SEARCH INSTITUTE'S
CREATING A GREAT PLACE TO LEARN SURVEY:

A SURVEY OF SCHOOL CLIMATE

TECHNICAL MANUAL

STUDENT SURVEY
STAFF SURVEY

Search Institute
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Search Institute
615 First Avenue NE
Suite 125
Minneapolis, MN 55413
1-800-888-7828
www.search-institute.org

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Acknowledgements

Development of the *Creating a Great Place to Learn* surveys occurred over a several-year period and involved numerous Search Institute staff, as well as thousands of middle and high school students and school staff in multiple locations across the country.

Former Search Institute Research Scientist William Mesaros, Ph.D., developed the initial survey draft, oversaw the extensive pilot testing process, and drafted the initial version of the Technical Manual. Subsequent to the pilot testing, former Search Institute Education Director Judy Taccogna, Ed.D., provided numerous suggestions for item revisions to improve the validity of the survey content. Peter C. Scales, Ph.D., Senior Fellow in the Office of the President, oversaw the field testing, statistical analyses, and final revisions to the survey, and managed the revision and completion of the Technical Manual. Former Survey Services Coordinator Faith Dietz managed the implementation of the field testing, and Senior Analyst/Programmer Karen Bartig worked with Mesaros and Scales to conduct all the extensive analyses in both the pilot and field test phases. Over the four years of this project, Search Institute President Peter L. Benson, Ph.D., Director of Community Change Marc Mannes, Ph.D., Dirtector of External Relations Mary Ackerman, Survey Services Manager Deb Grillo, Senior Projects Editor Kay Hong, Administrative Manager of Research Applications Jean Wachs, Senior Manager of Client and Field Services Lynette Ward, Applied Developmental Scientist Arturo Sesma, Jr., Ph.D., Director of Research Applications Pat Seppanen, Ph.D., and Senior Training Consultant Clay Roberts all contributed significant critiques and suggestions that immeasurably improved the surveys and helped shape the CGPL survey report and this Technical Manual.

INTRODUCTION

Proponents of school reform over the last couple of decades have generally focused on one of two theoretical streams of thought. One has stressed the need to create academically challenging environments for all students. The other has argued that schools need to meet the psychosocial needs of students if they are to succeed (Phillips, 1997). With its stress on accountability, high academic standards, and improving teacher quality, the No Child Left Behind Act clearly puts its imprimatur on the first. An extensive review of the research tells us that, in fact, both matter, and that a positive climate is linked with academic success.

But care and support, while inextricably linked to creating a positive learning environment, do not suffice alone to bring about academic achievement without attendant rigorous academic expectations. Battistich et al (1995), using a diverse sample of 24 elementary schools, found that although a caring, school climate improved academic attitudes and motivation, the general effects on academic achievement (reading and mathematics) were insignificant. The one exception to this was a significant, positive effect of positive school climate on reading comprehension for fifth and sixth-graders.

Shouse (1996), using data from the First Follow-Up survey of the National Education Longitudinal Study of 1988, found that among schools with low SES, high communality (shared beliefs, common agenda of activity, and ethos of caring) produces positive achievement effects only when combined with high academic press. High communality paired with low academic expectations in low-SES schools produces the lowest levels of achievement. This latter effect was not found for high-SES students presumably because the press for academic achievement is present more broadly in the lives of those more affluent students irrespective of whether it exists in the school they attend or not.

In an analysis of 23 middle schools in a predominantly African-American, suburban county in the eastern United Sates, Phillips (1997) found that academic expectations and amount of time spent on homework significantly impact mathematics achievement. Phillips did not find such an impact for communitarian climate. Of specific import in her findings is that the relationship between seventh and ninth grade mathematics scores weaken in the presence of high academic expectations and strong effort applied to homework. That is, students with low performance are not necessarily destined to remain low achievers. Students with low marks in mathematics in an earlier grade can improve their scores with solid effort and participation in an academic environment in which students are expected to do well.

High academic expectations can come from parents and/or the community at-large. Additionally, or alternatively, they can come from the prevailing school culture, which may be a highly significant source of expectations in low-income communities. In the Shouse (1996) study, high academic expectations at low-SES schools had three times the impact on achievement than it did in high-SES schools. As Shouse states, "high academic press schools send strong messages to their members, infusing activities with purpose and signaling that intellectual endeavors really matter" (p.50).

Adding some depth to the notion of academic press, research has shown that an optimum learning environment for any individual is one where the subject matter is only slightly more difficult than the student's current level of understanding. If it is too easy, the student loses interest. If it is too hard, the lack of comprehension tends to dissuade further effort (Lepper & Hodell, 1989; McCaslin & Good, 1996).

On the other hand, while rigorous academic requirements, quality curricula, and good teachers are necessary ingredients for creating positive learning environments, they are not sufficient by themselves

either. The social dimension in which learning occurs cannot be ignored because it is within the context of learning that relationships are forged, behavior is modeled, and incentives are created. All the money in the world, the highest standards of accountability, and the best teachers cannot make an imprint if students don't feel like they belong, lack confidence, see schooling as irrelevant to their future goals, or are not supported in their need for self-determination. When students possess these developmental nutrients, they are supported in their motivation to learn. Becoming literate and numerate, then, is the result not only of good teachers and high academic standards but also the result of students feeling connected, supported, and empowered, and hence, motivated.

Hoy & Feldman (1999), in a discussion about healthy schools, summarize these dynamics in stating that:

> True, the health of a school can be positive and student achievement not high, but when healthy interpersonal dynamics are linked with a press for achievement – that is, high but achievable student goals are set; the learning environment is orderly and serious; teachers believe students can achieve; and students are committed to doing well – schools are successful and students achieve at high levels (p. 98).

Features of learning environments that encourage students to embrace learning

In our taxonomy, there are two primary dimensions under which various school climate dimensions are grouped: relationships and organizational attributes. While overlapping to some degree, each is sufficiently distinct conceptually to warrant the separate categorization. Both have relevance to the school as a learning environment and school as a work environment for staff.

Supportive relationships with staff, a sense of belonging, peer academic norms that are conducive to effort and persistence, parental support, a sense that school policies and practices are fair, and a perception of safety are necessary components of a positive school climate. Organizational attributes, such as high expectations for all, a task mastery learning orientation instead of a relative ability focus, order in the classroom, and students viewed as resources so that they can become more self-determining within school as well as outside of it are additional key elements. When these dimensions are combined with good teachers, proven or promising curricula, and rigorous academic requirements, schools create the conditions for self-directed learners to emerge because students are motivated to learn.

All of the precursors are considered essential to creating self-motivated learners. Whereas a student can be self-confident in her abilities, she may not be motivated to achieve due to a salient distaste for the context of learning and/or a perception that the subject matter is irrelevant to her future goals. Alternatively, a student can feel as if she belongs, has positive personal relationships, comfort with the learning orientation, and a belief that education is relevant, yet she does not possess the necessary skills and self-confidence needed to thrive.

For staff, relationships are positive when there is a sense of collegiality present in the environment, safety is not an issue, parental involvement is positive, and students are committed to learning. When these relational elements are combined with organizational attributes, such as support for instructional improvement that includes staff development and the encouragement of innovation, policies and practices that are perceived as fair and consistently applied, and giving staff a voice in the decisions that impact them, staff will tend to feel more efficacious and highly committed.

In the following chapters, we elaborate on this sketch. In Chapter 1, we discuss the idea of school climate, the transactional nature of learning environments, the major influences on achievement, and the bottom line: how much does school climate matter and for whom? In Chapter 2, we discuss each of the school climate conditions that promote achievement. In Chapter 3, we focus on the school work climate experienced by teachers, administrators, and other school staff.

Why another school climate instrument?

This school climate survey was created in order to more strongly emphasize the role that the developmental assets play as shapers of student learning.

Other quality school climate surveys are available and have influenced the Creating a Great Place to Learn survey. They too stress the overall importance of assessing climate for the purpose of school improvement and contain many of the same conceptualizations of the important climate constructs. However, each of these instruments emphasizes slightly different aspects of school learning environments.

The National Association of Secondary School Principals created The Comprehensive Assessment of School Environments (Halderson et al, 1989). This set of instruments makes the important distinction between student satisfaction and school climate. Essentially students can be satisfied but not productive. Shared perceptions of school climate are treated as a mediating condition between various social environmental, organizational, and individual characteristics, and student achievement.

Gottfredson's (1999) Effective School Battery reports on a variety of student and teacher characteristics and facets of school climate. The individual characteristics are intended for use as grouping variables. The instruments are designed to "stimulate action to improve school programs and provide a basis for ongoing monitoring of accomplishment" (p. iii).

The Yale Child Study Center's School Development Program (Haynes et al, 2001) has also created a set of climate surveys for students, staff, and parents that grew out of the work of James P. Comer. As with our survey, the Yale surveys provide information that is viewed as vital to understanding the dimensions where a school is strong and where it needs improvement.

Other examples of climate assessment instruments can be found in Hoy and Feldman's (1999) Organizational Health Inventory and Fraser's (1999) School-level Environment Questionnaire.

The *Creating a Great Place to Learn* survey includes not only climate measures but developmental outcome measures as well, including sense of belonging, achievement motivation, and academic self-efficacy. The developmental assets needed to do well in school can be acquired from a variety of sources: schools, parents and families, peers, media and other cultural influences, etc. In reality, students acquire these in myriad combinations sparked by their abilities, interests, environment, and exposure to significant others. For most young people, schools are one of the most important sources of these development nutrients. Our emphasis on these Developmental Assets as a key feature of school climate is what sets this instrument apart from other school climate measures.

CHAPTER 1

Development of the *Creating A Great Place to Learn* Survey

School climate is the relatively enduring pattern of shared perceptions which participant groups have about the characteristics of the school social and learning environment (Moos, 1979). While the school environment as a whole includes physical and aesthetic features, financial variables, curricular content, and instructional quality, climate is interpreted by the people in a school. It is an indirect determinant of behavior because it affects personal attributes and characteristics such as motivation, which, in turn, serve as the immediate causes of behavior (Tagiuri, 1968).

The *Search Institute Creating a Great Place to Learn* survey focuses solely on the psychosocial and learning environment as experienced by students and staff. Perceptions about school environments are influenced by and arise from the interactions of the physical and aesthetic features of the school, organizational policies and rules, student and staff cultures, student and teacher characteristics, and parental values and involvement. While perceptions do not necessarily equate with truth, perceptions matter. They matter because humans function through perceptual screens. If they perceive fairness, for example, they act in one way. If they perceive a lack thereof, they function accordingly. The phenomenological approach taken in CGPL attempts to capture what it feels like from inside the school environment through the eyes of those who know best.

As Ashforth (1985) points out, strictly speaking people do not "perceive" such school climate attributes as "support" or "order" but they infer them from objective referents. The perception of "support" or its lack thereof arises from myriad instances where an individual's own experiences and those of others solidify to create an impression of the environment. By amalgamating the perceptions of many school members, we get a general sense of whether "support" is considered to be present for the majority as well as for various subgroups.

Variables such as financial inputs, instructional quality, and the cognitive capabilities of the students surely matter for student achievement. But a school's social and learning climate has value because it serves to mediate between them and student achievement. Research has long shown that the same individual can exhibit substantially different behavior across settings (Moos, 1973, Rutter et al, 1979). Evidence suggests that individual student and staff performance is partially contingent upon the felt nature of their school or work climate. Therefore, changing that environment can affect the productivity of staff and students.

Rudolf Moos and his associates studied a variety of human environments, including workplaces and schools. Although he developed a different climate scale for each, they all shared the same three dimensions: relationships, system maintenance and change, and personal development (Moos, 1973). In this schema, the relationship dimension assesses involvement in the environment and the extent to which individuals support and help one another. System maintenance and change refers to the day to day functioning of the system as well as the manner in which it addresses change. The personal development dimension pertains to the self-enhancement aspects in a particular environment (Moos, 1973; Moos, 1979).

Young people are not simply affected by their schools' climate—young people themselves shape that climate. Developmental systems theory holds that people and environments exert reciprocating influences on one another (Moos, 1979). As such, learning environments are ecological in that all elements of the system contribute to its functioning. In turn, each person is affected by the interactions that take place within. At the level of the individual, how one fares depends on the person-environment fit. Personality

type, learning or teaching style, and aptitudes all come into play. Any given environment will tend to work to the advantage of some students and staff but not others. From a systemic and utilitarian perspective, therefore, the pragmatic question is how to create rigorous learning environments that motivate the greatest number of students and staff to give their best?

Before discussing the environmental factors, it is essential to acknowledge that non-school variables play an instrumental role prior to as well as concurrent with what goes on in a school setting. Parental support and achievement values affect students' capability beliefs and motivation (Marchant, Paulson, Rothlisberg, 2001; Juang and Silbereisen, 2002). Peer relationships , and specifically, peer norms or expectations about academic achievement, can serve to foster academic achievement or thwart it (Ryan, 2000). Personal achievement motivation plays a role too. Possessing an intrinsic appreciation of learning and inquisitiveness as well as believing that education has a long-term market or utility value motivates students into behaviors that comport well with a positive learning environment. Hence, students potentially bring with them attributes that can be conducive to creating positive learning environments.

School Climate Dimensions that Contribute to Healthy Development and Achievement

Besides these factors that have their origin outside of the school, various dimensions of school climate contribute to developing the necessary developmental assets needed to thrive in an educational environment. Relationships within school are the emotional currency by which all learning takes place. Are staff supportive? Are staff being supported? Are students supporting one another? Is the system perceived as fair? Are individuals treated as individuals or members of groups viewed with steroetypical expectations? Do staff function collaboratively? The various constituencies within a school environment share common motivational needs, and the fulfillment of those needs partially rests upon others within the system (Connell & Wellborn, 1991).

Environments that are safe and orderly are foundational to a positive learning environment. It is difficult to imagine how learning as a goal to be sought and prized can arise or be sustained in an environment that does not allow staff and students to feel safe on a daily basis.

The prevalence of bullying will always call safety into question. Bullying and other anti-social behavior among youth often arise from contextual influences that originate outside the school. Poor parenting practices dispose youth to such behavior and immersion in peer groups with similarly disposed individuals only serve to amplify such anti-social proclivities. However, the school climate can act to foster such anti-social behavior or function as a countervailing force. Anti-social youth are nurtured in environments that predispose them to act in ways that are aggressive. Their relationships with adults often involve coercive discipline, lack of consistent rules and structure, minimal monitoring, low levels of affection, and few positive reinforcements. Teacher behavior can exacerbate conduct problems by focusing on negative behaviors instead of reinforcing positive ones. Ineffective school practices, such as tying grades to behavior, can aggravate the student's alienation from school and learning (McEvoy & Welker (2000).

In a nationally representative sample of students in grades 6 through 10, Nansel et al (2001) defined bullying as including being belittled about race, religion, looks, or speech; being physically assaulted; being the subject of rumors or lies; and being the subject of sexual comments or gestures. Bullying was more prevalent among boys than girls and more prevalent in middle school than high school students. In fact, the prevalence of bullying decreased with grade level. Boys were more likely to report being physically assaulted with females more likely to be the subject of rumors or sexual innuendo. Interestingly, verbal bullying about race or religion was not common. Students who reported being victims of bullying report

more loneliness, lower self-esteem, and difficulty making friends. Having friends in school, in turn, is associated with a greater sense of belonging, which in turn is related to better achievement (Goodenow, 1993b.)

Research shows that academic failure and anti-social behavior are consistently related. Students who experience continued academic failure lose any sense of buy-in or bonding to school that they might have once possessed and may express this in anti-social ways. Such behavior creates a sense of disorder that negatively impacts the other students (and staff) (McEvoy and Welker, 2000). However, a structured and supportive school climate may work to counter negative influences and promote prosocial behaviors (Reinke & Herman, 2002).

In addition, there are a variety of organizational attributes that either tend to encourage or discourage positive development. School policies and practices create structural incentives. Organizational cultures emerge when personality and skill types drawn to a setting seek to function effectively within the bounds established by those incentives. School leadership as well as dominating staff cultures help frame a learning goal orientation that places a premium on either relative ability or task mastery. Furthermore, schools establish academic expectations or sets of expectations that shape the felt social norms within the school, including expectations that certain students can learn and that certain others cannot. Administrations can be more or less supportive of staff development and innovation. All these operative elements coalesce to form a learning environment. Students and staff, as individuals, will thrive or not depending upon various personal characteristics and their fit with the prevailing system. Finally, healthy and productive learning systems take the voices of all members into account. Students and staff who feel they have a "say" in what goes on at a school or more likely to feel connected and motivated, and thus to perform at higher levels.

Outcomes of Positive School Learning Environments

Research suggests that only 25% of the variability in achievement outcomes can be explained by cognitive ability as measured by scores on intelligence tests (Neisser et al, 1996). So what accounts for the rest? Factors such as motivation, persistence, and a feeling of academic self-efficacy are essential. The issue before educators, then, is to create a learning environment that promotes these known precursors of self-directed learning.

