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ABSTRACT

This paper examines three groups of respondents (teachers, students, and principals) commonly surveyed in climate studies. The study sought to discover whether or not principals, students, and teachers agreed in their assessments of their school's disciplinary climate. The National Education Longitudinal Study of 1988 (NELS: 88) was used to create a Likert scale comprised of identical survey questions for each of the three groups. The hypothesis was that if this common measure of school climate possessed adequate reliability, schools that were ranked highly by one group would be ranked highly by the other two. Data show little evidence to suggest that students, teachers, and principals agreed on their perceptions of their school's climate. Significant differences were found among the three groups regarding specific aspects of schools' disciplinary climate. For example, students were over four times more likely than principals to see conflict among students as a significant problem. Further, the three groups viewed discipline in substantially different ways. Principals tended to have more positive images of school discipline than did teachers, who in turn were more positive than students. Researchers and practitioners should exercise a level of caution when using the concept of school climate in research and school-improvement efforts. Six tables are included. Appendices contain correlations matrices and a list of items and item names used for each analysis. (Contains 32 references.) (LMI)

ALTERNATIVE PERCEPTIONS OF A SCHOOL'S CLIMATE: DO STUDENTS, TEACHERS AND PRINCIPALS AGREE?

by

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Alternative Perceptions of a School's Climate: Do Principals, Students and Teachers Agree?

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ABSTRACT

In this paper we look at three groups of respondents (teachers, students, and principals) commonly surveyed in climate studies. When asked identical questions about the school-level climate attribute of safety and order, do these groups agree in their assessments? Using NELS:88 data, we create three scales made up of identical survey questions (one set for each school group). We then examine each scale's alpha reliability and dimensions. Next, we compute rank-order correlations of each group's judgment of its school's climate with those of the other two groups. If this common measure of school climate possesses adequate reliability, schools ranked high by one group ought to be ranked high by the other two. Finally, we divide the student, teacher, and principal rankings into five roughly equal groups and then crosstabulate each pair. The resulting tables provide the percentage of schools in which observers are in agreement (or disagreement) about the climate of their institution. We find little evidence to suggest that students, teachers, and principals agree on their perceptions of their school's climate.

ALTERNATIVE PERCEPTIONS OF A SCHOOL'S CLIMATE: DO PRINCIPALS, TEACHERS AND STUDENTS AGREE?

Overview and Objectives

"School climate" has had a checkered history. The idea that organizations possess "climates," and that those climates have significant effects on organizational processes and outcomes, is an old one. As applied to schools, the notion goes back at least to the early sixties, when the work of Halpin and Croft provided the first systematic attempt to define and measure a school's climate (Halpin & Croft, 1963). For roughly a decade following their seminal study, climate research occupied a very prominent place in studies of educational administration. For example, the Educational Administration Quarterly carried numerous studies based on the notion during the 1970s. Gradually, however, the concept seemed to fall into disuse as an analytical tool, in part, we suspect, because of the conceptual problems surrounding it, and because empirical studies raised doubts about its construct validity. Concerning the latter, investigations using the Halpin-Croft instrument frequently failed to show that climate was related to other school characteristics that, in theory, should be correlated with it (for a summary of this research, see Kalis, 1980).

Nevertheless, the notion of organizational climate in general and of school climate in particular has retained its intuitive appeal. Common parlance captures the idea when claims are made that ordinary observers can "feel" the ambiance of a school as "oppressive," "vibrant," "inflexible" or (to use the Halpin and Croft nomenclature) "open" or "closed."

More recently, the effective schools literature has again brought the concept to prominence. That literature suggests that schools in which decision making is shared, parental involvement is encouraged and a sense of discipline and decorum prevail, for example, are schools that are especially effective in achieving valued student outcomes. As in the previous era, however, research has not consistently established

links between school climate and school outcomes (see Anderson's review of the climate literature, 1982; a review of research on effective secondary schools by Bryk, Lee, and Holland (1993); and a review of the research on disciplinary climate by Gaddy (1987)).

In this paper we examine one possible reason for the ambiguity in previous research. Most studies have assumed that a school's climate is a unitary phenomenon: Each school has a characteristic climate that is experienced by different groups in the school in the same way. If teachers rate a school's climate in one way, administrators and students perceive its climate in the same way. The possibility that the same school has quite different climates, depending on the person or group doing the observing, introduces a problematic aspect into many studies. This is especially the case where a measure of a school's climate is derived from teacher ratings (a common practice), and that measure is then correlated with some student outcome. If its faculty describe a school as having an "open" climate, one in which "Teachers at this school show much school spirit" (an item from the Halpin and Croft scale), there is no obvious reason why students at that school would agree or that they would agree with an analogous item written for students. Hence any correlations between teacher ratings and student outcomes will be misleading.

