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An examination of the relationship between school environment and student achievement in an urban school division in Virginia

George L. Jones
College of William & Mary - School of Education

Jones, George Linwood

AN EXAMINATION OF THE RELATIONSHIP BETWEEN SCHOOL ENVIRONMENT AND STUDENT ACHIEVEMENT IN AN URBAN SCHOOL DIVISION IN VIRGINIA

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AN EXAMINATION OF THE RELATIONSHIP

BETWEEN

SCHOOL ENVIRONMENT AND STUDENT ACHIEVEMENT

IN AN URBAN SCHOOL DIVISION IN VIRGINIA

by

George Linwood Jones

Approved March 1982 by

William F. Losito, Ph.D

Ronald C. Wheeler, Ph.D

Robert Maidment, Ed.D
Chairman of Doctoral Committee

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CHAPTER I

INTRODUCTION

During the last three decades, social science researchers have increasingly cited evidence that certain educational practices can enhance or hinder what Levin (1975) calls "life chances" of youngsters. This research also serves as a basis for conducting additional research on what we do and how we perform various daily tasks in our educational institutions. The Supreme Court of the United States further set this idea of "life chances" in perspective in its landmark 1954 decision. The Court writes:

> Today, education is perhaps the most important function of state and local governments. Compulsory school attendance laws and the great expenditures for education both demonstrate our recognition of the importance of education to our democratic society. It is required in the performance of our most basic public responsibilities, even serving in the armed forces. It is the very foundation of good citizenship. Today it is a principal instrument in awakening the child to cultural values, in preparing him for later professional training, and in helping him adjust normally to his environment. In these days, it is doubtful that any child can reasonably be expected to succeed in life if he is denied the opportunity of an education. (Brown, et al. v. Board of Education, 1954).

This fundamental belief of Americans that schools make a difference for better or worse--for the survival of a free citizenry--was cited by Wollenberg (1976) as a propellant for the public's deep concern about the poor academic performance of a large segment of the student population in the public schools. This poor performance is considered a "waste of human potential which can no longer be tolerated" (Brookover, Gigliotti, Henderson and Schneider, 1973, p. 1). Brookover, et al. state that "the day has long since passed when reliance upon educational theories as the genetic origin of intelligence or the permanent effect of environmental deprivation can be used as excuses for the failure of schools to educate large numbers of children, especially those from low socio-economic and/or culturally different backgrounds" (Brookover, et al., 1973, p. 1). During the last quarter of this century in particular, educators have been experiencing tremendous pressures to improve students' academic performance. To date, however, the research has not revealed the most effective strategies or clear directions for accomplishing such improvements.

The present crescendo of cultural and social change affecting schools, coupled with research on leadership styles, learning styles, climates, organizational and instructional patterns, and this concern for performance have caused school administrators to reassess the process of schooling as they deal with the high rate of dissonance arising simultaneously from students, teachers, and the public in general. Barrow (1976) calls attention to one of the glaring weaknesses of our educational environment. He states that "education is not a game and children's lives are not to be lightly played with. It is intolerable that a great deal of educational practices should be the outcome of

whims of individuals who have not even thought about, much less understood, most of the serious research and argument relevant to the question of what should go on in schools. It is an outrage on our children, as well as an offense to reason, that bandwagons of educational gimmickry preceded by resounding and vacuous slogans should career over and crush them, determining and limiting their future" (Barrow, 1976, p. 16).

Many educators who, a few years ago jumped on bandwagons of various kinds, seemingly failed to realize that a large number of variables come into play in the process of education. Numerous articles on management and change now appear in educational literature reflecting the fact that schools, like other organizations, are being studied from a number of perspectives (Weber, 1946; Etzioni, 1964). The investigation by Thompson (1972) focused on the need for changes in the environment of organizations.

Social science research has, in recent years, used such descriptive terms as "life chances," "quality of school life," "organizational climate," and "environmental press," which suggest that one must look at much more than just a "back-to-the-basics" approach in our schools to improve students' academic performance. Herr, Warner, and Swisher (1970) make this observation. They state that "this perspective has led to an awareness that solutions to the dilemmas confronting secondary education do not reside solely in improving instructional techniques, exploiting teaching technology, or introducing increased relevance to educational content. Rather it recognizes that there are structural properties and environmental characteristics of secondary schools which influence both student and teacher behavior" (Herr, et al., 1970, p. 56). Hunt (1961) and Green (1966) cite research data which suggest that a positively stimulating environment is an important aspect of human development.

Numerous other studies cite the importance of the environment of the home as a basis for later intellectual development among all youngsters (Coleman, et al., 1966; Mayeske, et al., 1972); and the school's environment as critical in facilitating or impeding intellectual growth. Other studies further reveal that in poor school environments, achievement decreases with age (Higgins and Sivens, 1958; Young and Bright, 1954; Bloom, 1964; Deutsch, 1963). Clark (1965), from his extensive research in New York's Harlem, presents strong evidence "that an inferior school environment can bring about a systematic decline not only in measured intelligence but also in measured academic achievement as well" (Clark, 1965, p. 10).

As has been noted in much of the literature on the process of schooling, students in our public schools do not come necessarily on their own volition; nor do they necessarily choose the schools they wish to attend. The public outcry about our schools demands that we examine the "structure of the school, the individuals within that structure, and the interaction of the structure with individuals" (Herr, 1965, p. 678) and take cognizance of the interest in student satisfaction as an outcome responsible to changes in the environmental press. Several research studies indicate that instruments are available to conduct such an examination.

Purpose of the Study

The needs of a student population and among that student population are not necessarily the same. Research findings indicate that "significant relations found between particular needs and particular environmental characteristics differ individually and within particular subgroups of students" (Herr, 1965, p. 4). When students have been categorized according to various demographic characteristics, their perceptions of the school environment differed (Herr, 1965). Other research observations indicate that adequate data have not yet been gathered to determine causal relationship between school racial composition and academic achievement (St. John, 1975). In subsequent reanalyses of the Coleman data, perceptions of the school contributed significantly to the variance in achievement (Smith, 1972). Still other findings indicated that much of the variance in academic achievement may be explained by the academic norms and expectations which characterized the student body (McDill, Meyers and Rigsby, 1967; McDill and Rigsby, 1973).

The need for school personnel to identify those factors which are frustrating and have negative effects on the progress of its youngsters is surely an imperative on which schools can make deliberate improvements. An understanding of Maslow's (1954) needs hierarchy would enhance this endeavor. The purpose of this study was to assess the relationship between educational environment of selected secondary schools and student achievement. There were two basic questions considered in achieving its purpose: (1) Is there a relationship between the student perception of the school environment and the perceptions of the teachers and administrative staff? (2) Does a relationship exist between the

environment of a school, as perceived by its students, and student performance?

Statement of the Problem

The task of organizing human resources and activities has historically been one of the world's most important, difficult, and most controversial problems. Many attempts have been made to find better ways to organize human activity in an attempt to improve performance. Experimentation in this area is still under way and new approaches based on research findings have been made. Schools are no different in this respect to other organizations. Discussions on the effects of schooling on equality of opportunity are among the most controversial issues in public education, and empirical knowledge is limited. However, the "innovations" which schools have implemented to meet public criticism of its poor performance as measured by student achievement have not been enough to allay the public's concern and criticism. As school personnel struggle to improve schools, they must reassess what they do and embrace those practices which are effective and equitable. These practices must further result in educational environments in which the interaction between students and staff are supportive, stimulating, motivating, and academically rewarding. Herr (1965) writes, "just as needs are inferred from the characteristic modes of response on an individual, so press are reflected in the characteristic pressures, stresses, rewards, conformity-demanding influences of the high school environment" (Herr, 1965, p. 5). If such a favorable climate enhances academic performance, then educators can do no less than research and study those variables and find ways to effect a better interaction process between staff and students than we now have in many of our schools.

Hypotheses

To address the two primary questions, this research tested the following hypotheses:

I. A positive relationship exists between student perceptions and staff perceptions of the school environment.

II. A positive relationship exists between achievement and school environment.

Definition of Terms

The terms used in this investigation were operationally defined as follows:

School Environment - The school environment is defined as the climate variables of the high schools as measured by the School Environment Questionnaires developed by Brookover et al. at Michigan State University.

Environmental Press - This term describes the influences brought to bear through emphases, pressures, stresses, demands (conformity/nonconformity), and rewards system characteristics of a particular school are described as classification of its press. The degree to which a school's emphases, demands and rewards satisfy and facilitate needs of others, press is positive; when they frustrate or impede needs of others, press is punitive. Operationally, press is characteristic features of a school's environment as perceived by its students to whom it is directed. In this investigation, 'environment' and "climate" are used interchangeably.

Achievement - Achievement is defined as the cognitive knowledge acquisition of the student. In this study, achievement will be the gross scale value score on the composite (3R core) of the test data.

Ability - Student ability is defined as the intellectual potential of the student as measured by the SRA Short Test of Educational Ability.

Socio-Economic Status - The socio-economic status is defined as the Duncan Occupational Scale value of the parent's occupation.

Race - Race is defined as the student's ethnic classification in accordance with specifications of the Department of Health, Education and Welfare.

Geographic Location - Schools in this study are defined as city high schools in accordance with delineations of Section 22-189, Code of Virginia.

Limitations of the Study

This study was co-relational rather than experimental in that the researcher attempted to determine whether a relationship exists between the school environment as perceived by its students and student achievement. The Student Climate Questionnaire developed by Brookover et al., (1973) was used to measure student perceptions of the school environment. Research indicates that there are several factors which probably affect academic achievement. However, this study considered only those variables which resulted from the administration of the identified questionnaire. While such analyses may suggest possible bases for

causality, they cannot by themselves be considered adequate for determining causal relationship among these variables.

CHAPTER II

REVIEW OF RELATED LITERATURE

Educational institutions at all levels have always had to face many new and emotionally-draining challenges. Because schools both reflect and generate the nature of the social environment, the public school officials have had to refocus their attention on two primary objectives; (1) developing a staff organization which implements an educational program which meets the needs of the locality and increasingly diversed needs of student populations; and (2) providing for accountable supervision of the instructional program. Public concern indicates that these tasks have not been handled well. The 1958 Rockefeller Report on the "Challenge to America" (Doubleday, 1958) made the observation that the improvement of the entire educational structure of our nation was one of the most crucial needs. The last quarter of this century has been a time of rapid, broad and deep social change; and schools have sought solutions to the problem of poor academic performance.

The publication of Equality and Educational Opportunity (Coleman, Campbell, Hobson, McPartland, Mood, Weinfield, and York, 1966) made a great impact on the educational community. The Coleman report's profound conclusion that "schools make no difference" evoked wide discussion. In questioning the effectiveness of public schools, the report indicated that, "schools bring little influence to bear on a child's achievement that is independent of his background and general social context; and this very lack of an independent effect means that inequalities imposed on children by their homes, neighborhoods, and

peer environment are carried along to their adult life" (Coleman et al., 1966, p. 236). This massive study, with its staggering conclusions, continued to cause dismay and questioning of the viability of the public school system.

Many researchers who have raised serious questions about the Coleman Report are of the opinion that schools as social systems may have strong untapped resources within their environment which could aid in negating any premature conclusion that the public school system should be dismantled. Researchers should examine the school from all avenues on its capability to adapt itself and increase its effectiveness (Derr, 1972). Much of the original analysis of the Coleman Report (1966) is concerned with individual student variation in achievement. However, analyses by Mayeske et al., (1972) suggest that similar variables may explain some of the variance between schools, inasmuch as teacher qualification, facilities, and expenditures did not explain much of the variance between schools or individuals (Coleman et al., 1966).

Research on Environmental Press

Although the clamor for change in the public schools of this country has been heard for many years, it has only been during the last decade that secondary school leaders have been pressured by students, parents and the courts to make changes in environmental press of schools. Prior to publication of the Coleman Report (1966) there were few studies available with supporting evidence on the environmental press of schools to give direction to educators seeking change, much less those forced to do so (Coleman, 1961; Herr, 1965; Mitchell, 1968; Stern, 1961). By definition, the variables of

environmental press to the early studies tended to be tangible aspects of the environment, such as physical plant, resources, and equipment, and emphasis was placed on the importance of continued research in this area and its relationship to student achievement. The study by Jencks, Smith, Acland, Bane, Cohen, Gintis, Heyns, and Michelson, (1972) addressed the question of the effect of resources on achievement. A large body of research following Coleman (1966) and Jencks (1972) indicates that school resources, however defined, have little relationship on achievement gains. The basic underlying hypothesis of the research on environmental press embracing perceptions is based in Murray's (1938) "needs-press" theory of personality. His theory states that one's behavior is the effect of the relationship between himself and his environment; one's needs are features of his personality; and the environment has the capacity to satisfy or frustrate these needs.

Murray's model on the interaction between personality needs and environmental press was expanded in research studies by Pace (1960), Stern, Stein and Bloom (1956), and Hayes (1974). The model's concept was applied to assessment studies and showed that "performance prediction was improved by defining the psychological demands of situations in which performance was to occur" (Hayes, 1974, p. 299).

From the vast amount of research done on organizations, results from several studies (Argyris, 1957; March & Simon, 1958; Viteles, 1953) indicate that subordinates react favorably to experiences which they feel are supportive and contribute to their sense of importance and personal worth. These findings are also supported by

substantial research on personality development (Argyris, 1957; Rogers, 1951) and group behavior (Cartwright & Zander, 1960). Each individual wants appreciation, recognition, influence, and a feeling of accomplishment, and a feeling that people who are important to us, believe in us, and respect us. The research further indicated that effective managers strive to have the interactions between the members of their organizations of such a character that each member of the organization feels confident in his potentialities and believes that his abilities are being well used.

A second factor in an individual's reaction to any situation is always a function not of the absolute character of the interaction, but of his perception of it. It is how he sees events that counts. Consequently, an individual in an organization will always interpret an interaction between himself and the organization in terms of his background, culture, experiences, and expectations. Therefore, to have an interaction viewed as supportive, it is essential that it be of such a character that the individual himself, in light of his experiences and expectations, sees it as supportive (Likert, 1967).

Research on Environment and Academic Achievement

Environmental research has accumulated data on demands, emphases and rewards present in school settings, how students perceive them, and whether these factors affect student achievement. Herr (1965) and others have noted, that students attitudes towards teachers and their perceptions of teacher expectations of them affect their desire or lack of desire to achieve. Research evidence increasingly support the observation that negative perceptions of

expectations on the part of teachers, administrators, and the school as a whole, negate to a large extent youngsters desire to be successful academically (Rist, 1978, Evans and Rosenthal, 1969). Some researchers have observed that schools can, to a large extent, damage and/or destroy the self-concept its students bring with them; and on the other hand, schools can restore and/or build self-concepts in youngsters who come to them lacking in this area (Clark, 1965).

Many of the research studies on academic performance deal with one or two variables (Mitchell, 1968, Summers, 1975). Matthews (1978) states that "inadequate consideration of other factors affecting academic performance" accounts for some of the inconsistencies in research findings. He further observes that "the implications of this tendency (to deal with one or two variables) may be serious. Evidence available in the literature gives reason to support that interactive effects of several variables may be more important than the unique effect of any single variable" (Matthews, 1978, p. 3).

The interactive process of several variables is critical to improved performance. Matthews lists seven variables, supported by research, which have influence on academic performance: (1) inherited capacity to learn; (2) learning experiences; (3) external resources; (4) attitude toward teachers; (5) perceptions of teacher expectations and values; (6) perceptions of the future utility of schooling; and (7) self-concept of ability (Matthews, 1978, p. 4). He also postulates that while there seems little need to measure the first variable because it cannot be altered and the next two must be measured in relation to unique goals of particular schools. The other four

variables affect the degree of effort students put forth to achieve in school: (1) Student attitude toward teachers and (2) Student perception of teacher expectations and values largely determine the effect teachers have on students' desire to achieve; (3) Students who perceive schooling as having utility in their lives tend to achieve; and (4) One's self-concept of ability affect the degree of effort expended.

The Stern (1962) study is one of the major forces which redefined environmental press from mostly tangible aspects to one of perception through his development of this battery of instruments designed to measure students' perceptions of various phases of school life. Stern and his associates developed the College Characteristics Index (CCI) designed to assess environmental press and the Activities Index (AI) designed to assess individual needs. Although this instrument was first developed for the college environment and recently for the high school, these instruments developed by Stern "have become a valuable instrument to assess some estimation of the effect of the high school environment in predicting academic performance" (Mitchell, 1968, p. 514).

Hayes (1974) used the Stern College Characteristics Index and the Activities Index as the instruments to test the hypothesis that there is a significant relationship between psychological needs and environmental presses. The population for Hayes' study was 228 minority students classified as "underclass special service students" at a private midwestern university. The inquiry resulted in

61 percent or 138 of the students responded (136 Black, 1 Mexican-American and 2 American Indian). The students were ranked according to grade point average (highest to lowest) and divided into quartiles. The thrust of the study was to provide comparison between the academically most successful and the academically least successful.

The results of Hayes' study supported his hypothesis. He found positive correlations between student characteristics and certain environmental factors which concurred with previous research findings suggesting that student performance improved as psychological demands were defined.

A series of research studies on the characteristics of college environment, with evidence that environmental press clearly correlates with student aspirations, began appearing in the literature during the late 1950's and early 1960's (Stern, et al., 1956; Pace, 1960; Stern, 1960, 1961, 1962, 1963; Thistlethwait, 1959a, 1959b, 1960; Pervin, 1967; Astin, 1963). Several research studies by Stern and his associates found significant relationships between "press profiles and the types of institutions sampled, with distinct differences being noted between denominational schools, private liberal arts institutions, state institutions, etc." (Mitchell, 1968, p. 4). Mitchell (1967) stated that college environments tend to attract students whose need patterns are generally congruent with the environmental press of that institution. He further observed an important aspect of the high school environment. Mitchell stated, "the high school student has no choice in the matter; in the great majority of cases, he attends the high school to which he

has been assigned by virtue of his location, there to be influenced by environmental press that may have but adventitious relationships to his abilities, need pattern, and life goals. In such settings, the prevailing environmental press may be even more critical as determinants of future choice behavior than for the college students, and the likelihood of need-press incongruences developing that would spawn large subgroups of alienated students would seem appreciably greater as well" (Mitchell, 1967, p. 1).

Murray's (1938) concept of congruence between personal needs and environmental press was the basis of Mitchell's (1967) study, which is one of the few studies on high school press. Mitchell's population to whom he administered the High School Characteristics Index (HSCI) was 2,819 seniors in eleven metropolitan high schools. The HSCI produced thirty scores representing various characteristics or press elements of the school's environment as perceived by the respondents and expressed by his answers to the true/false questions. The instrument used for assessing student needs was Stern's Activities Index which called for a like/dislike response to items on the questionnaire. The rationale of the Activities Index was that the respondent pattern of likes/dislikes would reveal his need pattern. The College Characteristics Index and the Stern Activities Index have been used in combination to investigate Murray's (1938) concept of "need-press" systems in which a given need can be considered in relation to the environment which can either facilitate or impede the efforts of the individual to fulfill that need.

The HSCI in the Mitchell study effectively discriminated among the high school environments and factor analytic procedures resulted in four variables with powerful discriminating effects among the schools--intellectual orientation, school activities, negative attitude towards the environment, and strong environmental control. Mitchell's study found a significant relationship between press for achievement and aspiration for future education.

A similar set of findings resulted in a study by Jones (1968), who factor analyzed responses on the HSCI administered in two rural high schools in Iowa. There was similarity between the variables he identified as accounting for the largest amount of variance and those variables Mitchell identified.

Herr (1965) also conducted a research study using the HSCI which was administered to 725 high school students enrolled in a low socio-economic comprehensive school in northern New Jersey. His sample consisted of 340 males, 385 females, 120 twelfth graders, 148 eleventh graders, 180 tenth graders, and 277 ninth graders. The responses were examined "to identify those press that appear to be emphasized in a global manner by this high school" (Herr, 1965, p. 678).

After developing the global descriptions of environmental press, the next task was to ascertain whether students who achieved well academically perceived the environmental press, as measured by the HSCI, differently from the students who did not achieve well academically. Student cumulative grade point averages were computed and categorized by high, medium and low achieving groups

and regrouped within each group by scores (0-2, 3-7, 8-10) they obtained on each scale of the HSCI.

The analyses using a chi-square test indicated that different perceptions of press did operate in this environment. Herr (1965) reported that students categorized as high or middle achievers perceived more press for affiliation and dependence on others than did students categorized as low achievers. His analysis further revealed that students who were identified as low achievers, "perceived more press for self-depreciation and self-devaluation; for indifference or disregard for the feelings of others as manifested in overt, covert, direct or indirect aggression; . . . for otherwise egocentric perceptions and beliefs than did students classified as middle or high achievers" (Herr, 1965, p. 678).

Kight and Herr (1966) conducted a similar research study with 348 students in a suburban Buffalo, New York comprehensive high school. In a factorial analytic procedure using different rotational procedures, four factors emerged resembling the results in the other high school studied.

Following the publication of the Coleman Report (1966) and the Jencks study (1972), criticism of methods and analyses used were voiced in the education community. Several other studies supported these findings (Leucke and McGinn, 1975; Pederson et al., 1978); while several studies had conflicting findings (Cicourel and Kitsuse, 1963; Kelly and Pink, 1973; Mehan, 1974; Rist, 1978). Also during this time, there was increasing awareness among educators that variables other than academic ability may affect students and the Coleman Report had the effect of providing impetus for more study

of press variables. Another hypothesis on press was expressed as an outgrowth from studies on laissez-faire, democratic and autocratic classrooms effects on student performance (Hansen, 1970). Much of the discussion by researchers not in agreement with the Coleman findings was in agreement that other variables were quite important and centered on which should be the investigative independent variables, appropriate analytical procedures to provide rigorous and valid testing of hypotheses (Pink, 1978).

Hansen (1970) contributed research in which he stated that academic adjustment denotes more than just academic achievement. His population was 179 randomly selected sophomores, who completed the High School Characteristics Index, Activities Index and the Inventory of Academic Adjustment. The null hypotheses of that study were:

1. There is no significant relationship between students' perceptions of the demands of the environment and their academic adjustment.
   (a) There is no significant relationship between students' perceptions of the intellectual press and their academic adjustment. (b) There is no significant relationship between students' perceptions of the dependency press and their overall academic adjustment. (c) There is no significant relationship between students' perceptions of the emotional expression press and their academic adjustment.