Positive school learning environments create the conditions whereby students and staff are more likely to be motivated to excel, achieve, and be productive. School members exhibit such motivation when their fundamental needs are met. What are those fundamental needs? Work done at the University of Rochester by Edward L. Deci, Richard Ryan and colleagues on motivation and self-determination theory articulate three innate human needs: the needs for competence, relatedness, and autonomy or self-determination (Deci et al, 1991; Ryan & Stiller, 1991; Ryan & Powelson, 1991). In their words:

> Competence involves understanding how to attain various external and internal outcomes and being efficacious in performing the requisite actions; relatedness involves developing secure and satisfying connections to others in one's social milieu; and autonomy refers to being self-initiating and self-regulating of one's own actions. (Deci et al, 1991, p. 327)

Connell, Gambone, and Smith (2001) write that the developmental outcomes to youth of meeting such needs include a sense of connectedness, the ability to be productive, and the ability to navigate successfully in the multiple contexts of family, school, peer group, and community.

Furthermore, we cannot ignore the importance to achievement motivation of students' perceived relevance of schooling. Can we really expect students to persist in their studies if they do not see the personal market or utility value of doing so? Students need to believe that the subject matter is relevant to their future goals. Otherwise, the value of pursuing education can be all too easily shortchanged if not dismissed entirely.

A primary value of a positive school climate, then, is that it can serve to create the conditions whereby its school members become confident in their abilities, feel that they belong, see the value of education, and possess a healthy degree of self-determination in their learning environment. These needs are instrumental in creating a motivated and engaged student body as well as a dedicated and high quality staff.

The Bottom Line

Assessing a school's social ecology is a complex undertaking. The bottom line for focusing on the social context of learning is that behavior is a function of how an individual perceives a situation (Ashton & Webb, 1986). While some students excel in school climates that leave much to be desired from a developmental assets perspective, many students do not. Some who excel are propelled by an extraordinary thirst for knowledge while others simply thrive in the prevailing system. Other students feel shortchanged by that same climate, which can effectively serve as a deterrent to motivation.

Improving school climate will likely benefit most the disaffected yet cognitively able student. These students commonly dislike school and continually fail to excel in their current learning environments. Some students don't thrive in relative ability environments, in which academic competition with others is stressed. They are less likely to benefit from their mistakes because showing that they have made them simply highlights their deficiencies (Moos, 1979). Some simply don't feel like they belong. Still others lack a strong sense of academic self-confidence because they learn best in a style not stressed or operational in a particular school. A positive school climate for these students helps increase the enjoyment of school, the view of mistakes as opportunities to learn, and school, and by extension learning, as something not lee at the first opportune moment. Thus, a positive school climate does not simply add value to emphasis on academic quality—positive school climate makes academic quality more likely.

To increase the likelihood of reducing achievement and performance gaps and truly make sure no child is left behind, academic goals and test scores ideally should be linked to assessments of school climate and developmental assets. By aggregating the perceptions of many school members, a school can take the pulse of its students' learning environment and determine the relative presence of those developmental assets for both the general student body as well as for various subgroups of students. Such information can function as an ignition switch for a school community to better meet the developmental needs of its students. Since these developmental needs are instrumental to creating a motivated and engaged student body, a school increases its likelihood of meeting its educational goals if it attends to building these key developmental assets through nurturing a positive school climate.

Additionally, assessing school climate from staff's perspective obtains valuable insight from the adults in the environment. Such input can introduce a more sustained dialogue about the school and its strengths

and weaknesses. Staff who believe that their voice is important are more satisfied and committed. They are likely to be motivated to create positive learning environments for their students.

Overview of The CGPL Survey

Eleven dimensions in the students' survey and 17 dimensions in the staff survey (listed and defined in Table 2, Chapter 2) are used to measure the relationships within the school, the presence of selected organizational features, and indicators of personal development. The dimensions pertaining to relationships focus on the various two-way relationships within a school. Students interact with teachers and other staff and among themselves. Staff relate with the administration, other teachers, students, and parents. Each of these relationships will affect how a school member feels about the social and learning environment and ultimately how one performs in it.

The survey also measures organizational attributes of the school that are directly impacted by policies, practices, and prevailing school norms. For students, the survey assesses whether the environment is perceived as safe and orderly. Furthermore, the survey measures whether students feel treated as resources to be nurtured and utilized. This is of fundamental importance in the development of personal autonomy because students who have "voice" in the school setting are more apt to be strategic agents in their own learning. The survey also measures the overall emphasis students feel is given to the importance of doing well academically, or academic expectations.

For staff, among the organizational attributes assessed are the perceived fairness and consistency of policies and practices with a heavy emphasis on disciplinary policy. Also measured is support for instructional improvement, and resource adequacy. Ultimately, a school's prevailing relational temperament and organizational attributes will affect various psychological precursors of achievement and productivity. Are students motivated to perform to the best of their abilities? Do staff have a strong sense of efficacy in their professional roles? Are they satisfied and committed employees?

Figures 2 (students' learning climate) and 3 (staff's work climate) in the Appendix graphically portray how the various dimensions of school climate—and other school, student, family, and staff characteristics—exert reciprocal influences on one another to affect student achievement. At this introduction of the CGPL surveys for use, these are hypothesized models based on what we know from previous research. As the aggregate database grows of communities and schools using the surveys, it will be possible to test the validity of these models.

Pilot Testing

The scales measuring the school climate dimensions and the personal development outcomes for both students and staff were developed over the course of a 4-phase project over four years with the help of various public and private schools across the country. Table 1 lists the schools involved, the number of students and staff taking the survey, and the phase of survey development.

Table 1			
Pilot and Field Test School Sites			
Location	**Phase**	**Students**	**Staff**

Menomenee Falls, WI	1	91	20
Kirkwood, MO	1	188	26
St. Paul, MN	1	53	10
Maplewood, MN	1	79	25
St. Louis, MO	1	641	63
Fargo, ND	1	246	45
Chicago, IL	1	90	22
Houston, TX	2	490	23
St. Louis Park, MN	2	632	25
Ellicott City, MD	3	489	0
Phillips, WI	3	354	32
Rosemount, MN	3		116
Fulton, MD	3	549	0
Houston, TX	3		3613
Fargo, ND	3	284	44
Alhambra, CA	4	2140	318
		6326	**4382**

Students in the schools listed took various versions of the survey but essentially the item testing occurred in four phases. Initial funding was received from Thrivent Financial, formerly Lutheran Brotherhood, to develop a school climate survey for Lutheran schools. Seven middle and high schools from five states took part. This phase included surveys for students, staff, and parents.

With a reformulated theory treating school climate as a learning environment for students and as a work environment for staff, fundamentally new surveys were piloted at schools in Houston, Texas and in St. Louis Park, Minnesota. The survey employed a 4-point Likert scale plus a 'Don't know' option. Based on feedback and survey analyses, more item changes were made. The scale was also changed to a 5-point response option. The "don't know' response option was dropped.

Phase three involved schools in Ellicott City and Fulton, Maryland; Phillips, Wisconsin; Houston; and Fargo, North Dakota. While there were variations in the surveys received by these schools, they were relatively minor. Each administration of the survey allowed us to experiment with slight word modifications and a small number of new items. For initial reliability and validity analyses, we used the Maryland, Texas, Wisconsin, and North Dakota schools for the students and the Texas school for staff. We were able to survey 3613 staff on 40 campuses in the Houston School district. Because of the large number of staff and the demographic diversity of that district compared to the other schools that administered staff surveys, we decided to base our initial reliability and validity analyses for the staff survey on that school district alone.

Final Revision and Field Testing

Phase 4 involved further internal review, revision, and subsequent field testing of the final surveys. The Creating a Great Place to Learn surveys are intended both to help schools mobilize to become more developmentally-attentive places for students and staff, and to serve as tools for research. Often, there is an inherent tension between those purposes. For example, the relevant literatures highlight many important dimensions of a positive school climate and the importance of numerous developmental assets necessary for doing well in school. But application of factor analysis to the phase 3 pilot results suggested that a number of dimensions that are distinct conceptually, and are important in people's understanding of "climate", should be eliminated because they correlate highly with other dimensions and/or load on the same factors. That is, they are mathematically redundant.

From a purely scientific standpoint, the resulting streamlined model of school climate is sufficient for research purposes. But from a "face validity" perspective, the most efficient mathematical model may not well serve the purposes of mobilizing members of a school community to improve climate.

For example, among the dimensions initial pilot analyses suggested could be dropped—mathematically—were Safety, Active Learning, Peer Academic Influence, and Parental Support and Achievement Values. Yet few if any school stakeholders, especially those with responsibility for results, would find credible a tool that failed to measure such clearly important dimensions, regardless of whether their presence made the survey less efficient. Ultimately then, a number of items and whole dimensions that had been dropped in the name of survey efficiency were reinstated to maintain the survey's face validity with key stakeholders, and its value as a communication and mobilization tool for school communities.

Additionally, a number of new items were developed after the pilot testing in order to ensure that the developmental assets framework was more fully reflected in the survey. Finally, readability analysis suggested that many items needed to be reworded to be understandable to students with lower reading levels. Thus, even though the initial pilot testing suggested good internal consistency reliability and evidence of validity for the survey measures, these revisions, in combination, were sufficiently extensive that new field testing of the final revised instrument was called for. That field testing took place in Spring 2005, followed by final revisions that resulting in the surveys described here.

CHAPTER TWO

STUDENTS—SCHOOL LEARNING CLIMATE MEASURES

The school climate dimensions in the *Creating a Great Place to Learn* survey were chosen as a result of an extensive review of the school climate research literature. Although the student survey does not represent all possible environmental influences on young people as students, it does capture those most prevalent in the research literature and those found to be most significant. The dimensions and their definitions are displayed in Table 2.

Table 2. Definitions of the Dimensions of Positive School Learning Climate

Categories	School Climate Dimensions	Definitions
Relationships		**The intrapersonal dynamics between students and staff, and between students and parents.**
	Caring and Fair Staff	Staff support and listen to students, and treat students fairly.
	Parental Support and Achievement Values	Parents provide help, encouragement, and high expectations for achievement.
Organizational Attributes		**School policies and practices, and the structural organization of the school.**
	Student Voice	Students participate as valued contributors to the school community and its decisions.
	Safety	Students feel physically safe and report that bullying is both unusual and responded to by staff and students when it occurs.
	Classroom Order	The classroom environment is characterized by respect and minimal distractions or interruptions.
	Academic Expectations	Doing well academically is an important value of the school culture.
	Peer Academic Influence	Friends and other students support the importance of academic achievement.
	Active Learning	Students are actively engaged in learning.
Personal Development		**The elements in a school that foster personal connections, competence, and confidence.**
	Sense of Belonging (O)	Students feel connection to and membership in the school community.
	Motivation (O)	Students have the desire to succeed academically.
	Academic Self-Efficacy (O)	Students believe that they are able to succeed academically if they try.

(O) indicates that this is an outcome of positive school climate as well as a dimension of it.

Table 3 below shows how the dimensions reflect the eight categories of developmental assets. For each item in the survey, students chose among the response options of Strongly Disagree, Disagree, Neither Agree nor Disagree, Agree, and Strongly Agree.

Note that the items in the CGPL survey do not measure the assets. Other Search Institute surveys actually measure the developmental assets (for 6th-12th grade, the *Search Institute Profiles of Student Life: Attitudes and Behavior* survey; for 4th-6th grade, the *Search Institute Me and My World* survey), or the asset categories (the *Search Institute Developmental Assets Profile*).

Table 3. Alignment of Developmental Asset Categories and School Learning Climate Dimensions

Developmental Asset Categories	***School Learning Climate Dimensions***
Support	Caring and Fair Staff Classroom Order Parental Support and Achievement Values Sense of Belonging
Empowerment	Caring and Fair Staff Safety Student voice Sense of Belonging
Boundaries and Expectations	Caring and Fair Staff Classroom Order Safety Peer Academic Influence Parental Support and Achievement Values Academic Expectations Sense of Belonging
Constructive Use of Time	Sense of Belonging
Commitment to Learning	Active Learning Motivation Sense of Belonging
Positive Values	Caring and Fair Staff Parental Support and Achievement Values
Social Competencies	Safety Classroom Order Sense of Belonging
Positive Identity	Motivation Academic Self-Efficacy

Description of the Student School Climate Dimensions

Caring and Fair Staff

Central Park East Secondary School in Harlem became one of five schools designated a New American High School in 1996 by the US Department of Education and the first school in the Coalition of Essential Schools. One of the unique elements about that school is said to be its caring environment—but that "caring" reflects not only a warm environment, but also an "extraordinary respect for young minds and potential" (Raywid, 1999).

Building relationships and being well known by one or more adults in school appear repeatedly as critical elements for school learning. For example, an education collaborative composed of eleven major educational professional organizations states: "At least one staff member should know, without looking at a file, whether the student is thriving or struggling, who her friends are, whether her parents support her learning, and whether she is involved in safe and productive activities outside of school hours" (Learning First Alliance, 2001).

Many educators and researchers are advocating for smaller schools to enable such student-staff connections to develop. Suggesting that personalization can make every school a "small school," Vander Ark further contends that "powerful sustained adult relationships may be the most important countervailing strategy to poverty. Although there are many ways to organize such relationships, every student deserves a single point of contact at school: an adult who acts as an adviser and advocate" (Vander Ark, as cited in Educational Research Service, 2002). Such personalization is an important part of the approach taken by the Coalition of Essential Schools model (Sizer, 1999).

The construct of "caring and fair staff" is intended to measure the degree of perceived support, respect, and fairness found in the learning environment. Though these are to some degree separable concepts, they are so intertwined in one's perception of the nature of relationships that for practical purposes they are grouped together. Furthermore, factor analysis showed that these items loaded onto the same school climate dimension.

This sense of care and positive relationships with others is integral to a school's climate, making it more likely that everyone will enjoy being in school and feel connected to those around them. Indeed, attention to building quality, caring relationships—among students, between students and staff, between staff and parents, and among staff—lies at the heart of an asset-building approach.

Support, both emotional and academic, is a key component of a positive learning environment. Sanders (1998) found that when students perceived parental and teacher support for school success, their belief in the value of education rose. In a study of middle grades students (grades 7-9) in Saskatchewan, Canada, MacIntosh (1991) found that students' sense of academic support was the dominant determinant of student-reported social climate.

Perceived support has been shown to be more highly correlated with well-being than with tangible evidence of support or social connections (Procidano & Heller, 1983; Vaux et al, 1986; Malecki et al, 2002). Turner et al (1983) defined perceived social support as "the clarity or certainty with which the individual experiences being loved, valued, and able to count on others should the need arise" (p.75). This

conceptualization is important because it allows for the fact that the need for support varies from person to person as well as within persons across time.

Support from teachers, parents, and peers is also strongly related to student engagement. In a study of high school juniors and seniors, Freese (1999, as cited in Osterman, 2000) found that teacher caring accounted for 47% of the variance in student engagement. Wentzel (1998) in a study of sixth grade students in a middle school found that while parents contributed to school interest, teacher support was the primary contributor to student engagement. In the same study, peer support did not contribute directly to interest in school but it did significantly predict prosocial goal pursuit. Prosocial goals included adhering to the prevailing norms of the classroom and being willing to help others in the classroom. Peer-related support appears to assume greater significance when students reach adolescence.

Fairness as used in this survey means providing equal treatment irrespective of group membership. The referents include disciplinary policies, consistent application of rules, and whether cultural differences are treated with respect. In a study by Samdal et al (1998), the authors found that perceived fairness was the most important predictor of student satisfaction with school. Roeser et al (2000) found that adolescents who perceived teachers and other staff as treating them disrespectfully because of race or gender reported declining motivation to learn over time.

The goal orientation of the learning environment also matters to personal development (Maehr and Midgley, 1991; Roeser, Midgley and Urdan, 1996). On the one hand, schools can emphasize learning specified tasks while allowing for flexible delivery mechanisms. Such an approach focuses on mastery of subject matter, intellectual development, self-evaluation, and understanding for the student. It also encourages innovation on the part of staff, because not all students learn the same way. Philosophically such schools will function within a modus operandi of "high expectations for all."

Alternatively, schools can stress competition, social comparison, and relative ability (Maehr & Midgley, 1991; Roeser, Midgley, & Urdan, 1996). In task mastery, the competitive comparison is either set within an individual (achieving a "personal best") or between the individual and a task or subject barometer. Such a structure creates a win-win framework. Relative ability, on the other hand, insinuates a win-lose tenor into a learning environment. Achievement for all is not necessarily the goal of such an environment; instead, doing better than someone else is what ultimately counts.

The primary issue that asserts itself in comparing the value of each structure is who fares well under each regime and what are the ramifications for those who do not? As Ryan and Stiller (1991) state, "Insofar as a predominant focus in schools is the evaluation of individual differences and social comparisons concerning "ability," an inordinate number of students must either internalize a view of themselves as incompetent, or alternatively they must devalue schooling itself" (p.118). When relative ability is the game, those who are less than the best will find school to be a painful endeavor. Roeser et al (2000) found that adolescent motivation to do well in school drops in an environment characterized by a press for relative ability. McCaslin and Good (1996) aver that such a press essentially leads to a sort of Social Darwinism where "students who can't win won't play."