This issue is not simply of theoretical interest. In recent years, in part as a consequence of the effective schools' literature, considerable effort has gone into attempts to improve school climate, on the grounds that improvements will enhance school outcomes. When it is said that a particular school lacks a "good" climate, whose judgments are to count? When the results of attempts at improvement are evaluated, how will we know if an improvement has been effected?

In this study we examine the degree to which three sets of observers in the same schools--teachers, principals and students--are in agreement about their school's climate. Our data permit us to create a measure of one important aspect of

climate (school problems relating to discipline and order) in which the three sets of observers react to an identical set of items. In this situation, do teachers, principals and students agree that their school is an orderly (or disorderly) one?

Background

Anderson's 1982 review of the literature revealed significant diversity in school climate theory, statistical modeling and research design. Combining the work of Tagiuri (1968), Moos (1974) and Insel and Moos (1974), Anderson captured both the breadth of climate dimensions, which could be sorted into one or more of four categories (ecological, milieu, social, or cultural features), as well as the theories underlying climate studies, including input-output theory, sociological theory and ecological theory.

Several of the weaknesses of climate studies cited by Anderson (1982) have been addressed in more recent research, which usually includes a wide range of variables, controls for variations in student inputs, uses a number of school outcomes and is based on a fairly complex conceptualization of climate (see, for example, Wilson & McGrail, 1987; Chubb & Moe, 1988; Cheal, 1991). Statistical models have also improved, and although debates about choice of unit of measurement continue, many of the pitfalls of earlier research are being addressed (Raudenbush, Rowan, & Kang, 1991; Raudenbush & Bryk, 1988; Bryk et al., 1993; Gaddy, 1987; Gottfredson, 1989).

Although more recent conceptualizations of climate may be more specific and more complex than earlier definitions, the two share a commonality germane to this paper: consensus. Agreement among school participants was found to be important by a variety of earlier researchers (Rutter, Maughan, Mortimore, & Ouston, 1979; Ellet, Masters, & Pool, 1978; McDill & Rigsby, 1973) and remains important (Rossman, Corbett & Firestone, 1988; Bryk et al., 1993). Rossman et al. (1988) believed that Rutter's (1979) term ethos meant tone or feel or climate and that climate is a result of

school participants' agreement about what the school is and about how people should act in it. Similarly, Kelley (1989) argued that effective schools have organizational cultures that are perceived positively by both students and teachers and that these perceptions of the culture constitute the climate of the school. He defined school culture as the characteristics and traditions of the school and of the community surrounding the school, while school climate is a relatively permanent and enduring pattern of shared perceptions (of teachers, students and community members).

The use of such terms as consensus, shared values, shared perceptions and agreement would seem to imply that teachers, students and administrators would view their school's climate in the same way. Interestingly enough, however, Rossman et al. (1988) and Bryk et. al. (1993) saw agreement among staff members, particularly teachers, as being more important than other kinds of agreement, and Bryk et al. (1993) did not assess levels of agreement among various school participants about school-level attributes.

The important point here is that researchers have been far from systematic in their use of and measurement of consensus. Anderson (1982), for example, found that climate profiles and measurement instruments differed not only theoretically, but also in terms of targeted respondents. In twelve studies, students were the only respondents surveyed. Five surveyed only teachers; five surveyed teachers and students; five surveyed staff and students; four surveyed principals and teachers; and the rest surveyed some other combination, with two involving additional input from parents. Similar results were found in a review of school improvement projects (Gottfredson, 1986) and in a review of literature devoted specifically to safety and order (Duke, 1990).

Thus, although many researchers believe that consensus is important, there still seems to be little agreement or even understanding about what students, teachers and

principals should agree about (if anything), much less to what extent they need to agree.

