THE RELATIONSHIP BETWEEN SOCIAL-PSYCHOLOGICAL VARIABLES IN THE SCHOOL CLIMATE, SELF-ESTEEM AND SCHOOL ACHIEVEMENT AMONG FIFTH AND SIXTH GRADE STUDENTS IN THE ECORSE PUBLIC SCHOOLS

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ABSTRACT

THE RELATIONSHIP BETWEEN SOCIAL-PSYCHOLOGICAL VARIABLES IN THE SCHOOL CLIMATE, SELF-ESTEEM AND SCHOOL ACHIEVEMENT AMONG FIFTH AND SIXTH GRADE STUDENTS IN THE ECORSE PUBLIC SCHOOLS

By

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The purpose of this study is to measure the relationship between certain social-psychological variables and self-esteem of the fifth and sixth grade students with their standardized achievement test scores in Ecorse Public Schools, during the 1973-74 school year. Specifically, this study is to determine which of the social-psychological variables are the most powerful predictors of the variation in Stanford Achievement Test scores. The total fifth and sixth grade student populations, 486 students, with standardized achievement test scores falling at or above, or below, national norms were operationally used in this investigation. The achievement areas used as the criteria were scores of total reading, spelling, language, arithmetic, social studies, and science on Student Stanford Achievement Test Scores (SSATS). The climate variables within the context of this investigation were operationally as independent social-psychological variables defined as: Student Self-Esteem (SSE), Student Perceived Present Evaluations-Expectations (SPPEE), Student Perceived Future Evaluations-Expectations (SPFEE),

Student Reported Sense of Futility (SRSOF), Teacher Ratings of Student Adjustment (TRSA), Student Perceptions of School Academic Norms (SPSAN), Teacher Present Evaluations-Expectations (TPEE), Teacher Future Evaluations-Expectations (TFEE), Teacher Perceptions of Parents' Student Academic Push (TPPSAP), Teacher Reported Feelings of Job Satisfaction (TRFJS), and Teacher Perception of Student Academic Improvability (TPSAI). The major research questions investigated in this study are as follows:

1. Which of a selected number of social-psychological school normative academic climate variables derived from teacher perception data are greater predictors of classroom mean as correlated with the Stanford Achievement Test?

2. What part of the variance in academic achievement as measured by the Stanford Achievement Test can be predicted by social-psychological variables as measured by the perceptions of students and teachers within the school climate?

The student population consisted of one integrated, three all-white, and two all-black schools in Ecorse, Michigan. The populations included 238 white, 216 black, and 32 Mexican-American students.

Students and teachers were asked to respond to self-reporting questionnaires, designed to measure school climate variables. The students were asked to respond to an additional questionnaire that measured their self-esteem.

The data obtained for this study were analyzed by inter-correlational matrix, multiple regression, and stepwise regression analysis. All results were significant at the .05 level of confidence.

From these experimental analyses the data yielded the following results:

1. Social-psychological variables within the "Teacher Questionnaire" data were not significant predictors of classroom mean achievement at the .05 level.

2. Within the three sub-populations, the Teacher Ratings of Student Adjustment was the most powerful predictor of the explained variance in Stanford Achievement Test scores, significant at the .05 level.

3. White elementary schools had four significant predictors of the explained variance in Stanford Achievement Test scores. Student Perceived Present Evaluations-Expectations demonstrated greater prediction power within the white schools than within the integrated or black schools.

4. There were three significant predictors of the explained variance in Stanford Achievement Test scores within the black schools. Teacher Ratings of student adjustment predicted a larger percentage of the explained variance within black and integrated schools than within white schools. Student self-esteem predicted a larger percentage of the explained variance within black and white schools than within the integrated school.

5. There were three significant predictors of the explained variance in Stanford Achievement Test scores within the integrated school. Student Perception of School Academic Norms predicted a higher percentage of the variance within the integrated school than within the white and black schools.

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TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDICES

CHAPTER I

INTRODUCTION

Statement of the Problem

In 1971-72, the students in Ecorse elementary grades tested below the national norms on the Stanford Achievement Test. This test indicated that Ecorse students as a group are unsuccessful in their school environment. This lack of success in the school environment is a major concern to educators. This investigation grew out of that concern, why so many students in Ecorse Public Schools tested below average on the Stanford Achievement Test, and why they are achieving below their grade level.

For years educators have attempted to explain variance in academic achievement by using intellective variables such as the IQ. In recent years some research studies on academic achievement have investigated non-intellectual variables as being important factors in explaining differences in academic achievement. The many studies of academic prediction using intellectual measures may be summarized by stating that the average intellectual measures such as IQ test scores taken singly or in multiples account for only 50 to 75 percent of the variation in academic performance.[1]

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[1] J. L. Cole, "The Relationship of Selected Personality Variables to Academic Achievement of Average Aptitude Third Graders," The Journal of Educational Research 67 (March 1974): 329.

Therefore, 25 to 50 percent of the variance in academic performance is unexplained. In recent years there has been an awareness by researchers that non-intellectual variables may affect a student's academic performance.

There is evidence that educational attainment in school is related to socio-economic status (SES). Coleman et al.[2] and Mayeske et al.[3] showed in their studies that family SES and racial background are significantly correlated with academic performance, and the school social composition, and attitudinal variables associated with the family SES, and racial background have a higher correlation with academic performance than any other school variables studied.

The socio-economic status and achievement correlation does not always hold true. However, a few studies have shown that low SES schools show high academic performance and high SES schools show low academic performance.

McDill, Myers and Rigsby[4] identified social climate variables which accounted for most of the variance in achievement usually attributed to the socio-economic composition of the schools.

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[2]James S. Coleman et al., Equality of Educational Opportunity (Washington, D.C.: U.S. Government Printing Office, 1966).

[3]George W. Mayeske et al., A Study of Our Nations Schools (Washington, D.C.: U.S. Department of Health, Education and Welfare, Office of Education, 1969).

[4]Edward L. McDill, Edmond Myers, and Leo Rigsby, "Institutional Effects on the Academic Behavior of High School Students," Sociology of Education 40 (Summer 1967): 181-99.

Parson[5] pointed out that success in school academic performance reflects two components, "cognitive and moral." A "good" student fuses the two together, although the weight placed on one or the other varies from time-to-time during one's school career. In the elementary grades, Parsons states that high achievers:

> are both the "bright" pupils, who catch on easily to their more strictly intellectual tasks, and the more "responsible" pupils who "behave well," and on whom the teacher can "count" in her difficult problems of managing the class . . . . In many cases, it can be presumed that the primary challenge to the pupil is not to his intellectual, but to his "moral" capacities.[6]

Within the school system, it appears that academic performance occurs in a social setting and academic performance may depend more upon social skills than upon academic-intellectual ones, especially in the early years. However, it is important to investigate the relationship between the student's academic performance and some of the social psychological factors within the school climate.

The following theoretical concepts provide a basis for the analysis of the child's socialization. Brookover showed that human behavior emerges when an individual associates with other individuals who are significant to him within his environment.[7] To better understand the educational process and academic performance of students

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[5]Talcott Parsons, "The School Class as a Social System: Some of Its Functions in American Society," Harvard Educational Review 29 (1959): 297-318.

[6]Ibid., p. 304.

[7]Wilbur B. Brookover and Edsel L. Erikson, Society, Schools and Learning (Boston: Allyn and Bacon, Inc., 1969), p. 1.

in a society, the social structural and psychological variables in which learning occurs must be known.

The Purpose of This Study

The purpose of the study was to investigate relationships between certain social-psychological factors comprising school normative academic environment, and academic performance and self-esteem of fifth and sixth grade students in Ecorse, Michigan, during the 1973-74 school year. This researcher's hope is to find which of those factors investigated are the strongest predictors of academic performance. Knowledge of these variables may provide educators with suggestions for classroom or curricular changes. It may add to the knowledge about elementary school social climate variables and students' self-esteem.

Questions to Be Explored

The data collected pertain to the following questions:

1. Which of a number of social-psychological school normative academic climate variables derived from the teacher perception data are greater predictors of classroom means as correlated with the Stanford Achievement Test?

2. What part of the variance in academic achievement as measured by the Stanford Achievement Test can be predicted by social-psychological variables as measured by the perceptions of students and teachers within the school climate?

Hypotheses for Analysis

From the questions to be explored in this study, the following hypotheses were developed:

Hypothesis 1: Teacher present evaluation-expectation is a significant predictor of classroom mean achievement as measured by the Teacher School Social Environment Study Questionnaire and the Stanford Achievement Test.

Hypothesis 2: Teacher future evaluation-expectation is a significant predictor of classroom mean achievement as measured by the Teacher School Social Environment Study Questionnaire and the Stanford Achievement Test.

Hypothesis 3: Teacher perception of parent-student push for educational achievement is a significant predictor of classroom mean achievement as measured by the Teacher School Social Environment Study Questionnaire and the Stanford Achievement Test.

Hypothesis 4: Teacher reported push of individual students is a significant predictor of classroom mean achievement as measured by the Teacher School Environment Questionnaire and the Stanford Achievement Test.

Hypothesis 5: Teacher reported feelings of job satisfaction is a significant predictor of classroom mean achievement, as measured by the Teacher School Social Environment Study Questionnaire and the Stanford Achievement Test.

Hypothesis 6: Teacher perception of student academic improvability is a significant predictor of classroom mean achievement as measured by the Teacher School Environment Study Questionnaire and the Stanford Achievement Test.

Hypothesis 7: Student perceived present evaluation-expectation is a significant predictor of student academic achievement as measured by the Student School Social Environment Study Questionnaire and the Stanford Achievement Test.

Hypothesis 8: Student perceived future evaluation-expectation is a significant predictor of student academic achievement as measured by the Student School Social Environment Study Questionnaire and the Stanford Achievement Test.

Hypothesis 9: Student reported sense of futility is a significant predictor of student academic achievement as measured by the Student School Social Environment Study Questionnaire and the Stanford Achievement Test.

Hypothesis 10: Student perception of school academic norms is a significant predictor of student academic achievement as measured by the Student School Social Environment Study Questionnaire and the Stanford Achievement Test.

Hypothesis 11: Student self-esteem is a significant predictor of student academic achievement as measured by the Coopersmith Self-Esteem Inventory and the Stanford Achievement Test.

Hypothesis 12: Teacher adjustment rating of student is a significant predictor of student academic achievement as measured by the Rating Scale for Pupil Adjustment and the Stanford Achievement Test.

Significance of the Study

Educators in Ecorse have repeatedly faced the problem of many students scoring below the nation norms on the Stanford Achievement Test. So far, there has been no comprehensive research study concerning the academic performance of these Ecorse students and their socio-psychological behavior within the context of their academic success. Therefore, exactly what single or combinations of socio-psychological factors are influencing their academic performance is unknown.

This researcher believes that the investigation of certain socio-psychological factors and their influence students' academic performance will greatly increase our knowledge of why many of the fifth and sixth grade students in Ecorse Public Schools score below the national norm on the Stanford Achievement Test.

In light of the seriousness of this academic problem, not a sufficient number of studies have been conducted at the elementary

level. Scientific research findings about this academic problem at the elementary level are badly needed. With this knowledge school board members, faculty members and parents can institute effective social changes in the school environment. It is to this need that this present study is directed.

Limitations of the Study

This study is based on the fifth and sixth grade students attending the six public elementary schools in Ecorse, Michigan, during the 1973-74 school year. The total fifth and sixth grade student population was included in this study. Hence, while implications for the larger student population throughout the Ecorse school system may exist, one should understand that this study is focused only upon the students in this study. Therefore, the transfer of generalizations to other grade levels within the school system should be made only if the reader is willing to accept the responsibility for the validity of such extended generalizations.

Other limitations that could be regarded as active inference in this study:

1. The responses to social-psychological questionnaires could be questioned as to the accuracy of the self-reported responses.

2. The findings are limited to the particular schools involved.

3. The school district as a social system was not investigated in this present study.

4. This study does not include the external forces in the community that might hinder to enhance school performance.

5. There is no desire to make generalizations other than the particular schools involved in this study. This study does not claim to examine all social-psychological variables having an effect upon academic achievement. It is designed to investigate only a specific number of characteristics of school social climate variables which may have an association with academic achievement beyond the affects of race and ethnic groups.

6. It is the hope of this researcher that the findings will serve in future research, first, to isolate certain variables from the collected data for future study, and, secondly, to reinforce further research within the area of the effects of school normative climate upon academic achievement. The main purpose of this study is to investigate rather than to test hypotheses.

Definition of Terms

Terms that are relevant to this study are:

Self: "A composite definite of the 'self' as a complex and dynamic system of beliefs which an individual holds true about himself."[8]

Self-esteem: Self-esteem is the evaluation which an individual makes and usually maintains with regard to himself. This

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[8]William W. Purkey, Self-Concept and School Achievement (Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1970), p. 7.

evaluation expresses an attitude of approval or disapproval, and indicates the extent to which the individual believes himself to be capable, significant, successful and worthy. The self-esteem is measured as the evaluative aspect of the self-concept. The self-esteem inventory (SEI) developed by Coopersmith is chosen as the instrument to measure self-esteem. His definition is: ". . . personal judgment of worthiness that is expressed in the attitudes the individual holds toward himself."[9]

Symbolic interaction: The term "symbolic interaction" refers to the process by which students relate to their own mind as well as the mind of others. In this process, the student takes into account his own feelings as well as how he perceives the people around him feel.

Overview

This study will attempt to compare the measured intensity of self-reported self-esteem with quantitative school achievement. This study will also attempt to identify certain social-psychological normative academic climate variables in elementary schools that are related to school achievement.

Chapter II of this study will include the related literature and studies in the areas of self-esteem and school social climate and their effects upon school achievement. Chapter III will give an account of the design, population, procedures and site.

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[9]Stanley Coopersmith, The Antecedents of Self-Esteem (San Francisco: U. H. Freeman and Co., 1967), p. 5.

Chapter IV will present the tests of the hypotheses and other anlysis of data pertinent to this study.

Chapter V will include conclusions, summarizations of this thesis and suggestions for future research.

CHAPTER II

REVIEW OF RELATED LITERATURE

Introduction

This study investigates the relationship between self-esteem, elementary school normative academic climate and academic achievement in fifth and sixth grade students. This chapter will first review the theoretical foundations upon which this research is based. These foundations are symbolic interaction theories, socialization, expectation-evaluations theory and the role theory. This will be followed by a review of selected studies focusing on the relationship between students' level of self-esteem and their academic achievement. The remainder of this chapter is devoted to the relationship of school climate variables to achievement within the school.

Theoretical Formulations

In this study about school normative climate and self-esteem, the major theoretical formulation is provided by George H. Mead in the form of symbolic interaction.[1] Mead was responsible for a social-psychological theory called "symbolic interactionism." The ideas embodied in symbolic interactionism are centered around

[1]George H. Mead, Mind, Self and Society (Chicago: University of Chicago Press, 1934).

"self," the individual's "self-conceptions" and society. Self is possible because of role taking. By "taking the role of others," the individual learns how others feel about him and how he must adjust his behavior to receive the desired response from others. Those whose role the individual takes are the "significant others." Role behaviors are influenced by self-perceptions: What an individual does, thinks, and feels depends upon the way in which he perceives himself and others.

Symbolic Interaction

Mead's[2] major contribution to the theory of social interaction is his theory of "symbolic interactionism." He used these terms in describing the emergence of self.

Blumer explains Mead's theory of symbolic interaction in the following manner:

> He identifies two forms or levels; non-symbolic interaction and symbolic interaction. In non-symbolic interaction, human beings respond directly to one another's gestures or actions; in symbolic interaction they interpret each others gestures and act on the basis of the meaning yielded by the interpretation. . . . Mead's concern was predominantly with symbolic interaction. Symbolic interaction involves interpretation or ascertaining the meanings of the actions or remarks of the other person.[3]

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[2]Ibid.

[3]Herbert Blumer, "Sociological Implications of the Thoughts of George H. Mead," The American Journal of Sociology (March 1966): 535-44.

The Formalized Theory

Using this base, Kinch put forward the formalized theory of symbolic interaction. From this foundation, he makes suggestions about self.

> The individual's conception of himself emerges from social interaction and, in turn, directs or influences the behavior of that individual.[4]

Using the symbolic theory of interaction as a base, Kinch outlined six steps that are involved in forming the self-concept and self-esteem.

1. The individual's self-concept is based on his perception of the way others are responding to him.
2. The individual's self-concept function to direct his behavior.
3. The individual's perception of the response of others toward him.
4. The way the individual perceives the responses of others toward him will influence his behavior.
5. The actual response of others to the individual will determine the way he sees himself, his self-esteem.
6. The actual response of others toward the individual will affect the behavior of the individual.[5]

Brookover and Erickson emphasized the influence of social interaction on the student when they wrote:

> Each person learns the definitions of appropriate behavior through interaction with others who are important or significant to him.

Brookover and Erickson reveal:

> . . . the individual also acquires conceptions of his ability to learn various types of behavior through interaction with others whose evaluations are important to him.
>
> These propositions project a social-psychological framework for the analysis of the educational process by

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[4]John Kinch, "A Formalized Theory of the Self-Concept," The American Journal of Sociology 68 (January 1963): 481.

[5]Ibid., p. 482.

> emphasizing the importance of the social environment in which the student lives and his interaction with others in his social world. Such a conception of human learning has been identified as a social interaction theory . . . .[6]

Interaction Process Analysis

Bales[7] introduced and named this process, interaction process analysis (IPA). It is used in the study of groups, especially studies by researchers in group dynamics, and in studies of classroom groups. Earlier studies were centered around child play.

The literature reveals that scholars agree that scientific investigation of classroom interaction, per se, is both a legitimate and necessary area for analysis. Parsons suggests:

> . . . that the scientific study of classroom interaction offers a field of vital interest for social scientists on the one hand and those concerned with the actual operation of the schools on the other.[8]

Each school and each classroom within the school is a relatively sophisticated interacting social group. Like any other social institution, the elementary school is both general and specific. In the school there is a complex net of social iteraction and interwoven set of statuses and roles taking place.

The emphasis on understanding elementary school students in the school climate has led to the constructing theoretical framework which focuses on student environment interaction.

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[6]Brookover and Erikson, pp. 15-16.

[7]R. F. Bales, Interaction Process Analysis (Cambridge: Addison-Wesley, 1950).

[8]Parsons, pp. 297-318.

Miller,[9] a social-psychological designer for interaction, suggests that in a school or classroom social contact by a student or an actor performs actions that are evaluated by others according to appropriate norms. These evaluations are usually to evaluate the actor himself. The actor perceives others' evaluations, which usually become part of his self-evaluations. The actor confirms or modifies his next action.

From Mead's formulation this writer would point out that an individual's perceptions of evaluations, expectations, and self-esteem are largely derived from the reflected appraisal of others. Therefore, the view of "significant others" are Mead's key to the formulation of an individual's evaluations, expectations, and self-esteem.

It appears that within this theoretical framework, there are other components of Mead's theory that are important and should be reviewed. This writer will attempt to examine the relations and clarify how these constructs are presently utilized in questions pertaining to school academic climate.

Socialization

Cooley, writing a short time after the turn of the century, indicated that the development of self has its start early in the life of an organism. Shortly after becoming aware of their environment, interaction with the intermediate family begins. From this

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[9]E. R. Miller, "The Study of Social Relationships Situations, Identity, and Social Interaction," in Psychology: The Study of a Science, Vol. 5, ed. S. Koch (New York: McGraw-Hill Book Co., 1963).

interaction the child's self is begun to be determined by the attitudes of others; "the looking glass self."[10]

This important continuing process which begins at birth and extends throughout the life span of an individual was a great concern to Mead.

Mead[11] stressed the importance of the first interaction, which he called preinteraction. Preinteraction takes place at an ealy age between parents and the child.

Mead further describes how self-awareness is developed after the use of language has taken place. Once an individual possesses language, reflection takes place. The reflection about the parents' behavior leads to reflection about the child's own behavior. By taking the attitudes of others, the self emerges. By projecting himself into the minds of others, the process of role begins.

The Role Theory

Mead, who was influenced by Cooley, wrote, "when the child learns to project himself into the mind of others he is . . . taking the role of others."[12]

Starting with Cooley and later Mead, many social psychologists have agreed that self-conception is developed when the child uses the process of his noting the reaction of another person to his actions, thus allowing him to evaluate his own actions. With these

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[10]Charles H. Cooley, Human Nature and the Social Order (New York: Charles Scribner's Sons, 1902), pp. 151-53.

[11]Mead, p. 135.

[12]Ibid.

different acts perceived by the main actor, he decides how others judge him, and therefore, he judges himself. This self-judgment might lead to a high self-esteem or a low self-esteem.

Gross, Mason, and McEachen[13] suggest that most role theorists agree that the expectation-evaluative criterion students hold for their own behavior in a role are cue elements. These elements have to be thought through when attempting to explain the differential behavior of the actors in a specific role. Parsons and Shils write:

> A role is thus a series of appropriate and expected ways of behaving relative to certain objects, by virtue of a given individual's status in a given social structure or institution. Further, these expectations that individuals have in given statuses that they will behave in such-and-such ways are called role expectations.[14]

This statement also reflects how the actor of a status comes to realize that others expect him to behave according to predetermined patterns while he occupies the given status. Parsons and Shils state:

> What an actor is expected to do in a given situation both by himself and by others constitutes the expectations of that role.[15]

Getzels states:

> Roles are defined in terms of role expectations. A role has certain normative obligations and responsibilities which may be termed role expectations, and when the

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[13]Neal Gross, Ward S. Mason, and Alexander W. McEachern, Explorations in Role Analysis: Studies of the School Superintendency Role (New York: John Wiley and Sons, 1958).