Parental Support and Achievement Values

Research has long supported the value of parent involvement in a child's education (Johnson & Walker, 1991; Epstein, 1994) although the preferred form of that involvement, as seen through the eyes of

teachers, takes on various guises (Epstein & Becker, 1982). There is good reason why national legislation makes parental involvement a priority (Baker, 2000).

More involved parents tend to view the school climate as empowering (Griffith, 1998). Parent involvement is higher when teachers actively communicate with them and welcome their input. Griffith (1998) also found that parent involvement was influenced by what other parents thought about the school climate. Higher income communities tend to have greater parental involvement, not because lower-income parents fail to value education, but because they typically lack the resources to become involved, and often do not have adequate knowledge of how the system works (Gonder, 1994). As well, lower-income parents often differ with staff in terms of culture and education level. This tends to create perceived barriers between the two groups (Izzo et al, 1999). Being an involved parent, however, can take many forms. Involvement can take place purely at home as when parents actively engage or at minimum encourage their children in educational pursuits. Alternatively, parental involvement can extend to active participation in the school.

Student Voice

As students age it becomes increasingly important to allow them some degree of choice and control over their own learning (Roeser et al, 2000). Actively participating in and having an influence on group activities and decisions allows a student to feel like she or he is part of a school community (Roberts et al, 1997). Having an opportunity for input into class and school decisions is empowering. It allows one to feel like a crucial part of the equation, valued as a resource.

Learning environments that promote student voice in decision-making are autonomy oriented or supportive (Deci et al, 1991; Ames, 1992). Opportunities to express such voice can occur with choice of assignments or tasks within the classroom, leadership roles, input into policy and rule-making, and classroom management. Deci et al (1991) argue cogently that although supportive environments (i.e., strong teacher-student and peer-to-peer relationships), are critical for promoting positive learning environments, but that they also must promote autonomy if students are to develop intrinsic motivation. Students who feel that they have a personal stake in their educational choices also tend to be more academically self-confident (Ames, 1992). Given differential levels of confidence, ability, drive and age, students should be offered choices for participation across the spectrum of domains involving the school community, taking the degree of difficulty and development needed into consideration.

Such opportunities allow for the development of student autonomy and, in turn, encourage self-directed learning. Allowing students a meaningful voice in their learning environment, inculcates the idea that, to a considerable extent, learning is their responsibility, not just that of teachers.

Safety

For both students and staff, feeling safe within the school is a prerequisite for great teaching and learning. Research also shows that academic failure and antisocial behavior are consistently related. Students who experience continued school failure lose any sense of buy-in and express their disenfranchisement in negative ways. The resulting sense of disorder negatively impacts both students and staff (McEvoy & Welker, 2000). However, a structured and supportive school climate can work to counter negative influences and foster prosocial behaviors (Reinke & Herman, 2002).

Although bullying and other antisocial behaviors often arise from influences outside the school, the climate of the school can foster such behavior or serve as a countervailing force against its continuing. Staff can make conduct problems worse by focusing on negative behaviors instead of reinforcing positive ones. School practices such as tying grades to behavior can aggravate student alienation from school and learning (McEvoy & Welker, 2000).

Classroom Order

Order is a common sense dimension of school climate. One cannot expect much learning to take place if the environment is noisy or distracting. The presence of order allows for regular and patterned activities from day to day (Stockard & Mayberry (1992). Achieving order can come about in a number of ways. Order can simply be equated with setting strict boundaries and establishing clear consequences for breaking the rules. Compliance would reap rewards and non-compliance punishments. But such environments tend to possess coercive elements and have been shown to be negatively related to learning. Furthermore, order derived from compliance places the individual in a dependent position relative to the source of influence (McCafferty, 2001). These extrinsic motivators generally will not work to promote individuals' intrinsic motivation and self-determination.

On the other hand, order can emerge from a well-structured environment. When rules and expectations are clear, rules are in place and consistently applied, and classroom management by staff involves student input, a more positive sense of order results in students who are dedicated to learning as well as respectful and considerate of each other. (Freiberg, Stein, & Huang, 1995; Purkey & Smith, 1983; Stockard & Mayberry, 1992; McNeely, Nonnemaker, & Blum, 2002). Students also can take an active role in classroom management in collaboration with the teacher. In the Child Development Project (Solomon et al, 1996), direct teacher control is moderated as teachers strive to help students increasingly take responsibility for their own behavior.

Peer Academic Influence

An important component of any school environment is the set of norms existing among students. Just as the adults in the school can impart high academic expectations for students, young people themselves promote and support a peer culture that can value academic achievement and learning, or not. Attending school in an environment in which peers do not prize achievement will interfere with effort and engagement in learning for many students.

Niebuhr and Niebuhr (1999) found that student-peer relationships were significantly related to academic success. They reasoned that a cohesive peer group with high academic expectations increased student motivation in general and that, in turn, led to increases in student achievement. In a study of eighth grade students, Berndt, Laychak, and Park (1990), found that friends who discussed academic issues together increasingly came to share similar opinions toward academic achievement. Both the Niebuhr and Berndt studies emphasize close-knit peer groups as opposed to the entire student body. Ryan (2000) argues further that the norms of the student body as a whole are only part of the web of peer expectations that influence achievement; different peer groups exert different kinds of influence as well. Because students have some choice of the peer groups to which they belong, they can pre-select themselves into groups that are more or less academically engaged. The studies cited above finds this association of "like with like." In addition to the influence of the overall culture of the school around achieving, friends will have a significant impact on individual behaviors that either promote or thwart academic achievement (Wentzel & Caldwell, 1997).

Academic Expectations

High academic expectations make significant differences in results for students. Using data from the First Follow-Up survey of the National Education Longitudinal Study of 1988, Shouse (1996) found that among schools with low SES, having shared beliefs, a common agenda of activity, and an ethos of caring produced positive achievement effects *only* when combined with high "academic press," or pressure to do well academically. An analysis of 23 middle schools in a predominately African-American, suburban county in the eastern United States, Phillips (1997) found that academic expectations and amount of time spent on homework significantly impacted mathematics achievement.

More recently, a study of Kentucky schools reported that high-performing, high-poverty schools are distinguished by having, among several other attributes, both high expectations of students and a nurturing environment with supportive relationships (Kannapel & Clements, 2005). Research has shown that an optimum learning environment for any individual is one in which the subject matter is only slightly more difficult than the student's current level of understanding. If the task is too easy, the student loses interest; if it is too hard, a student can become discouraged (Lepper & Hodell, 1989; McCaslin & Good, 1996). Thus, expectations should challenge a student to achieve more than he or she is currently, but to a degree of difficulty that maintains his or her sense of ability to rise to that challenge.

Active Learning

Classroom engagement is indicative of active participation in the learning environment. A student is likely to be more engaged if she is experiencing a positive sense of relatedness, autonomy, and competence in the learning environment (Connell & Wellborn, 1991). Research has shown that certain factors increase the likelihood of student engagement. Tucker et al (2002), in a study of 117 African-American students in grades 1 through 12 found that grade level was a significant predictor of student engagement with the engagement level dropping with grade advancement. Despite this, certain factors within the school environment served to enhance student engagement. Perceived teacher support was the most consistent across grade levels. Also important were perceived sense of belonging and the motivation for doing schoolwork.

Possession of each of these developmental nutrients (relatedness, autonomy, and competence) is important because theoretically a student could be intrinsically motivated to learn but not engaged in the classroom. Engagement, therefore, is contingent on the learning context meeting students' desire to belong, providing a sense of competence in the tasks they undertake, and creating the conditions whereby students can develop a sense of autonomy in the educational arena.

Academic Success Outcomes

As noted in the Introduction, CGPL does not measure academic success directly, through grades, test scores, or other "objective" measure. Instead, three constructs are measured that are conceptualized as both dimensions and outcomes of positive school climate. As we describe in more detail below, Sense of Belonging, Motivation, and Academic Self-Efficacy repeatedly have been found to be associated with those more objective indicators of achievement such as grades and test scores. But this literature also suggests that they are at least in part outgrowths of the relationships and organizational attributes that characterize a school community, that is, they can be shaped by the presence or absence of the other eight dimensions of school climate CGPL measures. Thus, we treat these three as dimensions of school climate

that, when added to the other eight, can be examined for their influence on academic success outcomes such as grades or test scores. If these other data are not available or problematic, then these three constructs can be treated as outcomes in their own right, and the other eight climate dimensions can be examined as predictors of student Sense of Belonging, Motivation, and Academic Self-Efficacy.

Sense of Belonging

Motivational approaches to the development of the self stress that contexts (school, family) either facilitate or inhabit positive human development (Connell & Wellborn, 1991; Deci et al (1991). A fundamental human need is to belong or feel a sense of relatedness. An extensive review of the literature by Baumeister and Leary (1995) concluded that the need to belong is associated with health, well-being, effective cognitive processes, and positive behavior. Sense of belonging in school has been correlated with both motivation and achievement (Ryan and Stiller, 1991; Goodenow, 1993b). Feeling that one belongs may be especially salient during early and middle adolescence and may be more important than virtually all other concerns for this age group (Goodenow, 1993a).

Certain organization characteristics are considered to affect sense of belonging. For example, the use of ability tracks can create an exclusionary psycho-emotional topography for many students. On the other hand, structural features that allow students and teachers to spend more time together (e.g., teacher advisories, smaller class sizes) tend to increase interaction and understanding of one another (Osterman, 2000). Goodenow (1993b) found that a student's sense of belonging was predicated on being accepted and valued by staff and peers, a concept our survey tries to reflect.

Motivation

Students who are interested and actively engaged in learning are much more likely to do well in school. Those who study and learn because they like it (not just to get good grades) or because they value it tend to master subjects, stick with tasks, and, in the end, actually get better grades.

Whether a student actively engages in learning depends in some measure on how much the student values education (Roeser et al, 2000; Sanders, 1998). Intrinsically motivated individuals actively engage in school out of choice and not external requirement. They are driven to seek out challenges and opportunities to expand knowledge (Osterman, 2000).

Intrinsically motivated individuals choose to engage in the activities that they do because they have made a logical means-end connection between the activities in school and a goal, such as, embarking on a personally rewarding career. In other words, the student perceives schooling to be relevant to the attainment of personal goals. The research around how learners become self-directed involves the area of inquiry into *achievement motivation*. Achievement motivation and students' valuing education are linked, because whether a student actively engages in learning depends in some measure on how much the student thinks his schooling is worthwhile (Roeser et al., 2000; Sanders, 1998). The line of reasoning looks like this: Intrinsically motivated students actively engage in school by choice, not requirement. But intrinsic motivation can either preexist in a student because she brings it with her to school, or it can be developed within a school context that supports it. Behaviors that begin for some students as extrinsically motivated ones (e.g., reading just for fun, or learning what's taught in school) can become intrinsic if students can be persuaded that the behavior will help them attain something – perhaps a challenging, interesting, and well-paying job. Eventually they choose to engage in the behavior for personal reasons (Deci et al., 1991). So

efforts to help students value education play a role in increasing motivation and, in turn, in promoting self-directed learners.

One specific instance of the link between valuing education and achievement motivation concerns the relevance of education for good jobs. Mickelson (1990) has argued that among African American adolescents, attitudes expressed toward education will differ depending on whether one is assessing general American values pertaining to education or assessing the young people's concrete expectations about what benefits will come from that education. The abstract value of an education is thoroughly engrained in the American psyche and there is little difference among racial or other groups. However, when an individual takes the local opportunity structure into consideration, the "value" ascribed to education may diminish. Perceptions of this value are tied to personal experiences of family members, friends, and neighbors. When youth see those they know not succeeding in the job market despite having obtained some degree of formal education, then the value of obtaining an education recedes. Thus, for these students, there would be little personal utility in persistence because education would not be perceived to amount to much in the long term.

Ultimately, then, the source of motivation will always be internal to the person (Skinner & Belmont, 1993) [3]. However, the context for learning can serve to enhance or dampen a student's inquisitiveness or interest. As such, the school's learning environment, peers, and family are crucial factors in shaping the commitment to learn (Scales & Leffert, 2004; Starkman, Scales, & Roberts, 1999). A school's climate can work to amplify inherent predispositions towards learning, contravene them, or to some degree compensate for a lack of positive predispositions. Following Deci et al (1991), the degree to which a student internalizes extrinsic motivation is partly a function of the social context in which education takes place. Achievement motivation, then, is always a complex interplay between social contexts and individual characteristics (Stipek, 1984).

Creating the social and instructional conditions that work to motivate an individual is not a one-time event. Students make on an ongoing basis the affective and cognitive valuations of their school environment as conducive to learning or not. A positive valuation of schooling will persist only if contextual support continues to make the case.

Academic Self-Efficacy

A self-directed learner also possesses a healthy degree of confidence in doing academic work. Confidence in one's academic abilities is hypothesized to positively impact effort. In general, doing well at academic tasks raises self-efficacy and failure decreases it. Once a personal pattern has been established, the occasional failure or success will not likely have much effect (Schunk, 1989). Self-efficacy also promotes persistence at a task. If students are confident in their abilities then difficulty or even failure will not dissuade them from trying again.

Efficacy or self-confidence in a task is integral to achievement motivation. Theoretically, it is a psychological precursor of objective indicators of achievement such as grades. In a study conducted by Marchant et al (2001), efficacy, or school competence, significantly predicted school achievement. In a cluster analysis by Roeser et al (2000), the authors found that feeling efficacious may help students overcome other "life adversities that often threaten the attainment of a good education" (p.457).

The learning orientation of a school or classroom represents the overriding philosophy about teaching: Are learning opportunities structured toward task mastery or relative ability comparison? In systems

focusing on relative ability, doing better than someone else is what ultimately counts. It is a win-lose setup in which learning is not necessarily the goal. On the other hand, the competitive comparison in task mastery is either set within an individual (e.g., to exceed a personal best) or between the individual and a task or subject benchmark. Such structure creates a win-win situation. Roeser et al. (2000) found that adolescent motivation to do well in school drops in an environment characterized by pressure to do better than someone else (relative ability). Further, McCaslin and Good (1996) say that such pressure eventually leads to students refusing to participate if they perceive they cannot win.

Student-centered learning approaches do much to counter such disengagement. Providing avenues for students to have voice in the learning process as well as in the operation of the school is one way to provide such student-centeredness. Opportunities for students to express themselves can occur with choice of assignments or tasks within the classroom, leadership roles, input into policy and rule-making, and classroom management. Students who feel that they have a personal stake in their education choices also tend to be more academically self-confident.

Reliability and Validity of Scales

CGPL has undergone extensive pilot testing, revision, and field testing over its four-year development. Appendix 2 presents the results of early pilot testing. In this chapter, we focus on the results of field testing in Spring 2005 among a sample of 2,140 6^{th}-12^{th} graders and 318 staff members in three middle schools and one high school in Alhambra, California.

Summary of Pilot Test Results

As detailed in Appendix 2, pilot testing showed the CGPL dimensions in general to have acceptable internal consistency and test-retest reliability, with only minor variations across gender, grades, and race/ethnicity. Correlations among the dimensions were small to moderate, suggesting they are largely, as desired, measuring different climate constructs. Items also loaded well into discrete factors, further suggesting acceptable construct validity.

Composition of Field Test Sample

Table 4 shows the demographic composition of the student field test sample. The sample included somewhat more females than males and significantly more high school (78%) than middle school students (22%). These students were largely Asian or Hispanic, and for more than one-third, English was not the main language spoken at home. A large proportion of the parents of these students—more than one-third—had completed only a high school education or less.

Table 4. Composition of the Student Field Test Sample

		Percentage
Gender	Male	47
	Female	53
Grade	6	7
	7	8
	8	7
	9	22

	10	22
	11	18
	12	17
Race/Ethnicity	Asian	68
	Hispanic	20
	Multiracial	5
	Other	7
Main Language Spoken at Home		
	English	65
	Not English	35
Father Education	High school or less	34
	Some College-Graduate School	41
	Don't know	25
Mother's Education	High school or less	36
	Some College-Graduate School	41
	Don't know	23

N=2,086 public school 6th-12th graders

Reliability

Internal Consistency Reliability

A scale is internally consistent if the items measuring the dimension yield similar responses patterns, i.e., they appear to be measuring the same construct. A coefficient of .70 or above is considered an acceptable level of reliability for research measures administered to adolescents and adults. Table 5 depicts the reliability coefficients (Cronbach's alpha) for each of the student scales in the pilot version. The coefficients are shown for total sample and gender. The number of items in each scale is also shown. All but one of the coefficients (91%--Peer Academic Influence was the exception) were .60 or higher and 7 of the 11 dimensions (64%) had alphas of .70 or higher. There was little difference between males and females. Except for Peer Academic Influence, the alphas are generally acceptable. Aggregation of future surveys will suggest whether the relatively low alpha for that construct was an anomaly of this sample.