2. There is no significant relationship between students' needs and their academic adjustment. (a) There is no significant relationship between the students' intellectual needs and their overall academic adjustment. (b) There is no significant relationship between students' dependency needs and their overall academic adjustment. (c) There is no significant relationship beween the students' needs for emotional expression and their overall academic adjustment.

The results of Hansen's study were that hypothesis 1A was rejected at the 0.5 level; hypothesis 1B was not rejected at the 0.5 level; hypothesis 1C was not rejected at the 0.5 level; null hypothesis 2A was rejected; hypothesis 2B was not rejected at the 0.5 level; and, hypothesis 2C was not rejected at the 0.5 level. The findings in this research suggested that students' needs and their perceptions of the environment can be important to their academic adjustment, particularly in terms of the intellectual needs and perceptions of the intellectual press.

McDill, Meyers and Rigsby (1967) studied 20 selected high schools and identified a series of institutional or social climate variables which accounted for most of the variance in achievement which they observed might be attributed to socio-economic composition of the school. This calls for another look at the factors included in the measurement called "socio-economic composition" of

schools. Brookover, et al. (1973) studied the school social environment and student achievement in 25 elementary schools which they identified as having similar socio-economic status and racial composition, but had significantly different levels of achievement among them. The study attempted to identify significant predictors of mean school achievement which would explain the differences in student achievement among these schools. The study indicated that some social-cultural climate variables accounted for most of the variance in school achievement. This was the same finding as was the case in the study by McDill et al., (1967). The Brookover (1973) study broadened the range of climate variables more than those that were considered in the McDill et al. study (1967).

Summary

Prior to publication of the Coleman Report (1966), the findings of several research studies had established the existence of a relationship between school achievement and family socio-economic status or life styles (Coleman, 1961; Herr, 1965; Kasper, Munger & Meyers, 1965; Stern, 1962). As Brookover observed, "the high correlation between family background and school composition in both individual and mean school achievement, however, does not demonstrate that these variables are causes of differences in achievement" (Brookover, et al., 1973, p. 20). Brookover further noted that "significantly higher achievement is possible" in those schools with high socio-economic ratings. Similarly, high achievement has occurred in low socio-economic black schools.

However, these studies on environmental press in high schools are sketchy when compared with the sizeable body of research on college environmental press. Given the varied roles and goals ascribed to schools and the great concern over school effectiveness, the study of high school environments is as critical as that for college environments, particularly if the same kinds of relationships between environmental press and student behavior are revealed.

The publication of Coleman's Equality of Educational Opportunity (1966) encouraged increased social science research on the effects of public schools on student aspirations and achievement. Research in the social science perspective suggests that this approach provides a viable method for examining the structure of the school, the individuals within the structure and the interaction between the structure and the individual (Herr, et al., 1970). In the research literature there was implicit underlying assumptions that there are learning environments which are more effective than some others in producing desirable educational outcomes (Mitchell, 1967). It was also evident in the literature that different subpopulations within a school perceive the environment of that school in different ways, and that these perceptions are related to both socio-economic variables and certain behaviorial variables. These assumptions are supported by findings of significant relationship between press for achievement and aspirations for future education, and Mitchell (1968) observed that this relationship provides useful empirical support for their importance. Schools operate in a

multivariate world, clearly sensitive to interaction effects and larger social and institutional forces. Research indicates that schools might manipulate the more alterable variables to achieve learning environments with greater potential for facilitating human growth and achievement (Mitchell, 1968, p. 528). This was cited as a task to which school administrators must increasingly direct their attention.

CHAPTER III

DESIGN OF THE STUDY

The purpose of this study was to determine whether a relationship exists between school environment and student achievement in several high schools in an urban school district in Virginia. The theoretical framework underlying this study was based on research by Brookover et al. (1977) which hypothesizes that the behavior of students, particularly their academic achievement, "is partly a function of the social and cultural characteristics of the school social system" (Brookover, et al., 1977, p. 3). He postulated that youngsters take cues from persons important to them and with whom they interact, noting carefully their expectations and definitions of appropriate behavior for the student role. Within the context of the school social system, students perceive role definitions, norms, expectations, values and beliefs that others hold for them and act accordingly. Brookover further hypothesized that each school has a set of student status-role definitions, norms, evaluations and expectations characterizing the behavior expected of students in general and subgroups in particular. Although different norms, expectations and evaluations applied to different groups and individual students account for some variation within the school, the hypothesis stated that there are also differences in school social systems which explain differences in student outcome among schools. The basic frame of reference,

therefore, was that the school social system or social environment affects school learning outcomes in that members of a school social system become socialized to behave differently in a given school than they would in another school.

To further test this basic hypothesis, this study was conducted to assess the relationship between environment and achievement in an urban school district.

The Subjects

The subjects selected for inclusion in this study were all eleventh grade students, teachers of eleventh grade students and the principals of the selected schools. There are nine high school buildings in the school district, of which eight were included in this study. One school was not included because it was an alternative high school and students attended all of their classes at various places throughout the city.

The initial group tested consisted of 1,225 eleventh grade students, 150 teachers and 8 principals. From the 1,225 student questionnaires, 241 were ommitted from the study leaving 984 student subjects (190 students had incomplete test data and 51 had incomplete questionnaires). The teachers selected for this study were those persons who, at the time of this survey, were teaching eleventh grade students. In School D, each teacher who did not teach eleventh grade students was ommitted from the study leaving 114 teacher subjects in the study.

Demographic data on the student population are contained in Table 1 through Table 3. Table 1 contains data on the student

TABLE 1

Description of Population Sample of Eleventh Grade Students in Selected Schools

School	Sex		Race		Total
	Male	Female	Black	White	
A	64	77	122	19	141
B	28	54	82	--	82
C	84	105	185	4	189
D	59	93	103	49	162
E	42	69	94	17	111
F	53	83	75	61	136
G	15	15	22	8	30
H	61	82	133	10	143
	405	579	821	163	984
	41.2%	58.8%	83.4%	16.6%	100%

TABLE 2

Number of Years Spent By Student in School Surveyed

Years	Frequency	Percent
1	56	5.7
2	107	10.9
3	780	79.4
4	37	3.8
5	4	0.2

Population includes some special education students who were mainstreamed in regular eleventh grade classes.

population sample by sex and race. Table 2 contains data on the number of years students spent in the school building in which they were surveyed. Table 3 contains data on age of the student population. Similar demographic data on teachers and principals included in the sampled population are included in Appendices A through D. Appendix A contains data on the teacher population by sex, race, and highest degree earned. Appendix B contains data on the number of years teaching by teachers. Appendices C and D contain data on the principals included in the sample.

Instrumentation

The School Environment Questionnaires were developed by Wilbur B. Brookover et al., at Michigan State University (See Appendices I through L). After initial development, these questionnaires were pretested in elementary schools of a middle-sized midwestern city. The items were modified to eliminate problems found in communication, meaning and readability. The modified instruments were readministered to students in other schools. Various clusters of items were subjected to scalogram analysis to identify scales measuring students' perceived expectations and evaluations, school norms, student sense of control and perception of teacher academic norms. Items of low utility were eliminated. The student questionnaires developed in the pretest process were used in a preliminary study designed to identify variables that might distinguish between high and low achieving schools with similar composition. The climate variables did distinguish between high

TABLE 3

Age at Last Birthday of Student Population Sample

Age	Frequency	Percent
14	5	0.5
15	73	7.4
16	424	43.1
17	405	41.2
18	70	7.1
19	6	0.6
20	1	0.1

Population sample includes some special education students who were mainstreamed in regular eleventh grade classes.

and low achieving schools with similar composition. Thus, the predictive validity of climate variables was demonstrated. The data obtained from the random sample of Michigan elementary schools were factor-analyzed using all of the school climate items contained in the student, teacher, and principal questionnaires. The results of the factor analyses and the content of the items were taken into consideration when placing the items in scales. No item that did not have a loading of at least .30 on that factor was included.

The three questionnaires resulting from this process by Brookover were initially administered in the Michigan elementary schools with language content and answer choices appropriate for the elementary school population. Therefore, for this study, editing the questionnaire was necessary for applicability to the high school population. After editing, each questionnaire was pretested on 25 students, 15 teachers and 2 principals at two randomly selected schools prior to determining the school sample for this study.

THE SRA ACHIEVEMENT SERIES is designed to survey general academic progress. The multi-level edition, which consists of three separate but overlapping levels of graduated difficulty, is used in grades four through nine. The Iowa Test of Educational Development (ITED) assesses achievement in grades nine through twelve. Subtests in Language Arts, Reading and Mathematics constitute the core of these tests. Scores for these subtests are weighted to provide a composite achievement score. This composite achievement

score for each student will provide the data used in this study.

The test content for the SRA Achievement Series was determined through a four-step process. Basic curriculum outlines and basal textbooks which were used in an estimated 75 percent of the classrooms in the United States were reviewed to develop specifications for the test item writers. More than one hundred teachers and professional writers prepared test questions. These items were then reviewed, edited and pretested in school districts across the United States. Statistical and content criteria were used to select those items which would be valid for each subtest.

The SRA Achievement Series was standardized through the random selection and testing of nearly 156,000 students in grades one through twelve. Percentiles and grade equivalents were obtained during this national standardization process. Reliability coefficients were determined using the Kuder-Richardson -20 formula. The reliability coefficient for the composite achievement score was .98.

THE SRA SHORT TEST OF EDUCATIONAL ABILITY (STEA) is a single score ability test which is designed to provide a reliable estimate of general educational ability. The STEA quotient is a standardized score having an arbitrary mean and standard deviation with an assumed normal distribution within each grade. Because students are compared with other students at their grade level, rather than at their age level as is the practice with most measures of ability, factors such as retentions, dropouts and special education classes result in an increasing average quotient score

at each grade level. The mean STEA quotient was set at 100.0 in kindergarten and increased by 0.5 with each grade level to 106 by the end of the twelfth grade.

General Plan of the Study

The data for this study were obtained by administering separate questionnaires designed to measure perceptions of the school environment to students in the eleventh grade in eight high schools in the urban school district, to teachers of eleventh grade students in the selected schools, and to principals in the selected schools. The questionnaires were administered in each of the selected schools during the spring of 1980 by the Testing Coordinators who had previously been trained by the researcher. The administration of the questionnaires to the different subject groups (students, teachers, principals) was done separately in order to eliminate any potential interaction between the subject groups.

The student questionnaires were administered in large group testing sessions with teachers and/or counselors serving as monitors to aid the testing coordinators. No attempt was made to collect data from students who were absent on the day the questionnaires were administered. Questionnaires for principals and teachers were placed in individual envelopes prior to visiting the schools and were self-administered. Each principal and teacher was asked to complete the questionnaires at the time the students were being tested. In several instances, this task could not be

completed at that time because of other school responsibilities. When such was the case, each participant was asked to mail his response to the researcher.

The student questionnaires were then coded with a socio-economic index on the occupation of the head of the household. The index code was taken from the Duncan Socio-Economic Index for Occupations (Hall, 1968, p. 275) and was the basis for the mean school SES score. Following this procedure, the STEA quotient and the Gross Scale Values of the composite score were transferred from the Division SRA Master to the student questionnaires and both scores were converted to the equivalent raw score value for treatment purposes. The school racial composition was compiled from school records and recorded on each student questionnaire along with the information indicated above.

Treatment of the Data

The questionnaires were categorized by groups of respondents (students, teachers and principals) and by schools within groups. Three separate varimax rotations factor analyses were performed. The first factor analysis was performed on 65 items on the student questionnaires designed to identify school climate variables. The factors were formed on the responses of students treated as individual rather than nested within each of the schools. A computer procedure to scan the data for missing data was performed. This procedure resulted in the number of subjects decreasing from 984 to 911 and factor analysis was performed on the responses of students who had no missing data. Scale values were computed

from the total item score which was based on the particular response chosen on a one-to-five scale response.

A correlation matrix was run on the 120 items from the teacher questionnaire in order to reduce the number of variables--the statistical program could not deal with more than 100 variables. Items with a maximum inter-item correlation of less than .39 were dropped from the analysis. This procedure resulted in 37 items being dropped. A second varimax rotation factor analysis was performed on 83 items on this reduced questionnaire. The procedure was the same as that done on the student data permitting teachers to be treated as individual respondents.

A third varimax rotation factor analysis was performed on the 83 items from the principal questionnaire. The procedure used was the same as that used on the student and teacher data.

To do further analysis of the data following the factoring process to determine whether a relationship exists between environmental factors and student achievement, a series of statistical procedures was performed. A general linear model procedure was run to: (1) compute mean scores across individuals within schools to get significant observations on each individual school; and, (2) make comparative analyses of the climate factors and the predictor variables of student achievement (COMP), ability (STEA), and socio-economic status (SES). Correlations between student climate factors and teacher climate factors and between student climate factors and principal climate

factors respectively were calculated. Correlations between school means of the 17 climate factors with each school mean achievement were also calculated. The final statistical procedure performed was four stepwise regression analyses on the dependent variable achievement and the various predictor variables with various controls. The results of these procedures, with accompanying data, are presented in Chapter IV.

CHAPTER IV

RESULTS OF THE STUDY

This study sought to determine whether a relationship exists between school environment factors and student achievement. The subjects were students in an urban school district in Virginia. This study used the concept of school climate by Brookover and Erickson (1975). They stated that, "the school climate encompasses a composite of variables as defined and perceived by the members of the group. These factors may be broadly conceived as the norms of the social system and expectations held for various members as perceived by the members of the group and communicated to members of the group" (Brookover & Erickson, 1975, p. 6).

The school climate factors cited in this study were determined from a factor analysis of the questionnaire on school social climate, developed by Brookover et al., which was administered to students, teachers, and principals. Achievement was measured by the composite score on the Science Research Associates (SRA) Achievement Series and the Short Test of Education Ability (STEA) for all eleventh grade students in the selected schools. Multiple correlational procedures were utilized to identify those climate factors which related to achievement.

The data relative to this investigation will be presented in narrative and tabular form, followed by an interpretation of that data. As stated in Chapter III, the two research questions

and appropriate operational hypotheses were tested.

Restatement of the Question

The two questions this investigation sought to answer were: (1) Is there a relationship between the student perception of the school environment and the perceptions of the teachers and administrative staff? (2) Does a relationship exist between environment of a school as perceived by its students and student achievement?

Restatement of the Hypotheses

The main hypotheses of this investigation were: (1) A positive relationship exists between student perceptions and staff perceptions of the school environment. (2) A positive relationship exists between achievement and school environment.

Scale Development

To determine the school climate factors measured by the questionnaires, three separate factor analyses were conducted, one for each group of subjects. These factor analyses were used only as a guide to identify those items which should be included into particular subscales. In later analyses, factor scores were not used. Rather, a subject's score on a factor was the mean of those items identified as pertinent for that factor. The resulting climate factors, achievement scores, ability scores, and socio-economic data were standardized with a mean of 100 and a standard deviation of 10 to facilitate comparisons. (See Appendix E for comparative means and climate variables.) Adjustments had to be made in the placement of some of the items in factors. This was done according to the judgement of the researcher to enhance content validity.

Student Questionnaire

The first factor analysis with a varimax rotation was on the 65 items on the student questionnaire. The process resulted in six student climate factors which were identified as: (1) Student Perception of Educational Expectations (SF1); (2) Student Perception of the Instructional Setting (SF2); (3) Student Perception of Academic Ability (SF3); (4) Student Perception of Teacher Attitude Toward Learning (SF4); (5) Student Perception of Academic Futility (SF5); and, (6) Student Perception of Self Reliance (SF6). No item that did not have a factor loading of at least .30 was included in the factors.

Descriptions of Student Factors

Factor 1: Student Perception of Educational Expectation (SF1) Fourteen items loaded into this factor. The highest loadings were on those items which assessed the students' own expectations, followed by those of his parents, teachers and peers. The item content of this factor was quite similar to the first factor in the Brookover et al. (1973) study. Eleven of the fourteen items were identical.

Factor 2: Student Perception of Instructional Setting (SF2) Nine items loaded into the second climate factor which dealt with student evaluation of the instructional setting of the school. The item content assessed the degree of teacher caring and push for students to achieve.

Factor 3: Student Perception of Academic Ability (SF3) Loading highly on this factor were four items assessing a student's perceptions of his own academic ability; followed by ten items assessing student belief of others (parents/teachers/friends) about academic achievement.

As was the case in Factor 1 above, the item content of this factor was also quite similar to Factor 2 of the Brookover study.

Factor 4: Student Perception of Teacher Attitude (SF4) Four items assessing classroom freedom and the manner in which teachers work with students loaded into this factor.

Factor 5: Student Perception of Academic Futility (SF5) The highest loading items assessed peer influence on achievement. The other twelve items which loaded into this factor dealt with the student's assessment of the effect of grades on attitude and the importance of doing good school work. Six of the 13 items loading into this factor also loaded into a similar factor in the Brookover study.

Factor 6: Student Perception of Self Reliance (SF6) The high loadings were on those items which assessed student desire to work through problem situations independently or to seek help, to make decisions, or to assess the role of "luck" in the school setting. (See Student Questionnaire in Appendix I.)

Teacher Questionnaire

The inter-item correlations matrix of the 120 items from the teacher questionnaire was inspected to remove those variables that did not relate to the others because of limitations of the factor analysis program. Items with a maximum inter-item correlation of less than .39 were dropped from the analysis. A second factor analysis with a varimax rotation was on the remaining 83 items on this reduced teacher questionnaire. Five factors emerged from the teacher responses. The climate factors identified were: (1) Teacher Expectation for Student Achievement (TF1); (2) Teacher Perception of Student/Parent Expectation

(TF2); (3) Teacher Perception of Job Satisfaction (TF3); (4) Teacher Perception of Student Motivation (TF4); and, (5) Teacher Perception of School's Ability to Promote Student Achievement and Development (TF5).

Descriptions of Teacher Factors

Factor 7: Teacher Perception of Expectations for Student Achievement (TF1) Most of the items with high loadings on this factor reflect primarily teacher evaluation of future attainment. In addition, the content of this factor was inclusive of items which assessed teacher evaluation of principal and parent expectations of student achievement.

Factor 8: Teacher Perception of Student/Parent Expectations (TF2) Nine items loaded into this factor. One item assessed types of learning activities during the school day. All of the other items were designed to measure expectations associated with the school itself.

Factor 9: Teacher Perception of Job Satisfaction (TF3) The two items with high loadings on this factor assessed the teacher's sense of control or authority. Items assessing general job satisfaction did not load as heavily.

Factor 10: Teacher Perception of Student Motivation (TF4) The other items loading on this factor assessed the influence of others on student desire to push forward.

Factor 11: Teacher Perception of School's Ability to Promote Student Achievement and Development (TF5) This factor emerged with two highly loaded items assessing school success in student development. The other eight items assessed the school reputation and its encouragement of students. (See Teacher Questionnaire in Appendix J.)

Principal Questionnaire

A third factor analysis with a varimax rotation was on the 82 items from the principal questionnaire. Six factors were identified from this analysis. They were: (1) Principal Expectation of Students (PF1); (2) Principal Perception of Parental Concerns and Expectations (PF2); (3) Principal Perception of Teacher Performance and Student Achievement (PF3); (4) Principal Perception of Efforts to Improve School (PF4); (5) Principal Evaluation of Present School Quality (PF5); and, (6) Principal Perception of Significant Others on Student Achievement (PF6).

Descriptions of Principal Factors

Factor 12: Principal Expectation of Students (PF1) Items which loaded on this factor were designed to measure the principal's "feelings" about students in the school and his effect on student achievement.

Factor 13: Principal Perception of Parental Concerns and Expectations (PF2) The items with high loadings assessed the principal perception of parental beliefs and goals for students.

Factor 14: Principal Perception of Teacher Performance and Student Achievement (PF3) The items with high loadings on this factor assessed the principal perception of teacher instructional philosophy and attitude toward students.

Factor 15: Principal Perception of Efforts to Improve School (PF4) Items assessing present educational expectations and expectations for future orientation emerged.

Factor 16: Principal Evaluation of Present School Quality (PF5) Those items with high loadings on this factor primarily assessed the relationship between quality of teaching and teaching style with student achievement.

Factor 17: Principal Perception of Effect of Significant Others On Student Achievement (PF6) Factor eight is a corollary to factor seven. The items with high loadings on this factor assessed the principal perception of significant others (teachers and parents) on student achievement and motivation. (See Principal Questionnaire in Appendix K.)

Relationship Between Staff and Student Perceptions

The first hypothesis of this study held that a positive relationship exists between student perception of the school environment and staff perceptions of the school environment. In the interpretation of the results of the investigation, the unit of analysis is the individual.

Table 4 presents the results of correlations between student and teacher climate factors. Analysis of this data revealed that two of the five teacher climate factors were consistently and significantly correlated at the .05 level with each of the six student climate factors. Also, a third teacher climate factor was significantly related to two student factors at the .05 level. The hypothesis was affirmed.

Teacher Expectation of Students (TF1) and Teacher Perception of Student/Parent Expectation (TF2) were both highly correlated with Student Perceptions of Educational Expectation (SF1), Instructional Setting (SF2), Academic Ability (SF3), Teacher Attitude (SF4), Academic Futility (SF5), and Self Reliance (SF6). In addition, Teacher Perception of Student Motivation (TF4) significantly correlated at the .05 level with Student Perception of Academic Ability (SF3) and Teacher Attitude (SF4).

Correlations indicate relationship between pairs of scores and show the extent to which values in one variable are related to another variable. It was assumed that in studies of this type with data on individuals, values close to 1.0 or -1.0 would be rare. The researcher was also expecting significant correlations to be positive. However, such was not entirely the case in this study. Table 4 revealed that Teacher Perception of Expectation of Students (TF1), Student/Parent Expectation (TF2), and Student Motivation (TF4) were significantly ($p < .05$), but negatively correlated with Student Perception of Teacher Attitude (SF4). These significant, negative correlations approached a 1.0 or -1.0 and deserve further explanation.