In spite of this gap, researchers have continued to find relationships between "climate" and various outcomes. Lee and Bryk (1993) noted that climate research in the area of discipline is particularly compelling in this regard. Disciplinary climate has been said to affect outcomes for both teachers and students (DiPrete, Muller, & Schaeffer, 1981; Myers, Baker, Milne, & Ginsburg, 1987; Lee & Bryk, 1989). Furthermore, student perceptions that discipline is unfair or ineffective is related to dropping out (Wehlage & Rutter, 1986; Bryk & Thum, 1989). Finally, Lee et al. (1989) found that safe and orderly environments exist in schools that have higher achievement and that this is particularly true for minorities.

The research just mentioned, however, does not fully or consistently address the question of agreement among students, teachers and principals; thus, methods of assessing a school's climate, or, of particular relevance to our paper, of a school's disciplinary climate, still tend to vary from study to study. This lack of consistency is troubling in light of findings that suggest that teachers, students and principals do not always perceive their environments in the same ways.

In a study which used a climate survey administered to a large sample of teachers and principals, Wiggins (1972) found that these two groups differed significantly in their perceptions of climate. Perceptions of students and principals were compared by DiPrete, Muller and Shaeffer (1981), who used High School and Beyond data for an analysis of disciplinary climate in schools. They reported that student perceptions and administrator perceptions of student misbehavior were not always consistent with student self-reports.

Teacher and student perceptions have often been compared. Payne, Ellett, Perkins, and Shellenberger (1977) found that teachers' perceptions of various climate features as measured by the *School Survey* have little in common with students'

perceptions of climate as measured by the*Learning Environment Inventory*. Ellett, et al. (1978) found that teachers' perceptions correlated more highly with school outcomes than did students' perceptions. In a study comparing responses to a climate survey by rural students and teachers, Fletcher (1986) reported that, on surveys using similarly worded items, students and teachers answered most questions similarly. Anderson (1970) showed that teachers and students in Canada differed in their perceptions of bureaucracy. Ellett, et al. (1978), using three different instruments, gathered data from a large sample of schools in Georgia and found that perceptions of various climate dimensions are markedly different for teachers and students. Paredes and Frazer (1992), in an analysis of school climate information gathered in the Austin Independent School District, reported that students and teachers had similar perceptions of school climate, although teachers tended to be much more positive in their assessments. That teachers are more positive in their judgments than students are was also found by Moos (1979), who concluded that "people who have more responsibility or control and who perform better view the environment more positively than those who have less responsibility or control and who perform poorly" (p. 262-263). Fraser (1991) summarized the research on classroom climates, which showed that students and teachers tend to differ in the way they perceive their classroom environments.

The Safe School Study (1978) provided a comparison across all three groups. In an extensive analysis of students', teachers' and principals' perceptions of their schools' levels of safety, the researchers found that students were least positive, while principals were most positive in their assessments of their schools' levels of safety. Specifically, their analyses showed that, although students and teachers provided self-reports that indicated that they had been victims of over three million crimes each month of the school year, 75% of principals perceived crime in their schools to be either no problem or an insignificant problem.

When students', teachers' and principals' perceptions of a school's climate differ (and a significant body of research suggests that they do), which group's perceptions comprise an accurate assessment of a school's climate?

Methods

Data Sources

Our data came from the National Education Longitudinal Study of 1988 (NELS:88), a study being conducted for the National Center for Education Statistics. The study was designed to address numerous research and policy issues. Most broadly, it was "intended to produce a general purpose data set for the development and evaluation of federal educational policy" (National Center for Education Statistics, 1994:8). NELS:88 followed a two–stage stratified random sampling design with schools as the first stage and students as the second. One thousand and thirty–five public and private schools participated. Beginning in 1988 (the base year), the study provides a nationally representative sample of schools containing an eighth grade.

In each school the principal completed a questionnaire asking about various aspects of his or her organization. Among the questionnaire items were 11 that asked principals to report the extent to which various forms of student misbehavior constituted problems in their school, e.g., tardiness and verbal abuse of teachers. (See Appendix A for a complete list of the items.) Principals rated these items on a four–point scale, from "Serious Problem" to "Not a Problem."

As the second stage of the sampling design, up to 36 8th grade students were randomly selected from within each school. Where the eighth grade of a school was too small to provide that number, all eligible students were selected. In all, 24,599 students, participated in the study, on average, 24 students from each school. These students are a representative sample of U.S. eighth graders in 1988. They completed a lengthy questionnaire covering various aspects of their in–school and out–of–school experiences, their family and personal lives and their plans for the future. Among the

items were the same 11 questions concerning student misbehavior that were asked of the principals.