Table 5. Internal Consistency Reliability Coefficients of Student School Climate Survey Dimensions

Dimension

	Total Sample	**Female**	**Male**	**Number of Items**
Caring and Fair Staff	.85	.85	.85	11
Parental Support and Achievement Values	.75	.76	.72	5
Student Voice	.64	.63	.66	4
Safety	.75	.77	.72	8

Classroom Order	.71	.70	.71	3
Peer Academic Influence	.51	.54	.47	3
Academic Expectations	.60	.58	.60	4
Active Learning	.61	.57	.60	3
Sense of Belonging	.77	.79	.74	7
Motivation	.85	.84	.85	4
Academic Self-Efficacy	.70	.70	.69	3

N=2,086

Test-Retest Reliability

Test-retest reliability—administering the same survey to the same students one or two weeks after the first administration, and correlating the sets of responses—shows how stable responses are to a particular scale, and is especially important when using instruments to measure changes over time. If a scale has good test-retest reliability, then increases or decreases in that scale over time can more confidently be interpreted as evidence of genuine change rather than simply fluctuations due to the error of the measure. Test-retest reliability was not conducted during the pilot, but was done as part of the field testing in Spring 2005. The CGPL survey was administered after a one-week interval to a random sample of 500 students who had previously taken the survey. The coefficients shown in Table 6 suggest very good test-retest reliability. Male-female differences in CGPL stability were generally unremarkable, although females had a somewhat higher test-retest correlation on Parental support and Achievement Values. These results suggest adequate stability for using CGPL in measurement of change in school climate over time.

Table 6. Test-Retest Reliability Coefficients of Student School Climate Survey Dimensions

Dimension	**Total**	**Female**	**Male**
Caring and Fair Staff	.86	.87	.85
Parental Support and Achievement Values	.80	.86	.73
Student Voice	.73	.76	.70
Safety	.81	.82	.81
Classroom Order	.73	.74	.72
Peer Academic Influence	.63	.61	.67
Academic Expectations	.65	.68	.63
Active Learning	.71	.70	.71
Sense of Belonging	.84	.86	.81
Motivation	.68	.70	.68
Academic Self-	.64	.68	.61

Efficacy			

N=449-502

The Presence of Positive School Climate

The purpose of the field test was to examine how the climate items and scales "work" psychometrically, not to provide data that would necessarily be generalizable to other samples or valid to use for benchmarking or comparisons. The sample was intentionally chosen to be diverse and more low-income, and to have a high proportion of English-language learners. Thus, the following field test results are intended only to be illustrative of patterns that are hypothesized to be similar in other samples not sharing these characteristics.

The proportion of these field-test students who said they experienced positive school climate varied by dimension. Traditionally, Search Institute has used a scale mean cutoff of ≥ 4.0 on a 5-point scale for a student to "have" a construct. However, we have noted in our studies of developmental assets using the *Search Institute Profiles of Student Life: Attitudes and Behavior* survey, that school climate-like asset items (e.g., my teachers really care about me; or I care about the school I go to) tend to elicit a high proportion (i.e., above 20%) of "not sure" responses. Similarly, in our field test sample, many of the CGPL items yielded high proportions of "neither agree nor disagree." Responses of "neither agree nor disagree" and "not sure" cannot be assumed to be interchangeable, because a student can be quite certain that they neither agree nor disagree with a statement but are firmly in the middle. Nevertheless, the similar percentages of "not sure" and "neither agree nor disagree" responses on school climate items across the different Search Institute surveys suggests that school climate is a relatively challenging concept for students to report on.

Because of the proportion of "neither agree nor disagree" responses (or 3 on a 5 point scale), it was relatively difficult for students to meet the traditional criterion of having scale means of ≥ 4.0, thus perhaps unfairly limiting the proportion who would be categorized as experiencing a positive school climate. Therefore, we modified the criterion to a scale mean of ≥ 3.5, midway between "neither agree nor disagree" and "agree," so that students with a mild agreement could be counted as experiencing a particular dimension of school climate. Table 7 shows the proportion of students who experience positive school climate using both the 4.0 and 3.5 criteria. Although the more generous 3.5 cutoff produces a higher proportion of students with positive school climate, it is clear that for this sample, the results still are quite mixed. Out of 11 climate dimensions, only 4 were experienced by a clear majority (Motivation, Achievement Expectations, Parental Support and Achievement Values, and Active Learning). Two others—Peer Academic Influence and Academic Self-Efficacy—were experienced by a bare majority. The remaining 5 dimensions were experienced by only a minority of students: Classroom Order, Student Voice, Caring and Fair Staff, Safety, and Sense of Belonging).

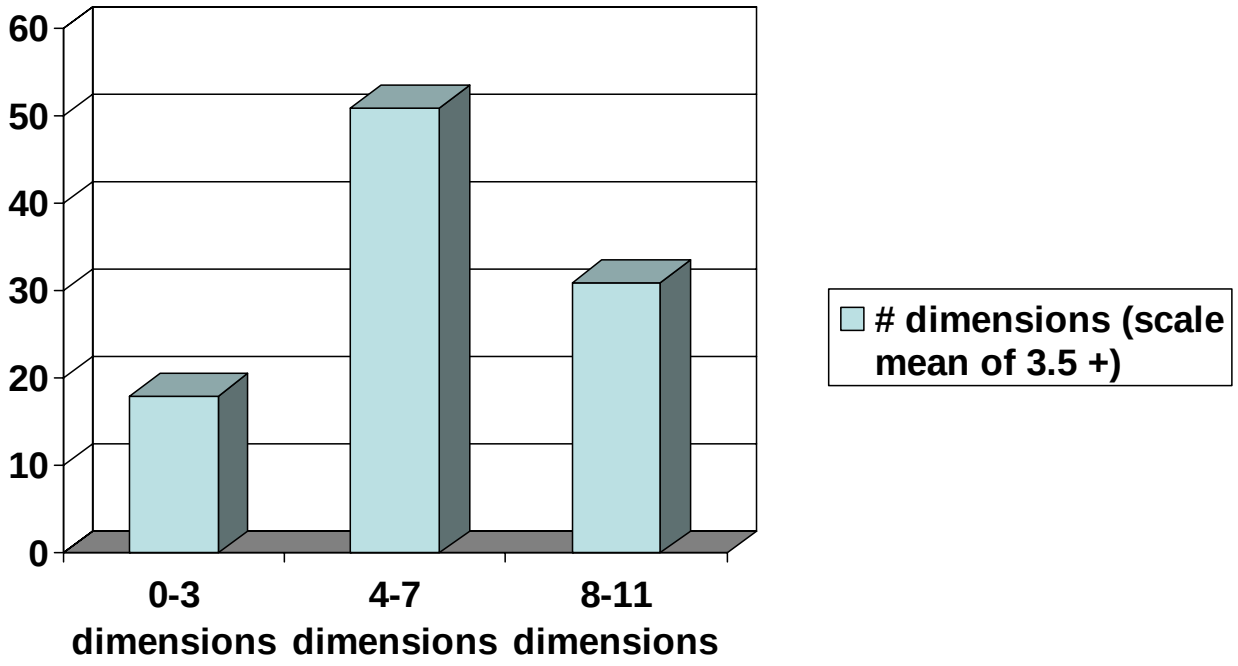
Table 7.
Proportion of Field Test Students Reporting Positive School Climate Dimensions

	Using scale mean ≥ 4.0	**Using scale mean ≥ 3.5**
Caring and fair staff	12	35
Parental support and achievement values	55	76
Student voice	8	29
Safety	9	38
Classroom order	13	27

Peer academic influence	35	51
Achievement expectations	48	79
Active learning	50	69
Sense of belonging	21	48
Motivation	82	91
Academic self-efficacy	40	56

Looking at the presence or absence of single dimensions is instructive. As with developmental assets, however, it is the ecology students experience that is paramount, not only their experience of a single asset or school climate dimension. Figure 1 shows that only a minority—31%--are "rich" in their experience of positive school climate, having 8-11 of the 11 dimensions, whereas nearly 1 in 5 of these students (18%) were "climate depleted", reporting 0-3 of the climate dimensions.

Figure 1.
Proportion of 6th-12th Grade Students with Positive School Climate: CGPL Field Test



How School Climate Dimensions Relate to Academic Success

Numerous researchers have documented the positive relationship between a healthy school climate and academic achievement (see, for example, Anderson & Walberg, 1972; Catteral, et al., 1998; Greenberg, et al., 2003; Haertel, Walberg, & Haertel, 1981; Hansen, et al., 2003; Paulson, Marchant, & Rothlisberg, 1998; Paredes, 1991; Roeser, et al., 1996; Rutter, 1979).

This survey does not test the direct link between school learning climate and student achievement, as in connecting actual school grades or other indicators of achievement to students' perceptions of the school learning climate. However, the survey does measure several factors that have been closely linked to school success, including students' sense of belonging in the school, their achievement motivation, and their belief that they can succeed academically, or their academic self-efficacy. In each case, research shows that the more students feel a sense of belonging, the greater their achievement motivation, and the stronger their academic self-efficacy, the better their actual school performance (see reviews in Scales & Leffert, 2004, and Scales, Sesma, & Bolstrom, 2004).

This chapter examines the connections between student perceptions of positive school learning climate and their reports of sense of belonging, achievement motivation, and academic self-efficacy. Because of their close connection to school success, we describe these three as indicators of "academic well-being." Several implications of these findings for how schools approach improving school learning climate are highlighted.

In the pilot study, six dimensions of school climate were studied: Caring and Fair Staff, Classroom Order, and Youth Voices, and Sense of Belonging, Achievement Motivation, and Academic Self-Efficacy. The last three can be considered both dimensions and outcomes of school climate, and have been found repeatedly to be associated with academic success, for both adolescents (reviewed in Scales & Leffert, 2004) and preadolescents (reviewed in Scales, Sesma, & Bolstrom, 2004).

We divided pilot test students into two groups on each school climate dimension. Those who scored at or below the median average (the score at which half the students score above and half below) were considered not to "have" or experience the climate dimension, and those who scored above the median average were considered to "have" or experience that dimension of school climate. We then compared the percentage of students having and not having each climate dimension (the three "predictor" dimensions studied were Caring and Fair Staff, Classroom Order, and Youth Voices) on the academic success outcomes of Sense of Belonging, Achievement Motivation, and Academic Self-Efficacy.

Table 8 shows that, without exception, students who experienced each of these dimensions of positive school climate also were significantly more likely to experience the academic success outcomes.

Table 8. Percentage of Students with Academic Success, by Experience of Positive School Climate—Pilot Test

Climate Dimension	Sense of Belonging	Motivation	Academic Self-Efficacy
Caring and Fair Staff			
Have	70	59	69
Don't Have	28	23	28
Classroom Order			
Have	68	51	62
Don't Have	31	31	35

Youth Voices			
Have	64	51	62
Don't Have	32	30	33

N=1668 6th-12th graders in 2 Lutheran schools. All differences based on experiencing or not experiencing a school climate dimension significant at $p \leq .0001$.

We repeated this analysis with the field test data, this time using eight "predictor" dimensions for the same three outcomes, but using a scale mean of ≥ 3.5 rather than above and below the median to define student groups that either had or did not have the climate dimension, with substantially similar results, as shown in Table 9. Although the absolute differences in proportions reporting the outcome varied from small to large between groups having or not having the climate dimensions, in all cases they were significant: Experiencing positive school climate is strongly associated with experiencing these indicators of academic success. The linkage is especially pronounced for Sense of Belonging and Academic Self-Efficacy.

Table 9. Percentage of Students with Academic Success, by Experience of Positive School Climate—Field Test*

Climate Dimension	Sense of Belonging	Motivation	Academic Self-Efficacy
Caring and Fair Staff			
Have	76	98	73
Don't Have	33	87	47
Parental Support and Achievement Values			
Have	55	95	61
Don't Have	27	72	40
Student Voice			
Have	75	97	74
Don't Have	37	89	49
Safety			
Have	71	97	71
Don't Have	34	87	47
Classroom Order			
Have	73	97	73
Don't Have	39	89	50

Peer Academic Influence			
Have	57	93	59
Don't Have	39	89	53
Academic Expectations			
Have	56	95	61
Don't Have	18	75	38
Active Learning			
Have	53	96	64
Don't Have	37	81	39

N=2,068 6th-12th grade students in three public middle schools and one public high school.

* ANOVAs show that all differences between field test groups "having" and not having a particular school climate dimension are significant at $p \leq .0001$.

The "Pile-Up" Effect of Positive School Climate

Another way of looking at the how school climate and academic success are connected is to examine levels of academic success by how many dimensions of school climate students say they experience. Theoretically, students experiencing multiple dimensions of school climate should have greater academic success than those experiencing fewer dimensions. Both the pilot and field test data show that prediction to be correct.

As shown in Table 10 below, in the pilot test, students who experienced all 3 dimensions of school climate (Caring and Fair Staff, Classroom Order, Youth Voices) were much more likely than those who experienced medium or low levels to also report above average levels of academic success (above the median). And those who experience 1 or 2 dimensions of positive school climate did better on the academic success outcomes than students who didn't experience any of those aspects of positive school climate.

Table 10. Percentage of Pilot Test Students With Academic Success, By Number of Positive School Climate Dimensions

	Number of Climate Dimensions Experienced		
	0	1-2	3
Academic Success Outcome			
Sense of Belonging	19	49	83
Motivation	20	39	67

Academic Self-Efficacy	24	46	80

N=1,415-1,422 6th-12th graders in two Lutheran schools. All differences by number of dimensions significant at $p \leq .0001$.

In addition to the three predictor dimensions from the pilot test (Caring and Fair Staff, Classroom Order, and Student Voice), the field test included five additional predictor dimensions of positive school learning climate, including: Parental Support and Achievement Values, Safety, Peer Academic Influence, Academic Expectations, and Active Learning. Using only these 8 dimensions, about 1 in 4 students had a "rich" school climate and about the same proportion had a "depleted" school climate. As expected, the results shown in Table 11 below confirm the earlier pilot test analyses in linking the number of climate dimensions experienced with higher levels of the three academic outcomes. For this more recent analysis, we used a scale mean of ≥ 3.5 rather than above and below the median to define student groups that either had or did not have the climate dimension. Results showed that each higher level of positive school climate was associated with significantly greater academic success, as indicated by Sense of Belonging, Motivation, and Academic Self-Efficacy.

Table 11. Percentage of Field Test Students With Academic Success, By Number of Positive School Climate Dimensions

	Number of Climate Dimensions Experienced		
	0-2	3-5	6-8
Academic Success Outcome			
Sense of Belonging ($F(2,1995)=388.928$, $p \leq .0001$)	16	45	84
Motivation ($F(2,2021)= 185.616$, $p \leq .0001$	76	94	100
Academic Self-Efficacy ($F(2,2032)= 158.262$, $p \leq .0001$)	33	55	80
Total %	24	51	25

N=2086 6th-12th grade students in three public middle schools and one public high school.

The bottom line is apparent: The more students experience any of these dimensions of positive school climate, the better their academic achievement is likely to be. But the greater the number of positive school climate dimensions they experience, the better still for their academic success.

CHAPTER THREE

STAFF—SCHOOL WORK CLIMATE MEASURES

The *Creating a Great Place to Learn* survey is really two surveys—one for students and one for staff. There is intentional overlap between them, but also unique content. As discussed above, the student survey focuses on student perceptions of the school's learning climate. In contrast, the staff survey focus on what staff think about the school as a place to work. Several of the school climate dimensions investigated in the student survey are investigated in the staff survey with essentially parallel language, enabling direct comparisons of student and staff perceptions about these dimensions: Safety, Classroom Order, Student Voice, and Academic Expectations.

Several other dimensions on the staff survey cover similar issues as dimensions on the student survey, but do so using somewhat different questions that reflect the different roles staff and students play in the school community: Parental Involvement (for students, Parental Support and Achievement Values), Student-Staff Relationships (for students, Caring and Fair Staff), and Students' Commitment to Learning (for students, a combination of Active Learning, and Motivation). Staff and student responses to specific questions in these dimensions cannot be directly compared, but overall thematic trends in these parallel dimensions can be compared across the two surveys.

The remaining dimensions on the staff survey, although clearly contributing to students' perceptions of learning climate, are unique to the examination of the work climate that school staff experience. Three of the dimensions—Support for Instructional Improvement, Resource Adequacy, and Adaptive Efficacy—are based on the responses only of teachers (who in most cases will constitute at least 80% and often more of the total building or district staff). Although other staff certainly need adequate resources and must be able to adapt effectively to do well in their roles, these dimensions are most fundamentally about what occurs in classrooms.