Items loading into the Teacher Perception of Expectations of Students (TF1) primarily measured Teacher evaluation of Student future attainment (See Teacher Factor Analysis in Appendix L). A review of the climate questionnaire revealed that the "most desirable" answer to each of the expectation questions was either that: (1) a high percentage of students planned to go to college; (2) a high percentage of students expected to go to college or further education; (3) a high percentage of students expected to complete college; or (4) students would receive some postsecondary education. Student Perception of Teacher Attitude (SF4) measured the degree of perceived student dependence on teacher guidance and direction. Although it is not entirely clear why the significant/negative correlations occurred, the possibility that a lurking variable could cause this observation is noted. However, a possible explanation for these significant/negative correlations between Student Factor 4 with Teacher Factors 1, 2 and 4 (See Table 4) appears to be that the higher the expectation of students,

the less dependent teachers perceived student to be on classroom guidance. In addition, the positive and significant ($p < .05$) correlation between Teacher Expectation of Students (TF1), Perceptions of Student/Parent Expectation of Students (TF2) and Student Perceptions of Educational Expectations (SF1) appear to support the observation that a viable communication network exists in these schools whereby these perceptions were articulated and perceived and accounts for the significance among attitude, expectation and motivation.

Table 5 presents the results of correlations between principal and student perceptions. This analysis revealed that Principal Expectation of Students (PF1) was significantly correlated at the .05 level with Student Perception of Educational Expectation (SF1), Academic Ability (SF3), and Self Reliance (SF6). In addition, Principal Perception of Efforts to Improve (PF4) correlated significantly at the .05 level with Student Perception of Academic Ability (SF3) and Academic Futility (SF5).

The nineteen significant correlations at the .05 level of significance between student with teacher and student with principal perceptions support the hypothesis that a positive relationship exists between student perception and staff perceptions of the school environment.

TABLE 4

CORRELATION OF STUDENT CLIMATE FACTORS WITH TEACHER CLIMATE FACTORS

AND CORRESPONDING P VALUES

	Student Perceptions of:											
Climate Factors	SF1 Educational Expectation		SF2 Instructional Setting		SF3 Academic Ability		SF4 Teacher Attitude		SF5 Academic Futility		SF6 Self Reliance	
Teacher Perceptions of:												
Expect. of Students (TF1)	.897	.00*	.858	.00*	.888	.00*	-.930	.00*	.861	.00*	.819	.01*
Student/Parent Expectation (TF2)	.820	.01*	.885	.00*	.815	.01*	-.871	.00*	.875	.00*	.784	.02*
Job Satisfaction	.057	.89	.125	.77	.157	.71	-.094	.82	.260	.53	-.162	.70
Student Motivation (TF4)	.684	.06	.477	.23	.748	.03*	-.710	.05*	.615	.10	.373	.36
School's Ability (TF5)	.429	.29	.438	.28	.438	.28	-.493	.21	.427	.29	.352	.39

*Significantly correlated at the .05 level of significance

TABLE 5

CORRELATION OF STUDENT CLIMATE FACTORS WITH PRINCIPAL CLIMATE FACTORS

AND CORRESPONDING P VALUES

Climate Factors	Student Perceptions of: SF1 Educational Expectation		SF2 Instructional Setting		SF3 Academic Ability		SF4 Teacher Attitude		SF5 Academic Futility		SF6 Self Reliance	
Principal Perceptions of:												
Expect. of Students (PF1)	.778	.02*	.524	.18	.711	.05*	-.659	.08	.498	.21	.804	.02*
Parental Concerns and Expectations (PF2)	.614	.10	.506	.20	.591	.12	-.584	.13	.476	.23	.594	.12
Teacher Performance and Student Achievement (PF3)	.022	.96	.202	.63	.165	.70	-.058	.89	.379	.35	-.133	.75
Efforts to Improve (PF4)	.688	.06	.657	.08	.737	.04*	-.605	.11	.764	.03*	.653	.07
School Quality (PF5)	.335	.42	.452	.26	.262	.53	-.302	.47	.318	.44	.401	.32
Significant Others (PF6)	.388	.34	.204	.63	.424	.30	-.344	.40	.282	.50	.407	.32

* Significantly correlated at the .05 level of significance

Relationship Between School Environment and Student Achievement

The second hypothesis of this study held that a positive relationship exists between student achievement and school environment. This hypothesis was supported by this investigation. Three statistical procedures were performed to address this hypothesis. They were: (1) a correlation of individual student achievement with individual student climate factors for each sampled school using the student as the unit of measurement; (2) a correlation between combined school achievement means with the 17 climate variables using school as the unit of measurement; and, (3) a series of stepwise regression analyses with school as the unit of measurement. Predictably, there is considerable variance in individual achievement both within a school and between schools. Although STEA (the ability component of the SRA test series) was used in two of the regression models, the large amount of variance accounted for by it was expected. The SRA Achievement Series is designed with a high correlation of approximately .9 between the achievement component (reflected by the composite score) and the ability component. STEA would, therefore, account for a large amount of variance. Achievement scores, ability socres, socio-economic data, and climate factors were standardized with a mean of 100 and standard deviation of 10 to facilitate comparisons.

Correlation Results (Students Within Schools)

The standardized mean achievement scores are presented in Appendix E. A review of this data revealed a 45% difference between the highest and lowest mean achievement scores; a 26% difference between the second highest and lowest mean achievement scores. Similarly, there is a 34%

difference between the high and low SES scores; a 32% difference between the second highest and lowest SES scores. The standardized mean climate factor scores are also presented in Appendix E. A review of this data revealed very little difference between climate factors among the eight schools, except School 7, the alternative high school. Each of the other schools was found to be quite similar in several respects and each can be briefly described as follows:

School 1 The building was opened in 1960 to primarily serve one of the heavy industrial areas of the district. Its student body was 85% white during its first year of operation. When this study was conducted, the school had an enrollment of 1356 students who lived in four regional sections of the district and the racial composition of the school was 83% black and 17% white. The school had a teaching staff of 61 full-time teachers.

The major geographic area served by the school contained a wide range of business, residential, recreational, industrial, religious, historical and governmental facilities and establishments. Several major thoroughfares transversed the area. The students' parents were primarily engaged in semi-skilled, skilled and managerial occupations. Ninety-one percent of the parents worked in the metropolitan area, and 77% of them worked within the area served by the school (See Appendix N). The school had an average monthly attendance rate of 87.4%.

School 2 The facility was opened in the late 1930's as a vocational high school and was made a comprehensive high school facility in 1950. It has had a tradition of excellence in its athletic programs and in spite of changes currently strives to maintain that tradition. Prior to 1970,

the first year of crosstown busing, the school's enrollment has always been all black. When this study was conducted, the school had an enrollment of 1114 students and 44 full-time teachers. The racial composition of the student body was 90% black and 10% white. However, there were no white students in the eleventh grade sample for this school.

The major geographic area served by this school encompassed the central core of the district. The occupations of the residents in this geographic area were largely laborers, unskilled, semi-skilled and clerical workers. This school and School 7 are the only two in this sample where no professional occupations were represented (See Appendix N). School 2 had a monthly attendance rate of 85.1%.

School 3 The district's oldest high school with a long, rich heritage was established in 1872, and in 1960 was moved to a new plant facility out of the downtown district to a largely residential area. It has always been a comprehensive high school with a heavy emphasis on vocational training. The enrollment at the time of this investigation was 1567 students in grades 9 through 12 and a faculty of 62 full-time teachers. The racial composition in 1968, just prior to court ordered desegregation, was 87% white and 13% black. At the time of this investigation, the percentages had changed to 96% black and 4% white.

The school's attendance zone was composed of seven neighborhoods. The occupations of the residents were largely skilled and clerical workers, craftsmen and some professional and managerial (See Appendix N). One of the neighborhoods in this school zone was largely professional and they sent few of their children to public schools. The school had a monthly attendance rate of 87.1%.

School 4 This school is the district's newest physical plant (constructed in the late 1960's) and was designed to be a comprehensive facility. Its first student body was composed of students who chose to attend. At the beginning of its second year, a specific geographic area was assigned to increase the enrollment from 1000 to 1190. At the time of this study, the enrollment was 1514 students and the racial composition was 68% black and 32% white. There were 79 full-time teachers. Slightly more than 20% of the students lived in housing projects that were federally supported for qualifying low-income families. Approximately 15% of the remaining students came from sections known as "target areas" where housing conditions were considered to be sub-standard. The remaining students came from middle income sections of the district and their parents had occupations which clustered in levels 2 and 3 of the occupational ranges (See Appendix N).

This school enjoyed a district-wide reputation for excellent student decorum, good student/teacher relationships, and had a monthly attendance rate of 91.4%.

School 5 The school is one of the district's oldest high schools and is still housed in its original building which dates back to 1929. The program of offerings had, until 1970, been entirely academic and the school has enjoyed a record of high student academic achievement. The present faculty takes pride in this school's "prep school" orientation and appears to direct its efforts toward this end.

The enrollment at the time of this study was 1185 students in grades 9 through 12 and a staff of 55 full-time teachers. The racial composition in 1968 was 88% white and 12% black. When this study

was conducted, the racial composition had changed to 75% black and 25% white. The school served an attendance zone which covered seven neighborhoods and the occupational spread of the residents ranged from laborers and service workers to professionals. Most of the students' parents held occupations which fall into levels 2 and 3 of the occupational ranges (See Appendix N). The school had an overall monthly attendance rate of 88.0%.

School 6 This school was previously a county high school and became a part of the district through annexation proceedings. Prior to 1970, the student body of School 6 was relatively homogeneous, 99% white, and predominantly college bound. Since 1970, with a court ordered change in school attendance zones, the student body was racially mixed and characterized by a greater diversity, exhibiting the full range of socio-economic backgrounds one would expect to find in an urban area.

The school drew its enrollment of 1303 students from four areas of the district and racially was 56% black and 44% white. Approximately 55% of the students attending this school lived in the predominantly white annexed area of the district where approximately 70% of the parents were largely college graduates and were employed in professional and managerial occupations; the other 30% of the parents were engaged primarily in a variety of non-professional occupations (See Appendix N). The remaining 45% of the students came largely from areas of the city where families had less formal education and were employed in semi-skilled jobs. One large low-income housing project was within this school's zone and approximately 44% of the residents had incomes below the poverty level. The attendance rate for this school was 86.6%.

School 7 The school was opened in 1975 and was designed to be an experimental and demonstration program for academically talented, low-income high school students. Special attempts were made to find underachievers as well as those already achieving in line with their potential. The broad definition of the academically talented students which served to guide the initial selection process and program development was those youth who possess one or more of the following qualities: superior intellectual ability; unusual academic ability in specific subject matter areas; thinking ability which leads to innovative responses to conventional tasks. The identification of academically talented students from low income circumstances presented some challenges and difficulties. The academically talented for the purposes of School 7's program were those identified by professionally qualified persons, through a variety of appropriate assessment measures, as having superior intellectual and creative potential and as having functional abilities for outstanding academic performance.

When this study was conducted, the enrollment was 84 students and five full-time teachers. The racial breakdown was 67% black and 33% white. The school was atypical of the other regular schools in this study because of its experimental program and it had the highest monthly attendance rate of 97.4%.

School 8 This school is also one of the district's oldest high schools with a history dating back to the late 1890's. The school has a long, rich history which it methodically makes a part of the orientation of new students. Prior to 1970, the student body of this school was, and had always been, 100% black. At the time of this

study, the enrollment was 1349 students with a racial breakdown of 74% black and 26% white, and had a teaching staff of 65 full-time teachers.

The residents of the school's attendance zone were employed in a variety of occupations ranging from laborers to professionals. The majority were employed in skilled or semi-professional occupations. A large percentage of the remaining parents were employed in unskilled or non-professional occupations (See Appendix N). School 8 had an average monthly attendance rate of 85.3%.

Against this background, Table 6 presents the results of the correlation of individual student achievement with individual student climate factors within schools. The analysis revealed that Student Perception of Instructional Setting (SF2) correlated negatively in each of the schools with significant correlations ($p < .05$) in Schools 2, 4, and 8. Again, the reason for the negative/significant correlation is not entirely clear. A review of the student answers revealed that students chose the middle ground between the "most desirable choice" and the "least desirable choice" and overall they had a positive view of their school climate. The background of these students could possibly account for the neither liberal nor conservative approach to responing to the questionnaire. It is important to note, however, that School 7, with the highest mean achievement score, did not have any of the student climate factors to correlate significantly. The size of the sample population (n=29) could possibly account for this result. As stated above, School 7 serves as an alternative school for students with above average achievement scores and is atypical compared to the

TABLE 6

CORRELATION OF INDIVIDUAL STUDENT ACHIEVEMENT WITH INDIVIDUAL STUDENT CLIMATE FACTORS WITHIN SCHOOL AND CORRESPONDING P VALUES

VARIABLES	SCH 1	SCH 2	SCH 3	SCH 4	SCH 5	SCH 6	SCH 7	SCH 8
MEAN SCHOOL ACHIEVEMENT 14.24 (ALL SCHOOLS)	12.67	12.17	11.75	16.16	12.59	14.79	21.80	11.96
SF1								
Student Perception of	.383	.241	.398	.413	.443	.284	.131	.454
Educational Expectation	.02*	.03*	.00*	.00*	.00*	.00*	.49	.00*
SF2								
Student Perception of	-.142	-.291	-.016	-.195	-.056	-.316	-.060	-.294
Instructional Setting	.09	.01*	.82	.02*	.56	.00*	.75	.00*
SF3								
Student Perception of	.041	.201	.262	.339	.423	.277	.325	.413
Academic Ability	.63	.07	.00*	.00*	.00*	.00*	.08	.00*
SF4								
Student Perception of	.025	.108	.007	.199	.038	.114	.324	.034
Teacher Attitude	.77	.33	.92	.01*	.69	.19	.08	.68
SF5								
Student Perception of	.080	.196	.158	.004	.242	.024	.351	.144
Academic Futility	.34	.08	.03*	.96	.01*	.79	.06	.09
SF6								
Student Perception of	-.054	.016	.113	.204	.390	.151	.396	.181
Self Reliance	.53	.89	.12	.01*	.00*	.08	.03*	.03*

* Significantly correlated at the .05 level of significance

other schools in the sample. School 4 with the highest mean achievement score among the other seven "regular" schools had four of the six student climate factors to relate significantly ($p < .05$) to achievement. This is the school with the reputation for excellent student/teacher relationships. School 6 with the next highest mean achievement had three climate factors with significant ($p < .05$) correlations with achievement. Thus, the higher achieving schools (Schools 4 and 6), with the exception of School 7, experienced a better ratio of significant correlations at the .05 level of significance between climate factors and achievement (See Table 6). It is important to note that Student Perception of Educational Expectation (SF1) correlated significantly with achievement in each of the regular schools. This apparent communication between staff and students appears to be reflected in these results and supports Hypothesis I.

Correlation Results (Between Schools)

The data presented in Appendix E indicated that the between-school variance in mean achievement and perceptions of students, teachers, and principals of school climate was not substantially different. Table 7, which presents the results of correlations between the 17 climate variables, socio-economic status (SES), and the percentage-white students with achievement, is presented with these analyses and caution is noted in its interpretation. Examination of this data indicated that each of the student climate factors correlated significantly ($p < .05$) with achievement. This analysis supports the data presented in Table 6 which indicates that each climate factor was significant in at least one of the schools. However, there was not

a situation where all of the student climate factors were significant in any one school. This seemingly balanced mixture of each school population because of desegregation efforts and a school district management style which embraces a more centralized approach over decentralization may account for this apparent homogeneity in each school's perception of climate.

Three teacher climate factors, Teacher Expectations of Student Achievement (TF1), Teacher Perceptions of Student/Parent Expectations (TF2), and Schools Ability to Promote Student Achievement and Development (TF5), demonstrated significance at the .05 level in the correlation with achievement. In addition, one principal factor, Principal Expectations of Students (PF1) significantly correlated ($p < .05$) with mean achievement. The principal data must be cautiously reviewed. As noted in Chapter III, there was one principal per school and the size of the principal population (n=8) causes statistical problems.

Socio-economic status and the percentage of white students did not have a significant correlation with achievement in this investigation (See Table 7). The percentage-white students in this study was 16%--the same proportion as the school district overall percentage.

TABLE 7

CORRELATION BETWEEN SCHOOL MEANS OF 17 CLIMATE VARIABLES WITH MEAN SCHOOL ACHIEVEMENT AND CORRESPONDING P VALUES

Student Climate Factors		
Student Perceptions of Educational Expectations (SF1)	.744	.03*
Student Perceptions of the Instructional Setting (SF2)	.721	.04*
Student Perceptions of Academic Ability (SF3)	.720	.04*
Student Perceptions of Teacher Attitude (SF4)	-.670	.05*
Student Perceptions of Academic Futility (SF5)	.712	.04*
Student Perceptions of Self Reliance (SF6)	.776	.02*
Teacher Climate Factors		
Teacher Expectations of Student Achievement (TF1)	.870	.01*
Teacher Perceptions of Student/Parent Expectations (TF2)	.899	.00*
Teacher Perceptions of Job Satisfaction (TF3)	.311	.45
Teacher Perceptions of Student Motivation (TF4)	.317	.44
Teacher Perceptions of School's Ability to Promote Student Achievement and Development (TF5)	.773	.02*
Principal Climate Factors		
Principal Expectation of Students (PF1)	.862	.01*
Principal Perceptions of Parental Concerns and Expectations for Quality Education (PF2)	.286	.49
Principal Perceptions for Teacher Performance and Student Achievement (PF3)	.614	.11
Principal Perceptions of Efforts to Improve School (PF4)	658	.08
Principal Perceptions of Present School Quality (PF5)	.658	.08
Principal Perceptions of Effect of Significant Others on Student Achievement (PF6)	.507	.20

TABLE 7 Continued

Socio-Economic Status	.475	.23
STEA	.962	.00*
Percentage-White Students	.532	.18

N = 8

* Significant at the .05 level of significance

Regression Analysis

One of the hypotheses of this study was that a positive relationship exists between achievement and school environment. Seventeen climate factors were correlated with achievement, ten of which were significantly ($p < .05$) related to achievement (See Table 7). A further analysis was made to assess the behavior of several models in determining the degree to which the climate factors, as a whole, related to achievement. This was done by a series of stepwise multiple regressions. Serious limitations to these regression analyses were twofold: (1) school was the unit of measurement (n=8) and there were seventeen climate variables and the dependent variable, achievement (COMP); and (2) the interrelationship of many of the climate factors (See Appendix M). These models are presented because this procedure was a part of the original design of this investigation. In reviewing these models, the reader should be aware of the above statistical problems associated with the above stated limitations.

The models are presented reflecting the results of the regression series; each with its R^2, R^2 CHG, Eigenvalue, Beta, and p value for variable added. Mean achievement was the dependent variable in each model.

The equation for Model 1 forced SES and STEA in the calculation first and then allowed the percentage-white students and all of the student, teacher and principal climate factors to be included in a stepwise fashion. The results of Model 1 are illustrated in Table 8.

TABLE 8

STEPWISE REGRESSION ANALYSIS - MODEL 1

VARIABLE ADDED	R^2	R^2 CHG	BETA	EIGENV	P of F to Enter
SES/STEA	.9254		.4774		.0015
PF3-Prin. Perception of Teacher Performance and Student Achievement	.9783	.0549	.7292	.635	.0289

N = 8

After the correlation between achievement and SES and STEA was taken into account, the question was which climate factor was strong enough to enter into the model. Principal Perceptions for Teacher Performance and Student Achievement emerged accounting for approximately five percent of the variance. It was expected that most of the variance would be accounted for by STEA (93%). Model 1 did not separate SES from STEA in the first step of its regression. Therefore, Model 2 allowed the independent variables STEA, all student, teacher and principal factors to be included in the equation (See Table 9).

TABLE 9

STEPWISE REGRESSION ANALYSIS - MODEL 2

VARIABLE ADDED	R^2	R^2 CHG	BETA	EIGENV	P of F to Enter
STEA	.9253		.4774		.0010
TF3-Teacher Perception of Job Satisfaction	.9691	.0438	.5713	.274	.0447

N = 8

As expected, STEA accounted for approximately 93% of the variance with one factor, Teacher Perception of Job Satisfaction (TF3) accounting for approximately four percent of the variance. To determine the strength of SES against the climate factors, Model 2 allowed the independent variable SES and all student, teacher and principal factors to be included in the equation. The regression results are shown in Table 10.

TABLE 10

STEPWISE REGRESSION ANALYSIS - MODEL 3

VARIABLE ADDED	R^2	R^2 CHG	BETA	EIGENV	P of F to Enter
SES	.2259		.2820		.2340
TF2 Teacher Percept of Student/Parent Expect	.8505	.6246	.4002	.222	.0066
PF3 Prin. Perception of Tchr. Performance & Student Achievement	.9023	0518	.7886	.653	.2188

N = 8

In the correlation between achievement, SES and all the climate factors, SES accounted for only 23% of the variance. Teacher Perception of Student and Parent Expectation accounted for 62% of the variance with Principal Perception of Teacher Performance and Student Achievement accounting for five percent of the variance.

Model 4 did not force any variable into the equation and did not include STEA. All student, teacher, and principal climate factors, as well as SES and percentage-white were placed in the equation to test the strength of each with the dependent variable achievement. The results are shown in Table 11.

TABLE 11

STEPWISE REGRESSION ANALYSIS - MODEL 4

VARIABLE ADDED	R^2	R^2 CHG	BETA	EIGENV	P of F to Enter
TF2 Teacher Perception of Student/ Parent Expectation	.8081		1.513	.222	.0024
PF1 Prin. Expectation of Students	.8918	.0837	.2911	.297	.1064

N = 8

In each of the preceding models, none of the non-climate variables, omitting STEA, accounted for enough variance, unless forced into the model, to compete with climate factors for inclusion in the models. As observed earlier in the analysis, STEA has consistently emerged as the best predictor of achievement and accounts for much of the variance. It was placed in the first two models to confirm an expected conclusion.

The variables SES and Percentage-white students did not enter the regression models on their own strength and they did not emerge significantly in the previous correlation analyses.

Among the climate factors, Teacher Perception of Student/Parent Expectation (TF2) emerged in Model 5 as the most powerful of the factors after STEA was removed from the equation. This occurred in both Models 3 and 4.

In addition to the small sample size and the larger number of variables, another difficulty in these analyses was the interrelationship among many of the climate factors. When factors are highly related, it is highly possible that the first factor into the regression appear to have the effect of cancelling out the others (See Appendix M). This limitation apparently contributed to the inconsistent findings from the stepwise regression analyses.