[14]Talcott Parsons and Edward Shils, Toward a General Theory of Actions (Cambridge: Harvard University Press, 1962), p. 350.

[15]Ibid.

> role incumbent puts those obligations and responsibilities into effect, he is said to be performing his role.[16]

This statement reflects that within a culture or sub-culture, each position has a set of norms or expectations associated with that position or role.

Brim[17] revealed that parents, peers and teachers are a student's major role definers. It is presumably that a positive self-esteem is dependent upon a positive response from significant others to their expected roles.

These statements reflect that individuals think of their roles in the sense of expectations. From this point of view, the student's self-expectations influence the development of his self-esteem. "By taking the attitudes of other individuals toward himself," it is reasonable to think that others' evaluations will affect the individual's level of self-esteem.

Evaluations and Expectations Theory

The expectancy theory is important to this study as a determinant of educational outcomes.

As early as 1935, Johnson demonstrated that positive expectations are more helpful in reaching a goal than negative expectations.

Rosenthal and Jacobson put forth an astonishing report about the concept of the expectancy theory when they wrote:

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[16]Jacob Getzels, Administration Theory in Education, ed. Andrew Halpin (Chicago: University of Chicago Press, 1958), p. 153.

[17]Orville Brim, Sociology and the Field of Education (New York: Russell Sage Foundation, 1958).

> The central concept behind our investigation was that of the "Self-Fulfilling prophecy." The essence of the concept is that one person's prediction of another person's behavior somehow comes to be realized. The prediction may, of course, be realized only in the perception of the predictor. It is also possible, however, that the predictor's expectation is communicated to the other person, perhaps in quite subtle and unintended ways, and so has an influence on his actual behavior.[18]

Eson agrees that expectations are subtle when he writes:

> Expectations are often unintended and subtle . . . . Expectation is a strong determinant of behavior and a very pervasive feature of our environment.[19]

Eson states that the expressions of age, ethnic stereotypes, and sex serve as subtle forms of expectations.

In writing about sex in the more specific expressions of expectation, Goodenough[20] revealed the behavior differences between the two sexes from early childhood is strongly related to different expectations covertly and overtly expressed by significant individuals who interact with each child of each sex in a different manner.

Given this framework of theory about how expectations influence differential behavior in male and female in a subtle form, Polardy[21] provides some evidence about differential achievement

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[18]Robert Rosenthal and Lenore F. Jacobson, "Teacher Expectations for the Dis-Advantaged," Scientific Americal 218 (April 1968).

[19]Morris E. Eson, Psychological Foundation of Education (New York: Holt, Rinehart and Winston, Inc., 1972), p. 36.

[20]E. W. Goodenough, "Interest in Persons as an Aspect of Sex Difference in the Early Years," Genetic Psychology Monographs 55 (1957): 287-323.

[21]J. M. Polardy, "What Teachers Believe--What Children Achieve," Elementary School Journal 69 (1969): 370-4.

between males and females within the school. Polardy indicates that this differential in achievement is due to the perceptions of people rather than to the student's capabilities.

Another aspect of the expectation theory and its association with differential achievement by sex is the differential in achievement by race, and ethnic groups. Antonovsky,[22] Sears,[23] and Wylie,[24] all these scholars have reported that white students had higher expectations than black students.

Guggenheim[25] found that black students had higher discrepancies between their expectations for achievement and their actual achievement than did white students.

In the framework of the expectation theory is the differential of achievement which is associated with class status. Rist conducted an observational study of a classroom where expectations were based upon middle-class attributes. Rist[26] found that the

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[22]A. Antonovsky, "Aspirations, Class, and Racial-Ethnic Membership," Journal of Negro Education 36 (Fall 1967): 384-93.

[23]P. S. Sears, "Levels of Aspiration in Academically Successful and Unsuccessful Children," Journal of Abnormal and Social Psychology 35 (1940): 498-536.

[24]R. C. Wylie, "Children's Estimates of Their Schoolwork Ability, as a Function of Sex, Race and Socio-Economic Level," Journal of Personality 31 (June 1963): 203-24.

[25]F. Guggenheim, "Self-Esteem and Achievement Expectations for White and Negro Children," Journal of Projective Techniques and Personality Assessment 33 (February 1969): 411-51.

[26]Ray C. Rist, "Student Social Class and Teacher Expectations: The Self-Fulfilling Prophecy in Ghetto Education," Harvard Educational Review 40 (August 1970): 411-51.

achievement expectations were less for the students from the poorer families or lower socio-economic status group. This belief is very damaging to educational performance. Studies have pointed to the fact that a teacher's expectations of a student's potential can seriously affect what the student does accomplish. Accordingly when teachers expect very little from students, as is often the case with poor students, then, they do very little in academic performance.

In the expectation theory there is evidence that self-conception is influence by factors within the environment; that is, the expectations and reactions of certain individuals within the environment influence the student's level of self-esteem.

The literature on the theory of expectations makes it clear that the child does integrate perceived information from other individuals and groups, along with his own achievements, to form his concept of his own self-esteem.

Staines[27] provides information from his theoretical analysis about how the concept self is learned from comments coming from other people, and the child's experience in home, school and other social groups.

So conceived, the theory of expectations that individuals come to see themselves as they perceive others has been supported by

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[27]J. W. Staines, "The Self-Picture as a Factor in the Classroom," British Journal of Educational Psychology 28 (1958): 97-111.

empirical research of French,[28] Sherwood,[29] and Rosenberg.[30] These results state that there is a strong and definite relationship between the perceived self and the individual's own picture of what he is actually like.

A model would be in order to help explain the theory of expectations. This model is drawn from Finn[31] with some modifications (see Figure 1).

The Self and Self-Esteem

Earlier psychologists and sociologists such as William James, G. H. Mead and Charles Cooley provided the primary understanding and guidelines for the study of self-esteem. In recent times, Brookover and others have contributed by developing the concept of academic ability. On the self, James wrote:

> Ourself feeling in this world depends entirely on what we back ourselves to be and do.[32]

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[28] J. R. P. French, "The Conceptualization and Measurement of Mental Health in Terms of Self-Identity Theory," in The Definition and Measurement of Mental Health, ed. S. B. Sells (Washington, D.C.: Department of Health, Education and Welfare).

[29] J. J. Sherwood, "Self-Identity and Reference Others," Sociometry 28 (March 1965): 66-81.

[30] M. Rosenberg, Society and the Adolescent Self-Image (Princeton: Princeton University Press, 1965).

[31] D. Jeremy Finn, "Expectations and the Educational Environment," Review of Educational Research 42 (1972): 395.

[32] William James, The Principles of Psychology (New York: Henry Holt and Co., 1890), pp. 310-1.

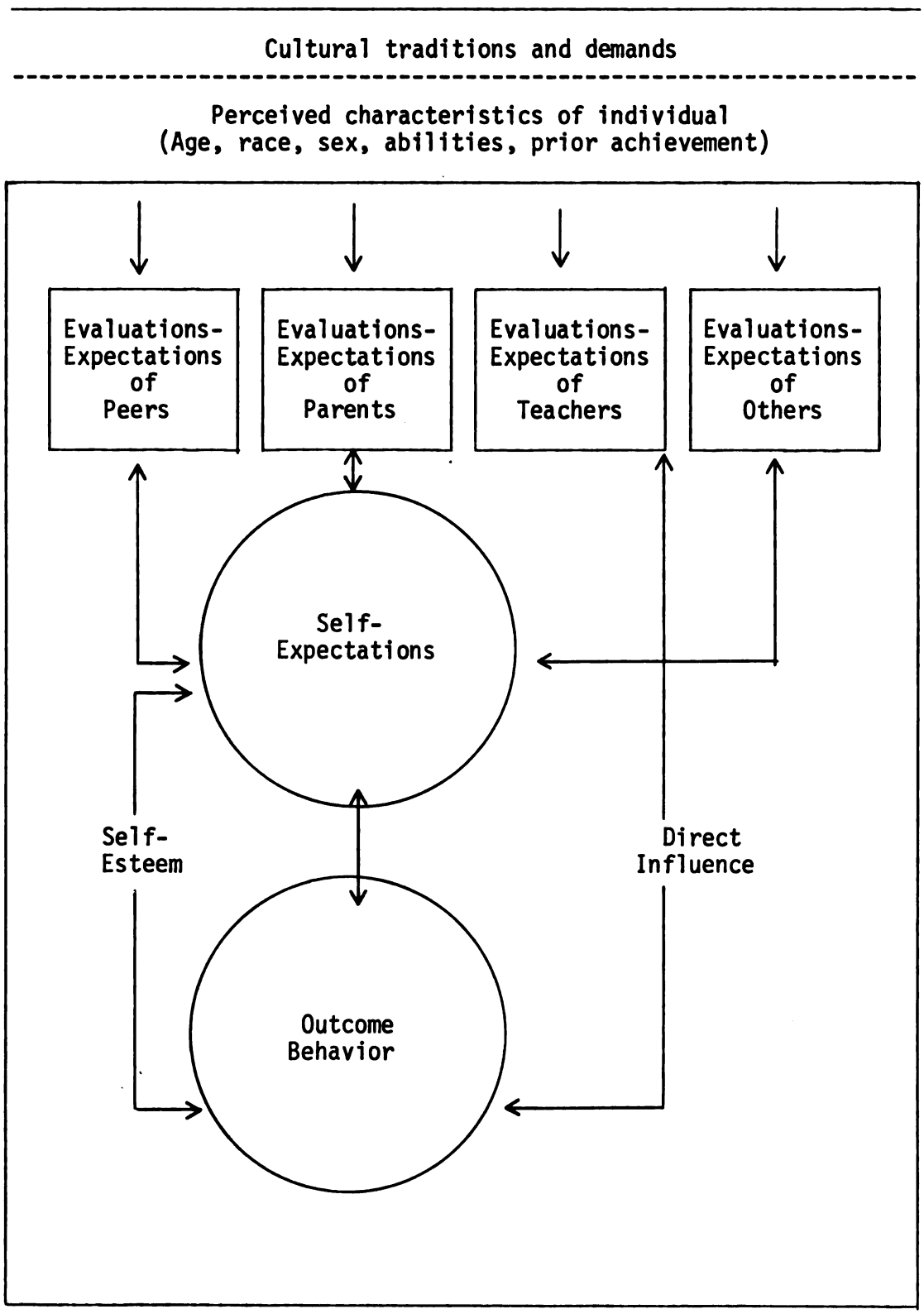

Figure 1.--A Design of Evaluations-Expectations.

James also spoke of the "social self"[33] and its growth as being influenced by the amount of recognition an individual receives from his peers, and others. An individual has as many social selves as there are people who have subjective feelings about him. To influence anyone of these is to influence his self-esteem.

James[34] concluded that human achievements are measured against our aspirations for any certain behavior. If achievement meets aspirations in a valued area the result is high self-esteem; if not, there is low self-esteem.

It appears that much of the contemporary theorizing about the self owes its origin to James.

Cooley[35] wrote one of the classic theories about the self which has its beginning in the early stages of life. Each individual develops his self-image from his immediate family and later by interaction with peer groups and other associations. Cooley termed this process as the "looking glass self," and declared that three principal elements are involved:

1. The individual's perception of how his behavior appears to others.
2. The individual's perception of how others judge his behavior.
3. The individual's feelings of pride about the judgments of others.[36]

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[33]Ibid., pp. 220-3.

[34]Ibid.

[35]Cooley, p. 184.

[36]Ibid.

If we feel that others think well of us and approve of the things we do, we will also think well of ourselves and of our achievements. Cooley[37] suggests that an individual perceives himself as he might perceive his image in a mirror. The individual sees himself reflected in other individuals.

Cooley's theory indicates that the self-esteeming process cannot emerge without having access to such reflections as seen in others.

Influenced by Cooley, George H. Mead added another important phase to the theory of social interaction which became a second classic theory about the emergence of self. Mead states:

> The self is something which is developed; it is not there at birth, but arises in the process of social experience and activity.[38]

Mead described the concept of self as being developed through interaction with environment. He concludes that personality is not a result of biological variables, but is a result of social-psychological factors. Mead further concludes that individuals are the product of society and not the creators of society.

Mead wrote about "the generalized other" as it influences the development of the self:

> It is in the form of "the generalized other," that the social process influences the behavior of the individual involved in it and carrying it on.[39]

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[37] Ibid.

[38] Mead, p. 135.

[39] Ibid., pp. 155-56.

Mead[40] also indicated the influence of society in light of the "generalized other." Those "generalized or significant others" who have the most influence on the development of self are called "reference groups." When an individual has learned to take the role of the generalized other, he has learned the attitudes, expectations and values of that particular society or sub-society. The group whose standard the individual conforms to becomes his reference group.

According to Mead, self-esteem is mostly derived from the reflected appraisal of others. When an individual places high values on himself, there have been important persons in his life who have respected him. If he thinks poorly of himself, generalized or significant others have not respected him. Mead[41] emphasized that no individual is an island; regardless how independent he might think he is, his feelings about himself reflect his social group.

The idea of the significant other and the way the individual has reacted are Mead's guideline to the development of self-esteem.

Charles Cooley and George Mead were among the first to say that the feelings about self are produced by individuals interacting with other individuals.

Mead did not try to prove his ideas through empirical investigation; however, others who followed him in studying the self have done so.

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[40] Ibid.

[41] Ibid., p. 135.

Increasingly, it has been theoretically postulated and empirically documented that individuals who possess positive feelings about themselves and feel they can do well, usually do well. Grambs states:

> The way a person views himself is the way he will behave. If he sees himself as successful, as someone whom others like, as good looking, then, his behavior will reflect these views. If the person considers himself to be inadequate, as someone whom others probably won't like, as unattractive, then again his behavior will reflect these valuations. . . . Children with adequate intellectual endowments might do poorly in school because they perceive themselves as not able.[42]

Rogers, speaking about self, states:

> As a result of interaction with the environment, particularly as a result of evaluational interaction with others, the structure of self is formed.[43]

Rogers further states that individuals develop an organized picture of themselves in relationship to their environment. The two-way conception emerges in this organized picture (self-concept), and relationship to environment (self-esteem).

Combs, Kelley, Maslow and Rogers state:

> The self is learned. What is learned can be taught. What can be taught is fair game for the public schools. The question is not one of whether we approve of teaching for a positive self in the public schools. We could not avoid affecting the self if we wanted to. We may ignore the self in our teaching. We cannot, however, escape the fact of our

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[42]Jean D. Grambs, "The Self-Concept: Basis for Re-education of Negro Youth," in Negro Self-Concept, ed. Franklin Patterson (New York: McGraw-Hill, 1965), pp. 11-12.

[43]Calvin S. Hall and Gardner Lindzey, Theories of Personality (New York: John Wiley and Sons, Inc., 1957), p. 483.

> influence upon the self or our ultimate responsibility with respect to whether the effects of schooling are positive or negative.[44]

Self-Esteem and Social Adjustment

Rodgers indicated that self-esteem or the degree of congruence between the real self and the ideal self is adjustment.

Block and Hobart's [45] conclusions supported Rodgers' findings that a vast discrepancy between an individual's real self and ideal self induces maladjustments.

Askert[46] found that all self-concept dimensions correlated positively and significantly with total self-acceptance, but some of the dimensions did not correlate with each other on a one-to-one basis at a significant level.

This could signal that individuals do not accept or reject themselves in the total sense, but they might accept or reject themselves in a particular dimension and not in other dimensions.

Klausmeier and Goodwin wrote:

> The self ideal is the desired self, what the person wishes most to be like and to do. A large discrepancy between the self-concept and self ideal indicates maladjustment. The

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[44] A.S.C.D., Yearbook, Perceiving, Behavior Becoming: A New Focus (Washington: Association for Supervision and Curriculum Development, 1962), p. 10.

[45] Jack Block and Thomas Hobart, "Is Satisfaction with Self a Measure of Adjustment?" Journal of Abnormal Social Psychology 51 (1955): 254.

[46] Robert V. Askert, "Inter-relationships Between Various Dimensions of the Self-Concept," Journal of Counseling Psychology 6 (1950: 199-201.

> person who is strongly dis-satisfied with his present self, but has accepted a high self ideal may be overly anxious and make poor adjustments in present situations.[47]

One of the four conclusions made by Klausmeier and Goodwin from their experiment was:

> Those low in acceptance of self and high in acceptance of others, exhibited high anxiety, impulsivity, low morale, over dependence, and marked tendency to accommodate others.[48]

There is evidence which explains that when self-esteem is threatened, some individuals will experience forms of anxiety. Ausubel explains anxiety and self-esteem in the following words:

> Anxiety is instigated by an objective threat to self-esteem. In some instances, this threat may be external in origin, as for example: when one puts one's skills and reputation as a sprinter against a competent rival. In one instance, the source of the threat is within the person. It may come from aggressive impulses or from the individual's awareness that he has violated certain moral scruples. The important thing in all these cases regardless of whether the source of threat is internal or external is that the threat is objectively capable of impairing self-esteem in normal persons.[49]

There is evidence that anxiety affects achievement in school. Ausubel and Robinson conclude: "At the elementary school level, anxiety generally depresses scholastic achievement."[50]

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[47]Herbert J. Klausmeier and William Goodwin, Learning and Human Abilities (New York: Harper and Row, 1967), p. 395.

[48]Ibid., p. 396.

[49]D P. Ausubel and F. G. Robinson, School Learning (New York: Holt, Rinehart and Winston, Inc., 1969), p. 396.

[50]Ibid., p. 401.

Sheerer[51] showed there is a positive correlation between acceptance of self and acceptance of and respect for other people. Stock[52] showed that when an individual's feelings about himself change, his attitude changes in the same direction.

Benjamin[53] concluded that when the individual's self undergoes a change or is influenced, or is threatened, it is reflected in overt behavior.

Jersild[54] noted the importance of the self-image as being necessary for appropriate mental health. He believes that the schools are playing a major role that is only second to the family in developing the self-image.

These studies have indicated that relationship between self-esteem and social behavior does exist.

School Climate Literature

As one searches through the literature, it soon becomes apparent that not too much research has been conducted on the normative academic climates which exist within the elementary schools.

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[51]Elizabeth T. Sheerer, "An Analysis of the Relationship Between Acceptance of and Respect for Self and Acceptance of and Respect for Others in Ten Counseling Cases," Journal of Consulting Psychology 45 (July 1950): 473-80.

[52]Dorothy Stock, "An Investigation Into the Inter-relations Between the Self-Concept and Feelings Directed Toward Other Persons and Groups," Journal of Consulting Psychology 13 (June 1949): 176-80.

[53]James Benjamins, "Changes in Performance in Relation to Influences Upon Self-Conceptualization," Journal of Abnormal Psychology 45 (July 1950): 473-80.

[54]Arthur T. Jersild, In Search of Self (New York: Bureau of Publications, Teachers College, Columbia University, 1952).

Most of the studies conducted concerning the influences of normative academic climates have been aimed at universities, colleges, and high school students. Several studies have been recorded and have isolated certain academic and social climate values existing in some schools of higher learning.

Only in recent years has there been an increase in the awareness by educators that variables other than academic ability may affect a student's overall school performance.

Historically, some of this interest can be traced back to the earlier studies conducted by Levin on social climates in high schools.

Levin's[55] field theory explains behavior as a continuing process which is the result of transactions between the individual and other structural components in the behavioral field.

This reflects the idea that educators should give more attention to the school climate and the students. Mathewson states:

> . . . a fundamental principle governing all attempts at individual evaluation in terms of field theory is that no individual can be understood apart from his field, and the field must necessarily include both inner and outer phases or status, or in other words, a complex of interrelated socio-psychological forces.[56]

Some of the earlier researchers on elementary school climates look to Bales.[57] He talked about the interaction process analysis

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[55]K. Levin, R. Lippitt, and R. White, "Patterns of Aggressive Behavior in Experimentally Created Social Climates," Journal of Social Psychology 10 (1936): 271-91.

[56]R. Mathewson, Guidance Policy and Practice (New York: Harper and Row Publishers, 1962).

[57]Bales, p.

(IPA). The IPA is to investigate and understand classroom interaction through a series of communication acts between students and teachers.

Getzels and Thelen[58] spoke about the elementary school classroom as being a social system characterized by primary group face-to-face interaction.

Brinkmann and Brinkmann,[59] Graham,[60] Jensen,[61] Parsons,[62] and Thelen[63] have all agreed that the school class is a normative social system.

Clark notes that a sociology of the classroom is only in the beginning. Clark is thoroughly convinced:

> A developed sociology of the classroom . . . will understand classroom interaction in the context of larger social structures that encompass and shape it.[64]

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[58]J. W. Getzels and H. A. Thelen, "The Classrom Group as Unique Social System," in Yearbook of the National Society for the Study of Education, ed. N. B. Henry, Vol. 59, No. 2, 1960, pp. 52-80.