Table 12. Dimensions of Staff School Work Climate in CGPL Survey

Category	Dimension	No. of Items
Relationships	Student-Staff Relationships	4
	Staff Collective Efficacy	5
	School-Community Relations	3
	Staff Collegiality	4
	Parental Involvement	2
Organizational Attributes	Administrative Leadership	3
	Academic Expectations	4
	Students' Commitment to Learning	8
	Safety	8
	Student Voice	3

	Classroom Order	4
	Fairness and Consistency of Policies and Practices	4
	Support for Instructional Improvement (teachers only)	6
	Resource Adequacy (teachers only)	8
Personal Development	Adaptive Efficacy (teachers only)	5
	Commitment	5

RELATIONSHIPS

The Relationships category of climate dimensions includes student-staff relationships, parental involvement and other school-community relations, staff collegiality, and staff collective efficacy, or the collective belief staff have that they can make a difference in students' achievement. All that was presented earlier in the description of Caring and Fair Staff in the student survey can be reprised here as reflecting the staff survey dimension of Student-Staff Relationships. The impact that research shows positive student-staff relationships, especially student-teacher relationships, have on a host of attitudes, self-perceptions, and skills that contribute to achievement cannot be overestimated (see reviews in Scales & Leffert, 2004, and Scales, Sesma, & Bolstrom, 2004)), arguably being the most critical element beyond the curriculum itself that schools offer to shape young people's learning

Staff Collegiality and Staff Collective Efficacy

Collective efficacy is related to but different from the dimension of adaptive efficacy. Adaptive efficacy is an individual-level belief in one's own ability to modify work strategies (teaching methods, administrative procedures) as needed and to have a positive effect on student achievement, whereas collective staff efficacy is an individual-level perception that staff have such positive impacts through how they work together. Collective efficacy then, is inherently relational.

Collegiality can be defined as shared power and authority vested among colleagues (Dictionary.com, 2003). It can also be used to refer to "camaraderie among colleagues" (Merriam-Webster, 2003). The first definition is implicated to some degree in our factor "Supports for Instructional Improvement" and will be discussed as one of the Organizational Attributes. The second definition is what we mean when we discuss the factor Collegiality. True colleagues not only enjoy working with one another but the prevailing relationships are marked by respect, a willingness to share ideas, and a comfort in learning from one another. Thus our factor includes items that refer to colleagues seeking ways to learn as well as learning from one another.

Collegial environments also tend to be conducive to heightening teacher self-efficacy (Ashton & Webb, 1986). Efficacy is the sense that one is capable of bringing about a desired result. Such confidence in one's ability generally predisposes an individual to be innovative when the tried and true is not working. This predisposition is supported in a collaborative environment by the ability to share stories and techniques. Such interactions increase the resources available and augment the likelihood that the innovative turn will be successful. When teachers have an opportunity to learn from one another their

chances for success with individual students also improves (Talbert & McLaughlin, 1999). In such a situation, the workplace is attuned to the distributed expertise of the staff.

Developing as adults work together for a common cause, collegiality contributes to the building of a sense of professional community among staff members that promotes collaboration around instruction. Feeling emotionally supported and respected by co-workers is important to personal satisfaction. It involves the meeting not only of material needs but caring, nurturance, and the kind of affirming feedback that strengthens identity (Scales & Leffert, 1999a).

When staff experience a positive, supportive work environment, they are more likely to strive to create such an environment for the students they teach and interact with (Roeser et al, 2000). The Educational Research Service (2002) describes major characteristics of high-achieving schools, citing one of the factors as the development of an atmosphere of "mutual respect and caring" for both students and staff. Further, the Learning First Alliance (2001), comprised of 11 major national educational organizations, confirms in its publication *Every Child Learning: Safe and Supportive Schools* that "a strong sense of community boosts academic achievement." In that the level of collegiality among staff has an effect upon how students perceive their school climate; it is an area worthy of attention by staff interested in achievement as well as developmental assets.

Parental Involvement and School-Community Relations

The description of Parental Involvement provided in Chapter 2 is equally pertinent with regard to the staff survey. Parent involvement is arguably the most important example of School-Community Relations, but that broader construct also is measured in the CGPL survey. The items recognize that a school's reputation in the community, and its establishment of effective partnerships with community organizations, contribute significantly to the quality of the educational experience schools can provide students, and to the staff perceptions of the school as a great place to work.

ORGANIZATIONAL ATTRIBUTES

Fairness and Consistency of Policies and Practices

An indication of staff buy-in to a school's policies and practices is the perception that they are fair. By fair, we mean rules and practices that are equally applied to all who are similarly situated. It also means providing equal treatment irrespective of group membership.

Closely related is consistent application of the rules. Irregular application of rules may be perceived as indicators of an environment lacking in fairness even if that is not the intent. Furthermore, uneven enforcement of rules undermines authority. For example, if staff transfer policies are inconsistently applied, morale suffers and the credibility of leadership is questioned.

Of special importance to staff are policies related to discipline at a school. When the administration fails to exercise a consistent application of disciplinary policies toward unruly students, staff's authority suffers in the eyes of students as such rules can be perceived as a joke by the students. Such a state of affairs will serve to degrade staff's sense of efficacy, satisfaction and ultimately their commitment to school (Rosenholtz, 1989).

The items in this survey measuring this construct ascertain the degree to which teachers and other staff perceive that the policies and prevailing practices of the school are inherently fair and consistently applied. Disciplinary polices are more heavily weighted because of the role that orderly student behavior plays in staff's sense of efficacy, satisfaction, and commitment.

Administrative Leadership and Support for Instructional Improvement

Collaborative work environments are functionally integrative. There is a shared sense of purpose. Co-workers freely exchange ideas and materials. Problems are addressed together and solutions jointly proposed. Change is faced as a multi-faceted opportunity. Such environments tend to be more productive, innovative, adaptive to change, and ultimately more satisfactory for those involved (Purkey & Smith, 1983; Peterson, K., 1994).

In such settings "professional autonomy and strong community are mutually reinforcing" (McLaughlin & Talbert, 2001, p. 55). Support for innovative practice allows individual staff to try out new ideas. The experience and knowledge gained from such endeavors (i.e. what worked, what did not, what students appear to fit best with the new approach) can then be shared among colleagues.

Rick DuFour contends that a collaborative culture is "the single most important factor for successful school improvement initiatives … [and] an essential requirement for improving schools" (DuFour, 2001). But in order for such collaboration to occur with regularity, time and resources for such activity need to be made available (Peterson, K., 1994). Having opportunities to work with other colleagues is a necessary ingredient for instructional improvement. Collaboration allows for the possibility of coordinating of lesson plans so that topics covered in different classes can complement one another. It also allows staff to communicate regularly with one another about the needs and learning styles of their students.

If a school wants to enhance professional community among its staff then it needs to structurally create the conditions for it to thrive. For example, collaboration will not likely occur systematically if the administration does not schedule time for it. Setting the time aside as well as letting staff take the responsibility for key decisions are instrumental for the development of strong professional communities within schools (Louis et al, 1996).

Teachers also need to continually develop their specialized knowledge base and concomitant skills if they are to be perceived as professionals. Staff development is a means to enhance the sense of professional community within a school (Louis et al, 1996). Development of staff skills and knowledge is also essential for continued improvement in instructional practices.

In general, support for staff development is indicative of a school's commitment to its human capital. As such, it is reflective of an environment that nurtures personal development. Staff development, in the context of working together on an actual school improvement issue, can be a practical way to enhance collaboration (Peterson, A.M., 1997).

Scheurich (1998) in his study of both urban and rural elementary schools made up of low socioeconomic children of color, holds that the promotion of innovation and openness to new ideas is one of the critical characteristics of highly successful schools. As can be expected, however, innovation does not thrive without organizational encouragement (Louis et al, 1996). Schools enact various structural incentives and they can have the effect of encouraging innovation or not. Are rewards and recognitions meted out in such a fashion that innovative practice is encouraged? Or do staff play it safe and stay with the tried and

accepted because that is where recognition lies? Hence the likelihood that innovation will thrive is contingent upon the policies and practices instituted by the school's leadership.

Whether innovation thrives also implicates the relationships that exist between administrators and other staff members. Allowing for and encouraging innovation is indicative of an environment of trust and respect both in terms of ability and judgment. Support for trying new instructional practices implies trusted staff involvement in instructional decision-making.

Involvement in even informal decision-making creates a sense of empowerment. Bryk and Schneider (2003) speak of it as "relational trust" that is rooted in respect: "Respectful exchanges are marked by genuinely listening to what each person has to say and by taking these views into account in subsequent actions. Even when people disagree, individuals can still feel valued if others respect their opinions (p. 42)." Respect for one's abilities fosters a higher level of positive risk-taking in a school. In other words, staff are more likely to feel empowered to be innovative.

Innovative environments push the envelope. They welcome risk-takers. If learning is to be inclusive of different types of students with different ability levels and ways of learning then teaching by extension must be adaptive. In other words, a teacher must be innovative in her instructional techniques if task mastery is to successfully function as the governing pedagogical philosophy.

Supports for innovation are also supports for autonomy within staff's sphere of participation. "Jobs that give people more autonomy and discretion require that they exercise judgment and choice; in doing so, they become the main causal agents in their own performance" (Rosenholtz, 1989, p.141). Having a say in the decisions that affects one within an organization also directly implicates job satisfaction (Ashton & Webb, 1986). Furthermore, Bryk and Schneider (2003) also contend that "collective decision-making with broad teacher buy-in" is critical to making meaningful reforms occur in schools. When the principal can provide opportunities for teachers and other staff to be heard and have a meaningful voice in matters of the school community, a "collective sense of engagement among a faculty" is enhanced (p. 29).

The administration can provide further support for innovative practice if performance evaluations are geared toward improvement of both individual and collective teaching practices (Rosenholtz, 1989). Such evaluations must also be perceived to be fair and consistently applied. If the evaluations lead to a strong desire to improve performance, and if supports for innovative practice are in place institutionally, then it is likely that staff will try new strategies to meet the goal of providing a first rate education to the students they engage. The opposite trajectory can occur when performance evaluations are viewed as merely perfunctory or punitive.

Resource Adequacy

A key element in keeping an organization moving forward is the ability to provide adequate resources to those working within the system. In the case of teaching, that includes both materials specific to the classroom as well as access to media and equipment in the school and services provided to instructional staff by others. Although thirty years of research fails to connect the amount of money spent with educational improvement, that's not to say there does not need to be support in terms of instructional materials, general supplies, and services that helps meet the needs of staff and students. Otherwise named, Resource Adequacy is considered one of the key elements of a healthy school (Hoy & Feldman (1999). The survey items measure staff perceptions of the adequacy of such supports as library resources, computers, classroom supplies, and instructional equipment.

*S*tudents' Commitment to Learning and Student Voice

Research on the context of high school education, as seen through the eyes of teachers (McLaughlin and Talbert, 2001), portrays "students [as] the critical context for their teaching" (p.6). The relationships between teachers and students are of paramount importance because "who comes to school ultimately frames [the teachers] classroom tasks and experiences of success" (p.6).

How staff perceive students' commitment to learning is important for a number of reasons. One is that if teachers' perceive little interest in learning, it would be no surprise if less effort is exerted. Persistence in the task would not be the norm. If teachers perceive a majority of students as uneducable or in possession of anti-academic learning attitudes, then it should affect their sense of efficacy and satisfaction with their work. Second, there is a self-fulfilling prophecy aspect in such a perception (Pelletier and Vallerand 1989, cited in Deci et al, 1991). If teachers believe certain students are not motivated, irrespective of the truth of that belief, they tend to act in a more controlling fashion toward them and vary their expectations as well. These dynamics are particularly important in the later elementary years and during middle school, when a misfit often occurs between students' increasing developmental needs for "voice" and meaningful participation in active learning on the one hand, and how school and classes are structured on the other (National Middle School Association, 2003).

Our construct "Students' Commitment to Learning" is fundamentally an assessment of the prevailing student culture or cultures toward education. As Moos says (1979), "the character of an environment depends in part on the typical characteristics of its members" (p. 8). The prevailing student academic culture—and how staff nurture or thwart it through providing such opportunities as Student Voice—then can either buttress or countervail the academic orientation and values of the school (adult) educational philosophy. These cultures are not forces to be ignored or trifled with as they can help frame motivation for many students irrespective of the call of the school staff.

Attempting to learn in an environment where peers do not prize academic achievement can be no easier to do than coming to school excited to learn only to be constantly affected by the disorder in the classroom and halls. Niebuhr and Niebuhr (1999) found that student-peer relationships were significantly related to academic success. They reasoned that a cohesive peer group with high academic expectations increased student motivation in general and that, in turn, led to increases in academic achievement. Berndt et al (1990), in a study of eighth graders, found that friends who discussed academic issues increasingly came to share similar opinions toward academic achievement.

Both the Niebuhr & Niebuhr (1999) and Berndt (1990) studies emphasize close-knit peer groups as opposed to the student body in toto. Ryan (2000) argues that focusing on the student body as a whole will likely distort the differences that exist among peer groups. Since students often have a choice of groups, they can pre-select themselves into groups that are more or less academically engaged. Wentzel & Caldwell (1997) found in a longitudinal study of sixth graders that peer relationships affected achievement in eighth grade but only indirectly through pro-social behaviors. The implication is that friends' normative influence impacts individual behaviors that either support or distract from academic achievement.

Though it appears that friends impact the behaviors that lead to academic achievement more than peers' writ large, it is still likely that a predominant cultural disposition can amplify or counter the impulse in the smaller group. For example, a large study of K-12 schools in San Diego found that students made more academic progress in one year when they were surrounded by peers with high scores on the previous year's

Stanford 9 reading test, but the effects were even larger for grade-level than classroom level (Betts, Zau, & Rice, 2003). Therefore, we are interested in the student academic culture with respect to the student body at large.

The Students' Commitment to Learning factor in this survey measures staff perceptions of how committed students are to learning in terms of effort, homework completion, and attitudes toward learning. It also measures the orderliness of student behavior. Orderly behavior is indicative of students who are committed to learning. When students are perceived as out of control, staff's sense of efficacy is sure to suffer (Rosenholtz, 1989). Research conducted with 353 public high school by Newmann et al (1989) found that orderly behavior by students was essentially " a critical condition for teachers to practice their craft with confidence" (p. 235).

Staff perceptions of student commitment to learning are illustrative because they provide an important perspective on the nature of the student body with which staff deals on a daily basis. But such perceptions do not provide a guide as to why students exhibit a commitment or not. Given the interrelated sources of a motivation to learn, the reason could be lack of intrinsic love of learning, inability to see market value in the pursuit of a good education, school climate factors that serve to demotivate students, conflicts between minority and majority cultures (Ogbu, 1994) or, likely, some combination thereof. Understanding the why can only occur with further exploration which is why we include student perceptions about their motivation on the student survey.

Safety and Classroom Order

Perceiving the school environment to be safe is also an essential precondition for good teaching to occur. If staff are going to feel the threat of harm surrounding them, one would not expect them to feel efficacious or satisfied in their work. Classroom order is related to but also distinct from safety: A school may be safe in the sense of having a relatively low level of risk of physical or emotional harm being done to members, but still chaotic and distracting from achievement if structure, order, and a quality learning environment are not maintained.

In recent educational literature much has been written about bullying and other antisocial behaviors of students disrupting the educational process and presenting a physical threat to staff and others. Although conditions outside of the school's control may predispose youth to such behavior, the school climate can act to reinforce or foster such antisocial actions or it can function as a countervailing force. Teacher behaviors can exacerbate conduct problems by focusing on negative behaviors instead of reinforcing positive ones. Certainly the developmental asset model can support staff in focusing on student strengths and building appropriate behavioral responses, in concert with the best educational strategies that do the same.

Research also shows that academic failure and antisocial behavior are consistently related. Students who experience continued school failure lose any sense of buy-in that they might have possessed, expressing their disenfranchisement in negative ways. The resulting sense of disorder negatively impacts both students and staff (McEvoy & Welker, 2000). However, a structured and supportive school climate may work to counter negative influences so as to elicit prosocial behaviors (Reinke & Herman, 2002). Staff, obviously, have a critical participatory role in establishing and reinforcing the norms that encourage such positive behaviors and/or attitudes, with the resulting climate being one in which the feeling of safety is prevalent academically, emotionally and physically. In essence, staff behavior with respect to students will

redound upon their sense of safety. The items on this survey related to safety measure the physical safety aspects of the school building and the school grounds.

PERSONAL DEVELOPMENT

Adaptive Efficacy

Our use of the term efficacy here refers to a teacher's perceptions that his or her teaching is worth the effort and makes a difference to the success of students they teach (Newmann et al, 1989). It is a "situation-specific expectation" (Ashton & Webb, 1986, p.3). Our construct comports with Ashton & Webb's (1986) "Sense of Personal Teaching Efficacy" as opposed to a global sense of teaching efficacy whereby a teacher's belief in the educability of certain students will be implicated. Personal Teaching Efficacy speaks to the individual staff member's confidence that they can be successful in their endeavors.

Teachers who feel efficacious tend to have higher student achievement, engage in more collaborative activities, attempt new classroom strategies, and persist in instructional efforts even with the most difficult students (Peterson, K., 1994). Teachers who do not feel that efficacy cite the "loss of a belief that they can make a difference in students' lives" as the number one reason that nearly one-half of U.S. teachers leave the profession within the first five years (Weissbourd, 2003).

Using the High School and Beyond Administrator/Teacher Survey, Newman et al (1989) explored the relationship of various background and organizational features on self-efficacy and other outcomes of interest. The climate factors that mattered most were sense of order in the school and support for innovation in the classroom, included respectively within the Students' Commitment to Learning and Supports for Instructional Improvement factors in this survey. The effects of background variables like demographic and economic characteristics of the students were rendered virtually nil in the presence of the organizational factors (p. 234).