In addition to the data from principals and pupils, two teachers of each of the NELS:88 students were selected for participation in the study. These teachers were drawn from the subject areas of English, Social Studies, Mathematics and Science. Thus, while the schools and students constitute a representative national sample, NELS:88 teachers do not. In many schools the same two teachers responded for all sampled students. In all, 5,193 teachers participated in the base year data collection, an average of 5 teachers per school. Teachers also responded to the same 11 items as principals and students regarding disciplinary problems in their building. Thus, we had 11 items, each plausibly construed as an index of the disciplinary climate of each school from three groups in a position to judge that climate.

Data Preparation and Measurement

We created three measures of each school's disciplinary climate based on the observations of the principal, students or teachers in each school. To do this we first constructed a Likert scale for each individual respondent's perceptions of his or her school's climate using the 11 items. The alpha reliabilities of these three scales were .9212, .9081 and .8757 for students, teachers and principals, respectively. We then aggregated students' and teachers' measures to the school level, using the mean within school response as our measure of the school's climate.

As noted above, our primary question concerned the degree of similarity in perceived disciplinary climate among the three groups within the same school. As our first approach to this question, we examined the distribution of each group's responses to the 11 item scales across all schools. If the three groups perceive school climate in the same way, these distributions should have similar distributions.

Next, we carried out a principal components analysis, at the individual level of the 11 items, separately for each of the three groups. We reasoned that if students,

teachers and principals had similar understandings of the nature of a school's disciplinary climate, a principal components analysis should yield a similar factor structure for each group.

Our third approach to the question of similarity was based on the mean school climate scores calculated for principals, students and teachers. We computed the rank order correlations among these three measures. If all three groups assessed the climate of their school in a similar way, these rank order correlations should be relatively high: Schools ranked high by one group should be ranked high by the remaining two.

We further examined this level of agreement by dividing the student, teacher and principal rankings into five roughly equal groups and then crosstabulated each pair: students–teachers, students-principals and teachers-principals. The resulting 5 x 5 tables provide the percentage of schools in which observers are in agreement (or di: agreement) about the climate of their institution.

Results

Do principals, students and teachers agree in their assessments of their school's disciplinary climate? To begin to answer this question, we first looked at the frequency of responses to each of the eleven questions at the individual level. The results are shown in Table 1, which represents the cumulative percent of respondents in each group that judged an item to be either a "serious" or "moderate" problem.

Note that the table does not involve a comparison of observers in the same school. Rather, it addresses the question of whether students, teachers and principals rank the same problems as moderate or serious matters in U.S. high schools.

[Table 1 About Here]

Perhaps the first thing to notice about Table 1 is that no problems are seen as moderate or serious by a majority of the respondents in any group. Further, those problems that are most likely to viewed as matters of concern are primarily the kinds of "traditional" misbehaviors of high school students that have probably characterized adolescents since the inception of compulsory education--tardiness, absenteeism and cutting classes.

Turning to the the matter of agreement among the three groups, on the one hand, Table 1 suggests that students and teachers are in close agreement on the extent to which certain kinds of misbehavior characterize U.S. schools. There are only small differences in teachers and students' perceptions of tardiness, drug abuse, absences and vandalism as problematic. For example, 39.2% of the students and 40.4% of the teachers agree that tardiness is a moderate or severe problem, a difference of only 1.2%. Similarly, teachers and principals tend to agree on the extent to which more serious misbehaviors such as physical abuse of teachers and student possession of weapons are problems, though these offenses are relatively rare, and the level of agreement is undoubtedly partly a result of a floor effect. On the other hand, there are larger disagreements between students and teachers regarding class cutting, conflicts and weapon possession. In the case of physical conflicts among pupils, for example, 42.9% of the students rate this as a moderate to severe problem, while only 27.2% of the teachers arrived at similar judgments. There were even more substantial disagreements between students and principals on the extent to which student fighting, class cutting, vandalism, theft and alcohol or drug abuse constitute problems. In all of these instances, percentage differences exceeded 20%.

Our second approach to the problem of agreement among the three groups was to consider the factor structure of each group's perception of school disciplinary climate. Do the three groups see the same underlying dimensions in the 11 disciplinary items? If consensus is a necessary component of school climate, then we

might reasonably expect them to do so. Our principal-components analysis, carried out at the individual level of the 11 items for each of the three groups, however, suggests otherwise (for correlation tables, see Appendix B). Table 2 contains the rotated factor matrices, the Eigenvalues and the percent of explained variation for each analysis.