CHAPTER V

SUMMARY, CONCLUSIONS, AND IMPLICATIONS FOR FURTHER STUDY

Summary

The purpose of this study was to investigate whether a relationship exists between student perception of the school environment as measured by the School Environment Questionnaire (developed by Wilbur B. Brookover et at. at Michigan State University) and the perceptions of the administrative staff. The first tested hypothesis was that a positive relationship exists between the two variables. Secondly, the investigation sought to determine whether a relationship exists between school climate and student achievement. The tested hypothesis held that a positive relationship exists between student achievement and school environment.

The subjects for this investigation were 984 eleventh grade students, 114 teachers of eleventh graders, and the principals in eight urban high schools in Virginia. Student academic achievement was measured by the composite scores on the SRA Achievement Series administered to all eleventh grade students in the fall each year on a statewide basis. The climate questionnaires for students, teachers, and principals were administered to each group of subjects in the study during the spring following the fall SRA testing. Factor analyses were performed on the three separate sets of questionnaires and resulted in 17 climate variables (six student factors, five teacher factors, and six principal factors). Mean scores across individuals within schools were computed to get significant observations on each school and to make comparative analyses of the climate factors and

the predictor variables of student achievement. Correlations between student climate factors and teacher climate factors and correlations between student climate factors and principal climate factors were calculated. Correlations between the school means of the 17 climate factors with each school mean achievement were also calculated. The final statistical procedure was a series of regression analyses on the dependent variable achievement with the various predictor variables.

Conclusion

The first hypothesis that a positive relationship exists between student perceptions and staff perceptions of the school environment was supported by this investigation. Analysis of the means for student, teacher, and principal climate factors indicated that, among the eight schools, there were no significant differences between student perceptions of the school environment, as well as no significant differences between teacher and principal perceptions of the school climate. If there were serious distortions in spoken and unspoken communication in the schools, or perceived poor environments in some schools, one would expect wide variations between student and staff perceptions. Such was not the case in this investigation. This across-the-board finding, coupled with the several significant correlations at the .05 level of significance between student climate factors with teacher and principal climate factors, suggests that a communication network might exist in the school whereby emphases are effectively transmitted and perceived.

The second hypothesis that a positive relationship exists between achievement and school environment was also supported by this investigation. The following observations are based on the correlation

analyses presented in Tables 4, 5, 6 and 7:

1. Student perceptions were more related to achievement than teacher and principal perceptions, and teacher perceptions were more related to achievement than principal perceptions. All six student climate factors were significantly correlated with achievement at the .05 level; whereas three of the five teacher climate factors and one of the six principal climate factors were significantly correlated with achievement at the .05 level.

2. Excluding the alternative School 7 (n=29), the schools with the highest mean achievement also had the highest number of significant correlations between climate factors and achievement.

One of the main hypotheses underlying climate/perception/achievement research is that the more students perceive school climate as supportive, the higher achievement is expected to be. This investigation was not consistent in affirming this hypothesis. The school with the lowest mean achievement had more significant correlations with achievement than a school with a higher mean score.

3. Socio-economic status and percentage-white students did not correlate significantly. The percentage of white students was only 16% in this population sample and there were not significant differences in the mean SES among the eight schools. The all-school mean SES was 45.29 in a range of 9 to 85 points.

4. Among the climate factors, Teacher Perceptions of Student/Parent Expectation emerged as the most powerful of the factors in two of the four regression models. This particular observation must be viewed with caution because of the serious limitations, discussed

earlier in this chapter, which this study imposed on the regression statistical procedure.

5. Caution should be exercised in making any generalizations on the results of this investigation. The school district in which this study was conducted is characterized by a small percentage of white students, declining enrollment, achievement scores generally below the fiftieth percentile, and many of the other characteristics of urban school settings in the eastern part of the country. These results, therefore, can possibly be generalized only to urban school districts in this geographical area.

Implications for Further Study

The findings and conclusions of this investigation suggest the following recommendations:

1. The Student Environment Questionnaire designed by Brookover et al. appears to measure school climate perceptions. However, a wider use of this instrument with high school student populations of various socio-economic and ethnic compositions would enhance its validity and reliability in measuring perceptions of environment for analysis as a predictor of academic achievement.

2. Since there was a high degree of homogeneity in the student population in achievement, socio-economic status and racial composition in this investigation, a replication of this study with a more heterogeneous population to assess the relationship between school climate and achievement would provide a more comprehensive arena to view these findings and help to indicate the utility of this investigation.

3. Such a replication should also have a more heterogeneous grouping of schools including urban, suburban and rural high schools.

4. A longitudinal study with pre- and post-test measurement of achievement correlated with climate factors would be an improvement in replicating this type of study.

A P P E N D I C E S

APPENDIX A

Demographic Data on Teachers In Population Sample

		SEX		RACE				DEGREE	
SCHOOL	FREQUENCY	MALE	FEMALE	ASIAN	BLACK	WHITE	A/IND	BACH	MAST
1	18	4	14		9	8	1	9	9
2	12	2	10		7	5		7	5
3	10	1	9		7	3		7	3
4	27	9	18		19	8		12	15
5	13	5	8		5	8		8	5
6	19	6	13		11	8		8	11
7	3	1	2	1		2		2	1
8	12	5	7			12		4	8
8	114	81	33	1	70	42	1	57	57

APPENDIX B

Number of Years Teaching by Teachers In Population Sample

No. of Years	Frequency	Percent
1 - 4	26	22.8
5 - 9	39	34.2
10 - 14	35	30.7
15 - More	15	12.3

APPENDIX C

Principal Sample In Selected Schools

S e x	R a c e	Yrs. In Principalship In Sampled School	Total No. Yrs. Principalship
6 Males	6 Black	7 with 2 years	7 with 2 years
2 Females	2 White	1 with 3 years	1 with 3 years

APPENDIX D

Number of Years Principal Spent Teaching

Never Taught	1 - 4	5 - 9	10 - 14	15 - 20
0	0	2	3	3

APPENDIX E

MEAN AND STANDARD ERROR OF MEAN FOR ACHIEVEMENT, SOCIO-ECONOMIC STATUS AND CL
HIGH SCHOOLS IN AN URBAN SCHOOL DIVISION IN

VARIABLES	ALL SCHOOLS m	SE	SCHOOL 1 m	SE	SCHOOL 2 m	SE	SCHOOL 3 m	SE	SCHOOL 4 m	SE
MEAN ACHIEVEMENT	14.24	3.4	12.67		12.17		11.75		16.17	
MEAN STEA	26.15	6.9	22.70		23.33		22.97		25.90	
MEAN SES	45.26	5.8	45.43		34.53		44.28		43.07	
N =	8		136		77		178		134	
STUDENT CLIMATE FACTORS										
m = 100 SD = 10										
Student Perceptions of Educational Expectations (SF1)	101.1 ** 97/105	.3	98.8 80/108	.6	100.6 84/108	.6	100.3 80.108	.5	98.7 78/108	.:
Student Perceptions Instructional Setting (SF2)	100.8 ** 97/108	3.4	98.5 85/113	.5	100.1 88/111	.6	101.9 86/114	.4	99.8 82/111	.:
Student Perception of Academic Ability (SF3)	100.9 ** 98/103	1.5	98.7 85/115	.5	100.8 90/113	.6	100.0 85/115	.4	99.2 87/117	.:
Student Perception of Teacher Attitude (SF4)	99.2 ** 94/101	3.6	101.7 89/117	.4	100.2 83/112	.6	98.9 86/112	.3	101.0 88/110	.4
Student Perceptions of Academic Futility (SF5)	100.0 ** 99/103	2.7	99.2 86/105	.3	100.8 93/108	.3	100.1 88/106	.3	99.9 90/106	.:
Student Perceptions of Self Reliance (SF6)	100.3 ** 99/102	1.2	99.5 90/107	.3	100.0 86/109	.5	100.4 87/110	.3	99.7 89/110	.:
N =	8		136		77		178		134	

SE = Standard Error of Mean

** Minimum/Maximum scores possible of each of the factors

APPENDIX E

OR ACHIEVEMENT, SOCIO-ECONOMIC STATUS AND CLIMATE FACTORS IN POPULATION SAMPLE OF SELECTED HIGH SCHOOLS IN AN URBAN SCHOOL DIVISION IN VIRGINIA

OL 1 SE	SCHOOL 2 m	SE	SCHOOL 3 m	SE	SCHOOL 4 m	SE	SCHOOL 5 m	SE	SCHOOL 6 m	SE	SCHOOL 7 m	SE	SCHOOL 8 m	SE
7	12.17		11.75		16.17		12.60		14.79		21.80		11.96	
0	23.33		22.97		25.90		22.64		28.61		42.27		20.78	
3	34.53		44.28		43.07		50.03		52.12		50.79		41.86	
6	77		178		134		101		130		29		133	
8 .6 /108	100.6 84/108	.6	100.3 80.108	.5	98.7 78/108	.3	100.8 82/108	.6	100.6 83/108	.5	105.8 96/108	.5	100.1 80/108	.6
5 .5 113	100.1 88/111	.6	101.9 86/114	.4	99.8 82/111	.5	102.1 89/112	.5	97.3 80/113	.6	108.3 97/113	.7	99.5 82/111	.5
7 .5 115	100.8 90/113	.6	100.0 85/115	.4	99.2 87/117	.5	100.0 88/115	.6	100.3 81/117	.5	103.7 91/111	.9	100.5 85/115	.6
7 .4 117	100.2 83/112	.6	98.9 86/112	.3	101.0 88/110	.4	99.6 83/112	.5	100.5 86/112	.4	95.0 88/99	.5	99.5 78/112	.4
2 .3 105	100.8 93/108	.3	100.1 88/106	.3	99.9 90/106	.3	100.2 89/108	.3	99.2 87/106	.3	103.1 96/107	.5	100.3 86/105	.3
5 .3 107	100.0 86/109	.5	100.4 87/110	.3	99.7 89/110	.3	100.7 89/111	.4	100.4 88/113	.4	102.5 96/110	.7	99.2 87/107	.4
136	77		178		134		101		130		29		133	

of the factors

APPENDIX E CONTINUED

MEAN AND STANDARD ERROR OF MEAN FOR ACHIEVEMENT, SOCIO-ECONOMIC STATUS AND CLIM
HIGH SCHOOLS IN AN URBAN SCHOOL DIVISION IN

VARIABLES	ALL SCHOOLS m	SE	SCHOOL 1 m	SE	SCHOOL 2 m	SE	SCHOOL 3 m	SE	SCHOOL 4 m	SE
TEACHER CLIMATE FACTORS										
Teacher Expectation of Students (TF1)	101.8 ** 95/105	6.9	96.7	1.3	96.6	1.3	101.2	2.6	100.3	.9
Teacher Perception of Student/Parent Expectations (TF2)	100.3 ** 95/106	1.6	99.5	1.0	99.3	1.3	100.2	1.2	100.8	.8
Teacher Perception of Job Satisfaction (TF3)	99.8 ** 94/105	1.3	98.7	1.2	99.8	1.2	98.5	1.8	101.9	.3
Teacher Perception of Student Motivation (TF4)	100.4 ** 95/104	1.2	98.8	1.1	100.2	1.0	100.5	1.2	98.8	.8
Teacher Perception of School/s Ability to Promote Achievement & Development (TF5)	100.0 ** 95/105	3.3	95.6	1.1	95.1	.9	98.2	1.1	103.3	.9
N =	8		18		12		10		27	
PRINCIPAL CLIMATE FACTORS										
Principal Expectation of Students (PF1)	100.0 ** 92/108	4.3	96.7		96.6		97.4		97.8	
Principal Perception of Parent Concerns and Expectations (PF2)	100.0 ** 91/111	1.6	99.8		91.8		94.7		100.6	
Principal Perception of Teacher Performance and Achievement (PF3)	100.0 ** 90/105	1.4	100.5		101.9		98.4		102.2	
Principal Perception of Efforts to Improve School (PF4)	100.0 ** 90/114	6.3	101.6		106.5		96.3		95.3	
Principal Perception of School Quality (PF5)	100.0 ** 96/104	2.7	99.7		96.6		96.1		102.4	
Principal Perception of Significant Others (PF6)	100.0 ** 90/107	5.2	103.8		99.9		101.1		96.6	
N =	8		1		1		1		1	

SE = Standard Error of Mean

** Minimum/Maximum sc

APPENDIX E CONTINUED

ACHIEVEMENT, SOCIO-ECONOMIC STATUS AND CLIMATE FACTORS IN POPULATION SAMPLE OF SELECTED HIGH SCHOOLS IN AN URBAN SCHOOL DIVISION IN VIRGINIA

OL 1 SE	SCHOOL 2 m	SE	SCHOOL 3 m	SE	SCHOOL 4 m	SE	SCHOOL 5 m	SE	SCHOOL 6 m	SE	SCHOOL 7 m	SE	SCHOOL 8 m	SE
7 1.3	96.6	1.3	101.2	2.6	100.3	.9	98.6	1.7	100.3	1.0	119.1	.2	102.5	1.0
5 1.0	99.3	1.3	100.2	1.2	100.8	.8	99.2	.7	99.1	1.0	105.2	1.5	100.0	1.0
7 1.2	99.8	1.2	98.5	1.8	101.9	.3	99.3	.9	99.1	.9	100.3	.5	101.5	.6
8 1.1	100.2	1.0	100.5	1.2	98.8	.8	100.3	1.0	100.5	.9	101.2	1.2	102.9	1.3
6 1.1	95.1	.9	98.2	1.1	103.3	.9	97.5	.8	100.2	1.1	105.0	.6	102.0	1.1
18	12		10		27		13		19		3		12	
7	96.6		97.4		97.8		100.6		105.5		107.6		97.8	
8	91.8		94.7		100.6		97.2		104.0		111.4		100.6	
5	101.9		98.4		102.2		97.5		97.3		101.2		100.9	
6	106.5		96.3		95.3		95.4		97.2		112.3		95.3	
7	96.6		96.1		102.4		102.6		99.8		103.2		99.7	
8	99.9		101.1		96.6		90.8		104.2		107.0		96.6	
1	1		1		1		1		1		1			

** Minimum/Maximum scores possible on each of the factors

APPENDIX F

Comparison of Means of Socio-Economic Status, Ability Scores, And Achievement Scores By Sex and Race for Population Sample

	Sex		Race	
Variable	Male	Female	Black	White
Socio-Economic Status	45.898	44.450	43.504	52.747
Ability	24.872	24.530	22.856	33.688
Achievement	13.172	13.819	12.657	17.974
N =	383	535	764	154
Percentages	42.0	58.0	83.0	17.0

APPENDIX G

Comparison of Years In School With Socio-Economic Status, Ability and Achievement Means for Population Sample

	Years In School						
	1	2	3	4	5	6	7
SES	53.980	47.382	44.269	42.375	21.000	82.000	22.000
Ability	26.804	23.843	24.823	21.719	11.500	20.000	17.000
Achievement	14.824	12.735	13.682	11.750	6.500	13.000	7.000
N =	51	102	729	32	2	1	1

APPENDIX H

Comparison of Age With Socio-Economic Status, Ability and Achievement Means for Population Sample

	Age						
	14	15	16	17	18	19	20
SES	53.200	45.086	45.852	44.497	43.813	34.000	18.000
Ability	33.600	25.300	25.847	24.027	20.313	21.000	6.000
Achievement	17.600	13.529	14.042	13.479	10.766	11.000	13.000
N =	5	70	398	376	64	4	1

APPENDIX I

STUDENT QUESTIONNAIRE

DIRECTIONS: We are trying to learn more about students and their performance in schools. We would appreciate your answers to the questions below. This is not a test and will not affect your work in school. Your teacher and your principal will not see your answers. There are no right or wrong answers.

1. Name_____ (Pencil only)

PLEASE ANSWER THE FOLLOWING QUESTIONS BY FILLING IN THE BLANKS WITH YOUR BEST ANSWER TO THE QUESTION.

2. How old were you on your last birthday?_____

3. Are you male or female?_____

4. What is your grade level?_____

5. Please write your homeroom teacher's name._____

6. Please write the name of your school._____

7. How many years have you been in this school?_____

8. Please place a check mark ( ) beside the category which best describes your father's occupation.

_____1. Professional (ex: doctor, teacher, lawyer)

_____2. Managerial and Official (ex: businessman, director of public service)

_____3. Clerical (ex: secretary)

_____4. Sales (ex: salesperson in a store, for a company)

_____5. Domestic Service(ex: housecleaner, servant)

_____6. Skilled Occupation (ex: carpenter, plumber, auto mechanic)

_____7. Semi-skilled occupation(ex: machine operator, factory worker)

_____8. Unskilled occupation

8. (continued)

_____9. Homemaker

_____10. Building Service (ex: janitor, building maintenance man)

_____11. Active duty in uniform service (Army, Navy, Air Force, Marine Corps, Coast Guard, Public Health Service)

_____12. Protective Service (ex: night watchman, guard)

_____13. Other (specify)_____

9. Please place a check mark ( ) beside the category which best describes your mother's occupation.

_____1. Professional (ex: doctor, teacher, lawyer)

_____2. Managerial and Official (ex: businesswoman, director of public service)

_____3. Clerical (ex: secretary)

_____4. Sales (ex: salesperson in a store, for a company)

_____5. Domestic Service (ex: housecleaner, servant)

_____6. Skilled Occupation (ex: carpenter, plumber, auto mechanic)

_____7. Semi-skilled occupation (ex: machine operator, factory worker)

_____8. Unskilled Occupation

_____9. Homemaker

_____10. Building Service (ex: janitor, building maintenance person)

_____11. Active Duty in Uniform Service (Army, Navy, Air Force, Marine Corps, Coast Guard, Public Health Service)

_____12. Protective Service (ex: night watchperson, guard)

_____13. Other (Specify)_____

THE FOLLOWING QUESTIONS ARE TO BE ANSWERED BY CIRCLING THE NUMBER ON THE RIGHT OF THE CORRECT ANSWER. REMEMBER, NO ONE WILL SEE YOUR ANSWERS EXCEPT THOSE OF US FROM THE COLLEGE OF WILLIAM AND MARY. PLEASE TELL US JUST WHAT YOU THINK and choose only one answer for each question.

10. If you could go as far as you wanted in school, how far would you like to go?

Finish high school 1
Go to college for a while 2
Finish college 3

11. Sometimes what you <u>want</u> to happen is not what you think <u>will</u> happen. How far do you <u>think</u> you will go in school?

Finish high school 1
Go to college for a while 2
Finish college 3

12. Do you try hard to get good grades on your work?

Yes 1
No 2

13. How many students in this school will work hard to get a better grade on the weekly tests?

Almost all of the students 1
Most of the students 2
Half of the students 3
Some of the students 4
Almost none of the students 5

14. Do you care if you get bad grades?

Yes 1
No 2

15. Do you study harder than you really have to?

Yes 1
No 2

16. How far do you want to go in school?

Go to high school for a while 1
Finish high school 2
Go to college for a while 3
Finish college 4

17. How important is it to you to be a good student?

Very important 1
Important 2
Somewhat important 3
Not very important 4
Not important at all 5

18. How important do you feel it is to do good school work?

You feel it is very important 1
You feel it is important 2
You feel it is somewhat important 3
You feel it is not very important 4
You feel it is not important at all 5

19. How important do you think most of the students in this school feel it is to do well in school work?

They feel it is very important 1
They feel it is important 2
They feel it is somewhat important 3
They feel it is not very important 4
They feel it is not important at all 5

20. Do you think reading is a fun thing to do?

Yes 1
No 2

21. Do you read every day for fun?

Yes 1
No 2

22. Do students like you when you do well in school?

Almost all of the students 1
Most of the students 2
About half of the students 3
Some of the students 4
None of the students 5

23. How many students don't do as well as they could do in school because they are afraid other students won't like them as much?

Almost all of the students 1
Most of the students 2
About half of the students 3
Some of the students 4
None of the students 5

REMEMBER, PLEASE ANSWER THE FOLLOWING QUESTIONS BY CIRCLING THE NUMBER WHICH BEST ANSWERS THE QUESTION FOR YOU. CHOOSE ONLY ONE ANSWER FOR EACH QUESTION.

24. How many students don't do as well as they could do in school because they are afraid their friends won't like them as much?

Almost all of the students 1
Most of the students 2
About half of the students 3
Some of the students 4
None of the students 5

25. Would you study hard if your work were not graded by teachers?

Yes 1
No 2

26. Will you be able to be what you want to be in life?

Yes 1
No 2

27. Do you do well in school?

Yes 1
No 2

28. Can you do well in school if you work hard?

Yes 1
No 2

29. Do you have luck in this school?

Yes 1
No 2

30. Do you have to be lucky to get good grades in this school?

Yes 1
No 2

31. Think of your friends. Do you think you can do school work better, the same, or poorer than your friends?

Better than all of them 1
Better than most of them 2
About the same 3
Poorer than most of them 4
Poorer than all of them 5

32. Think of the students in your class. Do you think you can do school work better, the same, or poorer than the students in your class?

Better than all of them 1
Better than most of them 2
About the same 3
Poorer than most of them 4
Poorer than all of them 5

33. When you finish high school, do you think you will be one of the best students, about the same as most, or below most of the students?

One of the best 1
Better than most of the students 2
Same as most of the students 3
Below most of the students 4
One of the worst 5

34. Do you think you could finish college?

Yes, for sure	1
Yes, probably	2
Maybe	3
No, probably not	4
No, for sure	5

35. If you went to college, do you think you would be one of the best students, same as most, or below most of the students?

One of the best	1
Better than most of the students	2
Same as most of the students	3
Below most of the students	4
One of the worst	5

36. If you want to be a doctor or a teacher, you need more than four years of college. Do you think you could do that?

Yes, for sure	1
Yes, probably	2
Maybe	3
No, probably not	4
No, for sure	5

37. Forget how your teachers mark your work. How good do you think your own work is?

Excellent	1
Good	2
Same as most of the students	3
Below most of the students	4
Poor	5

38. What kind of grades do you think you really can get if you try?

Mostly A's	1
Mostly B's	2
Mostly C's	3
Mostly D's	4
Mostly F's	5

39. How good of a student do you think you can be in this school?

One of the best	1
Better than most of the students	2
Same as most of the students	3
Below most of the students	4
One of the worst	5

40. How far do you think your best friend believes you will go in school?

Finish grade school	1
Go to high school for a while	2
Finish high school	3
Go to college for a while	4
Finish college	5

NOW WE WOULD LIKE TO ASK SOME QUESTIONS ABOUT THE TEACHERS IN THIS SCHOOL. ANSWER THESE QUESTIONS AS YOU ANSWERED THE OTHER ONES BY CIRCLING THE NUMBER. REMEMBER, NO TEACHER WILL SEE YOUR ANSWERS, SO BE AS HONEST AS YOU CAN.