Although we focus on a personal sense of efficacy, that sense is no doubt informed by the context in which one works (Ashton & Webb, 1986). Collective efficacy, which Goddard (2001) defines as "the perception of teachers in a school that the faculty as a whole can execute the courses of action necessary to have positive effects on students (p.467)," was significantly and positively related to differences in school achievement in reading and mathematics even when prior achievement and demographic characteristics were controlled. Why this might be so? Goddard argues that "if most teachers in a school believe the faculty can successfully teach students, the normative and behavioral environment will press teachers to persist in their educational efforts so that students achieve to high levels (p.469)." Thus a school's prevailing normative beliefs with respect to efficacy likely have effects upon individual staff perceptions of self-efficacy as well.

Efficacy isn't just something felt passively. The possession of it is indicative of what a person will do or, at least, try. When teachers feel efficacious, they are adaptive in their practice. Given the confidence they feel in their abilities to convey knowledge, they are more willing to tailor their delivery to the students in their classes. If the pedagogical approach they are using doesn't work, they try something new. Thus, we call our scale Adaptive Efficacy because the focus of this scale is not simply on feeling efficacious but in how such a state impacts one's approach to education. Two of our items come from Talbert & McLaughlin's (1999) "Adaptation of Practice Scale."

Commitment

Commitment to an organization is not something individuals bring with them in the sense that certain personal characteristics like educational level or ideology will guarantee commitment. Instead it is the result of experiences employees have at work. Commitment is either "bolstered or diminished as a result of organizational policies and practices" (Balfour & Wechsler, 1996, p. 272). It is incumbent upon the school board and the administration to understand the strategic importance that work climate plays for staff productivity and retention. All of the variables we have chosen to analyze in this survey are able to be addressed if not manipulable, meaning that the school board and administration have considerable power to affect the climate in which staff function.

Reawakening the passion for teaching and working with young people that teachers brought to the profession initially can be a significant contribution of a revitalized school climate. Forty-two percent of all educators leaving the teaching profession say that job dissatisfaction is the leading reason (Voke, 2002). Within that broad category is included: low salaries, lack of support from administrators, lack of student motivation, student discipline problems, and lack of teacher influence on decision making. Balfour and Wechsler (1996) found that participation in decisions that employees feel they have a stake in is the single most important factor for the intention to remain at a place of employment (p. 271). All of these factors, except low salaries, are captured as elements in the school climate factors measured in this survey. According to Heath (1994), teachers view using their talents well and growing professionally as more important than salary or status in improving their morale (Heath, 1994).

Satisfied teachers, on the other hand, do still find the passion and energy to approach their roles with zeal and creativity. They are organizationally committed employees who are devoted to student success. As such, those educators will likely improve school climate rather than behave in ways that detract from it.

The items in this Commitment scale measure the teacher's satisfaction with his/her job; the degree to which his/her work is a positive and inspiring aspect of life in general; and, likely commitment to the organization**.** A satisfied and committed staff is one that is more likely to create a rich and rewarding learning experience for students. Dissatisfied staff will not make the extra effort and student achievement will invariably suffer (Rosenholtz, 1989). And while there is a conceptual distinction between a satisfied employee and a committed one, they are so intertwined in a committed employee that we have used items of each in our commitment scale. Working to strengthen all of the climate factors will likely contribute to positive change in this Commitment outcome for staff.

Pilot and Field Test Results

Pilot Test

As detailed in Appendix 2, pilot testing showed the CGPL staff dimensions in general to have acceptable internal consistency. Correlations among the dimensions were small to moderate, suggesting they are largely, as desired, measuring different climate constructs. Items also loaded well into discrete factors, further suggesting acceptable construct validity.

Composition of Field Test Sample

Table 13 shows the composition of the Spring 2005 field test sample of 318 staff.

Table 13
Demographic Composition of Staff Field Test Sample

		Percentage
Staff Role	**Teacher**	**53**
	Other*	**47**
Gender	**Male**	**19**
	Female	**81**
Age	**20-30**	**16**
	31-40	**24**
	41-50	**25**
	51-60	**30**
	61 or over	**6**
Race/Ethnicity	**Asian**	**33**
	Hispanic	**29**
	Non-Hispanic White	**32**
	Other**	**6**
Years worked in current role	**< 1 year**	**8**
	1-2 years	**6**
	3-5 years	**20**
	6-10 years	**20**
	11-15 years	**11**
	> 15 years	**36**
Years at current school	**< 1 year**	**16**
	1-2 years	**12**
	3-5 years	**20**
	6-10 years	**20**
	> 10 years	**33**
Grade configuration of school	**K-8**	**59**
	9-12/10-12	**37**
	Other	**4**
Primary Grade Level Taught (teachers only)	**K-6**	**37**
	7-12	**22**
	Multiple grades	**41**
Highest degree (teachers only)	**Bachelor's**	**38**
	Master's	**61**
	Doctoral	**2**
Subject of Bachelor's Degree	**Education**	**15**
	Fine Arts	**8**
	Liberal Arts	**22**
	Science	**7**
	Social Studies	**17**
	Math	**3**
	Other	**28**

N= 310 staff at three middle schools and one high school in California
*Other includes administrators, counselors, curriculum specialists, food service staff, librarians, etc., all of whose individual group sizes were too small (≤ 20) to analyze separately
**Other includes African American, American Indian, Multiracial, and other races/ethnicities whose individual group numbers were too small to analyze separately

Reliability

Internal Consistency Reliability

Table 14 depicts the reliability coefficients (Cronbach's alpha) for each of the staff scales in the field test. The coefficients are shown for total sample and gender. The number of items in each scale is also shown. The total sample coefficients ranged from .76 to .88. There was little difference between males and females. As for the student survey, these results suggest acceptable reliability, with 100% of the dimensions measured at alphas of .70 or above.

Table 14. Internal Consistency Reliability of Staff Climate Dimensions—Field Test

		Reliability		
Category	**Dimension**	**Total**	**Female**	**Male**
Relationships	Student-Staff Relationships	**.78**	**.79**	**.74**
	Staff Collective Efficacy	**.81**	**.81**	**.81**
	School-Community Relations	**.76**	**.77**	**.70**
	Staff Collegiality	**.81**	**.80**	**.85**
	Parental Involvement	**.88**	**.88**	**.88**
Organizational Attributes	Administrative Leadership	**.82**	**.82**	**.83**
	Academic Expectations	**.76**	**.77**	**.72**
	Students' Commitment to Learning	**.88**	**.88**	**.90**
	Safety	**.80**	**.78**	**.85**
	Classroom Order	**.76**	**.74**	**.81**
	Student Voice	**.64**	**.68**	**.48***
	Fairness and Consistency of Policies and Practices	**.90**	**.90**	**.90**
	Support for Instructional Improvement	**.82 (teachers: .82)**	**.80 (teachers: .79)**	**.85 (teachers: .84)**
	Resource Adequacy	**.76 (teachers: .76)**	**.77 (teachers: .78)**	**.72 (teachers: .73)**
Personal Development	Adaptive Efficacy	**.79 (teachers: .80)**	**.79 (teachers: .79)**	**.82 (teachers: .83)**

	Commitment	**.85**	**.82**	**.84**

N=310 staff from three public middle schools and one public high school. N=171 for teacher-only items. *Reliability for males (N=58) increases to .60 if the item "students feel free to make suggestions to staff" is deleted (female alpha drops from .68 to .66 with this change).

Test-Retest Reliability

Test-retest reliability for the staff survey was not conducted during the pilot, but was done as part of the field testing in Spring 2005. As for the student survey, the coefficients shown in Table 15 suggest good test-retest reliability, supporting the use of the CGPL staff survey in measuring change in school climate over time.

Table 15. Test-Retest Reliability of Staff Climate Dimensions—Field Test

		Reliability		
Category	**Dimension**	**Total**	**Male**	**Female**
Relationships	Student-Staff Relationships	**.71**	**.70**	**.77**
	Staff Collective Efficacy	**.76**	**.76**	**.79**
	School-Community Relations	**.73**	**.71**	**.73**
	Staff Collegiality	**.80**	**.89**	**.77**
	Parental Involvement	**.78**	**.75**	**.77**
Organizational Attributes	Administrative Leadership	**.80**	**.76**	**.79**
	Academic Expectations	**.71**	**.65**	**.71**
	Students' Commitment to Learning	**.85**	**.93**	**.80**
	Safety	**.77**	**.84**	**.76**
	Classroom Order	**.79**	**.81**	**.76**
	Student Voice	**.69**	**.65**	**.71**
	Fairness and Consistency of Policies and Practices	**.80**	**.86**	**.82**
	Support for Instructional Improvement (teachers only)	**.80**	**.70**	**.83**
	Resource Adequacy (teachers only)	**.87**	**.82**	**.89**
Personal Development	Adaptive Efficacy (teachers only)	**.69**	**.78**	**.65**
	Commitment	**.87**	**.90**	**.81**

Presence of Positive School Work Climate

In the CGPL report, scores for both students and staff as presented as mean scale scores. In this Technical Manual, we also have provided for the field test data binary scores that create groups of students and staff who "have" or "do not have" the various climate dimensions, in order to more clearly illustrate the extent of positive climate and its relation to school success outcomes. In Chapter 2, we described why a cutoff score of mean 3.5 rather than the usual 4.0 on a 5-point scale made sense for students, due to their high percentage of "neither agree nor disagree" responses. On some items, staff also had a high degree of "neither agree nor disagree" responses; but typically, a smaller percentage of staff responded with that choice. This makes sense, both due to staff's adult status and their greater ability, as professionals, to observe, evaluate, and report on their working conditions. Thus, although it means the cutoff criteria are somewhat different for staff and students, we have retained the 4.0 cutoff as the most theoretically and empirically reasonable for staff when conducting these analyses with binary variables. Table 16 shows the presence of school work climate dimensions by both sets of cutoffs, and demonstrates that a cutoff of 3.5 produces results that are in many case substantially more positive than the results yielded from setting the cutoff at a scale mean of 4.0.

Table 16 shows that, employing the 4.0 mean cutoff, a great majority of staff in the field-test district think student-staff relationships are positive, academic expectations are high, and that they themselves are effective and adaptable in their roles. However, only a slight majority feel the staff as a collective is effective or collegial, or that they experience good administrative leadership. Only distinct minorities perceive some school climate dimensions to be sufficient, including safety, classroom order, student voice, parental involvement, support for instructional improvement, and resource adequacy. Such differences in perceived experience of school climate provide potential targets for school improvement and asset-building efforts.

Table 16.
Proportion of Field Test Staff Reporting Positive School Climate Dimensions

Category	Dimension	Using scale mean ≥ 4.0	Using scale mean ≥ 3.5
Relationships	Student-Staff Relationships	**77**	**93**
	Staff Collective Efficacy	**52**	**77**
	School-Community Relations	**62**	**75**
	Staff Collegiality	**56**	**82**
	Parental Involvement	**33**	**47**
Organizational Attributes	Administrative Leadership	**52**	**64**
	Academic Expectations	**79**	**95**
	Students' Commitment to Learning	**37**	**69**
	Safety	**35**	**75**

	Student Voice	**14**	**31**
	Classroom Order	**21**	**57**
	Fairness and Consistency of Policies and Practices	**56**	**72**
	Support for Instructional Improvement (teachers only)	**28**	**60**
	Resource Adequacy (teachers only)	**14**	**36**
Personal Development	Adaptive Efficacy (teachers only)	**78**	**94**
	Commitment	**61**	**80**

Comparison of Student-Staff Perceptions of Climate

The CGPL surveys enable some comparison of student and staff perceptions of school climate. Four of the dimensions contain identical items on both the student and staff surveys: Academic Expectations, Safety, Classroom Order, and Student Voice. Table 17 shows a considerable degree of similarity in student-staff perceptions in the field-test district, especially about academic expectations and safety. Students are somewhat more likely than staff to perceive adequate classroom order, although only a minority of both groups rates classroom order adequate. The most meaningful difference is that students are about twice as likely as staff to report students have a voice in decisions at school, although again, the levels for both groups are quite low. (Note that if a staff binary cutoff of a scale mean of 3.5 is used instead of 4.0, the resulting staff reports on these dimensions (provided in parentheses in Table 17) are substantially higher than those of students).

Table 17
Proportion of Students and Staff Reporting Parallel Climate Dimensions

	Students	Staff
Academic Expectations	**79**	**79 (95)**
Safety	**38**	**35 (75)**
Classroom Order	**27**	**21 (57)**
Student Voice	**29**	**14 (31)**

CHAPTER FOUR

INTERPRETING YOUR SCHOOL PROFILE

School climate was defined early on as an enduring pattern of shared perceptions. Those perceptions sometimes form subsets by race or grade or gender. This fact points to the validity of taking the pulse of school climate from a variety of perspectives. As Freiberg and Stein (1999) have said:

> As one stands viewing a painting or a sculpture, one rarely views the artistic piece merely from one position, we move about it, looking at it from different lighting and physical perspectives in order to realize its complete value. So it must be with our study of schools. One perspective is simply not enough to see the breadth of the whole process (p.17).

Through this process, the aim is to get a clear and comprehensive understanding of the various perspectives operating within the school so that schools can take the initiative and address the issues raised. A school's climate may be enduring but it is not fixed. Schools are dynamic systems. New people with different ideas, values, and needs continually come into them and mesh with the dominant values, rules, and procedures. Market needs, cultural impulses, and governmental directives also play strategic roles in the change process. A school climate, therefore, is alterable. Although a school's climate is affected somewhat by events, policies, cultural and societal changes that originate external to the school community, we should never overlook the fact that school climate is also always alterable by students, staff, and parents (Creemers & Reezigt, 1999).

So what can be done with the information provided by these surveys? This school climate instrument is primarily a tool for organizational development and improvement. Analysis of its results will show school strengths and areas needing attention. The report you receive after taking the staff and/or student survey provides extensive feedback from staff and students, respectively, about your school. As you read through it, you likely saw patterns to celebrate, issues to address, surprises to think through, and some results that didn't quite make sense given what you've experienced in your school. And there may have been findings that trouble you.

The challenge, then, is to sort through all the detailed findings to discover the important themes in the survey results that you want to celebrate and build on—as well as the challenges you want to address as you develop plans to improve the climate or environment in your school.

However, we cannot emphasize enough that "It is not enough to collect data, something must be done with it" (Freiberg & Stein, 1999). If improving school climate is to be taken seriously, this analysis should be seen as only the beginning. We recommend a four-step process. After the survey is given and analyzed during step one, the school should create a group made up of administrators, teachers, students, and parents to discuss these findings in light of the local context. That body should draw up actionable steps for the school to take with respect to improving school climate during the next couple of years and make those recommendations to the appropriate decision-makers. Thirdly, some workable variant of the proposed action steps should be implemented. After a suitable period of time, the climate should be re-assessed to get another read on the climate in general and to specifically determine the effects of any implemented improvement plans.

How to Interpret the Results

The information that is provided in the report revolves around the key school climate factors and outcomes measured in the survey. Though we have not yet established national normed scores for comparison among schools, the relative strength of your standardized scores will provide a clear indication of how staff or students perceive that element of your school's climate.

Each of the survey items has response options ranging from Strongly Disagree to Strongly Agree. From these responses, individual item averages are created. In turn, these item averages are grouped into scales of similar items to form a scale mean. All scale averages are standardized for comparison across the factors. Scale means are divided by the number of scale items and then multiplied by ten to obtain scale scores. The maximum possible score for all scales is 50. The factor averages, when compared with the maximum possible score for that scale, provide a wide-angle view of the perception of that factor in the school environment.

We also provide the factor score by race, gender, and grade in the student survey and race, gender, role, and grade taught in the staff survey. Given that a school's climate can be multi-perspectival, breaking the results out by these common categories can provide very useful information on how various subgroups perceive the school environment.

Since each of the individual items also contains distinct information, we show the percent of respondents who fall into each of the five response categories. Viewing the individual item results will allow for a more pinpoint focus on a specific element of a factor. For example, the item regarding disciplinary policy will show how fair students perceive its application. The perception of fairness, in general, however, arises from a multitude of instances reflecting a variety of rules, policies, and treatment.

Ideally, schools will integrate these school learning and work climate results into other data that the school already collects such as grades, standardized test results, absenteeism, problem behavior, percent who graduate or go on to further education, staff retention, etc. These are the ultimate results that matter to a school. Assessment data regarding your school's climate should be treated as another means to increase the likelihood of meeting a school's educational goals. Creating a positive school climate should be seen as a complement to providing quality teachers, proven curricula, and instructional practices that connect with your student body.

Using this data in an integrated fashion will enable informed decision-making. A school's administration can use this data in conjunction with available administrative data so as to be able to see where they can get the greatest return relative to each invested dollar. In conclusion, then, we do not push for the investigation of school climate in lieu of other reform efforts in the areas of curriculum development, teacher training, academic standards, spatial layouts of learning environments, etc. We do, however, stress that school climate is an important determinant of both student achievement and staff commitment and retention and, as such, should be assessed and explored as a fundamental component of true school reform.