[59]E. H. Brinkmann and R. A. Brinkmann, "Group Influences on the Individual in the Classroom: A Case Study," Merrill-Palmer Quarterly 9 (No. 3, 1963): 195-204.

[60]G. Graham, The Public School in the American Community (New York: Harper and Row, 1963).

[61]G. E. Jensen, "The Social Structure of the Classroom: An Observation Framework," Journal of Educational Psychology 46 (No. 6, 1955): 345-54.

[62]Talcott Parsons, "The Social Class As a Social System," Harvard Educational Review 29 (1950): 297-318.

[63]H. A. Thelen, "The Experimental Method in Classroom Leadership," Elementary School Journal 53 (1952): 76-85.

[64]B. R. Clark, "Sociology of Education," in Handbook of Modern Sociology, ed. R. E. L. Faris (Chicago: Rand McNally, 1964), p. 764.

Clark is saying that in the classroom there can be found a large significant body of information waiting to be analyzed that will help to understand classroom behavior.

The school, both individually and as a social institution, has a distinct culture, sub-culture and a common social organization.

Coleman[65] investigated and wrote about the several components of adolescent sub-culture. He stressed the point that there was a strong student peer culture in the schools which is different from the values and goals of the adult culture.

Coleman's[66] study describes the parts of adolescent values and attitudes as:

1. The manner in which students' attitudes and values unite to form the school climate value.

2. The manner in which peer groups split into various sub-groups, each group different in function and needs.

3. The effects of these attitudes and values upon the student's school achievement and the reflection back upon the student's attitudes and aspirations.

In his explanation of the school culture, Havighurst writes:

> The culture of the school had a profound effect upon what children and adolescents learn and the way in which they learn. There is a saying that children learn not what is taught, but what is "caught." Much of what is caught (attitudes toward learning, toward authority, values of right and wrong and so on) comes not from the formal curriculum, but from the pervading culture of the school.[67]

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[65]James Coleman, The Adolescent Society (New York: Free Press of Glencoe, 1961).

[66]Ibid., pp. 262-65.

[67]Robert J. Havighurst and Bernice L. Neugarten, Society and Education (Boston: Allyn and Bacon, 1957), p. 185.

These statements from Coleman and Havighurst convey the fact that each school and each classroom within the school is an interacting social group. To receive a better understanding of the achievement variance, the school climate should be analyzed.

As was stated earlier, concentration on the study of normative academic climate within the elementary school has not been a priority of educational researchers. Only in the last decade have attempts been made to research elementary school climate.

To study school climate, Halpin[68] and Croft constructed and tested the Organizational Climate Description Questionnaire (OCDQ) which permits the portrayal of the organizational climate of elementary schools.

With the use of the OCDQ, it is possible to compare and develop profiles of different schools and identify the eminent characteristics of their respective organizational climates.

Realizing that it is possible to identify and label each elementary school separately within a system with regard to the specific kind of organizational climate which it portrays, it becomes important to study the variables acting within a particular school or group of schools which might have a relationship to the organizational climate of the school or schools.

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[68]Andrew W. Halpin, Theory and Research in Administration (New York: The Macmillan Company, 1966), pp. 132-33.

Halpin[69] and Croft labeled the organizational climates as open, autonomous, controlled familar, paternal, and closed. These two researchers were aware of the fact that other factors act on school climate.

Schneider[70] noted other different factors acting within the school climate on academic achievement. He identified these factors from his investigation of fourth, fifth and sixth grade urban and rural schools as:

1. Students reported sense of futility was 44.92%.
2. Greater Teacher future Evaluations Expectations, 9.8%.
3. Less Teacher reported push of individual students, 5.2%.
4. Greater student perceived present Evaluations Expectations, 3.36%.

Realizing that several attitudinal variables exist in the elementary school climate, this research is to determine the relative importance of certain social-psychological variables and their relationship to achievement.

Variables of Interest

There are several attitudinal variables upon which this study and the conception of school climate will be based. These attitudinal variables are refinements of five basic

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[69]Ibid., p. 135.

[70]Jeffrey M. Schneider, "An Investigation of Social-Psychological Variables Comprising School Normative Academic Climate in High and Low Achieving White-Urban, Black-Urban and Rural Elementary Schools with School Mean Socio-Economic Status Controlled" (Ph.D. dissertation, Michigan State University, 1973).

social-psychological constructs.[71] These five basic variables are (1) evaluations-expectations within the school social system, (2) academic norms within the school social system, (3) feelings of futility/improvability within the school social system, (4) teacher satisfaction within the school social system, and (5) sense of community involvement within the school social system. The following social-psychological variables in relation to a student's academic achievement have been reviewed.

Studies Related to Teacher Evaluations and Expectations

The theory of "teacher expectancy" as a determinant of school achievement has been receiving a great deal of attention among some educators in the past few years.

In investigating the reason for the poor education that ghetto children receive, Clark writes:

> These children, by and large, do not learn because they are not being taught effectively, and they are not being taught because those who are charged with the responsibility of teaching them do not believe that they can learn, and do not act toward them in ways which help them to learn.[72]

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[71] W. B. Brookover, R. Gigliolli, R. Henderson, and J. Schneider, Elementary School Social Environment and School Achievement (East Lansing: College of Urban Development, Michigan State University, 1973), p. 27.

[72] Kenneth B. Clark, Dark Ghetto (New York: Harper and Row, 1965).

Pitt[73] concluded in the '50s, and Flowers[74] supported his conclusions in the '60s, that a self-fulfilling prophecy is applicable to the achievement level of students in a classroom, and that a teacher's expectations about a student's ability level may affect the student's total classroom performance. Rosenthal and Jacobson[75] discussed the self-fulfilling prophecy resulting when teachers of the disadvantaged have low expectations. However, the students perceive these expectations and meet the teachers' low expectations. Another interesting report by Rosenthal and Jacobson[76] describes the testing of the expectation that teachers evaluate the child through his IQ and adjust academic expectations accordingly. The researchers chose the name of students at random and informed their teachers that this special group of students would show a significant improvement in their academic achievement during the present school year. The only difference between the two groups was the teachers' higher expectations for the special group. The results showed that significant changes occurred in the IQ's of the first

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[73]C. C. V. Pitt, "An Experimental Study of the Effects of Teachers' Knowledge or Incorrect Knowledge of Pupil IQ's on Teachers' Attitudes and Practices and Pupils' Attitudes and Achievement" (Ph.D. dissertation, Teachers College, Columbia University, 1966).

[74]C. E. Flowers, "Effects of an Arbitrary Accelerated Group on the Tested Academic Achievement of Educationally Disadvantaged Students" (Ph.D. dissertation, Teachers College, Columbia University, 1966).

[75]Robert Rosenthal and Lenore F. Jacobson, Pygmalion in the Classroom (New York: Holt, Rinehart and Winston, 1968).

[76]Ibid.

and second grade students as the result of teachers expecting the special group to "bloom" intellectually.

In discussing the IQ and teachers, Coombs states:

> If, in our schools we teach a child that he is unable and if he believes us and behaves in these terms, we need not be surprised when we test his intelligence to discover that he produces at the level at which we taught him.[77]

Rosenthal and Jacobson[78] investigated the amount of time teachers spent with students and the relationship to school achievement. They concluded it is not the amount of time spent with students which leads to the differences in the intellectual attainment, but the quality of the interaction. In line with Rosenthal's and Jacobson's proposal, that expectations affect teacher behavior, Rubovitz and Maer[79] conducted a study on gifted and non-gifted children. They indicated that teachers did not differentiate between the amount of time given to gifted and non-gifted students. However, teacher expectations were found to be related to teacher behavior in a manner that the gifted students were encouraged and the non-gifted students were discouraged by their teachers.

Several researchers have studied the relationship between teachers' verbal behavior and students' classroom behavior.

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[77]A. W. Coombs, "Intelligence from a Perceptual Point of View," Journal of Abnormal and Social Psychology 47 (1952).

[78]Rosenthal and Jacobson, Pygmalion.

[79]P. C. Rubovitz and M. L. Mayer, "Pygmalion Analyzed: Toward an Explanation of the Rosenthal-Jacobson Findings," Journal of Personality and Social Psychology 19 (1971): 197-203.

Flanders,[80] Furst,[81] Powell[82] and Snider[83] found a relationship between the type of behavior used by the teacher and student achievement.

In a study by Flanders[84] on teacher behavior, Flanders showed that a relationship does exist between certain patterns of teacher talk and student achievement.

The National Advisory Commission on Civil Disorders[85] stressed the "powerful impacts" of the effects of teacher negative attitudes on students' educational attainment. The more teachers expect from their students, the greater their students' performance.

Miller wrote about reading:

> Many socially different students in the secondary school are victims of the self-fulfilling prophecy. Their teachers tend to underestimate their ability to achieve, and the

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[80] Ned A. Flanders, Teacher Influence, Pupil Attitudes, and Achievement, Research Monograph No. 12, U.S. Office of Education (Ann Arbor: School of Education, University of Michigan, 1955).

[81] Norma Furst, "The Effects of Training in Interaction Analysis on the Behavior of Student Teachers in Secondary Schools," in Interaction Analysis: Theory, Research and Application, eds. E. J. Amidon and J. B. Hough (Reading, Mass.: Addison-Wesley, 1967), pp. 315-28.

[82] E. R. Powell, "Teacher Behavior and Pupil Achievement," paper presented at the meeting of the American Educational Research Association, Chicago, Illinois, 1968.

[83] R. M. Snider, "A Project to Study the Nature of Effective Physics Teaching," Cooperative Research Project No. 5-280, U.S. Office of Education (Ithaca, N.Y.: Cornell University, 1965).

[84] Ned A. Flanders, "Some Relationships Among Teacher Influence, Pupil, Attitudes and Achievement," in Contemporary Research on Teacher Effectiveness, ed. Ellena Biddle (New York: Holt, Rinehart and Winston, 1964), pp. 196-232.

[85] Report of the National Advisory Commission of Civil Disorders (New York: Bantom Books, 1968), p. 429.

> students then fail to achieve up to the limits of their potential. Therefore, the reading teachers must believe that each socially different student can make reading improvement.[86]

It has been sufficiently documented by Becker;[87] Deutsch;[88] Rist;[89] Warner, Havighurst and Loeb;[90] and Wilson[91] that teachers expect less of lower-class students than they do of middle-class students.

Studies Related to Perceived Peer Evaluations and Expectations

Homans,[92] Sherif,[93] and many other educators agree that peer groups exert a powerful influence on the behavior of each student that is a member of a group in the school social system.

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[86]Wilma H. Miller, Diagnosis and Correction of Reading Difficulties in Secondary School Students (New York: The Center for Applied Research in Education, Inc., 1973), p. 237.

[87]H. S. Becker, "Social Class Variation in the Teacher-Pupil Relationship," Journal of Educational Sociology 25 (1952): 451-65.

[88]M. Deutsch, "The Disadvantaged Child and the Learning Process," in Education in Depressed Areas, ed. A. H. Passow (New York: Teachers College, Columbia University, 1963).

[89]Rist, pp. 411-51.

[90]W. L. Warner, R. J. Havighurst, and M. Loeb, Who Shall Be Educated? (New York: Harper and Row, 1944).

[91]A. B. Wilson, "Social Stratification and Academic Achievement," Education in Depressed Areas, ed. A. H. Passow (New York: Teachers College, Columbia University, 1963).

[92]G. C. Homans, The Human Group (New York: Harcourt/Brace, 1950).

[93]M. Sherif, The Psychology of Group Norm (New York: Harper and Row, 1936).

Peer group pressure in the classroom may influence the behavior of students in a positive or negative manner. A positive manner would be thought of as being in congruency with educational goals of a school.

Coleman,[94] and Sherif and Sherif[95] pointed out how the behavior of students is associated with the values of their peer group. They show how the values and norms that are utilized by students are usually based upon such factors as aspirations, ethnic background, sex, and socio-economic status. Coleman[96] also points out how the adolescent sub-culture influences the value systems from school to school whether they are in the range of low, middle or high SES.

Newcombe[97] and Passow[98] showed that groups have much to do with student's failures, success and the type of behavior an individual student will acquire.

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[94]Coleman, Adolescent Society.

[95]M. Sherif and Carolyn W. Sherif, Reference Group Exploring into Conformity and Deviation of Adolescents (New York: Harper and Row, 1964).

[96]Coleman, Adolescent Society, p. 109.

[97]T. M. Newcomb, "The General Nature of Peer Group Influence," in College Peer Groups, ed. T. M. Newcomb and E. K. Wilson (Chicago: Aldine, 1966).

[98]H. A. Passow, "Education in Depressed Areas," in Education in Depressed Areas, ed. H. A. Passow (New York: Bureau of Publications, Teachers College, Columbia University, 1963).

Shapiro[99] showed that peer attitudes do influence students in elementary schools. His results suggest the power of peer groups not only within junior high or high schools, but also within elementary schools.

Studies have been reported that are associated with peer acceptance, emotional, and social adjustment in the school environment.

Lippitt and Gold[100] conducted a study on elementary school children using teacher and peer ratings. The teacher rated the students on emotional and social adjustment. The students rated one another on elements of social competence such as social influence and likeableness. The students who were more admired, loved and respected by their peers "impressed their teachers with significantly more favorable mental health pictures."

Some studies conducted have found peer acceptance, and peer rejection associated with different student characteristics. Two of the studies cited here were reported by Buswell,[101] and Gronlund and Anderson.[102] These scholars described those students who are

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[99]E. W. Shapiro, "Attitudes Toward Arithmetic Among Public School and the Intermediate Grades," Ph.D. dissertation, University of Denver, 1961 (Ann Arbor: University Microfilms, 62-1222).

[100]R. Lippitt and M. Gold, "Classroom Social Structure as a Mental Health Picture, Journal of Sociology Issues 15 (1959): 40-49.

[101]M. M. Buswell, "The Relationship Between the Social Structure of the Classroom and the Academic Success of the Pupils," Journal of Experimental Education 22 (1953): 37-52.

[102]N. E. Gronlund and L. Anderson, "Personality Characteristics of Socially Accepted, Socially Neglected and Socially Rejected High School Pupils," Educational Administration Supervision 43 (19): 329-38.

accepted by their peers as being capable and interested in school work, friendly, dependable, enthusiastic, well adjusted, and tidy. They describe those students who were not accepted by their peers as being disinterested in school achievement.

Buswell further stated that those students who are not accepted by their peers or not influenced by their self-esteem will likely drop out of school somewhere between grades 9 and 12.

Studies Related to Perceived Parental Evaluations and Expectations

It has been stated by some educators as children reach adolescence, parents become less the child's significant adult, and as the children advance in age, the peers or friends become the significant other.

Backman et al.,[103] and Miyamoto and Dornbush[104] are in accord that research in the area of self-evaluation has provided empirical support that not every person is a "significant other"; these scholars have suggested that certain characteristics are significant in determining whose evaluations will be adopted.

In adopting and evaluation by children, Herriott[105] concluded that there is a relationship between parents' perceived level of

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[103]C. W. Backman, P. F. Secord, and J. R. Pierce, "Resistance to Change in the Self-Concept as a Function of Concensuses Amount Significant Others," Sociometry 26 (March 1963): 102-11.

[104]S. F. Miyamoto and S. M. Dornbush, "A Test of Self-Conception," American Journal of Sociology 61 (March 1956): 399-403.

[105]R. E. Herriott, "Some Social Determinants of Educational Aspiration," Harvard Educational Review 33 (1963): 157-77.

expectations for their child and the educational aspiration of the child. Brookover et al.[106] state that expectations correlates higher with achievement than aspirations.

In a study as to the extent of the influence exerted by the parents, Erikson reported as follows:

1. Parents were perceived as academic significant others by students more often than were friends.
2. Parents were perceived by students to attach more importance to their achievement expectations than were friends, regardless of the level of perceived achievement expected of the student, or the achievement level of the student.
3. Parents were perceived as holding them under higher surveillance than were friends.[107]

Studies Related to Academic Norms Within the School Climate

The literature reveals that norms are present within the school social system and do act as powerful negative or positive determinants of behavior.

These determinants were discussed by Jensen.[108] Jensen indicates the type of group structure that emerges in the classroom plays: a prominent role in class morale; individual and group achievement and discipline behavior.

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[106]W. B. Brookover, E. L. Erikson, and L. Joiner, "Educational Aspirations and Educational Plans in Relation to Academic Achievement and Socio-Economic Status," School Review 75 (1967): 392-400.

[107]Edsel L. Erikson, "A Study of the Normative Influence of Parents Upon Academic Achievement" (Ph.D. dissertation, Michigan State University, 1965).

[108]G. Jensen, "The Socio-Psychology Structure of the Instructional Group," in The Dynamics of Instructional Groups, Yearbook of the National Society for the Study of Education, ed. N. B. Henry (Chicago: Chicago Press-University of Chicago, 1960).

In speaking of group influence, Sherif found that when individuals had established their own norms in individual sessions, later when they met with a group their differences tended to converge with the group.

As Thelen and Dickerman[109] state, norms become stabilized in time and become powerful determiners of the behavior of group members. This statement gives rise to the fact that as interaction takes place in a group, there appears to be a rise of shared expectations of how students should behave, what they should think and how they should feel.

In explaining academic norms that influence behavior within schools, Johnson wrote:

> Because of differences in social backgrounds and personality traits, individuals will accept some values to a greater extent than others. It is the norms and values of the sub-cultures the individuals belongs to within the organization, . . . which affects his behavior.[110]

A study of high school social systems by Coleman[111] concluded that many contemporary teenagers project lack of interest in educational attainment and some display an overt rejection of scholastic norms. Coleman explains this kind of negative behavior as a result of the existence of teenagers' sub-culture which influences and is significant to its participants and directs the

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[109]Herbert Thelen and W. Dickerman, "Stereotypes and the Growth of Groups," Educational Leadership 6 (1940): 309-16.

[110]D. Johnson, The Social Psychology of Education (New York: Holt, Rinehart, Winston, Inc., 1970), p. 238.

[111]Coleman, Adolescent Society.

teenagers' energies into activities which are opposed to educational goals. Coleman further wrote:

> The leading crowd of a school and thus the norms which that crowd sets, is more than merely a reflection of the student body, with extra middle class students thrown in. The leading crowd tends to accentuate those very background characteristics already dominant whether they be upper or lower class.[112]

These studies reveal that classroom norms may come from several sources. School behavior may be shaped by conformity with the neighborhood culture, the influence of the teachers, the influence of the principal or some powerful sub-group within the classroom or school.

Asch,[113] Berenda,[114] Festinger,[115] and Sherif[116] all agree that norms do have an influence on group achievement and group behavior.

McDill, Meyer, and Rigsby[117] found that of the six factors they studied in "school climate, the academic norms factor by itself accounted for twice the explanatory power of SES when looking at achievement."

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[112]Ibid., p. 109.

[113]S. E. Asch, The Psychology of Group Norms (New York: Harper and Row, 1936).

[114]R. W. Berenda, The Influence of the Group on the Judgments of Children (New York: King's Crown Press, 1950).

[115]L. Festinger, "Informal Social Communications," Psychological Review 57 (1957): 271-82.

[116]Sherif, Group Norms.

[117]Edward L. McDill, Edomon Myers, and Leo Rigsby, "Institutional Effects on the Academic Behavior of High School Students," Sociology of Education 40 (Summer 1967): 181-99.

Studies Related to a Sense of Futility Within the School Climate

A variable that has been reported as being a predictor of academic achievement in minority students is referred to by some researchers as a sense of control.

Seeman[118] and Rotter collaborated in developing a measurement of internal control. Later he called the measurable concept powerlessness.

Some scholars have written that the feeling of powerlessness is a kind of futility.

Seeman and Dean viewed powerlessness as an element in alienation. Seeman wrote that powerlessness is:

> . . . expectancy or probability held by the individual that his own behavior cannot determine the occurrence of the outcomes, or reinforcements he seeks.[119]

Bartel[120] wrote that academic mastery can be accomplished when the individual perceives himself or herself as in control of his or her destiny, and not a poor powerless victim of some uncontrollable external situation that he or she cannot change or control.

Battle and Rotter investigated 80 sixth and eighth grade students and concluded that lower socio-economic status students

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[118]Melvin Seeman, "On the Meaning of Alienation," American Sociological Review 24 (December 1959): 783-91.

[119]Ibid.

[120]M. R. Bartel, "Focus of Control and Achievement in Middle Class and Lower Class Children," Dissertation Abstract 29 (1969): 2991.A.

have a higher degree of futility than middle socio-economic students.[121]

In a study of the relations between intelligence and futility, Crandall and Katousky[122] investigated 923 elementary and high school students. They pointed to the fact that the more intelligent student is less likely to experience feelings of futility.

Several studies on the relationship between external and internal control and the behavior of blacks and whites in interracial situations have been conducted. Battle and Rotter[123] and Katy and Cohen[124] showed that blacks performed poorer on competitive achievement tasks and made a lesser attempt to control the environment than whites.

Self-Esteem and School Achievement

Evidence has existed for several years that children with problems in academic achievement may also have a low self-esteem. Numerous studies have found self-concept to be significantly related to academic performance of students.