41. Of the teachers that you know in this school, how many tell students to try hard to do better on tests?

Almost all of the teachers	1
Most of the teachers	2
Half of the teachers	3
Some of the teachers	4
Almost none of the teachers	5

42. How many teachers in this school tell students to try and get better grades than their classmates?

Almost all of the teachers	1
Most of the teachers	2
Half of the teachers	3
Some of the teachers	4
Almost none of the teachers	5

43. Of the teachers that you know in this school, how many don't care if the students get bad grades?

Almost all of the teachers	1
Most of the teachers	2
Half of the teachers	3
Some of the teachers	4
Almost none of the teachers	5

44. Of the teachers that you know in this school, how many tell students to do extra work so that they can get better grades?

Almost all of the teachers	1
Most of the teachers	2
Half of the teachers	3
Some of the teachers	4
Almost none of the teachers	5

45. Of the teachers that you know in this school, how many make the students work too hard?

Almost all of the teachers	1
Most of the teachers	2
Half of the teachers	3
Some of the teachers	4
Almost none of the teachers	5

46. Of the teachers that you know in this school, how many don't care how hard the student works, as long as he passes?

Almost all of the teachers	1
Most of the teachers	2
Half of the teachers	3
Some of the teachers	4
Almost none of the teachers	5

47. How far do you think the teacher you like the best believes you will go in school?

Go to high school for a while	1
Finish high school	2
Go to college for a while	3
Finish college	4

48. How good a student does the teacher you like the best expect you to be in school?

One of the best	1
Better than most of the students	2
Same as most of the students	3
Not as good as most of the students	4
One of the worst	5

49. Think of your teachers. Would most of your teachers say you can do school work better, the same, or poorer than other people your age?

Better than all of them	1
Better than most of them	2
Same as most of them	3
Poorer than most of them	4
Poorer than all of them	5

50. Would most of your teachers say that your grades would be with the best, the same as most, or below most of the students when you graduate from high school?

One of the best	1
Better than most of the students	2
Same as most of the students	3
Below most of the students	4
One of the worst	5

51. How often do teachers in this school try to help you when you do badly on your school work?

They always try to help	1
They usually try to help	2
They sometimes try to help	3
They seldom try to help	4
They never try to help	5

52. Compared to students in other schools, how much do you learn in this school?

I learn a lot more in this school	1
I learn a little more in this school	2
About the same as in other schools	3
I learn a little bit less in this school	4
I learn a lot less in this school	5

53. Compared to students from other schools, how well will you do in high school?

I will be among the best	1
I will do better than most	2
I will do about the same as most	3
I will do poorer than most	4
I will be among the worst	5

54. How important is it to teachers in this school that you learn your school work?

It is the most important thing to the teachers	1
It is very important to the teachers	2
It is somewhat important to the teachers	3
It is not very important to the teachers	4
It is not important at all to the teachers	5

55. Think about the teachers you know in this school. Do you think the teachers in this school care more or less than teachers in other schools about whether or not you learn your school work?

Teachers in this school care a lot more	1
Teachers in this school care a little more	2
There is no difference	3
Teachers in this school care a little less	4
Teachers in this school care a lot less	5

56. Do most of your teachers think you could finish college?

Yes, for sure 1
Yes, probably 2
Maybe 3
Probably not 4
No, for sure 5

57. Remember you need more than four years of college to be a teacher or doctor. Do most of your teachers think you could do that?

Yes, for sure 1
Yes, probably 2
Maybe 3
Probably not 4
No, for sure 5

NOW WE WOULD LIKE YOU TO ANSWER SOME QUESTIONS ABOUT YOUR PARENTS. ANSWER THEM THE SAME WAY YOU ANSWERED THE OTHER QUESTIONS.

58. How far do you think your parents believe you will go in school?

Go to high school for a while 1
Finish high school 2
Go to college for a while 3
Finish college 4

59. How good a student do your parents expect you to be in school?

One of the best 1
Better than most of the students..... 2
Same as most of the students..... 3
Not as good as most of the students..... 4
One of the worst..... 5

60. Think of your parents. Do your parents say you can do school work better, the same, or poorer than your friends?

Better than all of them 1
Better than most of them 2
Same as most of them 3
Poorer than most of them 4
Poorer than all of them 5

61. Would your parents say that your grades would be with the best, same as most, or below most of the students when you finish high school?

One of the best 1
Better than most of the students..... 2
Same as most of the students..... 3
Not as good as most of the students..... 4
One of the worst..... 5

62. Do your parents think you could finish college?

Yes, for sure 1
Yes, probably 2
Maybe 3
No, probably not 4
No, for sure 5

63. Remember, you need more than four years of college to be a teacher or doctor. Do your parents think you could do that?

Yes, for sure 1
Yes, probably 2
Maybe 3
No, probably not 4
No, for sure 5

READ EACH STATEMENT BELOW. CIRCLE THE NUMBER OF THE ANSWER THAT TELLS HOW OFTEN THE STATEMENT IS TRUE FOR YOU.

64. I can talk to other students while I work.

Always 1
Often 2
Sometimes 3
Seldom 4
Never 5

65. In class, I can move about the room without asking the teacher.

Always 1
Often 2
Sometimes 3
Seldom 4
Never 5

66. In class, I have the same seat and I must sit next to the same students.

Always 1
Often 2
Sometimes 3
Seldom 4
Never 5

67. When I am working on a lesson, <u>all</u> the other students in my class are working on the same lesson.

Always 1
Often 2
Sometimes 3
Seldom 4
Never 5

68. In most of my classes, the teacher tells me what I must work on; I have no choice.

Always	1
Often	2
Sometimes	3
Seldom	4
Never	5

69. In class, the teacher stands in front of the room and works with the class as a whole.

Always	1
Often	2
Sometimes	3
Seldom	4
Never	5

70. If your teacher gave you a hard assignment, would you rather figure out how to do it by yourself or would you want your teacher to tell you how to do it?

I almost always prefer figuring it out for myself	1
I usually prefer figuring it out for myself	2
Sometimes I prefer figuring it out for myself	3
I usually like the teacher to tell me how to do it	4
I always like the teacher to tell me how to do it	5

71. When your teachers give you difficult assignments, do they usually give you too much help or not enough?

They almost always give too much help	1
They usually give too much help	2
They give just enough help	3
They usually don't give enough help	4
They almost never give enough help	5

72. Suppose you had some free time and wanted to do something that you consider fun but all your friends were busy. Do you think you could find something that you consider fun to do all by yourself?

Yes, it would be easy	1
Yes, if I tried hard	2
Maybe	3
No, probably not	4
No, it is never fun to be alone	5

73. Sometimes we are faced with a problem that at first seems too difficult for us to handle. When this happens, how often do you try to solve the problem all by yourself instead of asking someone for help?

Always	1
Most of the time	2
Sometimes	3
Not very often	4
Never	5

74. Some people enjoy solving problems or making decisions all by themselves, other people don't enjoy it. Do you like to solve problems all by yourself?

I almost always like to 1
I usually like to 2
I usually don't like to 3
I almost never like to 4

APPENDIX J

TEACHER QUESTIONNAIRE

DIRECTIONS: The information which you give us on this questionnaire is completely confidential. No one will see your answers except the members of our research team. Reports will be made with aggregate data, and no one person will be identified with his or her data. After your questionnaire has been completely coded and punched on IBM cards, it will be destroyed. Complete confidentiality is assured.

It is very important that you be as candid as possible in your answers. Do not respond to any question that you feel is too "personal" or that you, for any other reason, prefer to leave unanswered. Please fill in the blank or circle one answer at the right of the page for each question.

1. Please write the name of this school._____

2. Are you male or female?_____

---

3. What is your race or ethnic group? (circle one)

Code	Description of Racial/Ethnic Background
1	American Indian or Alaskan Native - A person having origins in any of the original peoples of North America.
2	Black, not of Hispanic Origin - A person having origins in any of the black racial groups.
3	Asian or Pacific Islander - A person having origins in any of the original peoples of the Far East, Southeast Asia, or the Pacific Islands. This area includes, for example, China, Japan, Korea, the Philippine Islands, and Samoa.
4	Hispanic - A person of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin.
5	White, not of Hispanic Origin - A person having origins in any of the original peoples of Europe, North Africa, the Middle East, or the Indian Subcontinent.

4. Counting this year, how long have you taught in this school?_____

5. What grade level(s) are you teaching?_____

6. What is the highest degree you have earned completely?_____

7. Were you pleased with your assignment to this school before coming here?

Yes 1
No 2

8. Which best describes the students in your class(es)?

Mostly children of professional and white collar workers 1
Children from a general cross section of society 2
Mostly children of factory and other blue collar workers 3
Children of rural families 4

9. If you had your choice of school settings, which would you select from among the following?

Mostly children of professional and white collar workers 1
Children from a general cross section of society 2
Mostly children of factory and other blue collar workers 3
Children of rural families 4

10. What kind of school do you prefer to work in as far as racial composition is concerned?

A mostly white school but with some non-white students 1
A school that has about half white and half non-white students 2
A mostly non-white school but with some white students 3
I have no preference 4

11. In your judgment, what is the general reputation of this school among teachers outside the school?

Among the best 1
Better than average 2
About average 3
Below average 4
A poor school 5

12. If you had to choose a single one, which of the following sources of information do you think best predicts a pupil's success or failure in higher education?

Teacher recommendations 1
Group or individual intelligence or scholastic aptitude test scores 2
Other standardized test scores (e.g., personality and vocational inventories, etc.) 3
School grades 4
Other 5

WE WOULD LIKE TO ASK YOU SOME QUESTIONS ABOUT GROUPING PRACTICES AND USE OF STANDARDIZED TESTS IN THIS SCHOOL. PLEASE FEEL FREE TO WRITE ANY ADDITIONAL COMMENTS AFTER EACH QUESTION.

13. In general, how are students in the same grade level assigned to different classes?

Homogeneous grouping according to ability in all subjects	 1
Homogeneous by ability in some subjects	 2
Heterogeneous grouping according to ability	 3
Random grouping	 4

14. How important do you think standardized intelligence test scores of your students are?

Very important	 1
Not very important	 2
Not important at all	 3

15. How often do you refer to or consider the I.Q. test scores of your students when you plan their work?

Often	 1
Sometimes	 2
Seldom	 3

16. On the average, what level of achievement can be expected of the students in this school?

Above national norm	 1
At national norm	 2
Below national norm	 3

17. On the average, what level of achievement can be expected of the students in your classes?

Above national norm	 1
At national norm	 2
Below national norm	 3

18. What percent of the students in this <u>school</u> do <u>you</u> expect to complete high school?

90% or more	 1
70% to 89%	 2
50% to 69%	 3
30% to 49%	 4
Less than 30%	 5

19. What percent of the students in your classes do you expect to complete high school?

90% or more 1
70% to 89% 2
50% to 69% 3
30% to 49% 4
Less than 30% 5

20. What percent of the students in this school do you expect to attend college?

90% or more 1
70% to 89% 2
50% to 69% 3
30% to 49% 4
Less than 30% 5

21. What percent of the students in your classes to you expect to attend college?

90% or more 1
70% to 89% 2
50% to 69% 3
30% to 49% 4
Less than 30% 5

22. What percent of the students in this school do you expect to complete college?

90% or more 1
70% to 89% 2
50% to 69% 3
30% to 49% 4
Less than 30% 5

23. What percent of the students in your classes do you expect to complete college?

90% or more 1
70% to 89% 2
50% to 69% 3
30% to 49% 4
Less than 30% 5

24. How many of the students in this school are capable of getting mostly A's and B's?

90% or more 1
70% to 89% 2
50% to 69% 3
30% to 49% 4
Less than 30% 5

25. How many of the students in your classes are capable of getting mostly A's and B's?

90% or more	1
70% to 89%	2
50% to 69%	3
30% to 49%	4
Less than 30%	5

26. How would you rate the academic ability of the students in this school compared to other schools of this district?

Ability here is higher	1
Ability here is about the same	2
Ability here is lower	3

27. What percent of the students in this school would you say want to complete high school?

90% or more	1
70% to 89%	2
50% to 69%	3
30% to 49%	4
Less than 30%	5

28. What percent of the students in your classes would you say want to complete high school?

90% or more	1
70% to 89%	2
50% to 69%	3
30% to 49%	4
Less than 30%	5

29. What percent of the students in this school would you say want to go to college?

90% or more	1
70% to 89%	2
50% to 69%	3
30% to 49%	4
Less than 30%	5

30. What percent of the students in your classes would you say want to go to college?

90% or more	1
70% to 89%	2
50% to 69%	3
30% to 49%	4
Less than 30%	5

PLEASE REMEMBER, YOUR ANSWERS TO ALL OF THESE QUESTIONS ARE COMPLETELY CONFIDENTIAL. NO ONE BUT OUR RESEARCH STAFF WILL SEE YOUR ANSWER.

31. How much do you enjoy teaching in this school?

Very much	 1
Much	 2
Average	 3
Not at all	 4

32. If someone were to offer you an interesting and secure non-teaching job for $1,000 more a year, how seriously would you consider taking the job?

Very seriously	 1
Somewhat seriously	 2
Not very seriously	 3
Not at all	 4

33. If someone were to offer you an interesting and secure non-teaching job for $3,000 more a year, how seriously would you consider taking the job?

Very seriously	 1
Somewhat seriously	 2
Not very seriously	 3
Not at all	 4

34. What percent of the students in this school do you think the principal expects to complete high school?

90% or more	 1
70% to 89%	 2
50% to 69%	 3
30% to 49%	 4
Less than 30%	 5

35. What percent of the students in this school do you think the principal expects to attend college?

90% or more	 1
70% to 89%	 2
50% to 69%	 3
30% to 49%	 4
Less than 30%	 5

36. What percent of the students in this school do you think the principal expects to <u>complete</u> college?

90% or more	 1
70% to 89%	 2
50% to 69%	 3
30% to 49%	 4
Less than 30%	 5

37. How many students in this school do you think the principal believes are capable of getting mostly A's and B's?

90% or more	 1
70% to 89%	 2
50% to 69%	 3
30% to 49%	 4
Less than 30%	 5

38. Completion of <u>high school</u> is a realistic goal which you set for what percentage of your students?

90% or more	 1
70% to 89%	 2
50% to 69%	 3
30% to 49%	 4
Less than 30%	 5

39. Completion of <u>college</u> is a realistic goal which you set for what percentage of your students?

90% or more	 1
70% to 89%	 2
50% to 69%	 3
30% to 49%	 4
Less than 30%	 5

40. How do you think your principal rates the academic ability of the students in this school, compared to other schools?

Rates it much better	 1
Rates it somewhat better	 2
Rates it the same	 3
Rates it somewhat lower	 4
Rates it much lower	 5

41. How often do you stress to your students the necessity of a post-high school education for a good job and/or a comfortable life?

Very often	 1
Often	 2
Sometimes	 3
Seldom	 4
Never	 5

42. Do you encourage your students who do not have sufficient economic resources to aspire to go to college?

Always	 1
Usually	 2
Sometimes	 3
Seldom	 4
Never	 5

43. Do you encourage your students who do not have sufficient academic ability to aspire to go to college?

Always	 1
Usually	 2
Sometimes	 3
Seldom	 4
Never	 5

44. How many teachers in this school feel that all their students should be taught to read well and master other academic subjects, even though some students may not appear to be interested?

Most of the teachers	 1
Half of the teachers	 2
Some of the teachers	 3

45. It would be unfair for teachers in this school to insist on a higher level of achievement from students than they now seem capable of achieving.

Strongly agree	 1
Agree	 2
Disagree	 3
Strongly disagree	 4

46. If I think a student is not able to do some school work, I don't try to push him very hard.

Strongly agree	 1
Agree	 2
Disagree	 3
Strongly disagree	 4

47. I am generally very careful not to push students to a level of frustration.

Strongly agree	 1
Agree	 2
Disagree	 3
Strongly disagree	 4

48. How many teachers encourage students to seek extra school work so that the students can get better grades?

Most of the teachers	1
About half of the teachers	2
Some of the teachers	3

49. How many students in this <u>school</u> try hard to improve on previous work?

Most of the students	1
About half of the students	2
Some of the students	3

50. How many students in your <u>class</u> try hard to improve on previous work?

Most of the students	1
About half of the students	2
Some of the students	3

51. How many students in this <u>school</u> will try hard to do better school work than their friends do?

Most of the students	1
About half of the students	2
Some of the students	3

52. How many students in your <u>class</u> will try hard to do better school work than their classmates do?

Almost all of the students	1
Most of the students	2
About half of the students	3
Some of the students	4
Almost none of the students	5

53. How many students in this <u>school</u> are content to do less than they should?

Most of the students	1
About half of the students	2
Some of the students	3

54. How many students in your <u>class</u> are content to do less than they should?

Most of the students	1
About half of the students	2
Some of the students	3

55. How many students in this school will seek extra work so that they can get better grades?

Most of the students 1
About half of the students 2
Some of the students 3

56. How many students in your class will seek extra work so they can get better grades?

Most of the students 1
About half of the students 2
Some of the students 3

57. Many parents of students in this school regard this school primarily as a "baby-sitting" agency.

Agree 1
Disagree 2

58. The parents of students in this school are deeply concerned that their children receive a top quality education

Agree 1
Disagree 2

59. How many of the parents of students in this school expect their children to complete high school?

Most of the parents 1
About half of the parents 2
Some of the parents 3

60. How many of the parents of students in this school expect their children to complete college?

Most of the parents 1
About half of the parents 2
Some of the parents 3

61. How many of the parents of students in this school don't care if their children obtain low grades?

Most of the parents 1
About half of the parents 2
Some of the parents 3

62. How many of the parents of students in this school want feedback from the principal and teachers on how their children are doing in school?

Most of the parents	1
About half of the parents	2
Some of the parents	3

63. For each of the following aspects of your job, please indicate in the first column how important it is for your job satisfaction and in the second column, how well satisfied you are with that aspect of your job. Please circle one answer using the key below.

Circle One Using Answer Key

	I Degree of Importance for Your Job Satisfaction		II Present Level of Satisfaction with Job	
	Important	1	Satisfied	1
	Somewhat Important	2	Somewhat Satisfied	2
	Unimportant	3	Dissatisfied	3
A.	Salary:	1	.....	1
	.....	2	.....	2
	.....	3	.....	3
B.	Level of student achievement:	1	.....	1
	.....	2	.....	2
	.....	3	.....	3
C.	Parent/teacher relationships:	1	.....	1
	.....	2	.....	2
	.....	3	.....	3
D.	Teacher/teacher relationships:	1	.....	1
	.....	2	.....	2
	.....	3	.....	3
E.	Teacher/student relationships:	1	.....	1
	.....	2	.....	2
	.....	3	.....	3

F.	Teacher/administration relationships:	 1		 1
		 2		 2
		 3		 3
G.	The curricula in your school:	 1		 1
		 2		 2
		 3		 3
H.	Teacher autonomy:	 1		 1
		 2		 2
		 3		 3
I.	Teacher authority over students:	 1		 1
		 2		 2
		 3		 3
J.	Teacher evaluation over students:	 1		 1
		 2		 2
		 3		 3
K.	Recognition for teacher achievement:	 1		 1
		 2		 2
		 3		 3
L.	Participation in making decisions within the building:	 1		 1
		 2		 2
		 3		 3

64. Administrative duties, counseling, handling of discipline problems, etc., are all time consuming activities that teachers must assume in addition to their teaching responsibilities. Approximately what percentage of a typical school day is spent on each of these activities?

Parent teacher contacts (notes to parents, phone calls, conferences)	_____	%
Conferring with individual students about academic progress	_____	%
Conferring with individual students about behavior or personal and social growth	_____	%
Classroom or small groups instruction	_____	%
Establishing and maintaining order in the classroom	_____	%
Administrative duties (attendance taking, record keeping)	_____	%
Time between lessons (recess, moving children from one activity to another)	_____	%
Other _____	_____	%
TOTAL	100	%

65. What do you consider to be your primary responsibility to students in your class (circle only one)?

Teaching of academic subjects	.....	1
Enhancing social skills and social interaction	.....	2
Personal growth and development	.....	3
Encouraging educational/occupational aspirations	.....	4

66. How successful would you say your school has been with regard to student development in the following areas?

A. Teaching of academic skills:	Successful	.....	1
	Somewhat successful	.....	2
	Not very successful	.....	3
B. Enhancing of social skills:	Successful	.....	1
	Somewhat successful	.....	2
	Not very successful	.....	3
C. Personal growth and development (self-reliance, etc.)	Successful	.....	1
	Somewhat successful	.....	2
	Not very successful	.....	3
D. Educational/occupational aspirations:	Successful	.....	1
	Somewhat successful	.....	2
	Not very successful	.....	3

67. How responsible do you feel for a student's academic achievement?

Responsible	1
Somewhat responsible	2
Not very responsible	3

68. To what extent do you think teaching <u>methods</u> affect students' achievement?

Substantial effect on student achievement	1
Some effect on student achievement	2
Do not have much effect on student achievement	3

69. To what extent do you think teachers' attitudes towards their students affect their students' achievement?

Substantial effect on student achievement	1
Some effect on student achievement	2
Do not have much effect on student achievement	3

70. What effect do you think each of the following has on students' academic achievement?

A. Parents:

Substantial effect on student achievement	1
Some effect on student achievement	2
Do not have much effect on student achievement	3

B. Teachers:

Substantial effect on student achievement	1
Some effect on student achievement	2
Do not have much effect on student achievement	3

C. Friends or peer group:

Substantial effect on student achievement	1
Some effect on student achievement	2
Do not have much effect on student achievement	3

D. School Boards:

Substantial effect on student achievement	1
Some effect on student achievement	2
Do not have much effect on student achievement	3

E. Principal:

Substantial effect on student achievement	1
Some effect on student achievement	2
Do not have much effect on student achievement	3

F. Student himself:

Substantial effect on student achievement	1
Some effect on student achievement	2
Do not have much effect on student achievement	3

71. How do your academic expectations for male students compare with the expectations for female students?

I expect males to do better 1
I expect both to do the same 2
I expect females to do better 3

72. How often does the principal and/or other administrators in this school assist and give support to the teachers on ways to improve their students' academic achievement?