[Table 2 About Here]

Students saw two underlying dimensions in the school problems items. One consists primarily of tardiness, absenteeism and class cutting variables; the other contains all of the other kinds of indiscipline, although the loadings for fighting were fairly even. Students seemingly do not distinguish between misbehavior involving drugs and alcohol, on the one hand, and misbehavior involving weapons, attacks on teachers, etc., on the other.

Teachers also seemed to see two components underlying school discipline problems, but these differed from those of students. Drugs and alcohol were separate. Absences, student fights, class cutting and tardiness dominated the second component, though theft, vandalism and physical and verbal abuse of teachers contributed to the same factor. The loadings for vandalism and weapons were roughly equal between the two factors.

Principals, on the other hand, like teachers, saw drugs and alcohol as a separate feature of discipline problems. They also separated weapons and physical abuse of teachers into a discrete dimension. The last component incorporated tardiness, absences, fights, theft and vandalism. Class cutting loaded fairly evenly across the three components.

These findings suggest that people's conception of a school's disciplinary climate is not unitary across the three groups. Principals seemingly have a somewhat more discriminating conception than either teachers or students. Both sets of adults

distinguish drug and alcohol abuse as significantly different from other sorts of misbehavior. Perhaps drugs and alcohol abuse are seen as causes of other sorts of student misconduct? Students lump drugs and alcohol into a single category with all other kinds of misbehavior, except attendance. Going (or not going) to class is the kind of misconduct that students distinguish most clearly. It is certainly the most common kind of misbehavior, the one many if not most students have some experience with. For principals and teachers, on the other hand, truancy may be so common as to fade somewhat into the background.

These distinguishable structures are significant, since disciplinary climate is only part of the larger notion of school climate. If the three groups differ in their conception of this one facet, there may be even wider differences when broader conceptions of climate are considered--which is commonly the case.

Our third approach to the question of agreement about school climate was to compare the rankings of students, teachers and principals. Recall that we created a single measure of each school's disciplinary climate, one for each set of observers, using a Likert scale based on the 11 items. (The measure for students and teachers was aggregated to the school level.) This permitted us to ask whether schools ranked as having a good (or bad) climate by one group were similarly ranked by the other two. Table 3, below, provides descriptive statistics about the scales as well as the results of the rank order correlations.

[Table 3 About Here]

The scale means shown in Table 3 suggest that, in general, principals have a substantially more sanguine view of pupil misbehavior in their schools than do either teachers or the students themselves. Teachers' judgments are somewhat closer to those of administrators' than they are to students'. This tendency for the adults to see

their schools in a positive light is further illustrated by the measures of skew reported in Table 3. Student ratings are symmetrically distributed around their mean. Teachers' ratings have a modest negative skew of –.7, indicating a tendency to rate their schools favorably. Principal ratings are substantially skewed (–1.4), showing a pronounced tendency to judge their school's climate in a positive way. Indeed, a fair conclusion from these results is that if one wanted to paint a rosy picture of the disciplinary climate in U.S. schools, one would do well to ask principals their opinions. Conversely, if one had the opposite goal in mind, a survey of students would be in order.

While there is a tendency for climate ratings to be biased in a positive direction, when those ratings are based on adults' perceptions, the relative level of agreement among the three groups is roughly equal. The rank order correlations reported in Table 3 are moderately high and they differ little from each other. Schools that are rated by students as having a "good" disciplinary climate are likely to be similarly rated by teachers and principals. This level of moderate agreement among the three groups is further illustrated in Table 4a to 4c. There we have divided each groups' ranking of their schools into quintiles and crosstabulated these quintiles. Schools in the diagonal, then, are those in which two groups are in agreement that their school ranks in a particular quintile, while those in the off diagonal cells are ones about which there is disagreement. The percentages in each cell are based on the total number of schools in the table.

[Tables 4a to 4c About Here]

In the case of students and teachers (Table 4a), 40.5% of the schools fall into the diagonal. In the case of teachers and principals (Table 4b), 45.4% are so situated. Finally, in Table 4c, students and principals are in agreement in only 38% of the cases. In general, then, in less than half of the cases do students and teachers, teachers and

principals or students and principals agree on the disciplinary climate of their schools. If one requires that all three groups provide similar ratings of their school, only 22% of the cases meet that criterion. If we define significant disagreement as existing when groups differ by two or more quintiles, Tables 4a-c suggest that in roughly 20% of the schools there are substantially different perceptions of school climate. Specifically, in the case of students and teachers, 16.1% of the cases were so rated, while the figures for the teacher-principal and student-principal pairs were 16.4% and 21.7% respectively.

