1982; Hoffman et al., 2009; Kupermine et al., 1997; Peterson & Skiba, 2001). This study suggests that schools should not focus on discipline alone when seeking to improve students' perception of overall climate.

As discussed in the review of literature, PBIS is a behavioral system intended to thwart negative behaviors before they arise by providing a data-driven framework of behavior expectations for students to follow (Luiselli et al. 2002; Safran & Oswald, 2003; Sprague et al., 2007). Since discipline data was confidential, it could have been the case that as discipline referrals increased, referrals were only given to a few number of problem children more frequently. It is possible that as discipline referrals increased at NMS, perceived school climate remained constant because students viewed the discipline as fair and consistent with the PBIS program.

In other terms, perhaps students felt good about the school because problem behaviors of a few students were addressed and the school was perceived as being fair and safe by the rest of the students. This could be an example of how PBIS positively affected school climate. This hypothesis is consistent with the individual item breakdown where students responded to question 1, which sates, "I feel safe" with a 4 in October and a 3.93 in May, a virtual no change (Appendix 2). Further research could be done to address this hypothesis.

Further, Wang et al. (2010) found that students who perceive a more positive school climate in sixth grade had a lower probability of experiencing problem behaviors in seventh and eighth grade. Wang's study shows a relationship between school climate and discipline, that if students perceive a positive school climate, they are less likely to receive a discipline referral. A future study could follow the 2010-11 6th grade class to determine if discipline referrals decreased or remained constant as their perceived school climate remained constant during their 7th grade year.

Limitations

While this study suggests discipline did not have an effect on school climate, there are limitations to the study. First, the subjects of the study were subjects of convenience and limited to a relatively small number. As pointed out in the review of literature, there are many factors that may influence school climate (e.g.; Anderson, 2008), and such a small and non-statistical study, such as this, would be hard pressed to identify one specific area that would impact school climate.

Second, as discussed above, the rise in discipline referrals over the course of the school year could simply reflect a rise in referrals for a few problem children, not a trend of the entire 6th grade class. Since the discipline referral data was confidential, the researcher cannot rule out this possibility.

Third, with a lack of available data of discipline referrals from previous years, the researcher compared detentions assigned over the past three years to compare the 2010-11 6th grade class to previous years to establish if the class was typical for NMS. A comparison of discipline referrals may or may not have shown a similar picture of the 6th grade class. Also,

discipline data for the 2010-11 school year tracked through the Skyward Educator Access Plus software compiled data on a quarterly basis rather than month-by-month, and a monthly view would have shown discipline data at 9 points throughout the school year rather than just 4 for each quarter. This could possibly given a better idea of discipline trends, at which points discipline increases or falls, and at which points of the school year are most difficult for students to behave. This data could better aid NMS's PBIS team as they design programming for the school year.

Conclusion

School climate has a profound effect on students' lives. A positive school climate will impact students in positive ways while a negative climate will impact students in negative ways (Anderson, 1982; Hoffman et al., 2009; Kupermine et al., 1997; Peterson & Skiba, 2001). Schools should always seek to improve the way students feel about their school. This study sought to examine how one aspect of school climate, discipline, might interact with students' perception of school climate. The data suggests that at NMS an increase of discipline referrals did not have a significant impact on school climate. What this suggests is that schools should not depend on improving discipline alone to improve school climate. While discipline is important, the data suggests other mechanisms (or a combination of mechanisms) may have greater impact overall school climate. More research could be done to better identify specific mechanism (or a combination of mechanism such as discipline and safety, or discipline and quality of the building and materials) that impact school climate the greatest so that schools can best utilize their ever-shrinking resources.

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APPENDICES

Appendix 1: Sample Elementary Student Survey

Appendix 2: Elementary Student Scores in October & May

Appendix 3: Elementary Student Scores Plotted

Appendix 1

School Climate Surveys

Sample Elementary Student Survey

Answer the following questions about your school. Click "Submit" when you are done with this page.