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APPENDIX 1

STUDENT SURVEY: School Learning Climate Dimensions

RELATIONSHIPS

Caring and Fair Staff

7. Students in this school are treated fairly by school staff.
8. Most of my teachers give help in class when students ask for it.
10. School staff treat students with respect.
12. The rules we have at this school are fair.
18. This school has given up on some of the students.
34. Students from different races and cultures get equal respect from school staff.
41. School staff respect differences of opinion.
43. Students are disciplined consistently and fairly.
46. In this school, teachers treat kids who get good grades better than other kids.
51. In this school, teachers only care about the smart students.
61. Teachers here really care about me.

Parental Support and Achievement Values

19. My parent(s) try to get me to do my best in everything I do.
29. My parent(s) talk with me about what I am doing in school.
30. My parent(s) ask me about my homework.
47. My parent(s) expect me to do the best I can at school.
48. My parent(s) help me with my homework when I ask.

ORGANIZATIONAL ATTRIBUTES

Student Voice

15. I feel free to make suggestions to the principal or other administrators.
22. Students can suggest topics for classroom discussion.
26. Students help set school policies and rules that affect students.
59. Students are asked their opinions when key school decisions are made.

Safety

9. There is a lot of name-calling and being mean among students at this school.
11. It is rare for students to get physically picked on or bullied at this school.
13. Students at this school try hard to settle their differences without fighting or being mean to each other.
14. Students from different races and cultures get along well at this school.
24. The students I know feel safe on school grounds.
44. If staff see a student being bullied, they stop it.
56. If a student is being bullied, other students stop it.
60. The students I know feel safe in the school building.

Classroom Order

31. Most students in this school are well behaved even when the staff are not watching them.
40. Students treat each other with respect.
57. We can work in our classrooms without being distracted by other students.

Academic Expectations

16. The adults at this school have high expectations of students.
23. Our teachers give students challenging schoolwork.
28. School staff take academics seriously at this school.
36. My teachers require hard work to get good grades in their classes.

Peer Academic Influence

21. In this school, smart kids are not popular.
33. In this school, people don't like you as much if you get really good grades.
50. In this school, other students encourage you to do well in your schoolwork.

Active Learning

17. At school I try as hard as I can to do my best work.
20. I almost never come to class with unfinished homework.
37. I almost always work up to my ability.

PERSONAL DEVELOPMENT

Sense of Belonging (O)

27. There are students here who give me help or support when I need it.
35. People here notice when I am good at something.
38. I feel like I matter in this school.
42. This school has plenty of after-school activities I can participate in.
45. I have plenty of chances to do music, art, or drama at this school.
53. I do not feel important in this school.
55. I feel like I belong in this school.

Motivation (O)

32. I think that doing well in school is important for my future.
39. Achievement and effort in school are likely to lead to job success later on.
49. Doing well in school will help me get a good job when I am older.
52. It's important for me to do really well in school.

Academic Self-Efficacy (O)

25. I'm certain I can figure out how to do the most difficult schoolwork.
54. Even if the work in school is hard, I can learn it.
58. I'm certain I can master the skills taught in school this year.

(**O) Dimension also functions as indicator of outcome of academic well-being**

STAFF SURVEY: School Work Climate Dimensions

RELATIONSHIPS

Student-Staff Relationships

8. Teachers and other staff really care about students in this school.
15. Teachers and other staff go out of their way to make students feel comfortable and welcome in this school.
24. There are adults at this school whom students can trust and rely on for support.
32. Staff in this school try hard to treat all students as individuals.

Staff Collective Efficacy

9. There is an atmosphere of collegiality in our school.
16. Our school staff work together to improve instruction.
20. In this school, staff from different racial or ethnic backgrounds work well together.
25. Staff are offered the opportunity to participate in critical decisions affecting the school.
33. Administrators and staff collaborate to make the school function effectively.

School-Community Relations

10. This school has effective partnerships with community organizations.
18. This school is well regarded by the community.
27. Having strong community relations is a priority in this school.

Staff Collegiality

21. Most of my co-workers are a pleasure to work with.
29. I feel accepted and respected as a colleague by most staff members.
37. Staff are eager to learn from their colleagues.
47. This school provides a caring and supportive environment for me.

Parental Involvement

53. Most of our students' parents take an active part in their child's learning.
54. Most parents are genuine partners in their child's learning at this school.

ORGANIZATIONAL ATTRIBUTES

Administrative Leadership

17. The administration treats collaborative work among staff as a priority.
26. The principal trusts the judgment of staff.
42. Administrators do a good job of focusing staff efforts on our school's mission.

Academic Expectations

11. The adults at this school have high expectations of students.
19. School staff take academics seriously at this school.
28. Our teachers give students challenging schoolwork.
35. Teachers at this school require students to work hard to get good grades.

Students' Commitment to Learning

12. Too many students in my school don't care about learning.
22. Most students complete homework accurately
30. Most students are helpful and cooperative with staff.
39. Most students try hard to get the best grades they can.
48. Most students are well mannered and respectful to the school staff.
55. Most students consistently put forth good effort in their schoolwork.
61. Most students do as little as they have to.
62. Students in this school are eager to learn as much as they can.

Safety

13. I feel safe inside the school building.
23 I feel safe on school grounds.
31. If staff see a student being bullied, they stop it.
36. There is a lot of name-calling and being mean among students at this school.
43. It is rare that students get physically picked on or bullied at this school.
51. Students from different races and cultures get along well at this school.
52. If a student is being bullied, other students stop it.
56. Students at this school try hard to settle their differences without fighting or being mean to each other.

Student Voice

14. Students help set school policies and rules that affect them.
38. Students are asked their opinions before key school decisions are made.
50. Students are free to make suggestions to the principal or other administrators.

Classroom Order

40. Students can work in our classrooms without being distracted by other students.
44. Students treat each other with respect.
49. Teachers are rarely interrupted by students talking in class.
63. Most students in this school are well behaved even when staff are not watching them.

Fairness and Consistency of Policies & Practices

41. Rules and policies are enforced consistently and fairly at this school.
46. The administration enforces disciplinary policies consistently.
57. Disciplinary procedures are fair at this school.
58. If students break a rule at school, they will be disciplined.

Support for Instructional Improvement (teacher only)

71. Staff play a key role in determining the content of in-service programs.
73. Most of the in-service programs offered at this school deal with issues specific to the needs and concerns of this school's students or staff.
75. Staff are encouraged to be innovative at this school.
78. There are adequate opportunities to work with faculty members of other departments/grade levels at this school.
80. Staff development programs in this school permit me to acquire important knowledge and skills.
84. In this school, I am encouraged to experiment with my teaching methods.

Resource Adequacy (teacher only)

68. The extracurricular programs at this school are inadequate to meet the needs of our students.
69. The school or department library includes an adequate selection of books and periodicals.
72. Adequate copying equipment and services are available to staff.
74. The instructional equipment (e.g., multimedia, art supplies, physical materials for science projects) is not adequate for my purposes.
76. The counseling program is a strength of our school.
79. The resources at school are adequate for my purposes.
81. The availability of computers at this school is adequate for my purposes.
83. Classroom supplies are adequate for my purposes.

PERSONAL DEVELOPMENT

Adaptive Efficacy (teacher only)

70. I believe that I can make a difference in student achievement.
77. I am certain that I am making a positive difference in the lives of our students.
82. When a student has trouble learning something, I try a new strategy.
85. If some students in my class are not doing well, I believe that I should change my teaching approach.
86. By trying a different teaching method, I can significantly affect a student's achievement.

Commitment

34. My work has a positive effect on my life.
45. My work gives me a feeling of accomplishment.
59. On most days I look forward to my work.
60. I don't have as much enthusiasm now as I did when I began working here.
64. This school inspires my best job performance.

Appendix 2
Pilot Testing

For the Phase 3 reliability and validity testing of these student scales, we used survey results from schools in Ellicott City, Maryland; Phillips, Wisconsin; Fulton, Maryland; Houston, Texas; and Oak Grove Lutheran in Fargo, North Dakota. We varied the versions of the surveys to a slight degree to allow us to test different items and item wordings, and there were some missing data as well, so the total sample size for each scale varied. Table A1 shows the sample N for each dimension.

Table A1
Pilot School Climate Dimensions for Students

Final Survey Scale Name	Original Scale Name	Total Pilot Sample N
Caring and Fair Staff	Caring Staff	**1537**
Parental Support and Achievement Values	Na	**Phase 4 field test data**
Student Voice	Youth as Resources	**1576**
Safety	Na	**Phase 4 field test data**
Classroom Order	Classroom Order	**1600**
Peer Academic Influence	Na	**Phase 4 field test data**
Academic Expectations	Na	**Phase 4 field test data**
Active Learning	Na	**Phase 4 field test data**
Sense of Belonging	Sense of Belonging	**1616**
Motivation	Internalized Value of Education	**1608**
Academic Self-Efficacy	Academic Self-Efficacy	**1598**

Table A2 shows the gender, race, and grade breakdown of the students who were surveyed in the pilot phase.

Table A2			
Student Gender, Race, & Grade Composition			
		N	**Percent**
Gender			
	Female	**829**	**50**
	Male	**829**	**50**
Race			
	American Indian	**12**	**1**
	Asian	**152**	**9**
	Black	**93**	**6**
	White Hispanic	**59**	**4**
	White Non-Hispanic	**1230**	**74**
Grade			
	6	**185**	**11**
	7	**183**	**11**
	8	**216**	**13**
	9	**420**	**25**
	10	**394**	**24**
	11	**130**	**8**
	12	**137**	**8**
Totals		**1668**	**100**

Reliability

Internal Consistency Reliability

A scale is internally consistent if the items measuring the dimension yield similar responses patterns, i.e., they appear to be measuring the same construct. A coefficient of .70 or above is considered an acceptable level of reliability for research measures administered to adolescents and adults. Table A3 depicts the reliability coefficients (Cronbach's alpha) for each of the student scales in the pilot version. The coefficients are shown for total sample and gender. The number of items in each scale is also shown. The total sample coefficients ranged from .73 to .88. There was little difference between males and females.

Table A4 lists the reliability coefficients by race and/or Hispanic self-identification. We did not list American Indian as the number of cases is small (n=12). The largest spread in the degree of reliability of these scales was within Classroom Order (.67 for Blacks and .80 for Whites) and Student Voice (Youth as

Resources in the pilot--.62 for Blacks and Hispanics versus .76 for Whites). These discrepancies might diminish with increased sample size for Blacks and Hispanics.

Table A5 shows the reliability coefficients by grade. The coefficients for Sense of Belonging ranged from .79 for Grade 6 to .89 for Grade 12 but there was no evident grade pattern. Other scales showed similar variability. The one scale that had a definite pattern was Achievement Motivation (Internalized Value of Education in the pilot), for which the reliability coefficient in the pilot study increased with each grade. In Grade six it was .81 but for Grade 12 it was .93.

Table A3
Reliability Coefficients of Student School Climate Survey Dimensions

Final Survey Scale Name	**Original Scale Name**	**Total Sample**	**Female**	**Male**	**Number of Items**
Caring and Fair Staff	Caring Staff	**.88**	**.88**	**.87**	**11**
Parental Support and Achievement Values	Na				
Student Voice	Youth as Resources	**.73**	**.73**	**.74**	**4**
Safety	Na				
Classroom Order	Classroom Order	**.79**	**.77**	**.80**	**5**
Peer Academic Influence	Na				
Academic Expectations	Na				
Active Learning	Na				
Sense of Belonging	Sense of Belonging	**.82**	**.84**	**.81**	**3**
Motivation	Internalized Value of Education	**.87**	**.87**	**.87**	**4**
Academic Self-Efficacy	Academic Self-Efficacy	**.84**	**.85**	**.83**	**5**

Table A4
Reliability Coefficients for Student School Climate Dimensions by Race/Ethnicity

	N	**152**	**93**	**59**	**1230**
Final Survey Scale Name	**Original Scale Name**	**Asian**	**Black**	**Hispanic**	**White**
Caring and Fair Staff	Caring Staff	**.84**	**.84**	**.85**	**.88**
Parental Support and Achievement Values	Na				
Student Voice	Youth as	**.62**	**.71**	**.62**	**.76**

	Resources				
Safety	Na				
Classroom Order	Classroom Order	**.78**	**.67**	**.71**	**.80**
Peer Academic Influence	Na				
Academic Expectations	Na				
Active Learning	Na				
Sense of Belonging	Sense of Belonging	**.83**	**.79**	**.80**	**.83**
Motivation	Internalized Value of Education	**.85**	**.91**	**.87**	**.87**
Academic Self-Efficacy	Academic Self-Efficacy	**.77**	**.82**	**.82**	**.84**

Table A5
Reliability Coefficients of Student School Climate Dimensions by Grade

Final Survey Scale Name	Original Scale Name	Grade 6	Grade 7	Graded 8	Grade 9	Grade 10	Grade 11	Grade 12
	N	**185**	**183**	**216**	**420**	**394**	**130**	**137**
Caring and Fair Staff	Caring Staff	**.86**	**.85**	**.88**	**.85**	**.85**	**.89**	**.88**
Parental Support and Achievement Values	Na							
Student Voice	Youth as Resources	**.70**	**.77**	**.76**	**.70**	**.69**	**.79**	**.77**
Safety	Na							
Classroom Order	Classroom Order	**.77**	**.80**	**.81**	**.75**	**.72**	**.84**	**.82**
Peer Academic Influence	Na							
Academic Expectations	Na							
Active Learning	Na							
Sense of Belonging	Sense of Belonging	**.79**	**.86**	**.81**	**.80**	**.80**	**.85**	**.89**
Motivation	Internalized Value of Education	**.81**	**.82**	**.85**	**.86**	**.90**	**.91**	**.93**
Academic Self-Efficacy	Academic Self-Efficacy	**.81**	**.73**	**.79**	**.84**	**.83**	**.88**	**.87**

Validity

These scales were primarily developed from theoretical and empirical work in educational psychology over the last 20 years. The constructs used here reflect that learning.

One test of construct validity, in the sense of divergent validity, is the nature of the correlations among the dimensions. The correlations from the pilot study are shown in Table A6, and are all moderate.

This is not unexpected as the measures overlap to some degree conceptually. For example, Youth Voices (Youth as Resources in the pilot) is conceived as largely an outgrowth of school policy and practice yet the experience of being useful is experienced as a relational aspect of the school.

Another means of showing construct validity is using factor analysis to determine how well the items group together. Items that group together are related to the same underlying construct or school climate dimension (although naming that construct or dimension is always somewhat subjective). In Table A7, the factor loadings from the Phase 3 pilot testing are shown. These loadings reflect the percentage of the item's variance that is explained by that school climate dimension. The items with the highest loadings on a given dimension "provide a window into the nature of the factor in question" (DeVellis, 2003) thus providing some face validity to the name of the factor. The relatively high loadings of the items on only one factor provide some evidence that the dimensions are not redundant measures of differently named constructs.

Table A6

Correlations Among Student School Climate Survey Dimensions

Fix top row to add new dimensions and get order right

Final Survey Scale Name	Original Scale Name	Caring Staff	Belong	Classroom Order	SV	M	ASE
Caring and Fair Staff	Caring Staff	**1**	**.59**	**.53**	**.60**	**.52**	**.58**
Parental Support and Achievement Values	Na						
Student Voice	Youth as Resources	**.60**	**.52**	**.55**	**1**	**.33**	**.44**
Safety	Na						
Classroom Order	Classroom Order	**.53**	**.51**	**1**	**.55**	**.26**	**.40**
Peer Academic Influence	Na						

Academic Expectations	Na						
Active Learning	Na						
Sense of Belonging	Sense of Belonging	**.59**	**1**	**.51**	**.52**	**.41**	**.51**
Motivation	Internalized Value of Education	**.52**	**.41**	**.26**	**.33**	**1**	**.60**
Academic Self-Efficacy	Academic Self-Efficacy	**.58**	**.51**	**.40**	**.44**	**.60**	**1**

*** Correlations are all significant at the 0.01 level.**

Table A7

Pilot Test Student Factor Loadings *

Scale	Caring Staff	Relative Ability	Sense of Belonging	Classroom Order	Youth as Resources	Internalized Value of Education	Academic Self Efficacy
Q7	.74						
Q8	.66						
Q11	.71						
Q13	.61						
R20		.57					
Q27					.69		
Q34				.74			
Q35	.57						
R36		.68					
Q41				.62			
Q42	.53						
Q43	.54						
R45		.77					
Q48					.69		
R51		.68					
Q53				.68			
Q56				.72			
Q57							.72
Q58						.76	
Q61							.73
Q62							.58
R63			.76				
Q65							.77
Q66							

Q68			**.68**				
Q75			**.75**			**.78**	
Q76						**.81**	
Q77							**.62**
Q78						**.78**	
Q82					**.59**		
Q85					**.59**		
Q88				**.61**			

* Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization. Rotation converged in XX iterations.