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[121]Esther Battle and J. Rotter, "Children's Feelings of Personal Control as Related to Social Class and Ethnic Group," Journal of Personality 31 (1963): 482-90.

[122]Virginia Crandall and C. Katousky, "Children's Beliefs in Their Own Control of Reinforcements in Intellectual-Academic Achievement Situations," Child Development (1965): 91-109.

[123]Battle and Rotter, pp. 482-93.

[124]K. Katy and M. Cohen, "The Effects of Training Negroes Upon Cooperative Problem Solving in Biracial Teams," Journal of Abnormal and Social Psychology 64 (1962) 319-25.

Lamy[125] found after investigating kindergarten children that their perceptions of self were as good a predictor of later reading achievement as intelligence test scores. When IQ and self-evaluations were combined, the prediction was more accurate. Lamy concluded that the child's perceptions about himself and his environment are not only related to, but may well be a major causal factor in future reading performance.

Frerichs[126] investigated the relationships between self-esteem and success in school among black children in a lower socio-economic midwestern inner city area. He found that self-esteem scores were related to grade point average and reading performance but not to high or low IQ.

Lowther was interested in the area of self-concept. He used the term self-esteem in emphasizing:

> . . . that the significance attached to educational activities by society is such that school success or failure will be reflected in self-esteem. He postulated, in each ability group, high achieving subjects will possess high self-esteem more frequently than low achieving subjects.[127]

His findings indicated that high achieving students in each group did possess higher self-esteem than the low achieving students.

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[125]M. W. Lamy, "Relationship of Self-Perceptions of Early Primary Children to Achievement in Reading," in Human Development Readings in Research (Chicago: Scott Foresman and Co., 1965).

[126]Allen H. Frerichs, "Relationship of Self-Esteem of the Disadvantaged to School Success," The Journal of Negro Education 40 (Spring 1971): 117-20.

[127]Malcolm A. Lowther, "A Comparison of Educational Motivation, Self Evaluation and Classroom Conduct of High and Low Achieving Eighth Grade Students" (Ph.D. dissertation, University of Michigan, 1961).

Zimmerman and Allebrand[128] investigated urban fourth and fifth graders of a lower to middle socio-economic status. Half of these students studied were of Mexican descent. They found that the poor readers were lacking in such things as adequacy, freedom, personal worth, and stability. These things were absent to such a degree that poor readers avoided reading.

Campbell,[129] Coopersmith,[130] Hughes,[131] Kerensky,[132] Miller,[133] and Padelford[134] reported that the children with academic achievement problems may also suffer from low self-esteem.

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[128]Irla L. Zimmerman and George N. Allebrand, "Personality Characteristics and Attitudes Toward Achievement of Good and Poor Readers," Journal of Educational Research 59 (1965): 28-30.

[129]Paul B. Campbell, "Self-Concept and Academic Achievement in Middle Grade Public School Children" (Ph.D. dissertation, Wayne State University, 1965).

[130]Coopersmith, p. 126.

[131]T. M. Hughes, "A Study of the Relationship of Coping Strength to Self-Concept-School Achievement and General Anxiety Level in Sixth Grade Pupils," Ph.D. dissertation, University of Tennessee, 1967 (Ann Arbor: University Microfilms, 68-3747).

[132]V. M. Kerensky, "Reported Self-Concept in Relationship to Academic Achievement in an Inner City Setting," Ph.D. dissertation, Wayne State University, 1966 (Ann Arbor, Mich.: University Microfilms, 67-664).

[133]B. P. Miller, "A Study of the Relationships Among Student Self-Concept, Teacher Image, and Ability Grouping," Ph.D. dissertation, Western Michigan University, 1967 (Ann Arbor, Mich.: University Microfilms, 67-11 450).

[134]W. B. Padelford, "The Influence of Socio-Economic Level, Sex and Ethnic Background Upon the Relationship Between Reading Achievement and Self-Concept," Ph.D. dissertation, University of California-Los Angeles, 1970 (Ann Arbor, Mich.: University Microfilms, 70-2242).

Studies Related to Teacher Satisfaction

One will find in the literature that many times the term morale and job satisfaction are used as synonyms. However, there is no doubt that they are closely related. From reading the literature, one can summarize that job satisfaction is commonly used to refer to the reaction of the individual to certain elements in his working environment. Morale is often used to refer to the general level of satisfaction and enthusiasm of individuals and groups. Burton wrote that teacher's morale is an important factor in teaching success.[135]

Gragg[136] found in his study that high teacher morale was related to:

1. Confidence in the leadership of the principal and other administrators.
2. Cooperation among members of the staff, rapport, and friendly atmosphere among teachers.
3. A fair and adequate salary.

Research reveals that class sizes play an important role in job satisfaction.

Harap[137] worte that large class size is one of the six most common causes of poor morale in teachers.

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[135]William Burton, "The Teacher's Morale as an Important Factor in Teacing Success," California Journal of Elementary Education 6 (May 1938): 218-226.

[136]William L. Gragg, "Teacher Morale: Ithaca Survey Finds Teachers Agree More on Causes of High Morale Than of Low Morale," Clearing House 29 (April 1955): 493-4.

[137]Henry Harap, "Morale" Nations Schools 63 (June 1959): 56.

McKenna[138] reveals in his study that small classes are favored over large classes because they provide an environment that is conductive to a better understanding of students by the teacher, a greater adaptability of classroom instruction, and greater learning by the students.

The fact that student achievement and disciplinary problems are reflected in teacher job satisfaction appears to be salient.

Anderson confirms that there is a relationship between teacher satisfaction and academic achievement. He compared ten schools which stand in the upper quartile with relation to scores on the Iowa Tests of Educational Development with ten schools which stand in the lowest quartile on the same test. He concludes:

> Teachers in secondary schools whose pupils achieve relatively high scholastically, appear to have higher morale than do teachers in schools with relatively low pupil achievement.[139]

Robinson[140] indicates in order to reduce failure in schools not only teachers have to be satisfied, teachers must also enjoy a sense of satisfaction for success.

Strom[141] wrote:

> The extent to which teachers are successful in classrooms, and satisfied with their working conditions, depends in

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[138]Bernard H. McKenna, Staffing the Schools (New York: Teachers College, Columbia University, 1965), p. 44.

[139]Lester W. Anderson, "Teacher Morale and Student Achievement," Journal of Educational Research 58 (May 1953): 693-98.

[140]H. F. Robinson, "School Practices That Cause Failure," Childhood Education 44 (November 1967): 169-73.

[141]R. Strom, Teaching in the Slum School (Columbus, Ohio: C. E. Merrill Books, Inc., 1965), pp. 59-60.

> part on the role assumed by the building principal . . . they are keenly aware that their attitudes of education, their relationships with colleagues, can greatly influence pupil progress and success.

Studies Related to Teacher Ratings of Students' School Adjustment and School Achievement

Those studies in the literature which are related to this hypothesis focus on a few other variables such as images which teachers hold of students in regard to school achievement.

Behavioral and personality factors thought to be related to teacher report card grades and to achievement test scores have been investigated at various grade levels. In a study of elementary students, Thurston, Feldhusen, and Benning[142] found good performance on scholastic achievement tests to be related to the approval behavior of the classroom. This also occurred when intelligence was used as a co-variance. At the high school level, Gough,[143] and Williamson and Cole[144] found that grade point averages were related to personality traits and to classroom behavior.

The literature in the area of school climate seems to justify what Davidson and Lang concluded from a study when they wrote:

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[142] J. R. Thurston, J. F. Feldhusen, and J. J. Benning, "Classroom Behavior, Intelligence and Achievement," The Journal of Experimental Education 36 (1967): 82-87.

[143] H. G. Gough, "Academic Achievement in High School as Predicted from the California Psychological Inventory," The Journal of Educational Psychology 55 (1964): 174-80.

[144] R. G. Williamson and C. Coles, "Factors in Scholastic Performance: The Behavior Differential," Personnel and Guidance Journal 44 (1966): 962-66.

1. There exists a positive correlation between children's perception of their teachers' feeling toward them and children's perception of themselves.

2. There exists a positive relationship between favorable perception of teachers' feelings and academic achievement.

3. There exists a positive relationship between favorable perception of teachers' feelings and desirable classroom behavior.

A study by Matlin and Mendelsohn[145] showed positive correlations between measures of social and personal adjustment and achievement. The achievement was related to grades given by teachers, and from objective test results. When IQ was partialed out, no relationship was found between adjustment and objective test results. The positive correlation between adjustment and grades given by teachers continued.

Miner revealed that objective achievement, early citizenship and high school achievement appear to become independent of each other as students advance through the grade school. Miner also writes that ". . . teacher's evaluations in the early grades tend to be assessments of behavior rather than academic performance."[146]

An interesting study was conducted by DeGroat and Thompson[147] with a group of sixth grade students. They found that teachers gave

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[145]A. Matlin and F. A. Mendelsohn, "The Relationship Between Personality and Achievement Variables in the Elementary School," The Journal of Educational Research 58 (1965): 457-59.

[146]B. C. Miner, "Three Factors of School Achievement," The Journal of Educational Research 60 (1967): 370-6.

[147]A. F. DeGroat and G. G. Thompson, "A Study of the Distribution of Teacher Approval and Disapproval Among Sixth-Grade Pupils," Journal of Experimental Education 18 (1949): 57-75.

more praise to students who were better adjusted, and higher achievers. The same teachers gave less praise to the poorer adjusted and lower achievers.

Lippitt and Gold[148] showed that teachers give more attention to the social behavior of lower socio-economic students than to their academic achievement. With higher socio-economic students, teachers gave more attention to academic achievement than to social behavior.

Thurston, Feldhusen, and Kryspin[149] stated that children whose classroom behavior is aggressive and disruptive are likely to experience personal and social adjustment problems and do not achieve well.

Thurston, Feldhusen, and Benning[150] found in their research that students who are consistently aggressive and disruptive in the classroom achieve at far lower levels than peers who exhibit socially approved behavior.

Summary

The theoretical formulation for this study is Mead's symbolic interaction theory. This frame of reference has been presented along with a review of the pertinent literature.

It might be noted in the summary that the majority of studies in the literature tend to substantiate the hypotheses

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[148] Lippitt and Gold, pp. 40-49.

[149] J. R. Thurston, J. F. Feldhusen, and W. Kryspin, "Prediction of Achievement with Measures of Learning, Social Behavior, Sex, and Intelligence," Psychology in the School 11 (January 1974): 60-65.

[150] J. R. Thurston, J. F. Feldhusen, and J. J. Benning, "Aggressive Classroom Behavior and School Achievement," Journal of Special Education 4 (1971): 431-39.

of this study but in varying degrees with some different qualifications.

This study focuses on self-esteem as an evaluative aspect of the self-concept. In the literature, there is increasing evidence that school learning depends on self-evaluations. The self-evaluations might be reflected in self-esteem. The literature reveals that any one or all of these might be influential in school achievement.

The literature reveals that each classroom within the school is an interacting social group. In this group certain variables are present and are involved as determiners of school achievement. The literature reveals there is a great concern in which variables in the school climate have the greatest amount of influence on school achievement.

Whatever an individual perceives is what he believes. This is reflected in the Bible, where it states: "A man is as he thinks. For as he thinketh in his heart, so is he."[151]

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[151]Proverbs 23:7.

CHAPTER III

METHODOLOGY OF THE STUDY

The major purpose of this study is to investigate the influence of selected social-psychological factors on academic achievement of fifth and sixth grade students in Ecorse Public Schools during the 1973-74 school year. This chapter describes the population, instrumentation, procedures, and the methods for analyzing the data.

Population and Site

The population under investigation includes the fifth and sixth grade students in all six Ecorse Public Schools. The City of Ecorse is a suburb of Detroit, and the school population has the characteristics of an urban school area. The city had a 1970 population of 17,515.

Students (N = 486) in 21 classrooms were investigated. The subjects consisted of 238 white students, 51 percent; 216 black students, 45 percent; and 32 Mexican-American students, 7 percent.

Table 1 reveals that a total of 486 students were enrolled in grades five and six; 465 of these students were involved in this study. Twenty-one students out of this total were absent for various reasons when the researcher collected this data.

As may be seen by inspection of Table 1, the racial composition of the fifth and sixth grade students in the one integrated

TABLE 1.--Racial Characteristics of the Six Elementary Schools.

School	N	Racial Composition		
		Black	Mexican	White
01	83	100.0	00	00
02	80	100.0	00	00
03	45	00	05	40
04	85	01	07	77
05	105	00	12	93
06	88	52	08	28

school was black students, 52; white students, 28; and Mexican-American students, 8. Subjects in the integrated school live in bordering segregated areas in the community. In a few cases, black students voluntarily come from outside the neighborhood to attend this integrated school. There were 163 students from two all-black elementary schools. There were 210 white students, one black student, and 24 Mexican-American students from three predominantly white schools. Of the 486 students, 51 percent were females and 49 percent were males.

Two hundred forty-six (50.8 percent) of the students were fifth graders and 239 (49.2 percent) were sixth graders.

Fifth and sixth graders were chosen for this study for the following reasons:

1. Students at this age respond better to a paper and pencil instrument.

2. A self-concept becomes cohesive at the sixth grade level.[1]

3. The majority of the previous studies conducted with elementary students involved students at these grade levels.

4. The instruments used in this study had a high significant test-retest reliability with the students at this age level.

Although the students came from all areas of the city, they were similar in socio-economic status.

TABLE 2.--Socio-Economic Status Level of Schools.

School	SES Level	N Students	N Teachers
01	25	83	3
02	16	80	4
03	23	45	2
04	24	85	4
05	22	105	4
06	23	88	4

On inspection of Table 2, all five schools had an SES Index below 49. The highest SES level was school 1, with an SES level of 25. The school with the lowest SES level was school 2, with a level of 16. This SES Index was taken from each student's "School Environment Study Student Questionnaire." Item 8 on the questionnaire asked

[1]R. C. Wylie, The Self-Concept: A Critical Survey of Pertinent Research Literature (Lincoln: University of Nebraska Press, 1961).

each student to describe the type of work his father or surrogate does. This was then scored using the Ducan Occupational Index.[2]

Instrumentation

The instruments used in this study to investigate the existing school climate social-psychological variables were four separated by interrelated questionnaires, two for the students and two for the teachers.

One questionnaire for the students, "Student Questionnaire," and one for the teachers, "Teacher Questionnaire," were developed by Wilbur B. Brookover and Richard Gigliotti. The test pre-test reliabilities took place in a moderate size industrial city where needed revisions were examined in six elementary schools.

The second questionnaire used by the students was the Coopersmith Self-Esteem Inventory (CSEI). This test measured the student's self-esteem. This is a test battery consisting of 58 items. The 58 items are concerned with the student's self-evaluations in four attitudinal areas: parents, peers, personal interests, and school. All of these items are worded for use with pupils from ages 8 to 12 years, and have been administered to fifth and sixth grade girls and boys.

Coopersmith[3] reports a test retest reliability of .88 after a five-week interval with a sample of 30 fifth grade students.

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[2]Otis Dudley Ducan, David L. Featherman, and Beverly Duncan, Socio-Economic Background and Achievement (new York: Seminar Press, 1972), pp. 70-74.

[3]Coopersmith, p. 5.

The reliability was .70 after a three-year interval with a different sample of 56 students. This instrument has been used in three studies involving inner-city school students.

The second questionnaire used by the teachers was the Rating Scale for Pupil Adjustments (RSPA)[4] consisting of 12 items and used as an objective measure for classifying students in grades three through nine. This rating scale was developed to be used as a part of the research for the Michigan Picture Test. Items used to measure student adjustment by teachers were taken from the Rating Scale for Pupil Adjustment. The test retest reliabilities were determined for a sample of 23 children with one month between ratings. The Pearson-Moment correlation between the first and second ratings by the same teacher was .84.

All four of these questionnaires are interrelated in that they contain a nucleus of similar questions designed to elicit attitudes and perceptions of the respondents. The instruments can be found in the appendices.

Data Collection

All school data that are pertinent to this study were made available to the researcher through the permission of the Ecorse Board of Education.

This research collected the data from all fifth and sixth grade students involved in this study. When students were absent this researcher attempted to administer the questionnaires during

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[4]Michigan Department of Health, Rating Scale for Pupil Adjustment (Chicago: Science Research Associates, 1953).

the next visit to the building. The administering procedures used in each classroom were as following:

1. Students were asked to respond to each item in all honesty concerning their own personal feelings about each item.

2. The confidentiality of each student's response was made known to the students by this researcher.

3. Students were asked to complete the questionnaires at their own rate of speed.

4. Teachers were asked by the researcher to leave the room while the students were responding to the items on the questionnaires.

Data on student adjustment was procured from each fith and sixth grade classroom teacher. Each teacher rated each of their students separately on social and personal adjustment in the classroom. Teachers were given a behavior rating scale for pupil adjustment with specific guidelines to follow. In each situation, the teacher rated the students enrolled in their classroom while the researcher was present; at this time no students were in the room. This arrangement was made possible after students had gone home for the school day. The scores from this data will be referred to as "Teacher Ratings of Student Adjustment" (TRSA).

Data from the teachers were collected through the Teachers School Social Environment Study Questionnaire. The teachers were asked by this researcher to complete the self-reporting questionnaire in a separate room while the students were completing their questionnaires. This separation of the teacher from the students helped the students to realize the confidentiality of their self-reporting responses to each item in the student questionnaire. All the

teachers except three finished the questionnaires while the researcher was administering the student questionnaires. There was no time limit on completing the teacher questionnaire.

A pattern of consistence was utilized by this researcher throughout the administering of the questionnaires to all responders.

Teacher Data

Variables from the teachers were analyzed on the basis of previous research studies.[5]

Schneider identified six factors that emerged from the teacher data as: (1) teacher present evaluation-expectation of students in their school, (2) teacher future evaluation-expectation of the students in the school, (3) teacher perception of parent-student push for educational achievement, (4) teachers' reported push of individual students, (5) teacher reported feelings of job satisfaction, and (6) teacher perception of student academic improvability.

Factor 1. Teacher Present Evaluation-Expectation of Students in Their School (TPEE): The items that make up this factor pertain to teacher evaluations-expectations of students from the present grade and continuing through high school.

Factor 2. Teacher Future Evaluation-Expectation of the Students in Their School (TFEE): The items that make up this factor are concerned with teachers' evaluations and expectations about the students' future academic role, specifically with entrance and success in college.

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[5]Schneider.

Factor 3. Teacher Perception of Parent-Student Push for Educational Achievement (TPPSP): The items that make up this factor are those which pertain to the degree of push which the teachers perceive coming from sources other than school personnel.

Factor 4. Teachers Reported Push of Individual Students (TRPIS): The items that make up this factor measure the amount of push that teachers are willing to exert upon individual students to encourage student performance greater than the teacher expectations.

Factor 5. Teacher Reported Feelings of Job Satisfaction (TRFJS): The items that make up this factor assess the degree of teacher satisfaction with the present school and teaching in general.

Factor 6. Teacher Perception of Student Academic Improvability (TPSAI): The items that make up this factor are designed to report teacher perceptions of individuals belonging to the school social system and their positive or negative beliefs that past academic failure could be overcome. Specifically, this factor attempts to assess the belief, within the school social system, that appropriate behavior will improve student academic performance.

Student Data

Data from the student questionnaires were analyzed on the basis of previous studies.[6] The four factors from the student questionnaires were: (1) student perceptions of the present evaluations-expectations in their school social system, (2) student perceptions of future evaluations-expectations in their school

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[6]Schneider, Chapter IV.

social system, (3) student perceptions of feelings of futility permeating the social system, (4) student perceptions of the norms stressing academic achievement in their school and social system.

Factor 1. Student Perceived Present Evaluations-Expectations (SPPEE): The items that make up this factor measure the degree of expectations and evaluations of "others" (friends, parents, teachers), as well as the student's own "self-concept of academic ability" from the present grade through the completion of high school.

Factor 2. Student Perceived Future Evaluations-Expectations (SPFEE): The items that make up this factor measure student perceptions of the beliefs of "others" (friends, parents, teachers) pertaining to "self-concept of academic ability" and self-evaluation in future academic accomplishments.

Factor 3. Student Perceived Sense of Futility (SPSOF): The items which make up this factor are measures of the student's perceptions of teachers and to a less degree of other students' feelings of hopelessness or lack of concern about their academic achievement.

Factor 4. Student Perception of School Academic Norms (SPSAN): The items which make up this factor measure the student's perceptions about the degree of pressure placed upon achievement by members of the school social system and school bureaucracy.

Additional factors used in this study were: Self-esteem and teacher adjustment ratings.

Student Self-Esteem (SSE): The items that make up this factor measure the student's favorable and unfavorable

self-attitudes in four areas: parents, peers, personal interests and school.

Teacher Ratings of Student Adjustment (TRSA): The items that make up this factor measure the teacher's perception of student adjustment in three areas: (1) over-all emotional adjustment, (2) tendency toward agressive behavior, and (3) school conduct.

1. Over-all emotional adjustment: These items measure the student's total emotional adequacy in meeting the daily problems of living as shown in school.

2. Tendency toward agressive behavior: These items measure the student's overt hostility and/or aggression toward other children and/or teachers.

3. School conduct: These items measure the student's conduct in the classroom environment evidence of his/her ability to accept the rules and regulations of the school community.