Discussion

We introduced this paper with the observation that the notion of school climate has had a checkered history, and that currently it is playing a significant role in both the research literature and in school practice. We also noted that the idea of consensus has been a central concept in the discussions of school climate throughout its history. Several authors have suggested that a school's climate gains force as a result of the shared perceptions of its participants (e.g., Rutter et al., 1979; Bryk et al., 1993). That notion seems plausible. It is hard to imagine a powerful climate effect that does not depend on, *inter alia*, a relatively high level of shared perceptions. Presumably perceptions need to be shared within a group, such as students, if they are to impact school outcomes. Similarly, perceptions need to be shared among groups. This paper has investigated the latter requirement.

We have found that there are significant differences among students, teachers and principals regarding specific aspects of schools' disciplinary climate. For example, students were over four times more likely than principals to see conflict among students to be a significant problem in schools. Further, our principal components analyses indicate that students, teachers and principals conceive of even a relatively unitary aspect of school climate, discipline, in substantially different ways.

Finally, asked to rate this relatively unitary aspect of their school's climate, there were significant differences among the three groups.

It is also important to note that these differences were patterned. Principals tended to have more positive images of school discipline than did teachers, who in turn were more positive than students. This finding parallels that of Moos (1979) who examined teachers' and students' judgments of classroom climate.

All of this suggests that a level of caution is in order when researchers use school climate in their investigations. In many studies climate is conceived in a considerably broader fashion than here. Consider, for example, Bryk and Thum's (1989) use of school-level measures grouped into five categories, three of which purport to depict a school's normative environment. The first is teachers' commitment to the school and involvement with students, which Bryk and Thum considered to be important in developing an important school ethos or climate; the second is academic climate, comprised of such indicators as time spent on homework and student attitudes toward grades; and the third is disciplinary climate, which includes an assessment of the fairness of discipline, the level of school spirit, the level of discipline problems and the level of safety in the school. If there is a substantial lack of agreement about relatively straightforward matters such as student discipline, the level of agreement that is likely to obtain using such complex and multidimensional conceptions of a school's climate or environment becomes especially problematic.

A similar level of caution is required as practitioners set about the task of improving the climate of their schools. Were a principal to assess his or her school's climate on the basis of student responses only, would s/he have obtained an accurate assessment? Alternatively, were the same principal to query both students and teachers, what would s/he conclude about disagreements? Would they matter? Similarly, would improvements in climate assessments by one group mean that the school's climate had actually improved? This principal, having kept abreast of recent

research on school climate, culture and community, would know that researchers generally concur that cohesiveness in a school, in part a function of common perceptions, is "better" than divergence. What this principal would not know, however, because it is not provided in the research, is who should agree with whom, about what they should agree and what level of agreement is required before cohesiveness obtains. Perhaps the most troubling aspect of this is that it provides fertile ground for misconceptions.

Appendix A

NELS:88 Items and Item Names Used for Each Analysis

(The items are the same for students, teachers and principals)

Indicate the degree to which each of the following matters is a problem in your school. (Circle one on each line: Serious, Moderate, Minor, Not a Problem.)

a. Student Tardiness (Tardy)

b. Student Absenteeism (Absent)

c. Student Class Cutting (Cutting)

d. Physical Conflicts Among Students (Fights)

e. Robbery or Theft (Theft)

f. Vandalism of School Property (Vandal)

g. Student Use of Alcohol (Alcohol)

h. Student Use of Illegal Drugs (Drugs)

i. Student Possession of Weapons (Weapons)

j. Physical Abuse of Teachers (Physabu)

k. Verbal Abuse of Teachers (Verbabu)