	When I am at school, I feel:	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1.	I belong.	○	○	○	○	○
2.	I am safe.	○	○	○	○	○
3.	I have fun learning.	○	○	○	○	○
4.	I like this school.	○	○	○	○	○
5.	This school is good.	○	○	○	○	○
6.	I have freedom at school.	○	○	○	○	○
7.	I have choices in what I learn.	○	○	○	○	○
8.	My teacher treats me with respect.	○	○	○	○	○
9.	My teacher cares about me.	○	○	○	○	○
10.	My teacher thinks I will be successful.	○	○	○	○	○
	When I am at school, I feel:	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
11.	My teacher listens to my ideas.	○	○	○	○	○
12.	My principal cares about me.	○	○	○	○	○
13.	My teacher is a good teacher.	○	○	○	○	○
14.	My teacher believes I can learn.	○	○	○	○	○
15.	I am recognized for good work.	○	○	○	○	○
16.	I am challenged by the work my teacher asks me to do.	○	○	○	○	○
17.	The work I do in class makes me think.	○	○	○	○	○
18.	I know what I am supposed to be learning in my classes.	○	○	○	○	○
19.	I am a good student.	○	○	○	○	○
20.	I can be a better student.	○	○	○	○	○

	When I am at school, I feel:	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
21.	Very good work is expected at my school.	○	○	○	○	○
22.	I behave well at school.	○	○	○	○	○
23.	Students are treated fairly by teachers.	○	○	○	○	○
24.	Students are treated fairly by the principal.	○	○	○	○	○
25.	Students are treated fairly by the people on yard duty.	○	○	○	○	○
26.	Students at my school treat me with respect.	○	○	○	○	○
27.	Students at my school are friendly.	○	○	○	○	○
28.	I have lots of friends.	○	○	○	○	○
29.	I have support for learning at home.	○	○	○	○	○
30.	My family believes I can do well in school.	○	○	○	○	○
31.	My family wants me to do well in school.	○	○	○	○	○

Appendix 2

Oct. Question/ mean				May		
	3.887				3.8110	
1	3.72	0.0278		1	3.69	0.0146
2	4	0.0128		2	3.93	0.0142
3	3.57	0.1003		3	3.37	0.1945
4	3.87	0.0003		4	3.8	0.0001
5	3.98	0.0087		5	3.79	0.0004
6	3.22	0.4446		6	3.01	0.6415
7	2.47	2.0072		7	2.64	1.3712
8	4.2	0.0981		8	4.06	0.0620
9	4.05	0.0266		9	3.88	0.0048
10	3.99	0.0107		10	4.01	0.0396
11	3.52	0.1345		11	3.36	0.2034
12	3.94	0.0028		12	3.61	0.0404
13	4.3	0.1708		13	3.98	0.0286
14	4.31	0.1791		14	4.34	0.2799
15	3.7	0.0349		15	3.75	0.0037
16	3.41	0.2273		16	3.52	0.0847
17	3.8	0.0075		17	3.85	0.0015
18	4.04	0.0235		18	4.03	0.0480
19	4.02	0.0177		19	4.08	0.0724
20	4.05	0.0266		20	4.08	0.0724
21	4.08	0.0373		21	4.06	0.0620
22	4.13	0.0592		22	4.08	0.0724
23	3.75	0.0187		23	3.5	0.0967
24	3.87	0.0003		24	3.77	0.0017
25	3.9	0.0002		25	3.82	0.0001
26	3.39	0.2468		26	3.4	0.1689
27	3.5	0.1496		27	3.28	0.2819
28	4.08	0.0373		28	3.91	0.0098
29	4.17	0.0802		29	4.24	0.1841
30	4.68	0.6292		30	4.61	0.6385
31	4.78	0.7979		31	4.69	0.7727
total variance		0.1812				0.1763
standard deviation		0.4257				0.4199

Appendix 3

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. I belong.					
2. I am safe.					
3. I have fun learning.					
4. I like this school.					
5. This school is good.					
6. I have freedom at school.					
7. I have choices in what I learn.					
8. My teacher treats me with respect.					
9. My teacher cares about me.					
10. My teacher thinks I will be successful.					
11. My teacher listens to my ideas.					
12. My principal cares about me.					
13. My teacher is a good teacher.					
14. My teacher believes I can learn.					
15. I am recognized for good work.					
16. I am challenged by the work my teacher asks me to do.					
17. The work I do in class makes me think.					
18. I know what I am supposed to be learning in my classes.					
19. I am a good student.					
20. I can be a better student.					

Project Ending: 5/20/2011 ■   Project Ending: 10/29/2010 ●

Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree

21. Very good work is expected at my school.

22. I behave well at school.

23. Students are treated fairly by teachers.

24. Students are treated fairly by the principal.

25. Students are treated fairly by the people on yard duty.

26. Students at my school treat me with respect.

27. Students at my school are friendly.

28. I have lots of friends.

29. I have support for learning at home.

30. My family believes I can do well in school.

31. My family wants me to do well in school.

Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree

Project Ending: 5/20/2011   Project Ending: 10/29/2010