Student Stanford Achievement Test (SSAT): This test measures the student's skills and abilities in the following areas:

Reading	
Word meaning	48 items
Paragraph meaning	64 items
Spelling	56 items
Language	
Usage	38 items
Punctuation	18 items
Capitalization	36 items
Dictionary skills	24 items
Sentence sense	17 items
Arithmetic Computation	39 items
Arithmetic Concepts	32 items
Arithmetic Applications	39 items
Social Studies	74 items
Science	58 items

The academic achievement data were recorded from the Stanford Achievement Test, Intermediate Level II, Form A. The test was administered to the fifth and sixth grade students in May, 1974. Those test scores will be referred to in this study as SAT scores.

This research is aimed at exploring the variance in achievement other than aptitude. The study is essentially concerned with obtaining data that will provide information about certain non-intellectual variables within the school climate that influence academic achievement in the elementary grades. Also, the resarcher hopes to find those school climate variables which are better predictors of academic achievement test scores (SAT). To attain these goals, several statistical analyses were conducted.

Intercorrelations were computed on the data to determine the simple correlations between the independent variables and the dependent variable.

Multiple regression equations were utilized to determine the relationship between the criterion variable and a set of predictor variables.

To explain the differences in academic achievement due to different social-psychological factors, or combination effects on academic achievement, the techniques of statistical regression and stepwise regression analysis were computed.

The purpose of using regression and stepwise regression analysis was to describe the differences in academic achievement by utilizing more than one variable at a time and to identify variables

or a combination of variables which best explain or predict achievement variance.

The data were statistically analyzed at the Michigan State University Computer Center using the Pearson Product-Moment Correlation Coefficient, multiple regression analysis, and stepwise regression analysis.

Summary

In Chapter III, an account has been given of the research procedures, instrumentation and methodology employed in collecting and analyzing the data for this present study. The raw data were transformed in such a way as to provide for a statistical significant and non-significant analysis. Specifically discussed were (1) identification of the population under study, (2) the delineation of the instruments used in this present study, and (3) the designation of the statistical procedures employed to find the best significant predictors of academic achievement.

It is clear from the preceding discussion that the present analysis is designed to investigate school data and shed some light on the relationship between selected school normative academic climate variables and academic achievement in fifth and sixth grade students. The results of this investigation are reported in the following chapter.

CHAPTER IV

DATA STATISTICAL ANALYSIS

The purpose of this study is to determine the magnitude of influence of some selected social psychological variables operating within the school social climate on students' academic achievement at the fifth and sixth grade level in Ecorse, Michigan.

To determine whether or not such an influence exists and to what degree, specific questions were formulated and relevant data were collected.

Chapter IV will analyze and discuss data obtained through the procedures described in Chapter III. This chapter will discuss the following: (1) statistical techniques employed, (2) analysis and interpretation of the teacher data collected, and (3) analysis and interpretation of the student data collected.

Statistical Techniques Employed

The statistical techniques employed in this study are to identify social-psychological variables within the school social climate that are significant predictors of student academic achievement. The analysis is presented under three major headings: correlational analysis, multiple regression analysis, and stepwise regression analysis.

Correlational Analysis

The purpose of the correlational analysis was to determine the relationship of the academic achievement test scores to (1) selected school climate variables within the student and teacher data, and (2) student self-esteem. More explicitly, the purpose of the analysis was to provide significant answers to the research questions stated in Chapter I.

It must be emphasized that the researcher's main contention in this study is not the testing of specific hypothesis, but to investigate relationships between academic achievement test scores and variables of interest. The researcher will state those hypotheses and/or questions of interest for the specific analysis under investigation when appropriate. It must be reiterated that this study is to investigate rather than to test hypotheses. The data pertaining to Question 1 in Chapter I is analyzed and discussed on the basis of the responses from the teachers' questionnaires.

1. Which of a selected number of social-psychological variables within the school social climate of fifth and sixth grade students derived from teacher perceptions are significant predictors of classroom mean achievement as measured by the Stanford Achievement Test?

To provide data for answering this question, all 21 fifth and sixth grade teachers in the school system were asked to respond to the items in the Teacher Questionnaire.

The definitions of the teacher variables were stated earlier in Chapter III. Each classroom mean was computed by the Stanford Achievement Testing Services and mailed along with each individual's test result to the school system.

To provide a statistically meaningful answer to Question 1, the following research hypotheses have been formulated:

Hypothesis 1: Teacher present evaluation-expectation is a significant predictor of classroom mean achievement.

Hypothesis 2: Teacher future evaluation-expectation is a significant predictor of classroom mean achievement.

Hypothesis 3: Teacher perception of parent-student push for educational achievement is a significant predictor of classroom mean achievement.

Hypothesis 4: Teacher reported push of individual students is a significant predictor of classroom mean achievement.

Hypothesis 5: Teacher reported feelings of job satisfaction is a significant predictor of classroom mean achievement.

Hypothesis 6: Teacher perception of student academic improvability is a significant predictor of classroom mean achievement.

To determine the significance of each of the above hypotheses, a stepwise add regression analysis was conducted on the basis of the correlation coefficients, and the beta weights.

Analysis and Interpretation of Teacher Data

The computed correlation coefficients among the variables below based on the teacher questionnaire and classroom mean achievement are presented in Table 3, using the Pearson Product-Moment Correlation Coefficient and a level of significance of .05. The five percent level of significance for the correlation coefficient was .413.[1]

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[1]N. M. Downie and R. N. Health, Basic Statistical Methods (New York: Harper and Row Publishers, 1970), p. 318.

TABLE 3.--Intercorrelations Among Variables in the Teacher Questionnaire and Stanford Achievement Test Scores (CLSMN).[a,b]

Variables							
CLSMN 1.	1.000						
TPEE 2.	.368	1.000					
TFEE 3.	.065	.735	1.000				
TPPSP 4.	.228	.573	.438	1.000			
TRPIS 5.	.077	.017	.286	-.018	1.000		
TRFJS 6.	.066	.603	.548	.707	.115	1.000	
TPSAI 7.	.143	.323	.279	.509	.048	.360	1.000
	1 CLSMN	2 TPEE	3 TFEE	4 TPPSP	5 TRPI	6 TRFJS	7 TPSAI

[a]All correlation coefficients of .413 and above are significant at the .05 level.

[b]The correlations are based upon 21 fifth and sixth grade teachers.

VARIABLES:
1. Stanford Achievement Test Scores, Classroom Mean (CLSMN)
2. Teacher Present Evaluation-Expectation (TPEE)
3. Teacher Future Evaluation-Expectation (TFEE)
4. Teacher Perceptions of Parent-Student Push for Achievement (TPPSP)
5. Teacher Reported Push of Individual Students (TRPIS)
6. Teacher Reported Feelings of Job Satisfaction (TRFJS)
7. Teacher Perception of Student Academic Improvability (TPSAI)

It can be noted from Table 3 that all six of the independent variables correlated positive and low with classroom mean achievement. It can be observed that none of the correlations were significant at the .05 level.

The only correlation approaching the five percent level of significance was teachers' present evaluations-expectations, with a

a correlation of .37. This suggested that teacher actual attitudes about students do not always influence academic achievement in his or her classroom.

The resulting correlation of teacher future expectations with classroom mean achievement was .07. This suggested that the teachers as a group have not given too much thought to the academic future of the students within their classroom. The resulting correlation of teacher push of individual students with classroom means was .08. This suggested that the teachers as a group have not been too concerned about the students' actual academic performance and their academic expectations. The resulting correlation of teacher job satisfaction with classroom mean achievement was .07. This suggested that other factors must be operating within the school social climate as determiners of teacher job satisfaction.

The data in Table 3 do differ from those previous findings which support the assertion that teacher attitudes are highly related and significant to student classroom academic performance. These results probably reflect the teachers' consideration of other factors influencing student academic achievement behavior. That is, factors such as low economic status, failure to adjust to the expected role of a student, community environment, and student interest.

Further examination of Table 3 reveals that the magnitude of the correlation coefficients of the six independent variables differs with respect to how much variance in classroom mean achievement was accounted for by each social-psychological variable taken from the

teacher questionnaire. Further explanation will be given in the next section entitled Multiple Regression Analysis. The next section deals with regression analysis on data from the teacher questionnaire.

Multiple Regression Analysis

The entire study is based on the assumption that some of the differences in academic achievement of fifth and sixth grade students in Ecorse Public Schools can be explained by social-psychological variables operating within the school social climate. The objective is to find out how much each variable as measured by each teacher's and student's response influences each student's SAT scores. Therefore, the teachdrs' score on the teacher questionnaire, students' score on the student questionnaire, students' scores on the self-esteem inventory, and the teachers' scores on the rating scale for pupil adjustment (independent variable), and the student's SAT scores (dependent variable) were analyzed.

In this study the multiple regression equation, sometimes called multiple prediction, is the prediction of a criterion (dependent variable), from a linear combination of predictors (independent variables), which may be identified as X_1, X_2, . . . X_p.[2] When the predictors are statistically independent, multiple regression provides information about the realtive importance of the predictors for the explanation of the variance in a dependent (predicted)

[2]Melvin R. Novich and Paul H. Jackson, Statistical Methods for Educational and Psychological Research (New York: McGraw-Hill Book Co., 1974), pp. 18-19.

variable. In summary, it can be stated that the basic objective of utilizing multiple regression analysis to data is to obtain the maximum contribution that can be assigned to each independent variable in predicting a dependent variable.

This section indicates by means of regression analysis how much of the variation in academic achievement of fifth and sixth grade students that can be accounted for by teacher measured perceptions of students and by student measured perceptions of himself and others. Also, from the regression analysis, this section will reveal how the social-psychological variables function differently in the black, integrated, and white schools in explaining the variance in academic achievement.

In order to determine the degree of linear dependence of classroom mean achievement on the six independent variables within the teacher questionnaire, multiple correlation was computed. The multiple correlation coefficient is given in Table 4.

Table 4 shows that R^2 = .3191, indicating that 32 percent of the variation in classroom mean achievement is explained by TPEE, TFEE, TPPSP, TRPIS, TRFJS, AND TPSAI, operating as a battery. This

TABLE 4.--Multiple Correlation Coefficients of the Six Independent Variables Teacher Questionnaire on Classroom Mean Achievement.

Multiple R	.5649
R^2	.3191
Standard error	.7579

means that the six independent variables taken from the teachers' questionnaires can be used as a composite index for the prediction of classroom mean achievement. From the result of the calculations based on the data presented in Table 4, an analysis of the variance was computed. The summary analysis is presented in Table 5.

TABLE 5.--Analysis of Variance for the Overall Regression of the Six Independent Variables, TPEE, TFEE, TRPIS, TRFJS, TPPSP, and TPSAI, with Classroom Mean Achievement.

	SS	df	MS	F Ratio[a]
Regression (about mean)	3.77	6	.628	1.0933
Error	8.04	14	.574	
Total (about mean)	11.81	20		

[a]F value of 2.85 required for significance at the .05 level.

Inspection of Table 5 reveals that computed F ratio of 1.0933 was insufficient in magnitude, less than 2.85, the .05 significant F value for 6 and 14 degrees of freedom. Therefore, variables TPEE, TFEE, TRPIS, TRFJS, TPPSP, and TPSAI were not significant predictors of classroom mean achievement at the .05 level.

In order to help provide an answer to Question 1 of which variable within the Teacher Questionnaire is more closely related to classroom mean achievement, a beta weight was assigned to each independent variable.

Table 6 presents the beta weights and their respective standard errors for each independent variable of interest. The beta

TABLE 6.--Multiple Regression Beta Weights for Each Independent Variable Within Teacher Questionnaire, with Classroom Mean Achievement (N = 21).

Variables	Beta Weights	Standard Errors of Betas
TPEE	.82605	.37434
TFEE	-.53687	.36085
TPPSP	.21291	.35113
TRPIS	.25665	.24305
TRFJS	-.32664	.34162
TPSAI	.02307	.25728

weights will reveal the respective contribution of each independent variable to classroom mean achievement in the teacher data.

Table 6 indicates that the variable Teacher Present Evaluations-Expectations showed the greatest contribution to classroom mean achievement.

In summary, Table 6 showed that the relative contribution (beta weights) of the six independent variables within the teacher questionnaire do differ in the relative affect on classroom mean achievement.

Having this finding in mind, stepwise regression analysis was conducted.

Stepwise Regression Analysis

The findings in the preceding section indicate that the six independent variables taken from the Teacher Questionnaire do differ in their contribution to classroom mean achievement.

Stepwise add regression analysis was conducted to evaluate the relationship between six independent variables from the teacher questionnaire and classroom mean achievement. The F test was computed to test the significance of each variable. The .05 level of probability was selected for testing the hypotheses.

In the stepwise add regression analysis, the independent variable that had the highest beta weight in Table 6 was entered first into the regression equation. The summary analysis is presented in Table 7.

TABLE 7.--Summary of Stepwise Add Regression Analysis for Classroom Mean Achievement.

Ind. Variable Entered	% Variance Accounted For	% Added to Prediction of Achievement	Total in Equation	F[a]
TPEE	.116	.116	1	2.97
TFEE	.094	.210	2	2.21
TRPIS	.044	.254	3	1.12
TRFJS	.027	.281	4	0.91
TPPSP	.018	.299	5	0.37
TPSAI	.021	.320	6	0.40

[a]F value of 4.39 (1,19) required for significance at the .05 level.

As is apparent from Table 7, none of the F values for each of the six independent school climate variables from the Teacher Questionnaire were statistically significant predictors of classroom

mean achievement at the .05 level. This indicates that the attitudes of teachers are not always predictors of classroom mean achievement in fifth and sixth grade students. It is interesting to note that a total of all six climate variables accounts for 32 percent of the variance in classroom mean achievement. Teacher present expectations accounted for the largest part, some 12 percent. Teacher perception of parent-student push accounted for the smallest additional part, some 2 percent.

School Climate Effects--Teacher Questionnaire on CLSMN

The analysis was carried out on the Teacher Questionnaire data and Hypotheses were tested at .05 level of significance.

Hypothesis 1 predicts that teacher present evaluation-expectation is a significant predictor of classroom mean achievement.

In Hypothesis 1, the F ratio of 2.97 was too low to be significant at the .05 level. To reach significance at the .05 level of confidence, the F ratio must be at least 4.38. Thus, Hypothesis 1 was rejected.

Hypothesis 2 predicts that teacher future evaluation-expectation is a significant predictor of classroom mean achievement.

In Hypothesis 2, the F ratio of 2.21 was too low to be significant at the .05 level. To reach significance at the .05 level of confidence, the F ratio must be at least 4.38. Thus, Hypothesis 2 was rejected.

Hypothesis 3 predicts that teacher perception of parent-student push for educational achievement is a significant predictor of classroom mean achievement.

In Hypothesis 3, the F ratio of 1.12 was too low to be significant at the .05 level of confidence; the F ratio must be at least 4.38. Thus, Hypothesis 3 was rejected.

Hypothesis 4 predicts that teacher reported push of individual students is a significant predictor of classroom mean achievement.

In Hypothesis 4, the F ratio of 0.91 was too low to be significant at the .05 level of confidence; the F ratio must be at least 4.38. Thus, Hypothesis 4 was rejected.

Hypothesis 5 predicts that teacher reported feelings of job satisfaction is a significant predictor of classroom mean achievement.

In Hypothesis 5, the F ratio of 0.37 was too low to be significant at the .05 level. To reach significance at the .05 level of confidence the F ratio must be at least 4.38. Thus, Hypothesis 5 was rejected.

Hypothesis 6 predicts that teacher perception of student academic improvability is a significant predictor of classroom mean achievement.

In Hypothesis 6, the F ratio of 0.40 was too low to be significant at the .05 level. To reach significance at the .05 level of confidence, the F ratio must be at least 4.38. Thus, Hypothesis 6 was rejected.

Analysis and Interpretation of Student Data

All student factors were treated as independent variables except the scores obtained from the Stanford Achievement Test which

was treated as the dependent variable. This researcher attempted to investigate the prediction of academic achievement by certain social-psychological attitudinal variables operating within the school climate.

To provide answers to Question 2 which states as follows:

2. What part of the variance in academic achievement as measured by the Stanford Achievement Test can be predicted by social-psychological variables as measured by the perceptions of students, and teachers within the integrated black and white student populations?

The data presented for Question 2 were obtained from the students' responses to the student questionnaire, student self-esteem inventory, the teachers' responses to the Rating Scale for pupil adjustment, and students' achievement scores taken from the Stanford Achievement Test results. The definition of each school climate variable was given in Chapter III. To answer Question 2, the following research hypotheses were developed.

Hypothesis 7: Student perceived present evaluation-expectation is a significant predictor of student academic achievement.

Hypothesis 8: Student perceived future evaluation-expectation is a significant predictor of student academic achievement.

Hypothesis 9: Student reported sense of futility is a significant predictor of student academic achievement.

Hypothesis 10: Student perception of school academic norms is a significant predictor of student academic achievement.

Hypothesis 11: Student self-esteem is a significant predictor of student academic achievement.

Hypothesis 12: Teacher ratings of student adjustment is a significant predictor of student academic achievement.

As stated in Chapter III, the racial composition of the fifth and sixth grade students was divided into three groups (black schools, white schools, and integrated school). Also, stated in Chapter I, one of the objectives of this study was to investigate school climate variables and their predictability of academic achievement. Because of the racial composition it becomes applicable to investigate each group separately to see whether the independent school climate variables have a different pattern of association with academic achievement. Tables 8, 9, and 10 show computed simple correlation coefficients among selected school climate variables of interest for the integrated school, black schools, and white schools.

Table 8 presented the computed correlation coefficients among the six independent variables and the dependent variables based on data from the integrated school.

TABLE 8.--Intercorrelation Among the Social-Psychological Variables and the SAT Variable of the Integrated School.[a]

Variables								
SAT	1.	1.000						
SEE	2.	.185	1.000					
SPPEE	3.	.262	.156	1.000				
SPFEE	4.	.134	-.009	.461	1.000			
SRSOF	5.	-.132	-.224	-.312	-.175	1.000		
SPSAN	6.	-.247	.022	.264	.289	.034	1.000	
TRSA	7.	.516	.114	.264	.126	-.238	-.136	1.000
		1 SAT	2 SSE	3 SPPEE	4 SPFEE	5 SRSOF	6 SPSAN	7 TRSA

[a]The correlation coefficients are based upon 88 fifth and sixth grade students within the integrated school population. Correlations of .16 and above, significant at .05 level.

Table 9 presents the computed correlation coefficients among the six independent variables and the dependent variable based on data from the black schools.

TABLE 9.--Intercorrelation Among the Social-Psychological Variables and the SAT Variable of the Black Schools.[a]

Variables								
SAT	1.	1.000						
SSE	2.	.309	1.000					
SPPEE	3.	.364	.355	1.000				
SPFEE	4.	.260	.291	.470	1.000			
SRSOF	5.	-.250	-.288	-.199	-.091	1.000		
SPSAN	6.	-.028	.255	.172	.240	-.065	1.000	
TRSA	7.	.530	.188	.272	.109	-.198	.009	1.000
		1 SAT	2 SSE	3 SPPEE	4 SPFEE	5 SRSOF	6 SPSAN	7 TRSA

[a]The correlation coefficients are based upon 147 fifth and sixth grade students within the black schools.
Correlations of .16 and above, significant at .05 level.

Table 10 presents the computed correlation coefficients among the six independent variables and the dependent variable based on data from the white schools.

As indicated in Tables 8, 9 and 10, teachers' ratings of students' adjustment has correlated the highest with student's SAT scores in all three schools: black schools, .53; white schools, .52; and integrated school, .52. These data suggest as the student's

TABLE 10.--Intercorrelation Among the Social-Psychological Variables and the SAT Variable of the White Schools.[a]

Variables							
SAT	1.	1.000					
SSE	2.	.323	1.000				
SPPEE	3.	.453	.350	1.000			
SPFEE	4.	.225	.327	.498	1.000		
SRSOF	5.	-.267	-.240	-.243	-.281	1.000	
SPSAN	6.	-.097	.137	.125	.169	-.042	1.000	
TRSA	7.	.518	.306	.387	.228	-.263	.099	1.000
		1 SAT	2 SSE	3 SPPEE	4 SPFEE	5 SRSOF	6 SPSAN	7 TRSA

[a]The correlation coefficients are based upon 230 fifth and sixth grade students within the white schools.
Correlations of .14 and above, significant at .05 level.

VARIABLES:
1. Stanford Achievement Test scores (SAT)
2. Student Self-Esteem (SSE)
3. Students' Perception of Present Evaluations-Expectations (SPPEE)
4. Students' Perception of Future Evaluations-Expectations (SPFEE)
5. Students' Reported Sense of Futility (SRSOF)
6. Students' Perceptions of School Academic Norms (SPSAN)
7. Teachers' Ratings of Student Adjustment (TRSA)

adjustment improves the student's SAT scores improve. In other words, well adjusted pupils perform better than poorly adjusted pupils on standard achievement tests. This relationship is significant and positive in all three schools at the .05 level. This is not a surprising finding yet there is little previous empirical evidence to support this relationship. One explanation is that students with poor adjustment may have inadequate study habits,

maladaptive classroom behavior, and lack of persistence which could affect their academic achievement. Thus, the poorly adjusted students are hardly fulfilling the role of students as expected by "significant others" in the school social system, as evidenced by their SAT scores.