Often 1
Sometimes 2
Seldom 3

73. One important criterion for evaluating a teacher's performance should be how well his/her students achieve academically.

Agree 1
Not sure 2
Disagree 3

74. In this school, there is really very little a teacher can do to insure that all of his/her students achieve at a high level.

Agree 1
Not sure 2
Disagree 3

75. When you are trying to improve your instructional program, how easy or difficult is it to get the principal's assistance?

Easy 1
Varies from time to time 2
Difficult 3

76. What is your policy with regard to students talking to each other while they are working on class assignments? Students are:

Seldom encouraged to talk with each other 1
Sometimes encouraged to talk with each other 2
Often encouraged to talk with each other 3

77. How do you feel about students walking around in the classroom? Students are:

Seldom allowed to move about the room without first getting permission 1

Sometimes allowed to move about the room without first getting permission 2

Often allowed to move about the room without first getting permission 3

78. What kind of seating arrangement do you have in your class(es)?

Generally students select their own seats	1
Some students select their seats; some are assigned	2
Generally teacher assigns seats	3

79. In your class(es), how often are students' seats changed?

Several times a day	1
Daily	2
Periodically during the semester	3
They keep the same seats throughout the semester	4

80. How often are all of your students working on the same lesson?

Often	1
Sometimes	2
Seldom	3

81. How would you characterize your teaching objectives?

They are the same for most of the students	1
They are the same for some of the students	2
They are different for most of the students	3

82. How important are each of the following in determining teaching objectives for your students?

A. School policy:	Important	1
	Somewhat important	2
	Not very important	3
B. Student interest:	Important	1
	Somewhat important	2
	Not very important	3
C. Individual student ability:	Important	1
	Somewhat important	2
	Not very important	3
D. Your personal preference:	Important	1
	Somewhat important	2
	Not very important	3

83. Do you have a teacher aide anytime during the day?

Yes	.....	1
No	.....	2

84. What proportion of your students' parents do you know when you see them?

Nearly all	.....	1
About 75%	.....	2
About 50%	.....	3
About 25%	.....	4
Only a few	.....	5

PRINCIPAL QUESTIONNAIRE

DIRECTIONS: The information you give us on this questionnaire is completely confidential. No one will see your answers except the members of our research staff. Reports will be made with aggregate data, and no one person will be identified with his or her data. After your questionnaire has been completely coded and punched on IBM cards (without your name), your questionnaire will be destroyed. Complete confidentiality is assured.

1. Name_____

2. Please write the name of this school.

_____

---

3. Sex (circle the number of the correct answer)?

Female	1
Male	2

4. What is your race or ethnic group?

Black	1
Chicano	2
Other Spanish Speaking	3
Native American	4
Oriental Origin	5
White	6

5. How long have you been principal of this school?

Just this year	1
1 to 4 years	2
5 to 9 years	3
10 to 14 years	4
15 or more years	5

6. How long have you been a principal?

Just this year	1
1 to 4 years	2
5 to 9 years	3
10 to 14 years	4
15 or more years	5

7. How long did you teach before becoming a principal?

Never taught	1
1 to 4 years	2
5 to 9 years	3
10 to 14 years	4
15 or more years	5

8. How did you feel about your assignment to this school before you came here?

Very happy	1
Happy	2
Somewhat happy	3
Quite unhappy	4
Very unhappy	5

9. Which best describes the location of your school?

In a rural area	1
In a residential suburb	2
In an industrial suburb	3
In a small town (5,000 or less)	4
In a city of 5,000 to 50,000	5
In a residential area of a larger city (over 50,000)	6
In the inner part of a larger city (over 50,000)	7

10. Which best describes the students served by this school?

All children of professional and white collar workers	1
Mostly children of professional and white collar workers	2
Children from a general cross section of society	3
Mostly children of factory and other blue collar workers	4
All children of factory and other blue collar workers	5
Children of rural families	6

11. How many families of your students are represented at a typical meeting of the PTA or similar parent group?

We have no parents organization	1
Only a few	2
Less than half	3
About half	4
Over half	5
Almost all of them	6

12. About what is the average daily percentage of attendance in your school?

Over 98%	1
97% - 98%	2
95% - 96%	3
93% - 94%	4
91% - 92%	5
86% - 90%	6
85% or less	7

13. What percentage of your students this year are transfers from another school? (Do not count students who had completed the highest grade in the school from which they came.)

0 - 4%	.....	1
5% - 9%	.....	2
10% - 14%	.....	3
15% - 19%	.....	4
20% - 24%	.....	5
25% or more	.....	6

14. What is the lowest grade level in this school?

8th	.....	1
9th	.....	2
10th	.....	3
11th	.....	4
12th	.....	5

15. What is the highest grade level in this school?

8th	.....	1
9th	.....	2
10th	.....	3
11th	.....	4
12th	.....	5

16. What percent of students in your school receive free lunches each day?

None	.....	1
9% or less	.....	2
10% - 30%	.....	3
31% - 50%	.....	4
51% - 70%	.....	5
71% - 90%	.....	6
More than 90%	.....	7
There is no free lunch program	.....	8

17. In your judgment, what is the general reputation of this school among educators?

Among the best	.....	1
Better than average	.....	2
About average	.....	3
Below average	.....	4
Inferior	.....	5

18. With regard to student achievement, how would you rate this school?

Among the best	1
Better than average	2
About average	3
Below average	4
Inferior	5

19. With regard to student achievement, how good a school do you think this school can be?

Among the best	1
Better than average	2
About average	3
Below average	4
Inferior	5

20. What do you consider to be the school's primary responsibility to the students?

Teaching of academic subjects	1
Enhancing social skills	2
Personal growth and development	3
Educational/occupational aspirations	4
Other (please specify)_____	5

21. How successful would you say your school has been with regard to student development in the following areas?

A. Teaching of academic skills:

Very successful	1
Successful	2
Somewhat successful	3
Not very successful	4
Very unsuccessful	5

B. Enhancing social skills (social interaction, etc.):

Very successful	1
Successful	2
Somewhat successful	3
Not very successful	4
Very unsuccessful	5

C. Personal growth and development:

Very successful	1
Successful	2
Somewhat successful	3
Not very successful	4
Very unsuccessful	5

21. D. Educational/occupational aspirations:

Very successful	1
Successful	2
Somewhat successful	3
Not very successful	4
Very unsuccessful	5

WE WOULD NOW LIKE TO ASK SOME QUESTIONS ABOUT GROUPING PRACTICES, TEACHER CREDENTIALS AND TESTING PROCEDURES IN YOUR SCHOOL. PLEASE FEEL FREE TO WRITE ANY ADDITIONAL COMMENTS AFTER EACH QUESTION.

22. In general, what grouping procedure is practiced across sections of particular grade levels in this school?

Homogeneous grouping according to ability	1
Heterogeneous grouping according to ability	2
Random grouping	3
No intentional grouping	4

23. In general, what grouping procedure is practiced within individual sections of particular grade levels of this school?

Homogeneous grouping according to ability	1
Heterogeneous grouping according to ability	2
Random grouping	3
No intentional grouping	4

24. To what extent do the teachers individualize the instructional programs for the students in this school?

All plan individual programs for most students	1
Most teachers have some individualized programs	2
Individualization varies from teacher to teacher and time to time	3
Most teachers have common instructional programs for their students	4
All teachers have common instructional programs for their students	5

25. Do you have any non-graded classrooms in this school?

Yes, all are non-graded	1
Yes, some are non-graded	2
No, we haven't any non-graded classrooms	3

26. What proportion of the classrooms in your school has teacher aides?

All	.....	1
Some	.....	2
None	.....	3

27. How many teachers in this school have at least a Bachelor's degree?

All	.....	1
75% or more	.....	2
50% - 74%	.....	3
Less than 50%	.....	4

28. How many teachers in this school have a provisional teaching certificate?

75% or more	.....	1
50% - 74%	.....	2
25% - 49%	.....	3
Less than 25%	.....	4

29. How many teachers in this school have a permanent teaching certificate?

75% or more	.....	1
50% - 74%	.....	2
25% - 49%	.....	3
Less than 25%	.....	4

30. How many teachers in this school have a graduate degree?

75% or more	.....	1
50% - 74%	.....	2
25% - 49%	.....	3
Less than 25%	.....	4

31. In what grade does your school give intelligence or aptitude tests to the students (circle all that apply)?

8th grade	.....	1
9th grade	.....	2
10th grade	.....	3
11th grade	.....	4
12th grade	.....	5
Do not give I.Q. or aptitude tests	.....	6

32. In what grades does your school give standardized achievement tests to students? Do not include State Assessment. (Circle all correct answers.)

8th grade	.....	1
9th grade	.....	2
10th grade	.....	3
11th grade	.....	4
12th grade	.....	5
Do not give standardized tests	.....	6

33. How often do teachers in this school refer to, or consider, a student's I.Q. or aptitude score when planning his work?

Always	.....	1
Often	.....	2
Sometimes	.....	3
Seldom	.....	4
Never	.....	5

34. In this school, how often are students assigned to certain classes on the basis of their I.Q. or aptitude scores?

Always	.....	1
Often	.....	2
Sometimes	.....	3
Seldom	.....	4
Never	.....	5

35. Which of the following do you think best predicts a student's success or failure in higher education?

Teacher recommendations	.....	1
Group or individual intelligence or scholastic aptitude test scores	.....	2
Other standardized test scores (e.g., personality and vocational inventories, etc.)	.....	3
School grades	.....	4
Other	.....	5

PLEASE ANSWER EACH OF THE FOLLOWING QUESTIONS BY CIRCLING THE NUMBER OF THE CHOICE WHICH MOST NEARLY ANSWERS THE QUESTION FOR YOU.

36. On the average, what achievement level can be expected of the students in this school?

Much above national norm	.....	1
Slightly above national norm	.....	2
Approximately at national norm	.....	3
Slightly below national norm	.....	4
Much below national norm	.....	5

37. What percent of the students in this school do you expect to complete high school?

90% or more	.....	1
70% - 89%	.....	2
50% - 69%	.....	3
30% - 49%	.....	4
Less than 30%	.....	5

38. What percent of the students in this school do you expect to attend college?

90% or more	.....	1
70% - 89%	.....	2
50% - 69%	.....	3
30% - 49%	.....	4
Less than 30%	.....	5

39. What percent of the students in this school do you expect to complete college?

90% or more	.....	1
70% - 89%	.....	2
50% - 69%	.....	3
30% - 49%	.....	4
Less than 30%	.....	5

40. How many of the students in this school are capable of getting good grades?

90% or more	.....	1
70% - 89%	.....	2
50% - 69%	.....	3
30% - 49%	.....	4
Less than 30%	.....	5

41. How would you rate the academic ability of the students in this school compared to other schools?

Ability here is much higher	.....	1
Ability here is somewhat higher	.....	2
Ability here is about the same	.....	3
Ability here is somewhat lower	.....	4
Ability here is much lower	.....	5

42. The parents of students in this school regard this school as primarily a "baby-sitting" agency.

Strongly agree	.....	1
Agree	.....	2
Unsure	.....	3
Disagree	.....	4
Strongly disagree	.....	5

43. The parents of students in this school are deeply concerned that their children receive a top quality education.

Strongly agree	.....	1
Agree	.....	2
Unsure	.....	3
Disagree	.....	4
Strongly disagree	.....	5

44. How many of the parents of students in this school expect their children to complete high school?

Almost all of the parents	1
Most of the parents	2
About half of the parents	3
Some of the parents	4
Almost none of the parents	5

45. How many of the parents of students in this school expect their children to complete college?

Almost all of the parents	1
Most of the parents	2
About half of the parents	3
Some of the parents	4
Almost none of the parents	5

46. How many of the parents of students in this school don't care if their children obtain low grades?

Almost all of the parents	1
Most of the parents	2
About half of the parents	3
Some of the parents	4
Almost none of the parents	5

47. How many of the parents of students in this school want feedback from the principal and teachers on how their children are doing in school?

Almost all of the parents	1
Most of the parents	2
About half of the parents	3
Some of the parents	4
Almost none of the parents	5

48. What proportion of the teachers in this school would prefer to be teaching in another school?

About all	1
About 75%	2
About half	3
About 25%	4
Almost none	5

49. A typical teacher in this school has <u>some</u> contact with:

All of the parents	1
Most of the parents	2
Some of the parents	3
A few of the parents	4
None of the parents	5

50. How much contact does a typical teacher in this school have with most of the parents?

About once a month or more	1
About two times a semester	2
About once a semester	3
Once a year or less	4

51. Approximately what percentage of a typical school day does the average teacher spend on each of these activities:

Parent-teacher contacts (notes to parents, phone calls, conferences)	_____%
Conferring with individual students (about academic progress)	_____%
Conferring with individual students (about behavior, social growth, responsibility)	_____%
Administrative duties (attendance taking, noting student progress, filling out reports)	_____%
Establishing and maintaining order in the classroom	_____%
Classroom and small group instruction	_____%
Time between lessons (supervision of students during recess and moving students from one activity to another)	_____%
Other (specify)_____	_____%
TOTAL	_____%

52. Evaluating teachers' performance is an important and often difficult task for principals. When evaluating a teacher's performance, how much importance do you place on his/her students' <u>academic achievement</u>?

It is very important	1
It is quite important	2
It is somewhat important	3
It is not very important	4
It is not important at all	5

53. As a principal, how much effect do you think <u>you</u> have on students' academic achievement?

Very great effect	1
Substantial effect	2
Some effect	3
Very little effect	4
No effect at all	5

54. What effect do you think each of the following has on students' academic achievement in this school?

A. PARENTS:

They have a great deal of effect on student achievement 1
They have substantial effect on student achievement 2
They have some effect on student achievement 3
They do not have much effect on student achievement 4
They have no effect at all 5

B. TEACHERS:

They have a great deal of effect on student achievement 1
They have substantial effect on student achievement 2
They have some effect on student achievement 3
They do not have much effect on student achievement 4
They have no effect at all 5

C. FRIENDS OR PEER GROUP:

They have a great deal of effect on student achievement 1
They have substantial effect on student achievement 2
They have some effect on student achievement 3
They do not have much effect on student achievement 4
They have no effect at all 5

D. SCHOOL BOARDS:

They have a great deal of effect on student achievement 1
They have substantial effect on student achievement 2
They have some effect on student achievement 3
They do not have much effect on student achievement 4
They have no effect at all 5

E. PRINCIPAL:

They have a great deal of effect on student achievement 1
They have substantial effect on student achievement 2
They have some effect on student achievement 3
They do not have much effect on student achievement 4
They have no effect at all 5

F. STUDENT HIMSELF:

They have a great deal of effect on student achievement 1
They have substantial effect on student achievement 2
They have some effect on student achievement 3
They do not have much effect on student achievement 4
They have no effect at all 5

55. How often do you suggest ways of improving student achievement to your teachers?

Very often	1
Often	2
Sometimes	3
Seldom	4
Never	5

56. How often do you meet with the teachers as a group to discuss ways of improving student achievement?

Very often	1
Often	2
Sometimes	3
Seldom	4
Never	5

57. To what extent do you think teaching <u>methods</u> affect students' academic achievement?

They have a great effect on student achievement	1
They have substantial effect on student achievement	2
They have some effect on student achievement	3
They do not have much effect on student achievement	4
They have no effect at all	5

58. To what extent do you think that a teacher's <u>attitude</u> toward his/her students affects students' academic achievement?

They have a great effect on student achievement	1
They have substantial effect on student achievement	2
They have some effect on student achievement	3
They do not have much effect on student achievement	4
They have no effect at all	5

59. To what extent do you think the degree to which their students achieve in learning should be considered in evaluating a teacher's competence?

Very much	1
Some	2
Not much	3
Not at all	4

60. If the teachers and other staff members in this school were all doing their job well, nearly all of the students would achieve at grade level.

Strongly agree	1
Agree	2
Not sure	3
Disagree	4
Strongly Disagree	5

61. It is the principal's responsibility to work with the teachers to insure that their students achieve at a high level.

Strongly agree	1
Agree	2
Not sure	3
Disagree	4
Strongly disagree	5

62. It is possible for a principal, with the cooperation of the teachers, to change a low achieving school into a high achieving school.

Strongly agree	1
Agree	2
Not sure	3
Disagree	4
Strongly disagree	5

63. How would you characterize the achievement objectives in this school?

Same for all students	1
Same for most students	2
Different for most students	3
Different for all students	4

64. About what proportion of teachers in this school assign seats to their students?

Almost all of the teachers	1
Most of the teachers	2
About half of the teachers	3
Few of the teachers	4
Almost none of the teachers	5

65. About what proportion of teachers in this school allow their students to move about the classroom without first asking permission?

Almost all of the teachers	1
Most of the teachers	2
About half of the teachers	3
Few of the teachers	4
Almost none of the teachers	5

66. What proportion of the classrooms in your school have teacher aides?

All	1
Most	2
About half	3
Less than half	4
None	5

67. What percentage of your time in a typical week is devoted to each of the following activities:

Long-range curriculum planning	_____%
Supervision of instructional staff	_____%
Supervision of non-instructional staff	_____%
Parent and community concerns	_____%
Discipline	_____%
Other administrative duties	_____%
TOTAL	100%

68. What proportion of the students' parents do you know when you see them?

Nearly all	1
About 75%	2
About 50%	3
About 25%	4
Only a few	5

69. In general, how do your students' parents feel about the achievement of their children?

Nearly all feel they are doing well	1
Most think students are achieving as well as they should	2
Most think their children are NOT achieving high enough	3
Nearly all think they are NOT achieving high enough	4

70. In general, how do you feel about the achievement of the students in this school?

Nearly all students are achieving as well as they can	1
Most students are achieving as well as they can	2
Less than half the students are achieving as well as they can	3
Only a few of the students are achieving as well as they can	4

71. What percentage of the students in this school do you feel are capable of passing the Reading Competence Test by the end of the 11th grade?

100%	1
90% - 99%	2
80% - 89%	3
70% - 79%	4
50% - 69%	5
Less than 50%	6

APPENDIX L

SCHOOL ENVIRONMENT AND STUDENT ACHIEVEMENT

Factor Analysis - Student Questionnaire

FACTOR 1: STUDENT PERCEPTIONS OF EDUCATIONAL EXPECTATION AS COMPARED TO THAT OF OTHERS

Percent of Variance = 6.3498

Questions	Factor Loadings
16. How far do you want to go in school? Go to high school for a while ..... 1 Finish high school ..... 2 Go to college for a while ..... 3 Finish college 4	.8596
10. If you could go as far as you wanted in school, how far would you like to go? Finish high school ..... 1 Go to college for a while ..... 2 Finish college 3	.8231
11. Sometimes what you <u>want</u> to happen is not what you think <u>will</u> happen. How far do you think you will go in school? Finish high school ..... 1 Go to college for a while ..... 2 Finish college 3	.8077
58. How far do you think your parents believe you will go in school? Go to high school for a while ..... 1 Finish high school ..... 2 Go to college for a while ..... 3 Finish college 4	.8000
40. How far do you think your best friend believes you will go in school? Finish grade school ..... 1 Go to high school for a while ..... 2 Finish high school ..... 3 Go to college for a while ..... 4 Finish college 5	.7397

FACTOR 1 continued

47. How far do you think the teacher you <u>like the best</u> believes you will go in school? .7226

Go to high school for a while 1
Finish high school 2
Go to college for a while 3
Finish college 4

34. Do you think you could finish college? .6451

Yes, for sure 1
Yes, probably 2
Maybe 3
No, probably not 4
No, for sure 5

62. Do your parents think you could finish college? .5803

Yes, for sure 1
Yes, probably 2
Maybe 3
No, probably not 4
No, for sure 5

63. Remember, you need more than four years of college to be a teacher or doctor. Do your parents think you could do that? .4957

Yes, for sure 1
Yes, probably 2
Maybe 3
No, probably not 4
No, for sure 5

56. Do most of your teachers think you could finish college? .4538

Yes, for sure 1
Yes, probably 2
Maybe 3
No, probably not 4
No, for sure 5

57. Remember you need more than four years of college to be a teacher or doctor. Do most of your teachers think you could do that? .4363

Yes, for sure 1
Yes, probably 2
Maybe 3
No, probably not 4
No, for sure 5

FACTOR 1 continued

26. Will you be able to be what you want to be in life? .4206

Yes 1
No 2

27. Do you do well in school? .4071

Yes 1
No 2

36. If you want to be a doctor or a teacher, you need more than four years of college. Do you think you could do that? .3701

Yes, for sure 1
Yes, probably 2
Maybe 3
No, probably not 4
No, for sure 5

FACTOR 2: STUDENT PERCEPTIONS OF THE INSTRUCTIONAL SETTING

Percent of Variance = 4.0827

Questions	Factor Loadings
51. How often do teachers in this school try to help you when you do badly on your school work? They always try to help ..... 1 They usually try to help ..... 2 They sometimes try to help ..... 3 They seldom try to help ..... 4 They never try to help 5	.7314
54. How important is it to teachers in this school that you learn your school work? It is the most important thing to teachers ... 1 It is very important to teachers ..... 2 It is somewhat important to the teachers ..... 3 It is not very important to the teachers ..... 4 It is not important at all to the teachers ... 5	.6933
55. Think about the teachers you know in this school. Do you think the teachers in this school care more or less than teachers in other schools about whether or not you learn your school work? Teachers in this school care a lot more ..... 1 Teachers in this school care a little more ... 2 There is no difference ..... 3 Teachers in this school care a little less ... 4 Teachers in this school care a lot less 5	.6878
41. Of the teachers that you know in this school, how many tell students to try hard to do better on tests? Almost all of the teachers ..... 1 Most of the teachers ..... 2 Half of the teachers ..... 3 Some of the teachers ..... 4 Almost none of the teachers 5	.6497
52. Compared to students in other schools, how much do you learn in this school? I learn a lot more in this school ..... 1 I learn a little more in this school ..... 2 About the same as in other schools ..... 3 I learn a little bit less in this school .. 4 I learn a lot less in this school 5	.6009

FACTOR 2 continued

44. Of the teachers that you know in this school, how many tell students to do extra work so that they can get a better grade? .5358

Almost all of the teachers 1
Most of the teachers 2
Half of the teachers 3
Some of the teachers 4
Almost none of the teachers 5