Appendix B

Correlation Matrix for Students
N=23,223

	TARDY	ABSENT	CUTTING	FIGHTS	THEFT	VANDAL	ALCOHOL	DRUGS	WEAPONS	PHYSABU	VERBABU
TARDY	1.000										
ABSENT	.626	1.000									
CUTTING	.517	.552	1.000								
FIGHTS	.464	.497	.631	1.000							
THEFT	.378	.409	.597	.598	1.000						
VANDAL	.357	.389	.577	.563	.683	1.000					
ALCOHOL	.324	.363	.552	.516	.595	.587	1.000				
DRUGS	.318	.363	.581	.514	.614	.595	.815	1.000			
WEAPONS	.301	.348	.559	.527	.627	.622	.664	.720	1.000		
PHYSABU	.171	.230	.455	.404	.533	.527	.522	.590	.655	1.000	
VERBABU	.306	.332	.461	.488	.505	.499	.517	.521	.551	.576	1.000
MEAN	2.769	2.760	2.927	2.656	2.990	2.963	3.010	3.149	3.218	3.599	3.095
ST. DEV.	.984	.985	1.084	1.030	1.047	1.066	1.112	1.090	1.023	.880	1.033

Correlation Matrix for Teachers
N=4,993

	TARDY	ABSENT	CUTTING	FIGHTS	THEFT	VANDAL	ALCOHOL	DRUGS	WEAPONS	PHYSABU	VERBABU
TARDY	1.000										
ABSENT	.656	1.000									
CUTTING	.611	.579	1.000								
FIGHTS	.510	.513	.576	1.000							
THEFT	.445	.449	.509	.599	1.000						
VANDAL	.480	.475	.524	.565	.649	1.000					
ALCOHOL	.311	.331	.375	.392	.455	.420	1.000				
DRUGS	.378	.411	.464	.446	.503	.473	.805	1.000			
WEAPONS	.393	.398	.511	.520	.535	.495	.412	.498	1.000		
PHYSABU	.333	.326	.444	.430	.428	.426	.303	.368	.468	1.000	
VERBABU	.480	.463	.512	.581	.497	.544	.383	.605	.531	.550	1.000
MEAN	2.664	2.532	3.197	2.903	3.120	2.973	3.075	3.033	3.558	3.737	2.924
ST. DEV.	.888	.877	.821	.820	.736	.810	.796	.771	.649	.554	.899

APPENDIX B (continued)

Correlation Matrix for Principals
N=1019

	TARDY	ABSENT	CUTTING	FIGHTS	THEFT	VANDAL	ALCOHOL	DRUGS	WEAPONS	PHYSABU	VERBABU
TARDY	1.000										
ABSENT	.617	1.000									
CUTTING	.507	.513	1.000								
FIGHTS	.372	.458	.422	1.000							
THEFT	.444	.477	.478	.541	1.000						
VANDAL	.445	.477	.499	.482	.567	1.000					
ALCOHOL	.362	.380	.461	.251	.455	.414	1.000				
DRUGS	.416	.453	.554	.323	.482	.416	.810	1.000			
WEAPONS	.296	.334	.446	.395	.415	.441	.336	.430	1.000		
PHYSABU	.241	.270	.414	.323	.337	.375	.303	.356	.667	1.000	
VERBABU	.387	.404	.415	.473	.441	.427	.331	.402	.500	.480	1.000
MEAN	3.006	3.121	3.678	3.306	3.509	3.483	3.561	3.624	3.873	3.941	3.617
ST. DEV.	.783	.809	.576	.689	.610	.634	.699	.616	.411	.301	.590

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Table 1

Cumulative Percent Agreeing That a Problem is "Moderate" or "Serious" Among Three Groups

	Students	Teachers	Principals
Tardy	39.2	40.4	24.7
Absence	40.3	46.9	21.9
Cutting	33.3	17.2	4.7
Conflicts	42.9	27.2	10.0
Theft	28.5	16.8	4.8
Vandal	30.0	23.4	5.7
Alcohol	30.7	20.6	8.4
Drugs	24.9	21.4	5.9
Weapons	21.4	6.0	1.4
Physabu	10.9	3.5	.8
Verbabu	14.6	27.6	3.3
N	24,599[1]	5,193	1,035[1]

[1]Weighted

Table 2

Factor Analysis
Rotated Factor Matrices and Item Loadings

	STUDENTS		TEACHERS		PRINCIPALS		
Factors:	1	2	1	2	1	2	3
Items:							
TARDY	.105	.863	.801	.082	.753	.025	.263
ABSENT	.172	.845	.770	.125	.777	.079	.256
CUTTING	.538	.630	.765	.248	.535	.315	.438
FIGHTS	.520	.593	.722	.317	.698	.369	-.047
VANDAL	.711	.390	.595	.484	.643	.293	.289
THEFT	.711	.357	.645	.410	.626	.345	.228
ALCOHOL	.788	.257	.147	.902	.211	.157	.899
DRUGS	.828	.237	.269	.873	.281	.237	.862
WEAPONS	.834	.212	.557	.493	.209	.824	.211
PHYSABU	.815	.026	.539	.358	.103	.862	.178
VERBABU	.684	.235	.665	.368	.445	.598	.123
Eigenvalues	6.125	1.328	5.807	1.108	5.327	1.163	1.048
% of Variation	55.700	12.100	52.800	10.100	48.400	10.600	9.500
N[1]	23, 223*		4,993		1,019*		