In terms of predictive validity, we were able to obtain the grade point average (GPA) for students at one of the sites in the pilot testing. While these are largely white students in grades nine through twelve, a sample size of 354 does provide some evidence for the utility of these school climate dimensions for predicting GPA scores at least for this sub-population. In Table A8, we show the correlations among the factors and GPA.

Table A8
Correlations of GPA With School Climate Dimensions—Pilot Study

Final Survey Scale Name	Original Scale Name	GPA	CFS	PS-AV	SV	S	CO	PAI	AE	AL	SB	M	ASE
	GPA	**1**	**.32****		**.03**		**-.03**				**.38****	**.41****	**.48****
Caring and Fair Staff	Caring Staff	**.32****	**1**		**.49****		**.33****				**.57****	**.48****	**.42****
Parental Support and Achievement Values	Na												
Student Voice	Youth as Resources	**.03**	**.49****		**1**		**.44****				**.39****	**.21****	**.30****
Safety	Na												
Classroom Order	Classroom Order	**-.03**	**.33****		**.44****		**1**				**.33****	**.07**	**.26****
Peer Academic Influence	Na												
Academic Expectations	Na												
Active Learning	Na												
Sense of Belonging	Sense of Belonging	**.38****	**.57****		**.39****		**.33****				**1**	**.36****	**.50****
Motivation	Internalized Value of Education	**.41****	**.48****		**.21****		**.07**				**.36****	**1**	**.57****

Academic Self-Efficacy	Academic Self-Efficacy	**.48****	**.42****		**.30****		**.26****				**.50****	**.57****	**1**

*** Correlations based on data obtained from one high school.**

** **Significant at .01 level.**

We also performed a regression analysis on the pilot study data with GPA as the dependent variable and the school climate scales as independent variables. We included dummy variables for male, race, and grade. The results are shown in Table A9. .

Table A9

Regression of Climate Factors/Outcomes on GPA—Pilot Test

Model	**Beta***	**T**	**Sig.**
Constant		-0.926	.355
Caring Staff	.144	2.219	.027
Sense of Belonging	.201	3.339	.001
Classroom Order	-.144	-2.658	.008
Youth as Resources	-.188	-3.231	.001
Internalized Value of Education	.184	2.846	.005
Academic Self Efficacy	.286	4.574	.000
White	.113	1.536	.126
Male	-.109	-2.248	.025
Grade 9	.002	0.030	.976
Grade 10	-.045	-0.779	.437
Grade 11	.028	0.486	.628

* Standardized Coefficients

Grade and being white are not significantly related to GPA controlling for the school climate dimensions. The total number of non-white students was 14 so we do not include these numbers in the table.

However, all of the climate variables are significant controlling for the other variables in the model. Academic Self Efficacy has the largest effect size at .286 (Beta) followed by Sense of Belonging at .201. Being male is significantly related to lower GPA.

Two interesting results are the negative relationships of Student Voice (Youth as Resources in the pilot study) and Classroom Order with GPA. We were expecting a positive relationship between perceived order and GPA but it appears that those who perceived greater disorder in school did better. Perhaps students who are the most driven to do well might naturally notice or be more sensitive to disruptions. This bears further watching in future studies.

Student Voice also was expected to have a positive relationship with GPA. But it appears that students who do well in school perceive a relative lack of opportunity to participate in the decision-making process at school. Students who do well might naturally want to be more involved because they feel they have

something to contribute. It may be that objective evidence of a certain level of engagement is not as important as students' perception that their level of engagement is satisfactory.

In general, the regression results provide some support for our theoretical approach to school climate as a contributor to academic success. However, the sample used for this analysis was limited in demographic breadth, the climate dimensions used in the pilot were fewer in number, and many items were new or revised in the final survey. In addition, these are correlation, not longitudinal results, and so causal connections between the climate measures and GPA cannot be made. So although these results suggest the potential validity of the school climate measures, the field test results and additional research are needed to strengthen that finding.

STAFF SURVEY: Pilot Test Results

RELIABILITY & VALDITY OF SCALES

A large public school district in Texas with 40 campuses was the primary pilot school for our School Work Climate Survey. Table A10 shows the participating staff in terms of gender, race, role played at school and grade taught.

Table A10
Staff Gender, Race, Role, and Grade Taught

	Category	N	Percent
Gender			
	Female	2973	84
	Male	581	16
Race			
	American Indian	9	<1
	Asian	148	4
	Black	776	22
	Hispanic	260	8
	White	2036	59
Role			
	Teacher	2237	63
	Administrator	102	3
	Special Ed	172	5
	Counselor	70	2
	Specialist	244	7
	Other	744	21
Grade			
	Kindergarten	154	6
	1	137	6
	2	108	4
	3	125	5
	4	136	6
	5	122	5

	6	168	7
	7	122	5
	8	142	6
	9	167	7
	10	82	3
	11	64	3
	12	35	1
	Some Combination	897	37
Totals		**3613**	**100**

Table A11 depicts the reliability coefficients (Cronbach's alpha) for each of the student scales. The coefficients are shown for total sample and gender. Finally, the number of items in each scale is shown. There is some variability by gender. The reliability coefficients for Supports for Instructional Improvement and Resource Adequacy are higher for males while that for Efficacy is higher among females.

Table A12 lists the reliability coefficients by race and/or Hispanic self-identification. We will not list American Indian as the number of cases is small (n=12). There is little variation by race. The one exception is the coefficients for Efficacy with Asians and Blacks showing .72 and Hispanics .83. Table A13 shows the reliability coefficients by grade. We grouped the respondents in the following fashion: Kindergarten to Grade 5, Grades 6-8, Grades 9-12, and those who indicated that they teach some combination of grades. Again while there is some variability, the reliability coefficient for each scale is acceptable irrespective of gender, race, or grade membership.

Table A14 lists the reliability coefficients by role at school. While there is variation across the roles, all coefficients are .70 or above and therefore each of the factors are reliable indicators irrespective of role at school.

Table A11

Reliability Coefficients (Alpha) for Staff Scales by Total Sample, Gender, and Number of Items

Scale	Total Sample	Female	Male	Number of Items
Collegiality	**.76**	**.76**	**.76**	**4**
Students' Commitment to Learning	**.88**	**.88**	**.89**	**8**
Safety	**.88**	**.87**	**.91**	**2**
Parental Involvement	**.88**	**.88**	**.87**	**3**
Fairness and Consistency of Policies and Practices	**.88**	**.88**	**.88**	**5**
Support for Instructional Improvement	**.79**	**.77**	**.84**	**7**
Resource	**.76**	**.75**	**.80**	**6**

Adequacy				
Adaptive Efficacy	.77	.78	.72	6
Commitment	.84	.84	.86	7

Table A12				
Reliability Coefficients (Alpha) for Staff Scales by Self-Identified Race[1]				
Scale	Asian	Black	Hispanic	White
Collegiality	.73	.75	.73	.74
Students' Commitment to Learning	.83	.85	.86	.89
Safety	.85	.89	.88	.87
Parental Involvement	.87	.89	.87	.88
Fairness and Consistency of Policies and Practices	.89	.86	.87	.88
Support for Instructional Improvement	.78	.77	.80	.78
Resource Adequacy	.75	.75	.75	.76
Adaptive Efficacy	.72	.72	.83	.78
Commitment	.8	.79	.81	.86

Table A13				
Reliability Coefficients (Alpha) for Staff Scales by Grade Taught				
Scale	Grades K-5	Grades 6-8	Grades 9-12	Some Combination
N	782	432	348	897
Collegiality	.76	.74	.76	.74
Students' Commitment to Learning	.86	.85	.87	.89
Safety	.82	.92	.91	.9
Parental Involvement	.86	.89	.87	.87
Fairness and Consistency of Policies and Practices	.88	.86	.84	.87
Support for	.73	.76	.80	.81

Instructional Improvement				
Resource Adequacy	**.73**	**.74**	**.78**	**.78**
Adaptive Efficacy	**.68**	**.74**	**.69**	**.71**
Commitment	**.84**	**.83**	**.86**	**.84**

Table A14

Reliability Coefficients (Alpha) for Staff Scales by Role

Scale	Teacher	Admin	Special Ed	Counselor	Specialist	Other
N	**2237**	**102**	**172**	**70**	**244**	**744**
Collegiality	**.76**	**.75**	**.70**	**.83**	**.78**	**.74**
Students' Commitment to Learning	**.88**	**.88**	**.83**	**.90**	**.89**	**.86**
Safety	**.88**	**.77**	**.86**	**.87**	**.86**	**.88**
Parental Involvement	**.88**	**.84**	**.87**	**.88**	**.87**	**.88**
Fairness and Consistency of Policies and Practices	**.87**	**.86**	**.82**	**.92**	**.89**	**.88**
Support for Instructional Improvement	**.78**	**.78**	**.77**	**.81**	**.81**	**.78**
Resource Adequacy	**.75**	**.76**	**.77**	**.80**	**.76**	**.75**
Adaptive Efficacy	**.71**	**.76**	**.77**	**.71**	**.73**	**.82**
Commitment	**.85**	**.90**	**.80**	**.86**	**.83**	**.81**

In terms of validity, these scales were primarily developed from theoretical and empirical work in educational and organizational psychology. The constructs used here reflect that cumulative knowledge.

One test of construct validity, in the sense of divergence, is the nature of the correlations among the factors. While the correlations in Table A15 are all significant, they are not large enough to warrant concern that the factors are redundant measures of differently named characteristics.

Table A15									
Staff Factor Correlations									
Scale	Collegial	SCL	Safety	Parent	Fair	Support	Resource Adequacy	Adaptive Efficacy	Commitment
Collegial	1	.34	.3	.24	.43	.53	.38	.30	.47
Students' Commitment to Learning	.34	1	.33	.57	.51	.39	.34	.35	.44
Safety	.3	.33	1	.22	.41	.36	.34	.20	.43
Parental Involvement	.24	.57	.22	1	.36	.31	.24	.14	.29
Fairness and Consistency of Policies and Practices	.43	.51	.41	.36	1	.52	.37	.21	.49
Support for Instructional Improvement	.53	.39	.36	.31	.52	1	.50	.35	.53
Resource Adequacy	.38	.34	.34	.24	.37	.50	1	.24	.37
Adaptive Efficacy	.30	.35	.20	.14	.21	.35	.24	1	.39
Commitment	.47	.44	.43	.29	.49	.53	.37	.39	1

Another means of showing construct validity is using factor analysis to determine how well the items group together. Items that group together are caused by the same underlying construct even if the naming of that construct comes from the researcher. In Table A16, the factor loadings are shown. These loadings reflect the percentage of the item's variance that is explained by the latent construct. The items with the highest loadings on a given factor "provide a window into the nature of the factor in question" (DeVellis, 2003).

Table A16									
Staff Factor Loadings *									
Scale	Collegial	SCL	Safety	Parent	Fair	Support	Resource Adequacy	Adaptive Efficacy	Commitment
Survey Item									
Q11					.52				
Q12					.73				
Q15					.78				
R21									.55
R23		.72							
Q35			.81						
Q37									.58

Q39		**.60**							
Q40							**.53**		
Q41								**.74**	
Q42									**.73**
Q43			**.83**						
Q47							**.71**		
Q48								**.63**	
Q49					**.77**				
Q51									**.72**
Q54									**.58**
Q55	**.54**								
Q56					**.78**				
Q57	**.75**								
Q58						**.47**			
Q59	**.66**								
Q60	**.68**								
Q61		**.64**							
Q62		**.73**							
Q63		**.72**							
Q64							**.61**		
Q65						**.57**			
Q66								**.48**	
Q68								**.57**	
Q70		**.70**							
Q71							**.56**		
R72							**.65**		
Q73						**.55**			
R74		**.62**							
Q76									**.75**
Q77						**.60**			
R78									**.62**
Q79						**.61**			
Q80								**.73**	
R83		**.71**							
Q85						**.58**			
Q86				**.76**					
Q87				**.78**					
Q89						**.60**			
Q91				**.76**					
Q92								**.73**	
Q95							**.75**		

* Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization. Rotation converged in 7 iterations.

This is a relatively new survey and much will be learned form its continued use. As of the present time, there have been no tests of predictive validity on the staff survey, for example, with respect to staff retention or student scores on standardized tests. Further collection of data may enable these tests to be conducted in the future.

NOTES

1. Question on survey asked for race of staff member. It did not include Hispanic as an option. These 280 chose "Other" and then filled in "Hispanic." Another question on the survey asked "Are you of Hispanic Origin?" This question sought to identify Hispanic ethnicity. Table 18 below shows the results for Hispanic versus non-Hispanic. There is very little difference in the reliability coefficients.

Table 18

Reliability Coefficients (Alpha) for Staff Scales by Hispanic versus Non-Hispanic

Scale	Hispanic	Non-Hispanic
Collegiality	.75	.76
Students' Commitment to Learning	.86	.88
Safety	.86	.88
Parental Involvement	.86	.88
Fairness and Consistency of Policies and Practices	.86	.88
Support for Instructional Improvement	.79	.78
Resource Adequacy	.73	.76
Adaptive Efficacy	.81	.76
Commitment	.83	.84

Figure 2. Hypothesized Relation of School Learning Climate to Student Achievement

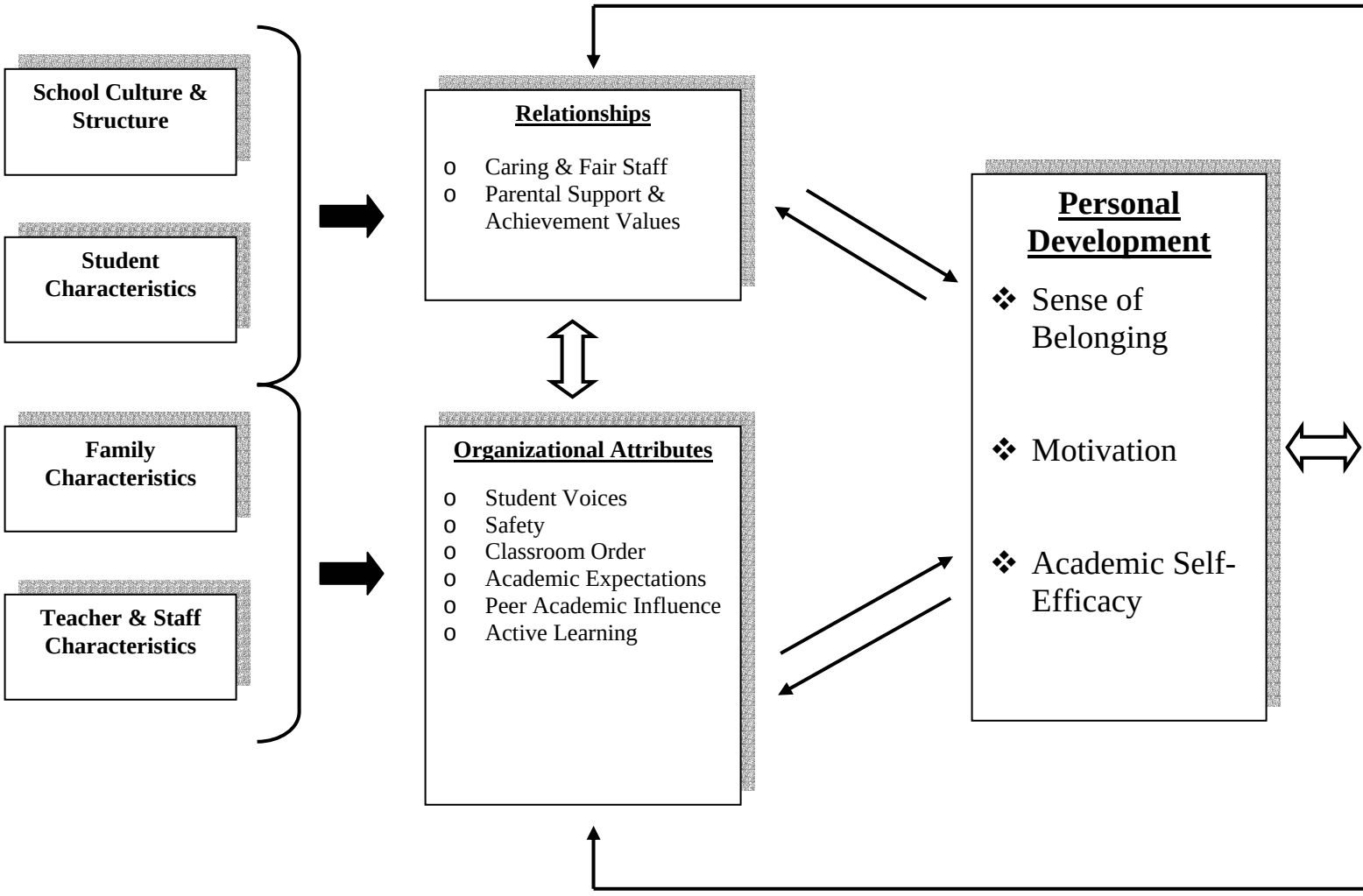

Figure 3. Hypothesized Relation of School Work Climate to Student Achievement