13. How many students in this school will work to get a better grade on the weekly tests? .4298

Almost all of the students 1
Most of the students 2
Half of the students 3
Some of the students 4
Almost none of the students 5

71. When your teachers give you difficult assignments, do they usually give you too much help or not enough? .3709

They almost always give too much help .. 1
They usually give too much help 2
They give just enough help 3
They usually don't give enough help ... 4
They almost never give enough help 5

19. How important do you think most of the students in this school feel it is to do well in school work? .3519

They feel it is very important 1
They feel it is important 2
They feel it is somewhat important 3
They feel it is not very important ... 4
They feel it is not important at all .. 5

FACTOR 3: STUDENT PERCEPTIONS OF ACADEMIC ABILITY

Percent of Variance = 6.6194

Questions	Factor Loadings
61. Would your parents say that your grades would be with the best, same as most, or below most of the students when you finish high school? One of the best ..... 1 Better than most of the students ... 2 Same as most of the students ..... 3 Not as good as most of the students 4 One of the worst 5	.7047
50. Would most of your teachers say that your grades would be with the best, the same as most, or below most of the students when you graduate from high school? One of the best ..... 1 Better than most of the students .. 2 Same as most of the students ..... 3 Below most of the students ..... 4 One of the worst 5	.6751
39. How good of a student do you think you can be in this school? One of the best ..... 1 Better than most of the students .. 2 Same as most of the students ..... 3 Below most of the students ..... 4 One of the worst 5	.6699
33. When you finish high school, do you think you will be one of the best students, about the same as most, or below most of the students? One of the best ..... 1 Better than most of the students .. 2 Same as most of the students ..... 3 Below most of the students ..... 4 One of the worst 5	.6639
60. Think of your parents. Do your parents say you can do school work better, the same, or poorer than your friends?	.6135

FACTOR 3 continued

Better than all of them 1
Better than most of them 2
Same as most of them 3
Poorer than most of them 4
Poorer than all of them 5

59. How good a student do your parents expect you to be in school? .5934

One of the best 1
Better than most of the students ... 2
Same as most of the students 3
Not as good as most of the students 4
One of the worst 5

31. Think of your friends. Do you think you can do school work better, the same or poorer than your friends? .5874

Better than all of them 1
Better than most of them 2
About the same 3
Poorer than most of them 4
Poorer than all of them 5

32. Think of the students in your class. Do you think you can do school work better, the same, or poorer than the students in your class? .5838

Better than all of them 1
Better than most of them 2
About the same 3
Poorer than most of them 4
Poorer than all of them 5

49. Think of your teachers. Would most of your teachers say you can do school work better, the same, or poorer than other people your age? .5555

Better than all of them 1
Better than most of them 2
About the same 3
Poorer than most of them 4
Poorer than all of them 5

48. How good a student does <u>the teacher you like the best</u> expect you to be in school? .5446

One of the best 1
Better than most of the students ... 2
Same as most of the students 3
Not as good as most of the students 4
One of the worst 5

FACTOR 3 continued

35. If you went to college, do you think you would be one of the best students, same as most, or below most of the students? .5434

One of the best 1
Better than most of the students .. 2
Same as most of the students 3
Below most of the students 4
One of the worst 5

53. Compared to students from other schools, how well will you do in high school? .5420

I will be among the best 1
I will do better than most 2
I will do about the same as most ... 3
I will do poorer than most 4
I will be among the worst 5

38. What kind of grades do you think you really can get if you try? .4675

Mostly A's 1
Mostly B's 2
Mostly C's 3
Mostly D's 4
Mostly F's 5

37. Forget how your teacher marks your work. How good do you think your own work is? .4373

Excellent 1
Good 2
Same as most of the students 3
Below most of the students 4
Poor 5

FACTOR 4: STUDENT PERCEPTION OF TEACHER ATTITUDE

Percent of Variance = 1.8619

Questions	Factor Loadings
68. In most of my classes, the teacher tells me what I must work on; I have no choice.	.6604
Always ..... 1 Often ..... 2 Sometimes ..... 3 Seldom ..... 4 Never 5	
67. When I am working on a lesson, all the other students in my class are working on the same lesson.	.6308
Always ..... 1 Often ..... 2 Sometimes ..... 3 Seldom ..... 4 Never 5	
69. In class, the teacher stands in front of the room and works with the class as a whole.	.5696
Always ..... 1 Often ..... 2 Sometimes ..... 3 Seldom ..... 4 Never 5	
66. In class, I have the same seat and I must sit next to the same students.	.5621
Always ..... 1 Often ..... 2 Sometimes ..... 3 Seldom ..... 4 Never 5	

FACTOR 5: STUDENT PERCEPTIONS OF ACADEMIC FUTILITY

Percent of Variance = 1.9323

Questions	Factor Loadings
24. How many students don't do as well as they could do in school because they are afraid <u>their friends</u> won't like them? Almost all of the students ..... 1 Most of the students ..... 2 About half of the students ..... 3 Some of the students ..... 4 None of the students 5	.8251
23. How many students don't do as well as they could do in school because they are afraid <u>other students</u> won't like them as much? Almost all of the students ..... 1 Most of the students ..... 2 About half of the students ..... 3 Some of the students ..... 4 None of the students 5	.8187
17. How important is it to you to be a good student? Very important ..... 1 Important..... 2 Somewhat important ..... 3 Not very important ..... 4 Not important at all 5	.7067
18. How important do you feel it is to do good school work? You feel it is very important ..... 1 You feel it is important ..... 2 You feel it is somewhat important .. 3 You feel it is not very important .. 4 You feel it is not important at all 5	.6585
12. Do you try hard to get good grades on your work? Yes ..... 1 No 2	.5393
43. Of the teachers that you know in this school, how many don't care if the students get bad grades? Almost all of the teachers ..... 1 Most of the teachers ..... 2 Half of the teachers ..... 3 Some of the teachers ..... 4 Almost none of the teachers 5	.5349

FACTOR 5 continued

45. Of the teachers that you know in this school, how many make the students work too hard? .5036

Almost all of the teachers 1
Most of the teachers 2
Half of the teachers 3
Some of the teachers 4
Almost none of the teachers 5

15. Do you study harder than you really have to? .4823

Yes 1
No 2

30. Do you have to be lucky to get good grades in this school? .4305

Yes 1
No 2

42. How many teachers in this school tell students to try and get better grades than their classmates? .3778

Almost all of the teachers 1
Most of the teachers 2
Half of the teachers 3
Some of the teachers 4
Almost none of the teachers 5

14. Do you care if you get bad grades? .3683

Yes 1
No 2

25. Would you study hard if your work were not graded by teachers? .3661

Yes 1
No 2

20. Do you think reading is a fun thing to do? .3286

Yes 1
No 2

FACTOR 6: STUDENT PERCEPTIONS OF SELF RELIANCE

Percent of Variance = 2.5669

Questions	Factor Loadings
73. Sometimes as we are faced with a problem that at first seems too difficult for us to handle. When this happens, how often do you try to solve the problem all by yourself instead of asking someone for help?	.6752
Always ..... 1 Most of the time ..... 2 Sometimes ..... 3 Not very often ..... 4 Never 5	
74. Some people enjoy solving problems or making decisions all by themselves, other people don't enjoy it. Do you like to solve problems all by yourself?	.6254
I almost always like to ..... 1 I usually like to ..... 2 I usually don't like to ..... 3 I almost never like to 4	
64. I can talk to other students while I work.	.6202
Always ..... 1 Often ..... 2 Sometimes ..... 3 Seldom ..... 4 Never 5	
65. In class, I can move about the room without asking the teacher.	.5357
Always ..... 1 Often ..... 2 Sometimes ..... 3 Seldom ..... 4 Never 5	
72. Suppose you had some free time and wanted to do something that you consider fun but all your friends were busy. Do you think you could find something that you consider fun to do all by yourself?	.4587
Yes, it would be easy ..... 1 Yes, if I tried hard ..... 2 Maybe ..... 3 No, probably not ..... 4 No, it is never fun to be alone ... 5	

FACTOR 6 continued

70. If your teacher gave you a hard assignment, would you rather figure out how to do it by yourself or would you want your teacher to tell you how to do it? .4491

I almost always prefer figuring it out for myself .. 1
I usually prefer figuring it out for myself 2
Sometimes I prefer figuring it out for myself 3
I usually like the teacher to tell me how to do it . 4
I always like the teacher to tell me how to do it... 5

22. Do students like you when you do well in school? .3865

Almost all of the students 1
Most of the students 2
About half of the students 3
Some of the students 4
None of the students 5

29. Do you have luck in this school? .3077

Yes 1
No 2

APPENDIX E

SCHOOL ENVIRONMENT AND STUDENT ACHIEVEMENT

Factor Analysis - Teacher Questionnaire

FACTOR 1: TEACHER EXPECTATIONS OF STUDENT ACHIEVEMENT

Percent of Variance = 9.2573

Questions	Factor Loadings
35. What percent of the students in this school do you think the principal expects to attend college? 90% or more ..... 1 70% to 89% ..... 2 50% to 69% ..... 3 30% to 49% ..... 4 Less than 30% 5	.8321
20. What percent of the students in this school do you expect to attend college? 90% or more ..... 1 70% to 89% ..... 2 50% to 69% ..... 3 30% to 49% ..... 4 Less than 30% 5	.8319
22. What percent of the students in this school do you expect to complete college? 90% or more ..... 1 70% to 89% ..... 2 50% to 69% ..... 3 30% to 49% ..... 4 Less than 30% 5	.7938
36. What percent of the students in this school do you think the principal expects to complete college? 90% or more ..... 1 70% to 89% ..... 2 50% to 69% ..... 3 30% to 49% ..... 4 Less than 30% 5	.7509
23. What percent of the students in your classes do you expect to complete college? 90% or more ..... 1 70% to 89% ..... 2 50% to 69% ..... 3 30% to 49% ..... 4 Less than 30% 5	.7319

FACTOR 1 continued

39. Completion of college is a realistic goal which you set for what percentage of your students? .7097

90% or more 1
70% to 89% 2
50% to 69% 3
30% to 49% 4
Less than 30% 5

29. What percent of the students in this school would you say want to go to college? .7003

90% or more 1
70% to 89% 2
50% to 69% 3
30% to 49% 4
Less than 30% 5

21. What percent of the students in your classes do you expect to attend college? .6834

90% or more 1
70% to 89% 2
50% to 69% 3
30% to 49% 4
Less than 30% 5

30. What percent of the students in your classes would you say want to go to college? .6422

90% or more 1
70% to 89% 2
50% to 69% 3
30% to 49% 4
Less than 30% 5

25. How many of the students in your classes are capable of getting mostly A's and B's? .6393

90% or more 1
70% to 89% 2
50% to 69% 3
30% to 49% 4
Less than 30% 5

24. How many of the students in this school are capable of getting mostly A's and B's? .6205

90% or more 1
70% to 89% 2
50% to 69% 3
30% to 49% 4
Less than 30% 5

FACTOR 1 continued

37. How many students in this school do you think the principal believes are capable of getting mostly A's and B's? .5759

90% or more 1
70% to 89% 2
50% to 69% 3
30% to 49% 4
Less than 30% 5

60. How many of the parents of students in this school expect their children to complete college? .5158

Most of the parents 1
About half of the parents ... 2
Some of the parents 3

17. On the average, what level of achievement can be expected of the students in your classes? .4871

Above national norm 1
At national norm 2
Below national norm 3

16. On the average, what level of achievement can be expected of the students in this school? .4438

Above national norm 1
At national norm 2
Below national norm 3

54. How many students in your class are content to do less than they should? .4381

Most of the students 1
About half of the students .. 2
Some of the students 3

19. What percent of the students in your classes do you expect to complete high school? .4369

90% or more 1
70% to 89% 2
50% to 69% 3
30% to 49% 4
Less than 30% 5

FACTOR 1 continued

18. What percent of the students in this school do you expect to complete high school? .4335

90% or more 1
70% to 89% 2
50% to 69% 3
30% to 49% 4
Less than 30% 5

40. How do you think your principal rates the academic ability of the students in this school, compared to other schools? .4046

Rates it much higher 1
Rates it somewhat better 2
Rates it the same 3
Rates it somewhat lower 4
Rates it much lower 5

38. Completion of high school is a realistic goal which you set for what percentage of your students? .4045

90% or more 1
70% to 89% 2
50% to 69% 3
30% to 49% 4
Less than 30% 5

26. How would you rate the academic ability of the students in this school compared to other schools in this district? .3639

Ability here is higher 1
Ability here is about the same 2
Ability here is lower 3

FACTOR 2: TEACHER PERCEPTIONS OF STUDENT/PARENT EXPECTATIONS

Percent of Variance = 4.3566

Questions	Factor Loadings
64. Administrative duties, counseling, handling of discipline problems, etc., are all-time consuming activities that teachers must assume in addition to their teaching responsibilities.	
Approximately what percentage of a typical school day is spent conferring with individual students about behavior or personal and social growth?	.7167
Approximately what percent of a typical school day is spent on classroom or small group instruction?	.6639
Approximately what percentage of a typical school day is spent conferring with individual students about academic progress?	.5937
28. What percent of the students in your classes would you say want to complete high school?	.5042
90% or more ..... 1 70% to 89% ..... 2 50% to 69% ..... 3 30% to 49% ..... 4 Less than 30% 5	
27. What percent of the students in this school would you say <u>want</u> to complete high school?	.5027
90% or more ..... 1 70% to 89% ..... 2 50% to 69% ..... 3 30% to 49% ..... 4 Less than 30% 5	
57. Many parents of students in this school regard this school primarily as a "baby-sitting" agency.	.4336
Agree ..... 1 Disagree 2	
62. How many of the parents of students in this school want feedback from the principal and teachers on how their children are doing in school?	.4197
Most of the parents ..... 1 About half of the parents ... 2 Some of the parents 3	

FACTOR 2 continued

26. How would you rate the academic ability of the students in this school compared to other schools in this district? .3639

Ability here is higher 1
Ability here is about the same 2
Ability here is lower 3

64. Approximately what percentage of a typical school is spent on administrative duties? .3533

34. What percent of the students in this school do you think the principal expects to complete high school? .3298

90% or more 1
70% to 89% 2
50% to 69% 3
30% to 49% 4
Less than 30% 5

64. Approximately what percentage of a typical school day is spent on other duties? .3279

FACTOR 3: TEACHER PERCEPTIONS OF JOB SATISFACTION

Percent of Variance = 3.9636

Questions	Factor Loadings
63J. How important to you is teacher evaluation over students? Important ..... 1 Somewhat important ..... 2 Unimportant 3	.7485
63I. How important to you is teacher authority over students? Important ..... 1 Somewhat important ..... 2 Unimportant 3	.7139
63F. How important to you is teacher/administration relationships? Important ..... 1 Somewhat important ..... 2 Unimportant 3	.6678
31. How much do you enjoy teaching in this school? Very much ..... 1 Much ..... 2 Average ..... 3 Little ..... 4 Not at all 5	.6672
32. If someone were to offer you an interesting and secure non-teaching job for $1,000 more a year, how seriously would you consider taking the job? Very seriously ..... 1 Somewhat seriously ..... 2 Not very seriously ..... 3 Not at all 4	.6406
63E. How important to you is teacher/students relationships? Important ..... 1 Somewhat important ..... 2 Unimportant 3	.6353

FACTOR 3 continued

63L. How important to you is participation in making decisions within the building? .5188

Important 1
Somewhat important 2
Unimportant 3

33. If someone were to offer you an interesting and secure non-teaching job for $3,000 more a year, how seriously would you consider taking the job? .5052

Very seriously 1
Somewhat seriously 2
Not very seriously 3
Not at all 4

63D. How important to you is teacher/teacher relationships? .4969

Important 1
Somewhat important 2
Unimportant 3

63K. How important to you is recognition for teacher achievement? .4602

Important 1
Somewhat important 2
Unimportant 3

63G. How important to you is the curricula in your school? .4219

Important 1
Somewhat important 2
Unimportant 3

15. How often do you refer to or consider the I Q test scores of your students when you plan their work? .4104

Often 1
Sometimes 2
Seldom 3

13. How important to you is teacher autonomy? .4025

Important 1
Somewhat important 2
Unimportant 3

FACTOR 3 continued

63C. How important to you is parent/teacher relationships? .3884

Important 1
Somewhat important 2
Unimportant 3

41. How often do you stress to your students the necessity of a post high school education for a good job and/or a comfortable life? .3699

Very often 1
Often 2
Sometimes 3
Seldom 4
Never 5

63B. How important to you is the level of student achievement? .3476

Important 1
Somewhat important 2
Unimportant 3

63A. How important to you is salary? .3619

Important 1
Somewhat important 2
Unimportant 3

FACTOR 4: TEACHER PERCEPTIONS OF STUDENT MOTIVATION

Percent of Variance = 3.3921

Questions	Factor Loadings
56. How many students in your class will seek extra work so they can get better grades? Most of the students ..... 1 About half of the students 2 Some of the students 3	.7339
82A. How important to you is school policy? Important ..... 1 Somewhat important ..... 2 Unimportant 3	.7050
52. How many students in your class will try hard to do better school work than their classmates do? Almost all of the students ..... 1 Most of the students ..... 2 About half of the students ..... 3 Some of the students ..... 4 Almost none of the students 5	.5834
82B. How important to you is student interest? Important ..... 1 Somewhat important ..... 2 Unimportant 3	.5829
82D. How important to you is your personal preference? Important ..... 1 Somewhat important ..... 2 Unimportant 3	.5784
70B. What effect do you think teachers have on student academic achievement? Substantial effect on student achievement ..... 1 Some effect on student achievement ..... 2 Do not have much effect on student achievement .. 3	.5619
55. How many students in this school will seek extra work so that they can get better grades? Most of the students ..... 1 About half of the students .... 2 Some of the students 3	.5526

FACTOR 4 continued

50. How many students in your class try hard to improve on previous work? .5187

Most of the students 1
About half of the students 2
Some of the students 3

70D. What effect do you think school boards have on student achievement? .5082

Substantial effect on student achievement 1
Some effect on student achievement 2
Do not have much effect on student achievement 3

66A. How successful would you say your school has been in the teaching of academic skills? .5029

Successful 1
Somewhat successful 2
Not very successful 3

68. To what extent do you think teaching methods affect student achievement? .4989

Substantial effect on student achievement 1
Some effect on student achievement 2
Do not have much effect on student achievement .. 3

64A. Approximately what percentage of a typical school day is spent on parent-teacher contacts (notes to parents, phone calls, conferences)? .4188

67. How responsible do you feel for a student's academic achievement? .4103

Responsible 1
Somewhat responsible 2
Not very responsible 3

51. How many students in this school will try hard to do better school work than their friends do? .3951

Most of the students 1
About half of the students 2
Some of the students 3

49. How many students in this school try hard to improve on previous work? .3914

Most of the students 1
About half of the students 2
Some of the students 3

FACTOR 4 continued

53. How many students in this school are content to do less than they should? .3803

Most of the students 1
About half of the students . 2
Some of the students 3

47. I am generally very careful not to push students to a level of frustration. .3111

Strongly agree 1
Agree 2
Disagree 3
Strongly disagree 4

FACTOR 5: TEACHER PERCEPTIONS OF SCHOOL'S ABILITY TO PROMOTE STUDENT ACHIEVEMENT AND DEVELOPMENT

Percent of Variance = 4.5428

Questions	Factor Loadings
66B. How successful would you say your school has been with regard to enhancing social skills? Successful ..... 1 Somewhat successful ..... 2 Not very successful 3	.7569
66C. How successful would you say your school has been with regard to developing personal growth and development (self reliance, etc.) in students? Successful ..... 1 Somewhat successful ..... 2 Not very successful 3	.7543
70A. What effect do you think parents have on student academic achievement? Substantial effect on student achievement ..... 1 Some effect on student achievement ..... 2 Do not have much effect on student achievement 3	.6368
66D. How successful would you say your school has been in developing educational/occupational aspirations of the students? Successful ..... 1 Somewhat successful ..... 2 Not very successful 3	.5963
42. Do you encourage your students who do not have sufficient economic resources to aspire to go to college? Always ..... 1 Usually ..... 2 Sometimes ..... 3 Seldom ..... 4 Never 5	.5204
43. Do you encourage your students who do not have sufficient academic ability to aspire to go to college? Always ..... 1 Usually ..... 2 Sometimes ..... 3 Seldom ..... 4 Never 5	.4641

FACTOR 5 continued

14. How important do you think standardized intelligence test scores of your students are? .4536

Very important 1
Not very important 2
Not important at all 3

11. In your judgment, what is the general reputation of this school among teachers outside the school? .4473

Among the best 1
Better than average 2
About average 3
Below average 4
A poor school 5

70E. What effect do you think the student himself has on his academic achievement? .3992

Substantial effect on achievement 1
Some effect on achievement 2
Do not have much effect on achievement 3

58. The parents of students in this school are deeply concerned that their children receive a top quality education. .3986

Agree 1
Disagree 2

75. When you are trying to improve your instructional program, how easy or difficult is it to get the principal's assistance? .3714

Easy 1
Varies from time to time 2
Difficult 3

APPENDIX E

SCHOOL ENVIRONMENT AND STUDENT ACHIEVEMENT

Factor Analysis - Principal Questionnaire

FACTOR 1: PRINCIPAL EXPECTATIONS OF STUDENTS

Percent of Variance = 17.3221

Questions	Factor Loadings
70. In general, how do you feel about the achievement of the students in this school?	.9792
Nearly all students are achieving as well as they can .. 1 Most students are achieving as well as they can ..... 2 Less than half the students are achieving as well as they can ..... 3 Only a few of the students are achieving as well as they can 4	
53. As a principal, how much effect do you think you have on student academic achievement?	.9792
Very great effect ..... 1 Substantial effect ..... 2 Some effect ..... 3 Very little effect ..... 4 No effect at all 5	
16. What percent of students in your school receive free lunches each day?	.9515
None ..... 1 9% or less ..... 2 10% - 30% ..... 3 31% - 50% ..... 4 51% - 70% ..... 5 71% - 90% ..... 6 More than 90% ..... 7 There is no free lunch program 8	
37. What percent of students in this school do you expect to complete high school?	.9225
90% or more ..... 1 70% - 89% ..... 2 50% - 69% ..... 3 30% - 49% ..... 4 Less than 30% 5	
20. What do you consider to be the school's primary responsibility to the students?	.9225