The next social-psychological variable which had positive association and was significant with academic achievement was student present expectation: white schools, .45; black schools, .36; and integrated school, .26. These findings lend support to previous research findings that a student's perception of his or her teacher's feelings are related to school achievement. This indicates the more positive the student's perception of his teacher's feelings, the better was his academic achievement. The correlation coefficient between student present expectation and academic achievement was higher in the white schools than the black or integrated schools. This finding seems to imply that teachers are more of a "significant other" in the white schools than in the black and integrated schools. In other words, students within the white schools value teacher opinions higher. It is interesting to note that students' perceptions of their teachers' feelings toward them correlated positively and significantly with student academic achievement in the integrated school but at a lower magnitude than in the white and black schools. This suggested that the teacher's opinion is valued lower in the integrated school. One explanation is that the students in the integrated school do not place as much

value on what significant others think of them. Therefore, the effect is more modest.

The correlational analysis also showed that reported sense of futility was negatively related to academic achievement in the integrated school, $r = -.13$; black schools, $r = -.25$; and the white schools, $r = -.27$. The futility variable was not significant at the .05 level within the integrated school population. The lower correlation of futility with academic achievement within the integrated school population could indicate that the students did not think of futility as a decisive factor one way or the other with their academic success. Within the black and white school populations the resulting correlation coefficients were -.25 and -.27. This suggested that as feelings of powerlessness increased, academic achievement decreased for these fifth and sixth grade students. One explanation is that the students within the black and white schools feel that they do not have the power to control their own academic success and their academic success is controlled by "significant others." It is interesting to note that student sense of futility correlates negatively and significantly with teachers' ratings of student adjustment at the .05 level of significance in all three school populations. This suggested that as feelings of powerlessness increased, students' ability to adjust to the school environment decreased. This indicates that those students who adjust to the expected role of a student perceive themselves as having some control over the outcome of the goals set forth within the school climate by "others."

The tables show that self-esteem has correlated significantly with academic achievement in the black and white schools, .31 and .32, respectively. But in the integrated schools the correlation between self-esteem and academic achievement of .19 was not significant at the .05 level. This finding lends support to the view that a student's feeling of personal worthiness has a greater affect on academic achievement in black and white schools than in integrated schools. This lower correlation coefficient for integrated students of .19 is difficult to explain, but it could indicate that self-esteem has a different affect on academic achievement within integrated students than segregated students.

Tables 10 and 11 showed that student academic norms correlated lower with academic achievement within the black and white schools, -.03 and -.10, respectively. These correlations in the black and white schools were not significant at the .05 level. This could imply that the students in the black and white schools did not think of academic norms as being important to academic achievement.

In the integrated population the correlation between student academic norms and academic achievement was negative and significant, $r = -.25$ at the .05 level. This suggested that as feelings about academic norms decreased, academic achievement increased for fifth and sixth grade students in this study. One possible explanation is that the students within the integrated school were resentful of the amount of pressure being placed upon academic achievement by others in the social system.

The corelations between academic achievement and student perceived future evaluation-expectation were positive and significant in the black and white populations, r = .26 and r = .23. This indicated that the black and white students' perceptions about how "others" feel about their future chances of academic accomplishments affect their present academic achievement. While with the integrated population the correlation between academic achievement and student future evaluation-expectation was low and did not reach significant r = .13. This appears to indicate that students in the integrated population are not concerned about how "others" feel about their academic future.

These correlations suggest that the variance in academic achievement of integrated pupils, black pupils and white pupils can be explained by certain social-psychological variables within the school social climate. Also, these correlation results suggest that social-psychological variables explain less of the variance in integrated school pupils, than black school pupils, or white school pupils. This suggests that students within integrated schools are affected differently than students within black or white schools by perceptions of "others."

In order to provide an answer to the amount of variation in students' SAT scores that can be explained by the six independent variables operating jointly, multiple correlations were computed.

From the correlational analysis a linear regression equation was derived and computed for each group of students (integrated, black, and white). In order to determine the degree of linear

dependence of students' SAT scores on the six independent variables, multiple correlations (R^2) for each group of students were computed. The resulting correlations (R^2) for each group of students were tested for significance. The stepwise add regression procedures were employed to each group of students to assess the relationship between the predictors and achievement. This analysis yielded multiple correlations of the best combinations of school climate social-psychological variables with the criterion achievement. The F test was computed to test the significance of each variable in increasing the variance accounted for. The .05 level of probability was selected for Hypotheses 7-12.

Multiple correlation coefficients are presented for each school in Table 11.

TABLE 11.--Multiple Correlations of SSE, SPPEE, SPFEE, SRSOF, SPSAN, and TRSA with Students' SAT Scores.

School	N	Multiple R	R^2
Integrated	88	.599	.36
Black	147	.621	.39
White	230	.613	.38

Table 11 shows that within the integrated school, 36 percent; the black schools, 39 percent; and the white schools, 38 percent of the variation in students' SAT scores are explained by SSE, SPPEE, SPFEE, SRSOF, SPSAN and TRSA operating jointly. This suggested that school social-psychological variables accounted

for more of the variance in SAT scores within the black population than the integrated or white populations in this study.

An analysis of the variance accounted for by the six social-psychological variables generated the results exhibited in Tables 12, 13, and 14.

TABLE 12.--AOV for the Overall Regression with SSE, SPPEE, SPFEE, SRSOF, SPSAN, TRSA Indices (Independent Variables) for Predicting SAT Scores on the Integrated School Population.

	SS	df	MS	F Ratio[a]
Regression (about mean)	65.852	6	10.975	7.5711[b]
Error	117.421	81	1.449	
Total (about mean)	183.273	87		

[a]F (6, 81) = 2.21
[b]Significant at .05 level.

Examining Table 12 reveals that obtained F-ratio of 7.5711 is sufficient in magnitude, larger than 2.21, the .05 significance F value for 6 and 81 degrees of freedom. This indicates that the combination of variables SSE, SPPEE, SPFEE, SRSOF, SPSAN and TRSA are significant predictors of students' SAT scores within the integrated population.

The analysis presented in Table 13 shows that obtained F ratio of 14.6461 is sufficient in magnitude, larger than 2.16, the .05 significance F value for 6 and 140 degrees of freedom. This suggests that the combination of variables SSE, SPPEE, SPFEE, SRSOF,

TABLE 13.--AOV of the Overall Regression with SSE, SPPEE, SPFEE, SRSOF, SPSAN, TRSA Indices (Independent Variables) for Predicting SAT Scores on the Black School Population.

	SS	df	MS	F Ratio[a]
Regression (about mean)	55.121	6	9.186	14.6461[b]
Error	87.816	140	.627	
Total (about mean)	142.938	146		

[a]F (6,140) = 2.16
[b]Significant at .05 level.

TABLE 14.--AOV for the Overall Regression with SSE, SPPEE, SPFEE, SRSOF, SPSAN, TRSA Indices (Independent Variables) for Predicting SAT Scores on the White School Population.

	SS	df	MS	F Ratio[a]
Regression (about mean)	164.073	6	27.345	22.468[b]
Error	271.909	223	1.219	
Total (about mean)	435.982	229		

[a]F (6,223) = 2.14
[b]Significant at .05 level.

SPSAN and TRSA are significant predictors of students' SAT scores within the black population.

Inspection of Table 14 reveals that obtained F ratio of 22.468 is sufficient in magnitude to attain significance at the .05 level of confidence. To reach significance the F ratio must be at least 2.14 with degrees of freedom of (6, 223). This suggests that the combination of variables SSE, SPPEE, SPFEE, SRSOF, SPSAN, and

TRSA are significant predictors of the students' SAT scores within the white population.

After finding the variance significant in integrated, white, and black school populations, beta weights were computed. The beta weights will give the relative contribution of each predictor variable in the regression equation. A comparison of the corresponding beta weights across the three groups allows for determination of whether or not each predictor variable has the same relative importance in predicting students' SAT scores. A summary of the analysis is presented in Table 15.

TABLE 15.--Multiple Regression Weights (Beta) for Integrated, Black and White Populations.

Variable	Beta Weight		
	Integrated N = 88	White N = 230	Black N = 147
SES	.13334	.12195	.13710
SPPEE	.18521	.29027	.14881
SPFEE	.08875	-.04837	.12864
SRSOF	.08047	-.10447	-.09039
SPSAN	-.26998	-.11163	-.13065
TRSA	.42297	.34324	.43405

The results of the analysis in Table 15 shows that the predictor consistently most weighted in all three equations was teacher's rating of student adjustment. This suggested that variable teacher ratings of student adjustment was the most important predictor of student SAT scores in all three school populations.

Also, Table 15 indicates that social-psychological variables differ by school population in relative importance when predicting students' SAT scores.

Overall findings in this section can be summarized as follows:

1. TRSA of students correlated with students' SAT scores at a higher level than any of the other five independent variables.

2. Therefore, the relative contribution (beta weights) of TRSA in the prediction of academic achievement (SAT scores) is greater than the contribution of the other independent variables.

3. TRSA made a greater contribution to SAT scores in the black schools than in the white schools.

4. SPPEE made a greater contribution to SAT scores in the white schools than in the black schools.

5. SPSAN made a greater contribution to SAT scores in the integrated school than in the black and white schools.

6. Further analysis showed that the relative contribution (relative weight) of the six social-psychological variables differs across the populations in predicting students' SAT scores (academic achievement).

The next section will deal with multiple linear stepwise add regression analysis. This technique was used to determine the most significant predictors of the dependent variable.

The findings in the preceding section indicate that there is a difference in the relative contribution of each social-psychological variable to students' SAT scores. Having this fact in

mind, stepwise regression analysis was conducted on each population to find out the order of the social-psychological variables in predicting students' SAT scores in each student population.

In the stepwise add regression analysis, the independent variable which had the highest beta weight with the dependent variable was entered first into the regression equation.

The purpose of the stepwise regression analysis was to find out, firstly, the order of the social-psychological variables in predicting students' SAT scores; secondly, to find out if the order of and magnitude of additional explained variance by each independent variable differ across the three populations; thirdly, to find out which independent variables are significant predictors of students' SAT scores at the .05 level.

The F value (degree of freedom) and significance for each variable when taken separately are shown for each population in Tables 16, 17, and 18. Summary analyses are presented in Tables 16, 17, and 18.

Inspection of Table 16 reveals the following:

Variable TRSA: The F-ratio attained magnitude of 20.288 was higher than 3.95, the .05 significance F value for 1 and 86 degrees of freedom. Therefore, this variable is a significant predictor of academic achievement within the integrated school population. TRSA accounted for 26 percent of the variance in the students' SAT scores.

Variable SPSAN: The obtained F ratio of 6.790 was higher than 3.95, the .05 significance F value for 1 and 86 degrees of

TABLE 16.--Stepwise Regression Analysis for SAT (Integrated School; N = 88).

Ind. Variable Entered	% Variance Accounted For	% Added to Prediction of Achievement	Total in Equation	F[a]
TRSA	.256	.256	1	20.288
SPSAN	.054	.310	2	6.790
SPPEE	.029	.339	3	4.902
SSE	.012	.351	4	2.088
SPFEE	.005	.356	5	.741
SRSOF	.003	.359	6	.685

[a]F value of 3.95 (1, 86) required for significance at the .05 level.

freedom. Therefore, this variable is a significant predictor of academic achievement within the integrated school population. SPSAN accounted for addition, 5.4 percent of the variance in the students' SAT scores.

Variable SPPEE: The obtained F ratio of 4.902 was greater than 3.95, the .05 significance F value for 1 and 86 degrees of freedom. Therefore, this variable is a significant predictor of academic achievement within the integrated school population. SPPEE accounted for an additional 3 percent of variance in the students' SAT scores.

Variable SSE: The obtained F ratio of 2.088 was lower than 3.95, the .05 significance F value for 1 and 86 degrees of freedom. Therefore, this variable is not a significant predictor of academic

achievement within the integrated school population. SSE accounted for 1.2 percent of the explained variance in the students' SAT scores.

Variable SPFEE: The obtained F ratio of .741 was lower than 3.95, the .05 significance F value for 1 and 86 degrees of freedom. Therefore, this variable is not a significant predictor of academic achievement within the integrated school population. SPFEE accounted for .5 of 1 percent of the explained variance in the students' SAT scores.

Variable SRSOF: The obtained F ratio of .685 was lower than 3.95, the .05 significance F value for 1 and 86 degrees of freedom. Therefore, this variable is not a significant predictor of academic achievement within the integrated school population. SRSOF accounted for .3 of 1 percent of the explained variance in the students' SAT scores.

Inspection of Table 17 reveals the following:

Variable TRSA: The F ratio obtained of 41.097 is higher than 3.91, the .05 significance F value for 1 and 145 degrees of freedom. Therefore, this variable is a significant predictor of academic achievement within the black school population. TRSA accounted for 28 percent of the variance in the students' SAT scores.

Variable SPPEE: The F ratio obtained of 6.311 is higher than 3.91, the .05 significance F value for 1 and 145 degrees of freedom. Therefore, this variable is a significant predictor of academic achievement within the black school population. SPPEE accounted for an addition 5.2 percent of the variance in the students' SAT scores.

TABLE 17.--Stepwise Regression Analysis for SAT (Black Schools; N = 147).

Ind. Variable Entered	% Variance Accounted For	% Added to Prediction of Achievement	Total in Equation	F[a]
TRSA	.281	.281	1	41.097
SPPEE	.052	.333	2	6.311
SSE	.022	.355	3	4.842
SPSAN	.012	.367	4	3.508
SPFEE	.011	.378	5	2.797
SRSOF	.007	.385	6	1.656

[a]Value of 3.91 (1, 145) required for significance at the .05 level.

Variable SSE: The F ratio of 4.842 was higher than 3.91, the .05 significance F value for 1 and 145 degrees of freedom. Therefore, this variable is a significant predictor of academic achievement within the black school population. SSE accounted for an addition, 2.2 percent of the variance in the students' SAT scores.

Variable SPSAN: The F ratio obtained of 3.508 was lower than 3.91, the .05 significance F value for 1 and 145 degrees of freedom. Therefore, this variable was not a significant predictor of academic achievement. SPSAN accounted for 1.2 percent of the explained variance in the students' SAT scores.

Variable SPFEE: The obtained F ratio of 2.797 was lower than 3.91, the .05 significance F value for 1 and 145 degrees of freedom. Therefore, this variable was not a significant predictor

of academic achievement within the black school population. SPFEE accounted for 1.1 percent of the explained variance in the students' SAT scores.

Variable SRSOF: The obtained F ratio of 1.656 was lower than 3.91, the .05 significance F value for 1 and 145 degrees of freedom. Therefore, this variable was not a significant predictor of academic achievement within the black school population. SRSOF accounted for .7 of 1 percent of the explained variance in the students' SAT scores.

TABLE 18.--Stepwise Regression Analysis SAT (White Schools; N = 230).

Ind. Variable Entered	% Variance Accounted for	% Added to Prediction of Achievement	Total in Equation	F[a]
TRSA	.214	.214	1	35.613
SPPEE	.124	.338	2	22.232
SSE	.015	.353	3	4.935
SPSAN	.012	.365	4	4.363
SRSOF	.009	.374	5	3.410
SPFEE	.002	.376	6	.584

[a]Value of 3.89 (1, 228) required for significance at the .05 level.

Inspection of Table 18 reveals the following:

Variable TRSA: The F ratio obtained of 35.613 was higher than 3.89, the .05 significance F value for 1 and 228 degrees of freedom. Therefore, this variable was a significant predictor of academic achievement within the white school population. TRSA accounted for 21 percent of the variance in the students' SAT scores.

Variable SPPEE: The F ratio obtained of 22.232 was higher than 3.89, the .05 significance F value for 1 and 228 degrees of freedom. Therefore, this variable was a significant predictor of academic achievement within the white school population. SPPEE accounted for an additional 12 percent of the variance in the students' SAT scores.

Variable SSE: The obtained F ratio of 4.935 was higher than 3.89, the .05 significance F value for 1 and 228 degrees of freedom. Therefore, this variable was a significant predictor of academic achievement within the white school population. SSE accounted for an additional 1.5 percent of the variance in the students' SAT scores.

Variable SPSAN: The obtained F ratio of 4.363 was higher than 3.89, the .05 significance F value for 1 and 228 degrees of freedom. Therefore, this variable was a significant predictor of academic achievement within the white school population. SPSAN accounted for an additional 1.2 percent of the variance in the students' SAT scores.

Variable SRSOF: The F ratio obtained of 3.410 was lower than 3.89, the .05 significance F value for 1 and 228 degrees of freedom. Therefore, this variable was not a significant predictor of academic achievement within the white school population. SRSOF accounted for .9 of 1 percent of the explained variance in the students' SAT scores.

Variable SPFEE: The F ratio obtained of .584 was lower than 3.89, the significance F value for 1 and 228 degrees of freedom. Therefore, this variable was not a significant predictor of academic

achievement within the white school population. SPFEE accounted for .2 of 1 percent of the explained variance in the students' SAT scores.

On examining Tables 16, 17 and 18, it is apparent that some of the F values are significant and some are not significant.

The findings as they relate to the hypotheses (7-12) are as following:

Hypothesis 7 predicted that student perceived present evaluation-expectation is a significant predictor of student academic achievement.

In this hypothesis the F ratio for the integrated population was 20.288, the black population was 41.097, and the white population, 35.613. These F ratios were sufficient in magnitude of the level of confidence at .05. Thus, the above hypothesis was accepted (see Tables 16, 17, and 18).

Hypothesis 8 predicted that student perceived future evaluation-expectation is a significant predictor of student academic achievement.

In this hypothesis the F ratio for the integrated population was .741, the black population was 2.797, and the white population, .584. These F ratios were too low in magnitude at the .05 level of significance. Thus, the above hypothesis was rejected (see Tables 16, 17, and 18).

Hypothesis 9 predicted that student reported sense of futility is a significant predictor of student academic achievement.

In this hypothesis the F ratio for integrated population was .597; the black population, 1.656; and the white population, 3.410. These F ratios were not in excess of the .05 level of significance. Thus, the above hypothesis was rejected (see Tables 16, 17, and 18).

Hypothesis 10 predicted that student perception of school academic norms is a significant predictor of student academic achievement.

In this hypothesis the F ratio for integrated population was 6.790; the black population, 3.508; and the white population, 4.363. In the integrated and white populations the F ratios were sufficient in magnitude of the .05 level of significance. Only in the black population the F ratio was too low in magnitude of the .05 level of significance. Thus, the above hypothesis was accepted (see Tables 16, 17, and 18).

Hypothesis 11 predicted that student self-esteem is a significant predictor of student academic achievement.

In this hypothesis the F ratio for integrated population was 2.088; the black population, 4.842; and the white population, 4.935. In the black and white populations the F ratios were sufficient in magnitude of the .05 level of significance. Only in the integrated population the F ratio was too low in magnitude of the .05 level of significance. Thus, the above hypothesis was accepted (see Tables 16, 17, and 18).

Hypothesis 12 predicted that teacher ratings of student adjustment is a significant predictor of student academic achievement.

In this hypothesis the F ratio for integrated population was 20.288; the black population, 41.097; and the white population, 35.618. All of the F ratios were in excess of the .05 level of significance. Thus, the above hypothesis was accepted (see Tables 16, 17, and 18).

Tables 16, 17, and 18 show the results of the stepwise regression analysis, on the integrated, black, and white school populations.

It is apparent that teacher ratings of student adjustment accounted for most of the variance in each student population: integrated, 27 percent; black, 28 percent; and white, 21 percent. This indicates that teacher ratings of students' adjustment (attitudes) predicted a greater portion of academic achievement in black schools than in white schools. This indicates that teacher attitudes of students is a characteristic of academic achievement and shows a greater reflection in black schools than in white schools.

Investigation of Tables 16, 17, and 18 indicates that the integrated and white schools differ from the black schools in regard to students' perception of school academic norms as a significant predictor for students' SAT scores. In the integrated and white schools academic norms was a significant predictor of academic achievement but not in the black schools.

In the integrated school students' perceived academic norms were the second highest significant predictor in regression and accounted for 5.4 percent of the variance. In the white schools

students' perceived academic norms was the fourth variable as a significant predictor in regression and accounted for 1.2 percent of the variance. This could suggest that the students in the integrated and white schools were more sensitive to the academic norms, but in a negative manner. The findings of the beta weights and correlation analysis of academic norms with academic achievement revealed that the association between the two were negative (see Tables 8, 9, 10, and 15). A possible reason for this negative feeling about academic norms could be related to the degree of emphasis placed on academic norms by "others" in the school climate which stimulated strong resentment by the students toward academic norms. It is worth noting that students' self-esteem was not a significant predictor within the integrated school climate as it was in the black and white school climate. It is possible that the integrated students had a higher personal judgment of worthiness, and felt better about themselves. One possible reason is that the school ethnic and racial composition helped these students develop a stronger perceived self and self-esteem.