[1]Listwise deletion in effect

*Weighted

Table 3

Rank-Order Correlations Among the Three Scales
(Students, Teachers and Principals)
(N=986)

	Students	Teachers	Principals
Students	1.000		
Teachers	.700	1.000	
Principals	.608	.684	1.000
Mean	35.7	37.6	38.7
St. Dev.	3.9	5.0	4.7
Skew	0.1	-.7	-1.4

Table 4a

Crosstablulation of Student and Teacher Judgments
of Their School's Disciplinary Climate
(Table Percentages are in Parentheses)

Students	Count / Tot Pct	Teachers 1	2	3	4	5	Row Total
	1	111.0 (11.2)	64.0 (6.5)	17.0 (1.7)	8.0 (0.8)		200.0 (20.3)
	2	54.0 (5.5)	72.0 (7.3)	38.0 (3.9)	26.0 (2.7)	5.0 (0.5)	195.0 (19.8)
	3	15.0 (1.6)	53.0 (5.4)	50.0 (5.0)	48.0 (4.9)	30.0 (3.0)	196.0 (19.9)
	4	13.0 (1.3)	16.0 (1.7)	58.0 (5.9)	65.0 (6.6)	50.0 (5.1)	202.0 (20.5)
	5			29.0 (2.9)	62.0 (6.3)	103.0 (10.4)	193.0 (19.6)
	Column Total	193.0 (19.6)	205.0 (20.8)	192.0 (19.5)	209.0 (21.2)	188.0 (19.0)	987.0 (100.0)

Table 4b

Crosstablulation of Teacher and Principal Judgments
of Their School's Disciplinary Climate
(Table Percentages are in Parentheses)

Teachers	Count / Tot Pct	Principals 1	2	3	4	5	Row Total
	1	107.0 (10.8)	58.0 (5.8)	21.0 (2.1)	6.0 (.6)	1.0 (.1)	193.0 (9.4)
	2	48.0 (4.9)	101.0 (10.2)	27.0 (2.8)	18.0 (1.8)	10.0 (1.0)	205.0 (20.6)
	3	17.0 (1.7)	52.0 (5.3)	37.0 (3.7)	54.0 (5.4)	32.0 (3.2)	192.0 (19.4)
	4	7.0 (.7)	28.0 (2.8)	31.0 (3.1)	67.0 (6.7)	77.0 (7.7)	209.0 (21.0)
	5		3.0 (.3)	21.0 (2.1)	32.0 (3.2)	139.0 (14.0)	194.0 (19.5)
	Column Total	179.0 (18.0)	241.0 (24.3)	137.0 (13.8)	176.0 (17.8)	259.0 (26.1)	993.0 (100.0)

Table 4c

Crosstablulation of Student and Principal Judgments
of Their School's Disciplinary Climate
(Table Percentages are in Parentheses)

	Count / Tot Pct	Principals 1	2	3	4	5	Row Total
Students	1	102.0 (9.9)	71.0 (6.9)	18.0 (1.8)	12.0 (1.2)	2.0 (.2)	205.0 (20.0)
	2	54.0 (5.3)	68.0 (6.6)	39.0 (3.8)	29.0 (2.8)	16.0 (1.5)	206.0 (20.1)
	3	17.0 (1.6)	72.0 (7.0)	33.0 (3.2)	29.0 (2.8)	53.0 (5.2)	204.0 (19.9)
	4	12.0 (1.2)	31.0 (3.1)	32.0 (3.1)	64.0 (6.2)	68.0 (6.6)	207.0 (20.1)
	5		6.0 (.6)	25.0 (2.5)	49.0 (4.8)	124.0 (12.1)	205.0 (19.9)
Column Total		185.0 (18.0)	249.0 (24.2)	148.0 (14.4)	183.0 (17.8)	263.0 (25.6)	1028.0 (100.0)