FACTOR 1 continued

Teaching of academic subjects 1
Enhancing social skills 2
Personal growth and development 3
Educational/occupational aspirations .. 4

45. How many of the parents of students in this school expect their children to complete college? .9211

Almost all of the parents 1
Most of the parents 2
About half of the parents 3
Some of the parents 4
Almost none of the parents 5

41. How would you rate the academic ability of the students in this school compared to others? .9193

Ability here is much higher 1
Ability here is somewhat higher 2
Ability here is about the same 3
Ability here is somewhat lower 4
Ability here is much lower 5

36. On the average, what achievement level can be expected of the students in this school? .8829

Much above national norm 1
Slightly above national norm 2
Approximately at national norm .. 3
Slightly below national norm 4
Much below national norm 5

38. What percent of the students in this school do you expect to attend college? .8794

90% or more 1
70% - 89% 2
50% - 69% 3
30% - 49% 4
Less than 30% 5

13. What percentage of your students this year are transfers from another school (do not count students who have completed the highest grade in the school from which they came)? -.8748

0 - 4% 1
5% - 9% 2
10% - 14% 3
15% - 19% 4
20% - 24% 5
25% and more 6

FACTOR 1 continued

10. Which best describes the students served by this school? -.8431

All children of professional and white-collar workers ... 1
Mostly children of professional and white-collar workers 2
Children from a general cross section of society 3
Mostly children of factory and other blue-collar workers 4
All children of factory and other blue-collar workers ... 5
Children of rural families 6

9. Which best describes the location of your school? -.8431

In a rural area 1
In a residential suburb 2
In an industrial suburb 3
In a small town (5000 or less) 4
In a city of 5000 to 50,000 5
In a residential area of a larger city (over 50,000) ... 6
In the inner part of a larger city (over 50,000) 7

60. If the teachers and other staff members in this school were all doing their job well, nearly all of the students would achieve at grade level. .8396

Strongly agree 1
Agree 2
Not sure 3
Disagree 4
Strongly disagree 5

39. What percent of the students in this school do you expect to complete college? .8193

90% or more 1
70% - 89% 2
50% - 69% 3
30% - 49% 4
Less than 30% 5

71. What percentage of the students in this school do you feel are capable of passing the Reading Competency Test by the end of the 11th grade? -.6629

100% 1
90% - 99% 2
80% - 89% 3
70% - 79% 4
50% - 59% 5
Less than 50% 6

FACTOR 1 continued

35. Which of the following do you think best predicts a student's success or failure in higher education? .6354

Teacher recommendations	1
Group or individual intelligence or scholastic aptitude test scores	2
Other standardized test scores	3
School grades	4
Other	5

40. How many of the students in this school are capable of getting good grades? .6942

90% or more	1
70% - 89%	2
50% - 69%	3
30% - 49%	4
Less than 30%	5

FACTOR 2: PRINCIPAL PERCEPTIONS OF PARENTAL CONCERNS AND EXPECTATIONS FOR QUALITY EDUCATION

Percent of Variance = 14.4043

Questions	Factor Loadings
43. The parents of students in this school are deeply concerned that their children receive a top quality education.	.8517
Strongly agree ..... 1 Agree ..... 2 Unsure ..... 3 Disagree ..... 4 Strongly disagree 5	
44. How many of the parents of students in this school expect their children to complete high school?	.7751
Almost all of the parents ..... 1 Most of the parents ..... 2 About half of the parents ..... 3 Some of the parents ..... 4 Almost none of the parents 5	
46. How many of the parents of students in this school don't care if their children obtain low grades?	.6609
Almost all of the parents ..... 1 Most of the parents ..... 2 About half of the parents ..... 3 Some of the parents ..... 4 Almost none of the parents 5	
69. In general, how do your students' parents feel about the achievement of their children?	.6442
Nearly all feel they are doing well ..... 1 Most think students are achieving as well as they could 2 Most think their children are NOT achieving high enough 3 Nearly all think they are NOT achieving high enough ... 4	
11. How many families of your students are represented at a typical meeting of the PTA or similar parent group?	-.6080
We have no parents' organization 1 Only a few ..... 2 Less than half ..... 3 About half ..... 4 Over half ..... 5 Almost all of them 6	

FACTOR 2 continued

68. What proportion of the students' parents do you know when you see them? .6039

Nearly all 1
About 75% 2
About 50% 3
About 25% 4
Only a few 5

42. The parents of students in this school regard this school as primarily a "baby-sitting" agency. .5868

Strongly agree 1
Agree 2
Unsure 3
Disagree 4
Strongly disagree 5

FACTOR 3: PRINCIPAL PERCEPTIONS OF THE RELATIONSHIP BETWEEN TEACHER PERFORMANCE AND STUDENT ACHIEVEMENT

Percent of Variance = 11.6765

Questions	Factor Loadings
64. About what proportion of teachers in this school assign seats to their students?	.9039
Almost all of the teachers ..... 1 Most of the teachers ..... 2 About half of the teachers ..... 3 Few of the teachers ..... 4 Almost none of the teachers 5	
24. To what exptent do the teachers individualize the instructional programs for the students in this school?	.8874
All plan individual programs for most students ..... 1 Most teachers have some individualized programs ..... 2 Individualization varies from teacher to teacher and time to time ..... 3 Most teachers have common instructional programs for their students ..... 4 All teachers have common instructional programs for their students 5	
49. A typical teacher in this school has come in contact with:	.8546
All of the parents ..... 1 Most of the parents ..... 2 Some of the parents ..... 3 A few of the parents ..... 4 None of the parents 5	
58. To what extent do you think that a teacher's attitude toward his/her students affects students academic achievement?	.8546
They have a great deal of effect on student achievement 1 They have substantial effect on student achievement ... 2 They have some effect on student achievement ..... 3 They do not have much effect on student achievement ... 4 They have no effect at all 5	
51A. Approximately what percentage of a typical school day does the average teacher spend on conferring with individual students about academic progress?	.8049

FACTOR 3 continued

50.	How much contact does a typical teacher in this school have with most of the parents? About once a month or more ..... 1 About two times a semester ..... 2 About once a semester ..... 3 Once a year or less 4	.7985
51F.	Approximately what percentage of a typical school day does the average teacher spend on establishing and maintaining order in the classroom?	.7947
51C.	Approximately what percentage of a typical school day does the average teacher spend on conferring with individual students about behavior, social growth and responsibility?	.7723
52.	Evaluating teachers' performance is an important and often difficult task for principals. When evaluating a teacher's performance, how much importance do you place on his/her students' academic achievement? It is very important ..... 1 It is quite important ..... 2 It is somewhat important ..... 3 It is not very important ..... 4 It is not important at all 5	.7615
51D.	Approximately what percentage of a typical school day does the average teacher spend on administrative duties (attendance taking, noting students' progress, filling out reports)?	.7375
51F.	Approximately what percentage of a typical school day does the average teacher spend on classroom and small group instruction?	.7357
51G.	Approximately what percentage of a typical school day does the average teacher spend on other duties?	.7821
30.	How many teachers in this school have a graduate degree? 75% or more ..... 1 50% - 74% ..... 2 25% - 49% ..... 3 Less than 25% 4	.7325
57.	To what extent do you think teaching methods affect student academic achievement?	.6644

FACTOR 3 continued

They have a great effect on student achievement 1
They have substantial effect on student achievement 2
They have some effect on student achievement 3
They do not have much effect on student achievement 4
They have no effect at all 5

59. To what extend do you think the degree to which their students achieve in learning should be considered in evaluating a teacher's competence? -.6162

Very much 1
Some 2
Not much 3
Not at all 4

65. About what proportion of teachers in this school allow their students to move about the classroom without first asking permission? .5772

Almost all of the teachers 1
Most of the teachers 2
About half of the teachers 3
Few of the teachers 4
Almost none of the teachers 5

51G. Approximately what percentage of a typical school day does the average teacher spend on time between lessons (supervision of students during recess and moving students from one activity to another)? .5651

FACTOR 4: PRINCIPAL PERCEPTIONS OF EFFORTS TO IMPROVE SCHOOL

Percent of Variance = 12.7297

Questions	Factor Loadings
62. It is possible for a principal, with the cooperation of the teachers, to change a low achieving school into a high achieving school. Strongly agree ..... 1 Agree ..... 2 Not sure ..... 3 Disagree ..... 4 Strongly disagree 5	.8325
61. It is the principal's responsibility to work with the teachers to insure that their students achieve at a high level. Strongly agree ..... 1 Agree ..... 2 Not sure ..... 3 Disagree ..... 4 Strongly disagree 5	.8325
34. In this school, how often are students assigned to certain classes on the basis of their I Q or aptitude scores? Always ..... 1 Often ..... 2 Sometimes ..... 3 Seldom ..... 4 Never 5	.8155
22. In general, what grouping procedure is practiced across sections of particular grade levels in this school? Homogeneous grouping according to ability ..... 1 Heterogeneous grouping according to ability .... 2 Random grouping ..... 3 No intentional grouping 4	.8112
23. In general, what grouping procedure is practiced within individual sections of particular grade levels of this school? Homogeneous grouping according to ability ..... 1 Heterogeneous grouping according to ability .... 2 Random grouping ..... 3 No intentional grouping 4	.6889

FACTOR 4 continued

55. How often do you suggest ways of improving student achievement to your teachers? .6195

Very often 1
Often 2
Sometimes 3
Seldom 4
Never 5

56. How often do you meet with the teachers as a group to discuss ways of improving student achievement? .6002

Very often 1
Often 2
Sometimes 3
Seldom 4
Never 5

63. How would you characterize the achievement objectives in this school? .5829

Same for all students 1
Same for most students 2
Different for most students 3
Different for all students 4

12. About what is the average daily percentage of attendance in your school? .5093

Over 98% 1
97% - 98% 2
95% - 96% 3
93% - 94% 4
91% - 92% 5
86% - 90% 6
85% or less 7

FACTOR 5: PRINCIPAL EVALUATION OF PRESENT SCHOOL QUALITY

Percent of Variance = 11.6405

Questions	Factor Loadings
66. What proportion of the classrooms in your school have teacher aides?	.9792
All ..... 1 Most ..... 2 About half ..... 3 Less than half ..... 4 None 5	
14. What is the lowest grade level in this school?	.9792
8th ..... 1 9th ..... 2 10th ..... 3 11th 4 12th 5	
33. How often do teachers in this school refer to, or consider, a student's I Q or aptitude score when planning his work?	.9388
Always ..... 1 Often ..... 2 Sometimes ..... 3 Seldom ..... 4 Never 5	
8. How did you feel about your assignment to this school before you came here?	.8599
Very happy ..... 1 Happy ..... 2 Somewhat happy ..... 3 Quite unhappy ..... 4 Very unhappy 5	
18. With regard to student achievement, how would you rate this school?	.8084
Among the best ..... 1 Better than average ..... 2 About average ..... 3 Below average ..... 4 Inferior 5	

FACTOR 5 continued

21A. How successful would you say your school has been with regard to student development in the teaching of academic skills? -.8261

Very successful 1
Successful 2
Somewhat successful 3
Not very successful 4
Very unsuccessful 5

21C. How successful would you say your school has been with regard to student development in personal growth? .8170

Very successful 1
Successful 2
Somewhat successful 3
Not very successful 4
Very unsuccessful 5

67. What percentage of your time in a typical week is devoted to each of the following:

Parent and community concerns ..... .9306
Other administrative duties ..... .7732
Supervision of instructional staff ..... .7375
Discipline ..... .7373
Long-range curriculum planning ..... -.6819
Supervision of non-instructional staff ..... .5350

5. How long have you been principal of this school?

Just this year 1
1 to 4 years 2
5 to 9 years 3
10 to 14 years 4
15 or more years 5

7. How long did you teach before becoming a principal? .7644

Never taught 1
1 to 4 years 2
5 to 9 years 3
10 to 14 years 4
15 years or more 5

47. How many of the parents of students in this school want feedback from the principal and teachers on how their children are doing in school? .7331

FACTOR 5 continued

Almost all of the parents 1
Most of the parents 2
About half of the parents 3
Some of the parents 4
Almost none of the parents 5

25. Do you have any non-graded classrooms in this school? .7059

Yes, all are non-graded 1
Yes, some are non-graded 2
No, we haven't any non-graded classrooms 3

17. In your judgment, what is the general reputation of this school among educators? .6716

Among the best 1
Better than average 2
About average 3
Below average 4
Inferior 5

6. How long have you been a principal? .6374

Just this year 1
1 to 4 years 2
5 to 9 years 3
10 to 14 years 4
15 or more years 5

21B. How successful would you say your school has been with regard to student development in enhancing social skills? .5901

Very successful 1
Successful 2
Somewhat successful 3
Not very successful 4
Very unsuccessful 5

19. With regard to student achievement, how good a school do you think this school can be? .5776

Among the best 1
Better than average 2
About average 3
Below average 4
Inferior 5

FACTOR 6: PRINCIPAL PERCEPTIONS OF EFFECT OF SIGNIFICANT OTHERS ON STUDENT ACHIEVEMENT

Percent of Variance = 8.3529

Questions	Factor Loadings
54E. What effect do you think the principal has on student academic achievement in this school?	.9792
Has a great deal of effect on student achievement .... 1 Has substantial effect on student achievement ..... 2 Has some effect on student achievement ..... 3 Does not have much effect on student achievement ..... 4 Has no effect on student achievement 5	
54D. What effect do you think the school board has on student academic achievement in this school?	.8591
Has a great deal of effect on student achievement .... 1 Has substantial effect on student achievement ..... 2 Has some effect on student achievement ..... 3 Does not have much effect on student achievement ..... 4 Has no effect on student achievement 5	
54B. What effect do you think teachers have on student academic achievement in this school?	.8591
Has a great deal of effect on student achievement .... 1 Has substantial effect on student achievement ..... 2 Has some effect on student achievement ..... 3 Does not have much effect on student achievement .... 4 Has no effect on student achievement 5	
54F. What effect do you think the student himself has on student academic achievement in this school?	.6869
Has a great deal of effect on student achievement .... 1 Has substantial effect on student achievement ..... 2 Has some effect on student achievement ..... 3 Does not have much effect on student achievement ..... 4 Has no effect on student achievement 5	
54A. What effect do you think parents have on student academic achievement in this school?	.6649
54C. What effect do you think friends or peer group have on student academic achievement in this school?	.5188

APPENDIX M

CORRELATION COEFFICIENTS OF CLIMATE FACTORS AND THE CORRE

VARIABLE	COMP	STEA	SES	SF2	SF3
COMP	1.00000	0.96193	0.47525	0.72106	0.72001
	0.0000	0.0001	0.2340	0.0435	0.0440
STEA	0.96193	1.00000	0.50291	0.75924	0.82515
	0.0001	0.00000	0.2040	0.0289	0.0117
SES	0.47525	0.50291	1.00000	0.27223	0.22740
	0.2340	0.2040	0.0000	0.5142	0.5881
SF2-PERCEPTION OF INSTRUCTIONAL SETNC	0.72106	0.75924	0.27223	1.00000	0.83349
	0.0435	0.0289	0.5142	0.00000	0.0101
SF3-PERCEPTION OF ACADEMIC ABILITY	0.72001	0.82515	0.22740	0.83349	1.00000
	0.0440	0.0117	0.5881	0.0101	0.00000
TF2-PERCEP OF STU/PARENT EXPECT	0.89895	0.89362	0.31098	0.88478	0.81506
	0.0024	0.0028	0.4534	0.0035	0.0137
TF3-PERCEP OF JOB SATISFACTION	0.31076	0.10669	-0.27048	0.12512	0.15681
	0.4537	0.8015	0.5170	0.7678	0.7108
PF3-PERCEP OF TEACH PERFORM/ACHIEV	0.28569	0.15294	-0.62856	0.20225	0.16497
	0.4928	0.7177	0.0951	0.6310	0.6962
PF4-PERCEP OF EFFORT TO IMPROVE	0.61375	0.71624	-0.05315	0.65738	0.73706
	0.1056	0.0457	0.9005	0.0765	0.0370
PF5-EVAL OF PRESENT SCH QUALITY	0.65791	0.50522	0.59983	0.45220	0.45220
	0.0762	0.2016	0.1160	0.2606	0.5312
	0.0762	0.2016	0.1160	0.2606	0.5312

APPENDIX M

COEFFICIENTS OF CLIMATE FACTORS AND THE CORRESPONDING P VALUES

MP	STEA	SES	SF2	SF3	TF2	TF3	PF3	PF4	PF5
000	0.96193	0.47525	0.72106	0.72001	0.89895	0.31076	0.28569	0.61375	0.65791
00	0.0001	0.2340	0.0435	0.0440	0.0024	0.4537	0.4928	0.1056	0.0762
193	1.00000	0.50291	0.75924	0.82515	0.89362	0.10669	0.15294	0.71624	0.50522
01	0.00000	0.2040	0.0289	0.0117	0.0028	0.8015	0.7177	0.0457	0.2016
525	0.50291	1.00000	0.27223	0.22740	0.31098	-0.27048	-0.62856	-0.05315	0.59983
40	0.2040	0.0000	0.5142	0.5881	0.4534	0.5170	0.0951	0.9005	0.1160
106	0.75924	0.27223	1.00000	0.83349	0.88478	0.12512	0.20225	0.65738	0.45220
35	0.0289	0.5142	0.00000	0.0101	0.0035	0.7678	0.6310	0.0765	0.2606
001	0.82515	0.22740	0.83349	1.00000	0.81506	0.15681	0.16497	0.73706	0.26173
40	0.0117	0.5881	0.0101	0.00000	0.0137	0.7108	0.6962	0.0370	0.5312
895	0.89362	0.31098	0.88478	0.81506	1.00000	0.29652	0.37025	0.66825	0.48838
24	0.0028	0.4534	0.0035	0.0137	0.00000	0.4758	0.3666	0.0701	0.2195
076	0.10669	-0.27048	0.12512	0.15681	0.29652	1.00000	0.66679	-0.07814	0.43484
37	0.8015	0.5170	0.7678	0.7108	0.4758	0.00000	0.0709	0.8541	0.2816
569	0.15294	-0.62856	0.20225	0.16497	0.37025	0.66679	1.00000	0.43866	0.08102
28	0.7177	0.0951	0.6310	0.6962	0.3666	0.0709	0.00000	0.2769	0.8488
375	0.71624	-0.05315	0.65738	0.73706	0.66825	-0.07814	0.43866	1.00000	0.07831
56	0.0457	0.9005	0.0765	0.0370	0.0701	0.8541	0.2769	0.00000	0.8538
791	0.50522	0.59983	0.45220	0.45220	0.26173	0.48838	0.43484	0.08102	1.00000
762	0.2016	0.1160	0.2606	0.5312	0.2195	0.2816	0.8488	0.8538	1.00000
762	0.2016	0.1160	0.2606	0.5312	0.2195	0.2816	0.8488	0.8538	0.00000

APPENDIX N

TABULATION OF OCCUPATIONAL CLUSTERS FOR PARENTS OF STUDENTS IN POPULATION SAMPLE

OCCUPATIONAL CLUSTERS	SCH 1	SCH 2	SCH 3	SCH 4	SCH 5	SCH 6	SCH 7	SCH 8
LEVEL 1 *(73 - 96)								
Professional (doctors, lawyers, engineers, etc)	8	0	4	3	7	7	0	8
LEVEL 2 *(49 - 72)								
Professional (teachers, semi-professional, managerial, etc.)	54	16	35	50	51	71	17	36
LEVEL 3 *(25 - 48)								
Skilled, craftsmen, clerical workers, etc.	46	43	76	59	29	43	9	68
LEVEL 4 *(1 - 24)								
Laborers, unskilled, service workers, etc.	28	18	31	22	14	9	3	21

* Based on Duncan Occupational Scale by Otis Dudley Duncan, 1972

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Vita

George Linwood Jones

Birthdate: January 26, 1937

Birthplace: Richmond, Virginia

Education:

1971-1982	The College of William and Mary in Virginia Williamsburg, Virginia Certificate of Advanced Graduate Study in Education Doctor of Education
1963-1965	Columbia University in the City of New York New York, New York Master of Business Administration
1956-1960	Virginia Union University Richmond, Virginia Bachelor of Science

Abstract

AN EXAMINATION OF THE RELATIONSHIP BETWEEN SCHOOL ENVIRONMENT AND STUDENT ACHIEVEMENT IN AN URBAN SCHOOL DIVISION IN VIRGINIA

George Linwood Jones, Ed.D.

The College of William and Mary in Virginia, May 1982

Chairman: Professor Robert Maidment

The purpose of this study was to determine whether a relationship exists between school environment and student achievement in several high schools in an urban school division in Virginia. The subjects for this study were eleventh grade students, randomly selected teachers of eleventh graders and the principal of each school. Nine high schools buildings are in the school division, of which eight were used in this investigation. The one school not included in the study was an alternative high school whose students attended classes at various places throughout the division.

The initial group tested consisted of 1225 students, 114 teachers, and 8 principals. Incomplete test data resulted in 190 students being dropped from the study, leaving 984 students.

The school environment was assessed by the School Environment Questionnaire developed by Brookover, et al. at Michigan State University. Student achievement was measured by the students' composite score on the SRA Achievement Test Series administered to all eleventh grade students in the State of Virginia in the fall of 1979. The questionnaires were categorized by groups of respondents (students, teachers and principals) and by schools within groups. Three separate varimax rotation factor analyses were performed. Correlations were performed on climate factors, socio-economic status, percentage-white students and STEA with achievement. A series of stepwise regression analyses on the dependent variable achievement and the various predictor variables were also performed.

The first tested hypothesis that a positive relationship exists between student perceptions and staff perceptions of the school environment was accepted. Correlation analyses between student climate factors and teacher climate factors and between student climate factors and principal climate factors resulted in 19 significant correlations at the .05 level. Since all six student climate factors correlated significantly with three teacher climate factors and with two of the principal climate factors, a relationship existed between student and staff perceptions.

The second tested hypothesis that a positive relationship exists between achievement and school environment was also accepted. Correlations indicated that: (1) student perceptions were more related to achievement than teacher and principal perceptions; (2) teacher perceptions were more related to achievement than principal perceptions; and, (3) the schools with the highest mean achievement also had the highest number of positive correlations between climate factors and achievement.