Student present evaluations-expectations showed similar strength and direction as a significant predictor in the black and white schools. However, in the integrated school student present evaluations-expectations emerged as a significant predictor but did differ in order and magnitude. This could reflect that the opinions of others do not mean as much personally to the students within the integrated school as they do to the students within the white and black schools in this fifth and sixth grade group.

Tables 16, 17, and 18 show that students' future evaluations-expectations and student reported sense of futility showed negligible difference between the order of position and magnitude in the three schools. Also, student future evaluations-expectations and student reported sense of futility did not emerge as significant predictors of academic achievement in either of the three schools. These results indicate the unimportance of student perceived of student perceived sense of futility and student future evaluations-expectations as predictors within the school climate in this study. With student perceived sense of futility these findings differ from what has been found from research carried out on low SES groups in the United States. One possible reason for student sense of futility not being a significant predictor and having a negative relationship with academic achievement is there must be some other factor operating which forces sense of futility and academic achievement to diverge. To some degree, sense of futility and academic achievement must be contradictory characteristics, the presence of one tends to exclude the other. With students' future evaluations-expectations not emerging as a significant predictor. This suggests that student's academic achievement is independent of the student's feelings of future expectations of "others" in this study.

In summary, teacher ratings of student adjustment may be used as a single predictor for estimating students' academic achievement.

For all three groups, variables teacher ratings of student adjustment, student present evaluations-expectations, student

self-esteem, and student perceived academic norms were found to be better predictors of student academic achievement in this fifth and sixth grade data.

Although most of the variability in the SAT variable was accounted for by the same variables. However, the independent variables did differ from each other slightly in pattern and magnitude.

The social-psychological school climate variables computed from the student data were found to have a lesser contribution to prediction of student academic achievement within the integrated school than within the black or white schools.

The social-psychological school climate variables computed from the teacher data were found to be not significant predictors of classroom mean achievement as measured by the students' Stanford Achievement Test scores in this study.

The summary of this study and the major findings, conclusions, and recommendations are presented in Chapter V.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

The purpose of this study was to determine the relationship between certain social-psychological variables comprising the school social climate and the standardized achievement test scores of fifth and sixth grade students in Ecorse Public Schools. More specifically, to find out from a selected number of social-psychological variables which are the strongest predictors of a student's Stanford Achievement Test scores.

A compendium of this study's findings revealed that seven variables deserved consideration and that five of the seven should receive marked attention.

The variables that showed the greatest strength as predictors of standardized achievement test scores were: teacher ratings of student adjustment, student present perceived evaluation-expectation, student self-esteem, and student perception of school academic norms. These four predictors were significant at the .05 level. A discussion of the findings of all the predictors will be considered later in this chapter.

The information accumulated through the use of the data was analyzed, and resulted in the following findings.

Findings

1. TRSA variable was found to be the most powerful significant predictor of academic achievement within the integrated, black, and white schools. TRSA was found to be a stronger predictor of fifth and sixth grade students' Stanford Achievement Test scores in black and integrated schools than in white schools. TRSA variable showed a positive significant relationship to variables SSE, SPPEE, and SPFEE. TRSA variable showed a negative significant relationship with variable SRSOF. This means that well adjusted students feel that they have the power to control their academic performance. TRSA variable was not significant with variable SPSAN. The correlation between TRSA with academic achievement were integrated school, .52; black schools, .53; and white schools, .52. TRSA was the highest correlated social-psychological variable with academic achievement. Therefore, TRSA accounted for at least one-quarter of the variability in academic achievement, and its contribution to prediction was significant at the .05 level. Thus, this researcher found that the social-psychological variable which had the greatest significant positive influence on predictability of achievement was the variable TRSA. Thus, it appears that the TRSA variable can make a worthwhile contribution in a prediction battery that consists of social-psychological school climate variables. It is hopeful that the TRSA variable will be included in future research on the effects of elementary school achievement.

2. In this study it was found that SPPEE had a significant positive relationship with academic achievement. SPPEE was found to

be a significant predictor of academic achievement in white, black, and integrated schools. SPPEE demonstrated greater power to predict academic achievement within white schools than within black or integrated schools. As shown in previous research, the variable SPPEE is an effective variable in predicting academic achievement.

3. Variable SPFEE correlated positive with achievement in all schools. SPFEE showed the highest correlation with achievement in the black schools, .26; followed by white schools, .22; and integrated school, .13. SPFEE predicted more of the variance in black schools than in integrated or white schools. But SPFEE was not a significant predictor of academic achievement at the .05 level in either of the three schools. Therefore, the researcher finds this variable potentially important as a predictor of academic achievement in schools that consist of a large population or total population of minorities.

4. SRSOF variable showed negative correlations with achievement in all schools. Variable SRSOF showed the highest correlations with achievement within white schools, -.27; followed by black schools, -.25; and integrated school, -.13. SRSOF variable was not a significant predictor of achievement in any of the schools. Since variable SRSOF showed correlation coefficients of -.27, -.25, and -.13, respectively, with achievement within the three school populations, this variable deserves future researching.

5. Variable SPSAN showed a negative correlation coefficient with achievement within all the schools. This means that the students disagree with the members of the school social systems as to

the importance of the student role. SPSAN had the highest simple correlation coefficient within the integrated school, -.25; white schools, -.10; and black schools, -.03. SPSAN was a significant predictor of achievement at the .05 level within the integrated and white schools. Variable SPSAN showed its greatest predictability within the integrated school. Within the integrated school variable SPSAN significantly predicted 5.4% of the additional explained variance in achievement. Within the white school the SPSAN variable significantly predicted 1.2% of the explained variance in achievement. Unlike the integrated and white schools, within the black schools the SPSAN variable was not significant. This researcher finds this variable a potential factor in future research with academic achievement.

6. Variable SSE correlated positive with achievement within all schools. The simple correlation coefficient within white schools was .32 followed by black schools, .31, and integrated school, .19. The variable SSE was found to be a significant predictor of achievement within the white and black schools. Within the black schools SSE accounted for an additional 2.2% of the variance in academic achievement at the .05 level of significance. Within the white schools the SSE variable explained an additional 1.5% of the variance at the .05 level of significance. Unlike the black and white schools within the integrated school the SSE variable was not a significant predictor of achievement. Thus, SSE is an important variable in future achievement research.

7. With respect to Hypotheses 1-6, it was found in this study that teacher school climate variables (Teacher Present Evaluations-Expectations, Teacher Future Evaluations Expectations, Teacher Perceived Parent-Student Push for Educational Achievement, Teacher Reported Push of Individual Students, Teacher Reported Feelings of Job satisfaction, and Teacher Perceptions of Student Academic Improvability) were not significant predictors of classroom mean achievement at the .05 level of confidence.

8. The following social-psychological school climate variables were significant predictors of SAT scores for the integrated school (34 percent): (a) TRSA, (b) SPSAN, and (c) SPPEE.

9. The following social-psychological school climate variables were significant predictors of SAT scores for the black schools (36 percent): (a) TRSA, (b) SPPEE, and (c) SSE.

10. The following social-psychological school climate variables were significant predictors of SAT scores for white schools (37 percent): (a) TRSA, (b) SPPEE, (c) SSE, and (d) SPSAN.

Conclusions

The conclusions that are drawn from this research are based upon the findings reached in this study.

1. Within the integrated school population of fifth and sixth grade students the three most powerful significant predictors of achievement were TRSA, SPSAN, and SPPEE. The most powerful predictor of academic achievement was TRSA followed by SPSAN, and SPPEE as less powerful predictors.

2. Within the white schools population of fifth and sixth grade students the four most powerful significant predictors of achievement were TRSA, SPPEE, SSE, and SPSAN. The most powerful predictor of academic achievement was TRSA followed by SPPEE, SEE, and SPSAN.

3. Within the black schools the three most powerful significant predictors of achievement were TRSA, SPPEE, and SEE. The most powerful predictor of achievement was TRSA followed by SPPEE, and SSE as less powerful predictors of achievement within this battery of social-psychological variables.

4. Within the total school population of fifth and sixth grade students the six teacher social-psychological school climate variables taken singly or in multiples did not significantly predict academic achievement.

5. In this experimental research Students' Perceived Future Evaluations-Expectations, and Students' Reported Sense of Futility were not significant predictors of academic achievement in either of the three schools.

6. In this experimental research TRSA was the most powerful significant predictor of academic achievement in all three different populations. TRSA predicted a larger proportion of the explained variance within the black and integrated populations than within the white population.

In general, it appears safe to conclude that certain social-psychological school climate variables are predictors of standardized achievement test scores. These social-psychological variables will

vary from school to school as greater or lesser significant predictors. Since each school has its own unique social system these predictors show a different relationship to the standardized achievement test scores.

Discussion

The first research question dealing with the effects of teacher attitudes upon students' academic performance were not supported by the Teacher Questionnaire data. However, data from the Teacher Ratings of Student Adjustment did support research Question 1. Consequently, this present study does support the assumption that student standardized achievement test scores are affected by teacher attitudes.

In this analysis pertaining to the student data it was illustrated how important social-psychological variables are to academic achievement in the school social climate. As predicted social-psychological variables contributed their share to the SAT variance. Teacher ratings of student adjustment (TRSA) was significantly related and was the most powerful predictor of the standardized achievement test scores. This means that well adjusted students score well, and poorly adjusted students score poorly on standardized achievement test. In other words, if one knows how well the student is adjusted to the role of a student, he can predict fairly closely the student's SAT scores.

Since the findings of this research suggested that the differences in academic achievement between well adjusted and poorly

adjusted pupils tend to greater than expected, at the elementary level. It is quite possible that this maladjusted behavior in elementary schools and classrooms decreases the opportunities to learn basic skills. It also appears likely that failure to achieve basic skills produces future frustration in future learning situations.

Student present evaluations-expectations (SPPEE) entered the stepwise regression equation second for the data from the white and black students, and third for the data from the integrated students of these fifth and sixth graders. Firstly, this means that SPPEE has the power to predict a certain percentage of the variance in standardized achievement tests. Secondly, this means that SPPEE has demonstrated the power to predict a larger additional percentage of variance in standardized achievement tests in white schools than in black and integrated schools. Thirdly, this means that students' interpretation of how "others" feel about them has a greater influence on the standardized achievement tests in predominantly white students, than all black and integrated students.

The stepwise regression analysis revealed that a gain in predictability of student standardized achievement test (SAT) was significant in the black and white schools, but not in the integrated school when the student's self-esteem scores were added to the battery. This means that student self-esteem is important to achievement of fifth and sixth graders in the black and white schools, but not to the fifth and sixth graders in the integrated school. One valid explanation for this difference is that the integrated school was more successful in developing a student's feelings of personal

worthiness. Thus, the integrated school is more effective in eliminating the influence that self-esteem has on achievement.

The gain in predictability of student SAT scores was significant when students' academic norms (SPSAN) scores were added to the stepwise regression equation in the integrated students and white students but not in the black students. This indicates that SPSAN is a more powerful significant predictor of standardized achievement test scores in integrated schools and white schools, than in black schools. The correlational analysis and the beta weights analysis revealed that academic norms are negatively related to the student's SAT scores. This indicates that as favorable feelings toward academic norms decreases, students' SAT scores increase. This means that there is more negative resentment toward stress for academic performance by the students within the integrated and white schools than within the black schools. One possible explanation is that the emphasis placed upon academic norms by "significant others" differs within each school. Or students in different schools may perceive the emphases placed upon academic norms differently.

The gain in predictability of student SAT scores was not significant when student future evaluation-expectation (SPFEE) or student sense of futility (SRSOF) were added to the stepwise regression equations of the integrated, black, or white groups. This indicates that SPFEE and SRSOF were not significant predictors in the prediction battery of social-psychological school climate variables that consist of measures of TRSA, SPPEE, SSE, and SPSAN to

standardized achievement test scores in the fifth and sixth graders of either group, integrated, black or white.

In this analysis pertaining to the student data, there appears to be no doubt that factors other than aptitude predict academic achievement. Some of the social-psychological variables in this study did explain a significant portion of the variance in the students' SAT scores. The overall conclusions are:

a. Some of the social-psychological variables comprising the school climate significantly affected the SAT scores of all the fifth and sixth grade students.

b. The social-psychological school climate variables that had the greatest affect on student SAT scores were teacher ratings of student adjustment, student present perceptions of expectations, student self-esteem, and student perceptions of academic norms. The above social-psychological variables significantly accounted for the variance in student SAT scores in this study. It should be noted that student perceptions of academic norms were not significant in the black schools.

c. The social-psychological school climate variables had less affect on the standardized achievement test scores of integrated students than on students attending all-black or all-white schools.

d. The social-psychological school climate variables as single predictors did differ in ability to predict standardized achievement test scores of integrated, black, and white students. It should be noted that teacher ratings of students' adjustment predicted a larger percentage of the variance within the black

schools. On the other hand, student perceived present evaluation-expectation was a noticeable stronger predictor within the white schools than within the black and integrated schools. And student perception of school academic norms was a stronger predictor within the integrated school than within the white or black schools.

The student data in this study furnished empirical evidence that certain social-psychological variables in a low SES school climate were significant predictors of standardized achievement test scores.

Future studies may explain how social-psychological school climate variables have a different affect on students attending integrated, segregated and low or high achieving schools. Thus, to improve academic performance a change in normative school climate is justified.

Recommendations

Keeping with the limitations expressed in this investigation there are significant findings that should be stated as recommendations.

1. Since this research has value for educators, sociologists, social scientists, a larger number of schools with more diversity should be investigated.

2. Because children's adjustment is often affected by their parents' attitudes, it is recommended that further research involve a study of parental attitudes concerning school adjustment. It would be of interest to educators, counselors, and parents to know

if children of parents who have positive attitudes toward school adjustment would differ on standardized achievement scores from children whose parents have negative or indifferent attitudes toward school adjustment.

3. Social environment within the community is another variable that could be of importance within the general problem of school adjustment. It would be of interest to investigate the impact that different communities have on academic achievement test scores.

4. In view of the fact that this study was concerned only with fifth and sixth grade students, it would also be interesting to see if a similar relationship exists between academic achievement and adjustment ratings of earlier elementary students.

5. The relationship between school adjustment and school failure such as under-achievement, drop-out rates and delinquency should become a future research priority.

6. It is encouraged that future research should become more concerned with the relationship between children's perceptions of their teachers' feelings and as classroom behavior relates to achievement.

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APPENDICES

APPENDIX A

STUDENT QUESTIONNAIRE

SCHOOL SOCIAL ENVIRONMENT STUDY
STUDENT QUESTIONNAIRE

Sponsored by

Michigan Department of Education
and
Michigan State University

Dr. Wilbur Brookover, Professor of Sociology and Education, Project Director

DIRECTIONS: We are trying to learn more about students and their work in schools. We would, therefore, like for you to respond to the following questions. This is not a test of any sort 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, we simply want you to tell us your answer to each question.

1. Name_____

PLEASE ANSWER THE FOLLOWING QUESTIONS BY CIRCLING THE NUMBER ON THE RIGHT OF YOUR BEST ANSWER TO THE QUESTION. PICK ONLY ONE ANSWER FOR EACH QUESTION!

2. How old were you on your last birthday?

9 years old	..... 1.
10 years old	..... 2.
11 years old	..... 3.
12 years old	..... 4.
13 years old	..... 5.

3. Are you a boy or girl?

boy	..... 1.
girl	..... 2.

4. What grade are you in?

3rd grade	..... 1.
4th grade	..... 2.
5th grade	..... 3.
6th grade	..... 4.
7th grade	..... 5.

5. Please write your teacher's name.

_____

6. Please write the name of your school.

_____

7. How many years have you been at this school?

Less than 1 year	..... 1.
2 years	..... 2.
3 years	..... 3.
4 years	..... 4.
5 years	..... 5.
6 years	..... 6.
7 years or more	..... 7.

If your father does not live with you or if he is not alive, please answer this question for the person in your house who makes the most money.

8. What type of work does your father do? (Give a short description of his job)

_____

_____

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 MICHIGAN STATE UNIVERSITY, SO PLEASE TELL US JUST WHAT YOU THINK. (Pick only one answer for each question)

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

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.

10. How many students in this school try hard to get a good grade on their 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.

11. How many students in this school will work hard to get a better grade on the weekly tests than their friends do?

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.

12. How many students in this school don't care if they get bad grades?

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.

13. How many students in this school do more studying for weekly tests than they have to?

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. If most of the students here could go as far as they wanted in school how far would they go?

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.

15. If the teacher that you like the best told you that you were a poor student how would you feel?

I'd feel very bad	..... 1.
I'd feel somewhat bad	..... 2.
It wouldn't bother me very much	..... 3.
It wouldn't bother me at all	..... 4.

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

It's the most important thing I can do	..... 1.
It's important, but other things are just as important	..... 2.
It's important, but other things are more important	..... 3.
It's not very important	..... 4.

17. If your parents told you that you were a poor student, how would you feel?

I'd feel very bad	..... 1.
I'd feel somewhat bad	..... 2.
It wouldn't bother me very much	..... 3.
It wouldn't bother me at all	..... 4.

18. If your best friend told you that you were a poor student, how would you feel?

I'd feel very bad	..... 1.
I'd feel somewhat bad	..... 2.
It wouldn't bother me very much	..... 3.
It wouldn't bother me at all	..... 4.

19. How do you think most of the students in this class react when one of you does a bad job on school work?

They feel badly and want to help him (her) do better	..... 1.
They feel sorry, but don't say anything	..... 2.
They really don't care	..... 3.
They are secretly happy that it happened	..... 4.

20. How do you think most of the teachers in this school react when one of the students does a bad job on school work?

They feel badly and want to help him (her) do better ..... 1.
They feel badly, but don't really help him (her) ..... 2.
They get mad and tell him (her) to start working harder ..... 3.
They get mad but don't say anything ..... 4.
They really don't care ..... 5.

21. What do you think most students say when a student has done good or better than he usually does in his school work?

He was just lucky, he won't do that good next time ..... 1.
Anyone could do it if they studied ..... 2.
I wish I could do as well as he did ..... 3.
I'm glad for him I hope he does as well next time ..... 4.

22. How important do most of the students in this class feel it is to do well in school work?

Almost everybody thinks it is the most important thing you can do. ..... 1.
Most students think it is quite important to do well ..... 2.
Doing well in school work is a good thing but other things are important too. ..... 3.
Most students don't seem to care how well they do, but it's okay for others to do well. ..... 4.
Most students don't seem to care how good they do, but they don't like other students to do good. ..... 5.

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

Almost everybody thinks it is the most important thing you can do. ..... 1.
Most students think it is quite important to do well ..... 2.
Doing well in school work is a good thing but other things are important too. ..... 3.
Most students don't seem to care how well they do, but it's okay for others to do well. ..... 4.
Most students don't seem to care how good they do, but they don't like other students to do good. ..... 5.

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

24. Think about the boys or girls you play with at recess or after school. How often do they read in their free time?

Very often ..... 1.
Quite a bit ..... 2.
Sometimes, but not very much ..... 3.
Seldom ..... 4.
Almost never ..... 5.

25. When you and your friends are together after school or on weekends, how often do you talk about your school work?

Very often	..... 1.
Quite a bit	..... 2.
Sometimes, but not very much	..... 3.
Seldom	..... 4.
Almost never	..... 5.

26. People like me will not have much of a chance to do what we want to in life.

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

27. People like me will never do well in school even though we try hard.

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

28. I can do well in school if I work hard.

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

29. In this school, students like me don't have any luck.

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

30. You have to be lucky to get good grades in this school.

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

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

Better	..... 1.
The same	..... 2.
Poorer	..... 3.

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	..... 1.
The same	..... 2.
Poorer	..... 3.

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

One of the best	..... 1.
About the same as most of the students	..... 2.
Below most of the students	..... 3.

34. Do you think you could finish college?

Yes, with no difficulty at all	..... 1.
Yes, as long as I work hard	..... 2.
Yes, but I will probably have a lot of difficulty	..... 3.
No, it will be too difficult	..... 4.

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

One of the best	..... 1.
About the same as most of the students	..... 2.
Below most of the students	..... 3.

36. If you want to be a doctor or a teacher, you need more than 4 years of college. Do you think you could do that?

Yes, with no difficulty at all	..... 1.
Yes, as long as I work hard	..... 2.
Yes, but I will probably have a lot of difficulty	..... 3.
No, it will be too difficult	..... 4.

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

Excellent	..... 1.
Good	..... 2.
About the same as most of the students	..... 3.
Below most of the students	..... 4.
Poor	..... 5.

38. What marks do you think you <u>really can</u> get if you try?

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

NOW WE WOULD LIKE YOU TO ANSWER SOME QUESTIONS ABOUT PEOPLE THAT YOU KNOW. ANSWER THESE QUESTIONS BY CIRCLING THE NUMBER AS YOU DID IN THE OTHER QUESTIONS. (Pick only one answer)

39. When you do good work in school who do you most want to know about it?

mother	..... 1.
father	..... 2.
brother or sisiter	..... 3.
teacher	..... 4.
friend	..... 5.
other_____ (specify)	..... 6.

40. Who is the most interested in your work in school?

Mother	..... 1.
Father	..... 2.
Brother or sister	..... 3.
Teacher	..... 4.
Friend	..... 5.
Other_____ (Specify)	..... 6.

NOW WE WOULD LIKE YOU TO ANSWER SOME QUESTIONS ABOUT YOUR BEST FRIEND. STOP FOR A MINUTE AND THINK WHO YOUR BEST FRIEND IS. ANSWER THESE QUESTIONS BY CIRCLING THE NUMBER AS YOU DID IN THE OTHER QUESTIONS. REMEMBER, YOUR BEST FRIEND WILL NOT SEE YOUR ANSWERS. (Pick only one answer)

41. 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.
Go to college for a while	..... 3.
Finish college	..... 4.

42. How good a student does your best friend expect you to be in school?

One of the best	..... 1.
Better than most of the students	..... 2.
Same as most students	..... 3.
Not as good as most students	..... 4.
He doesn't really care	..... 5.

43. Think of your best friend. Would your best friend say you can do school work better, the same, or poorer than other people your age?

Better	..... 1.
The same	..... 2.
Poorer	..... 3.

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

With the best	..... 1.
Same as most	..... 2.
Below most	..... 3.

45. Does your best friend think you could finish college?

Yes	..... 1.
Maybe	..... 2.
No	..... 3.

46. Remember you need more than four years of college to be a teacher or doctor. Does your best friend think you could do that?

Yes	..... 1.
Maybe	..... 2.
No	..... 3.

47. What grades does your best friend think you can get?

Mostly A's ..... 1.
Mostly B's ..... 2.
Mostly C's ..... 3.
Mostly D's ..... 4.
Mostly E's ..... 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.

48. 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.

49. 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.

50. 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.

51. 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.

52. 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.

53. 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.

54. If the teachers in this school think a student can't do good work, how many will try to make him work hard anyway?

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.

55. Of the teachers that you know in this school, how many think it is not good to ask more work from a student than he is able to do?

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.

56. Of the teachers that you know in this school, how many believe that students should be asked to do only work which they are able to do?

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.

57. How far do you think the teacher you like the best 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.

58. How good of 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 students ..... 3.
Not as good as most students ..... 4.
She doesn't really care ..... 5.

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

Better	..... 1.
The same	..... 2.
Poorer	..... 3.

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

With the best	..... 1.
Same as most	..... 2.
Below most	..... 3.

61. Does your teacher think you could finish college?

Yes	..... 1.
Maybe	..... 2.
No	..... 3.

62. Remember you need more than four years of college to be a teacher or doctor. Does your teacher think you could do that?

Yes	..... 1.
Maybe	..... 2.
No	..... 3.

63. What grades does your teacher think you can get?

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

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

64. How far do you think your parents believe 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.

65. How good of 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.
They don't really care	..... 5.

66. Think of your mother and father. Do your mother and father say you can do school work better, the same, or poorer than your friends?

Better	..... 1.
Same as most	..... 2.
Poorer	..... 3.

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

The best ..... 1.
Same as most ..... 2.
Below most ..... 3.

68. Do they think you could finish college?

Yes ..... 1.
Maybe ..... 2.
No ..... 3.

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

Yes ..... 1.
Maybe ..... 2.
No ..... 3.

70. What grades do your mother and father think you <u>can</u> get?

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

NOW WE WANT TO ASK YOU SOME QUESTIONS ABOUT THE PRINCIPAL OF THIS SCHOOL. REMEMBER, YOUR PRINCIPAL WILL <u>NOT</u> SEE YOUR ANSWERS.

71. How many students in this school do you think the principal believes can get high grades?

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.

72. How do you think your principal would grade the work of the students in this school, compared to other schools?

Would grade it much better ..... 1.
Would grade it somewhat better..... 2.
Would grade it the same ..... 3.
Would grade it somewhat lower ..... 4.
Would grade it much lower ..... 5.

73. How many of the students in this school do you think the principal believes will finish high school?

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.

74. How many of the students in this school do you think the principal believes will go to college?

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.

75. How many of the students in this school do you think the principal believes will finish college?

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.

76. When I do a good job on my school work, I am more popular with other students.

Yes	..... 1.
No	..... 2.
Doesn't make any difference	..... 3.

77. If I do well in school, it will be easier for me to get the job I want when I graduate.

Yes	..... 1.
No	..... 2.
Doesn't matter	..... 3.

78. My parents allow me greater freedom when I do well in school.

Yes	..... 1.
No	..... 2.
Doesn't matter	..... 3.

79. If you came home with a good report card, what would your parents most likely do?

Nothing in particular	..... 1.
Praise me	..... 2.
Give me special privileges	..... 3.
Give me money or some special reward	..... 4.
Other_____ (specify)	..... 5.

80. If you came home with a poor report card, what would your parents most likely do?

Nothing in particular	..... 1.
Scold me	..... 2.
Take away privileges	..... 3.
Punish me severely in some way	..... 4.
Other_____ (specify)	..... 5.

81. Sometimes what you <u>want</u> to happen is not what you <u>think</u> will happen. How far do you <u>think</u> 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.

APPENDIX B

TEACHER QUESTIONNAIRE

Teacher Questionnaire
(Revised Draft)

School Social Environment Study

Sponsored by

Michigan Department of Education

and

Michigan State University

This research project is being
carried out under the supervision of

Dr. Wilbur B. Brookover
Professor of Sociology and Education, and
Associate Director, Center for Urban Affairs
Michigan State University
East Lansing, Michigan
Tel. 517 353-9506

Any questions should be directed to Dr. Brookover

1. 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 staff. Reports will be made with aggregate data, and no one person will be identified with his or her data. After your questionniare has been completely coded and punched on IBM cards, your questionnaire 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 do not write on this side of the line.

2. Sex (Please check appropriate line) — 3

female_____
male_____

3. Please write the name of this school. — 4 5

_____

4. How long have you taught in this school? — 6 7

_____

5. How long have you taught school? — 8 9

_____

6. What grade level are you teaching? — 10

_____

7. How much formal preparation do you have? (circle the number of the correct answer) — 11

1. less than a Bachelors degree
2. Bachelors degree
3. some graduate work but less than Masters degree
4. Masters degree
5. more than Masters degree but not Doctorate
6. Doctor's degree

8. How did you feel about this school before coming here? (give general attitude) — 12

Please do not write on this side of the line.

9a. Has your attitude changed since? (circle number of correct answer) 13

1. yes
2. no

9b. If so, how?

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.

10. In general, what grouping procedure is practiced across sections of particular grade levels in this school? 14

1. homogeneous grouping according to ability
2. heterogeneous grouping according to ability
3. random grouping
4. no intentional grouping
5. other (indicate)_____

11. In general, what grouping procedure is practiced within your class? 15

1. homogeneous grouping according to ability
2. heterogeneous grouping according to ability
3. random grouping
4. no intentional grouping
5. other (indicate) _____

12. How important do you think the standardized test scores of your students are? 16

1. very important
2. somewhat important
3. not very important
4. not important at all

Please do not write on this side of the line.

13. How often do you use the standardized test scores of your students? 17

1. very often
2. often
3. sometimes
4. seldom
5. never

Please answer each of the following questions by circling the letter before the choice which most nearly answers the question for you.

14. On the average what level of achievement can be expected of the students in this school? 18

1. much above national norm
2. slightly above national norm
3. approximately at national norm
4. slightly below national norm
5. much below national norm

15. On the average what level of achievement can be expected of the students in your class? 19

1. much above national norm
2. slightly above national norm
3. approximately at national norm
4. slightly below national norm
5. much below national norm

16. What percent of the students in this school do you expect to complete high school? 20

1. 90% or more
2. 70% or more
3. 50% or more
4. 30% or more
5. less than 30%

17. What percent of the students in your class do you expect to complete high school? 21

1. 90% or more
2. 70% or more
3. 50% or more
4. 30% or more
5. less than 30%

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

1. 90% or more
2. 70% or more
3. 50% or more
4. 30% or more
5. less than 30%

19. What percent of the students in your class do you expect to attend college? 23

1. 90% or more
2. 70% or more
3. 50% or more
4. 30% or more
5. less than 30%

20. What percent of the students in this school do you expect to complete college? 24

1. 90% or more
2. 70% or more
3. 50% or more
4. 30% or more
5. less than 30%

21. What percent of the students in your class do you expect to complete college? 25

1. 90% or more
2. 70% or more
3. 50% or more
4. 30% or more
5. less than 30%

22. How many of the students in this <u>school</u> are capable of getting mostly A's and B's? 26

1. 90% or more
2. 70% or more
3. 50% or more
4. 30% or more
5. less than 30%

23. How many of the students in your <u>class</u> are capable of getting mostly A's and B's? 27

1. 90% or more
2. 70% or more
3. 50% or more
4. 30% or more
5. less than 30%

24. How would you rate the academic ability of the students in this <u>school</u> compared to other schools? 28

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

25. What percent of the students in this <u>school</u> would you say want to complete high school? 29

1. 90% or more
2. 70% or more
3. 50% or more
4. 30% or more
5. less than 30%

26. What percent of the students in your <u>class</u> would you say want to complete high school? 30

1. 90% or more
2. 70% or more
3. 50% or more
4. 30% or more
5. less than 30%

27. What percent of the students in this school would you say want to go to college? 31

1. 90% or more
2. 70% or more
3. 50% or more
4. 30% or more
5. less than 30%

28. What percent of the students in your class would you say want to go to college? 32

1. 90% or more
2. 70% or more
3. 50% or more
4. 30% or more
5. less than 30%

Please remember, your answers to all of these questions are completely confidential. No one but our research staff will see your answers.

29. How much do you enjoy your teaching responsibilities in this school? 33

1. very much
2. much
3. average
4. little
5. not at all

30. 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? 34

1. very seriously
2. somewhat seriously
3. not very seriously
4. not at all

31. 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? 35

1. very seriously
2. somewhat seriously
3. not very seriously
4. not at all

32. How often do you stay after school to help students? 36

1. very often
2. often
3. sometimes
4. seldom
5. never

33. What percent of the students in this school do you think the principal expects to <u>complete</u> high school? 37

1. 90% or more
2. 70% or more
3. 50% or more
4. 30% or more
5. less than 30%

34. What percent of the students in this school do you think the principal expects to <u>attend</u> college? 38

1. 90% or more
2. 70% or more
3. 50% or more
4. 30% or more
5. less than 30%

35. What percent of the students in this school do you think the principal expects to <u>complete</u> college? 39

1. 90% or more
2. 70% or more
3. 50% or more
4. 30% or more
5. less than 30%

36. How many students in this school do you think the principal believes are capable of getting mostly A's and B's. 40

1. 90% or more
2. 70% or more
3. 50% or more
4. 30% or more
5. less than 30%

37. How do you think your principal rates the academic ability of the students in this school, compared to other schools? 41

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

38. Completion of high school is a realistic goal which you set for what percentage of your students? 42

1. 90% or more
2. 70% or more
3. 50% or more
4. 30% or more
5. less than 30%

39. Completion of college is a realistic goal which you set for what percentage of your students? 43

1. 90% or more
2. 70% or more
3. 50% or more
4. 30% or more
5. less than 30%

40. 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? 44

1. very often
2. often
3. sometimes
4. seldom
5. never

41. For those students who do not have the resources which will allow them to go to college, you are careful not to promote aspirations in them which probably can not be fulfilled. 45

1. strongly agree
2. agree
3. not sure
4. disagree
5. strongly disagree

42. The teachers in this school push students to work too hard. 46

1. strongly agree
2. agree
3. not sure
4. disagree
5. strongly disagree

43. How many teachers in this school aren't concerned how hard most students work, as long as they pass? 47

1. almost all of the teachers
2. most of the teachers
3. half of the teachers
4. some of the teachers
5. almost none of the teachers

44. It is unfair to demand more from a student than he is capable of giving. 48

1. strongly agree
2. agree
3. not sure
4. disagree
5. strongly disagree

45. If you think a student is not able to do some of the school work you won't try to push him very hard. 49

1. strongly agree
2. agree
3. not sure
4. disagree
5. strongly disagree

46. For most students you are very careful not to push them to their frustration level. 50

1. strongly agree
2. agree
3. not sure
4. disagree
5. strongly disagree

47. How many teachers in this school encourage students to try hard to improve on previous test scores? 51

1. almost all of the teachers
2. most of the teachers
3. about half of the teachers
4. some of the teachers
5. almost none of the teachers

48. How many teachers encourage students to seek extra school work so that the students can get better grades? 52

1. almost all of the teachers
2. most of the teachers
3. about half of the teachers
4. some of the teachers
5. almost none of the teachers

49. How many students in this <u>school</u> try hard to improve on previous work? 53

1. almost all of the students
2. most of the students
3. about half of the students
4. some of the students
5. almost none of the students

50. How many students in your <u>class</u> try hard to improve on previous work? 54

1. almost all of the students
2. most of the students
3. about half of the students
4. some of the students
5. almost none of the students

51. How many students in this school will try hard to do better on tests than their friends do? 55

1. almost all of the students
2. most of the students
3. about half of the students
4. some of the students
5. almost none of the students

52. How many students in your class will try hard to do better on tests than their classmates do? 56

1. almost all of the students
2. most of the students
3. about half of the students
4. some of the students
5. almost none of the students

53. How many students in this school are content to do less than they should? 57

5. almost all of the students
4. most of the students
3. about half of the students
2. some of the students
1. almost none of the students

54. How many students in your class are content to do less than they should? 58

1. almost all of the students
2. most of the students
3. about half of the students
4. some of the students
5. almost none of the students

55. How many students in this school will seek extra work so that they can get better grades? 59

1. almost all of the students
2. most of the students
3. about half of the students
4. some of the students
5. almost none of the students

56. How many students in your class will seek extra work so that they can get better grades? 60

1. almost all of the students
2. most of the students
3. about half of the students
4. some of the students
5. almost none of the students

57. How many students in this school don't care when other students do much better than they do? 61

5. almost all of the students
4. most of the students
3. about half of the students
2. some of the students
1. almost none of the students

58. How many students in your class don't care when other students do much better than they do? 62

1. almost all of the students
2. most of the students
3. about half of the students
4. some of the students
5. almost none of the students

59. The parents in this school service area regard this school primarily as a "baby-sitting" agency. 63

5. strongly agree
4. agree
3. not sure
2. disagree
1. strongly disagree

60. The parents of this school service area are deeply concerned that their children receive a top quality education. 64

1. strongly agree
2. agree
3. not sure
4. disagree
5. strongly disagree

61. How many of the parents in this school service area expect their children to complete high school? 65

1. almost all of the parents
2. most of the parents
3. about half of the parents
4. some of the parents
5. almost none of the parents

62. How many of the parents in this school service area expect their children to complete college? 66

1. almost all of the parents
2. most of the parents
3. about half of the parents
4. some of the parents
5. almost none of the parents

63. How many of the parents in this school service area don't care if their children obtain low grades? 67

5. almost all of the parents
4. most of the parents
3. about half of the parents
2. some of the parents
1. almost none of the parents

64. How many of the parents in this school service area like feedback from the principal and teachers on how their children are doing in school? 68

1. almost all of the parents
2. most of the parents
3. about half of the parents
4. some of the parents
5. almost none of the parents

APPENDIX C

RATING SCALE FOR PUPIL ADJUSTMENT

RATING SCALE FOR PUPIL ADJUSTMENT

Be sure to compare the pupil with others of his own age group.

1. Over-all Emotional Adjustment

   (Definition: Total emotional adequacy in meeting the daily problems of living as shown in school.)

   A. Very well adjusted

   B. Well adjusted

   C. Moderately adequate adjustment

   D. Poorly adjusted

   E. Very poorly adjusted

2. Tendency Toward Aggressive Behavior

   (Definition: Overt evidence of hostility and/or aggression toward other children and/or school personnel.)

   A. Rarely aggressive

   B. Occasionally aggressive

   C. Fairly aggressive

   D. Frequently aggressive

   E. Extremely aggressive

3. School Conduct

(Definition: Conduct in the classroom situation as evidence of his ability to accept the rules and regulations of the school community.)

A. Exceptionally good conduct

B. Superior conduct

C. Average conduct

D. Somewhat inadequate, conduct- troublesome, disciplinary problem

E. Very inadequate conduct-very serious disciplinary problem

APPENDIX D

STUDENT SELF-ESTEEM

Please mark each statement in the following way:

If the statement describes how you usually feel, put a check (✓) in the column, "Like Me."

If the statement does not describe how you usually feel, put a check (✓) in the column "Unlike Me."

There are no right or wrong answers.

		Like Me	Unlike Me
1.	I spend a lot of time daydreaming.	_____	_____
2.	I'm pretty sure of myself.	_____	_____
3.	I often wish I were someone else.	_____	_____
4.	I'm easy to like.	_____	_____
5.	My parents and I have a lot of fun together.	_____	_____
6.	I never worry about anything.	_____	_____
7.	I find it very hard to talk in front of the class.	_____	_____
8.	I wish I were younger.	_____	_____
9.	There are lots of things about myself I'd change if I could.	_____	_____
10.	I can make up my mind without too much trouble.	_____	_____
11.	I'm a lot of fun to be with.	_____	_____
12.	I get upset easily at home.	_____	_____
13.	I always do the right thing.	_____	_____

		Like Me	Unlike Me
14.	I'm proud of my school work.	_____	_____
15.	Someone always has to tell me what to do.	_____	_____
16.	It takes me a long time to get used to anything new.	_____	_____
17.	I'm often sorry for the things I do.	_____	_____
18.	I'm popular with kids my own age.	_____	_____
19.	My parents usually consider my feelings.	_____	_____
20.	I'm never unhappy.	_____	_____
21.	I'm doing the best work that I can.	_____	_____
22.	I give in very easily.	_____	_____
23.	I can usually take care of myself.	_____	_____
24.	I'm pretty happy.	_____	_____
25.	I would rather play with children younger than me.	_____	_____
26.	My parents expect too much of me.	_____	_____
27.	I like everyone I know.	_____	_____
28.	I like to be called on in class.	_____	_____
29.	I understand myself.	_____	_____
30.	It's pretty tough to be me.	_____	_____
31.	Things are all mixed up in my life.	_____	_____
32.	Kids usually follow my ideas.	_____	_____
33.	No one pays much attention to me at home.	_____	_____
34.	I never get scolded.	_____	_____
35.	I'm not doing as well in school as I'd like to.	_____	_____
36.	I can make up my mind and stick to it.	_____	_____

		Like Me	Unlike Me
37.	I really don't like being a boy-girl	_____	_____
38.	I have a low opinion of myself.	_____	_____
39.	I don't like to be with other people.	_____	_____
40.	There are many times when I'd like to leave home.	_____	_____
41.	I'm never shy.	_____	_____
42.	I often feel upset in school.	_____	_____
43.	I often feel ashamed of myself.	_____	_____
44.	I'm not as nice looking as most people.	_____	_____
45.	If I have something to say, I usually say it.	_____	_____
46.	Kids pick on me very often.	_____	_____
47.	My parents understand me.	_____	_____
48.	I always tell the truth.	_____	_____
49.	My teacher makes me feel I'm not good enough.	_____	_____
50.	I don't care what happens to me.	_____	_____
51.	I'm a failure.	_____	_____
52.	I get upset easily when I'm scolded.	_____	_____
53.	Most people are better liked than I am.	_____	_____
54.	I usually feel as if my parents are pushing me.	_____	_____
55.	I always know what to say to people.	_____	_____
56.	I often get discouraged in school.	_____	_____
57.	Things usually don't bother me.	_____	_____
58.	I can't be depended on.	_____	_____

APPENDIX E

INTERCORRELATION TABLES

Intercorrelations of Selected Variables Based on Data from the Integrated School.[a]

1.	SAT	1.00[a]						
2.	SEE	.19	1.00					
3.	SPPEE	.26	.16	1.00				
4.	SPFEE	.13	-.01	.46	1.00			
5.	SRSOF	-.13	-.22	-.31	-.17	1.00		
6.	SPSAN	-.25	.02	.26	.29	.03	1.00	
7.	TARS	.52	.11	.26	.13	-.24	-.14	1.00
		SAT 1	SEE 2	SPPEE 3	SPFEE 4	SRSOF 5	SPSAN 6	TARS 7

Intercorrelations of Selected Variables Based on Data from the Black Schools.[a]

1.	SAT	1.00[a]						
2.	SSE	.31	1.00					
3.	SPPEE	.36	.35	1.00				
4.	SPFEE	.26	.29	.47	1.00			
5.	SRSOF	-.25	-.29	-.20	-.09	1.00		
6.	SPSAN	-.03	.25	.17	.24	-.07	1.00	
7.	TARS	.53	.19	.27	.11	-.20	.01	1.00
		SAT 1	SSE 2	SPPEE 3	SPFEE 4	SRSOF 5	SPSAN 6	TARS 7

Intercorrelations of Selected Variables Based on Data from the White Schools.[a]

1.	SAT	1.00						
2.	SSE	.32	1.00					
3.	SPPEE	.45	.35	1.00				
4.	SPFEE	.22	.33	.50	1.00			
5.	SRSOF	-.27	-.24	-.24	-.28	1.00		
6.	SPSAN	-.10	.14	.13	.17	-.04	1.00	
7.	TARS	.52	.31	.39	.23	-.24	-.10	1.00
		SAT	SSE	SPPEE	SPFEE	SRSOF	SPSAN	TARS
		1	2	3	4	5	6	7

[a]Correlation coefficients have been rounded to two decimal places.