2-3-1970

An Investigation of the Relationships Between Organizational Climates of Schools and Teacher Leadership Dimensions

Willie Sanchez

Follow this and additional works at: https://digitalrepository.unm.edu/educ_teelp_etds

Part of the Educational Administration and Supervision Commons, Educational Leadership Commons, and the Teacher Education and Professional Development Commons
THE UNIVERSITY OF NEW MEXICO
ALBUQUERQUE, NEW MEXICO 87106

POLICY ON USE OF THESSES AND DISSERTATIONS

Unpublished theses and dissertations accepted for master's and doctor's degrees and deposited in the University of New Mexico Library are open to the public for inspection and reference work. They are to be used only with due regard to the rights of the authors. The work of other authors should always be given full credit. Avoid quoting in amounts, over and beyond scholarly needs, such as might impair or destroy the property rights and financial benefits of another author.

To afford reasonable safeguards to authors, and consistent with the above principles, anyone quoting from theses and dissertations must observe the following conditions:

1. Direct quotations during the first two years after completion may be made only with the written permission of the author.

2. After a lapse of two years, theses and dissertations may be quoted without specific prior permission in works of original scholarship provided appropriate credit is given in the case of each quotation.

3. Quotations that are complete units in themselves (e.g., complete chapters or sections) in whatever form they may be reproduced and quotations of whatever length presented as primary material for their own sake (as in anthologies or books of readings) ALWAYS require consent of the authors.

4. The quoting author is responsible for determining "fair use" of material he uses.

This thesis/dissertation by ___ Willie Sanchez ______ has been used by the following persons whose signatures attest their acceptance of the above conditions. (A library which borrows this thesis/dissertation for use by its patrons is expected to secure the signature of each user.)

NAME AND ADDRESS

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

DATE

________________

________________

________________

________________

Oct. 1968—1,000—GS
This dissertation, directed and approved by the candidate's committee, has been accepted by the Graduate Committee of The University of New Mexico in partial fulfillment of the requirements for the degree of

DOCTOR OF EDUCATION

AN INVESTIGATION OF THE RELATIONSHIPS BETWEEN ORGANIZATIONAL CLIMATES OF SCHOOLS AND TEACHER LEADERSHIP DIMENSIONS

WILLIE SANCHEZ

Candidate

SECONDARY EDUCATION

Department

Wayne P. Moellering

Dean

February 3, 1990

Date

Committee

Frank Anger

Chairman

Wes Mitchell

Wilson Akins

Robert Dortator

John A. Chayon
AN INVESTIGATION OF THE RELATIONSHIPS
BETWEEN ORGANIZATIONAL CLIMATES OF SCHOOLS
AND TEACHER LEADERSHIP DIMENSIONS

BY
WILLIE SANCHEZ
B. A., New Mexico Highlands University, 1953
M. A., New Mexico Highlands University, 1956

DISSERTATION
Submitted in Partial Fulfillment of the
Requirements for the Degree of
Doctor of Education
in the Graduate School of
The University of New Mexico
Albuquerque, New Mexico
June, 1970
DEDICATION

To my wife, Julia, and my children, who suffered me that I may reach for my goals.
ACKNOWLEDGMENTS

The *sine qua non* of this work, of course, was the patient guidance of Dr. Frank Angel, whose contributions to this study began many years before the actual problem was conceived.

To Drs. Wilson Ivins, Robert Doxtator, and Merle Mitchell, the author is indebted because of their fine, sensitive, and constructive criticisms. These three persons spent time reading and guiding the evolution of this paper from an amorphous mass of pedantry to its present form.

Drs. Horacio Ulibarri and John Aragon were both generous with their encouragement and their criticism, for which they can only be repaid in the knowledge that they have contributed to the development of another *hermano*.

Dr. Miles Zintz was the man whom the author could never meet in the halls without receiving a little "barb." These barbs are gratefully acknowledged as genuine signs of interest, and Dr. Zintz is commended for his unflagging interest in the author's program.

Two men played important roles in the early life of the writer: one, Joseph S. Roybal, provided the model of a
teacher which motivated the author to join that venerable profession; the other, Dr. Guy Q. Burris, imbued the author with the love of literature and an appreciation for the sound of language well-spoken.

To all these persons, the author is grateful. Each, in his own domain, has been outstanding in the development of the motives that have converged on this work.

To Mrs. Virginia Gillespie the author extends a most heartfelt gesture of gratitude for the sincere dedication she lent this final copy, not only as a typist but also as a critic.
AN INVESTIGATION OF THE RELATIONSHIPS
BETWEEN ORGANIZATIONAL CLIMATES OF SCHOOLS
AND TEACHER LEADERSHIP DIMENSIONS

BY
Willie Sanchez

ABSTRACT OF DISSERTATION
Submitted in Partial Fulfillment of the Requirements for the Degree of Doctor of Education in the Graduate School of The University of New Mexico Albuquerque, New Mexico June, 1970
ABSTRACT

The importance of this study rests upon its contributions to the study of the effects of system characteristics upon teacher effectiveness. Organizational climates of schools have a pervasive influence over the behaviors of teachers, and, in turn, upon pupils. The organizational climates of schools have been studied and their ideal profiles have been plotted. The effects of teachers' behaviors upon pupils have also had extensive consideration. However, the effects of the characteristics of the whole school upon intermediate and primary participants have not been studied. In particular, no studies have been done on the effects of the climate of the school upon teacher behaviors. This is precisely what this study was designed to investigate—relationships between teacher-perceived school organizational climates and pupil-perceived teacher leadership characteristics.

This study sought to establish the hypothesis that teachers who perceive open climates would tend to manifest in the classrooms those behaviors which had previously been associated with desirable combinations of pupil effects. The study was conducted in 20 classrooms that were selected
from a larger sample of teachers. These classrooms were selected for the final sample of this study precisely because their teachers perceived a representative distribution of climates. The investigation was guided by the following hypotheses:

1. The school organizational climates perceived by the teachers would demonstrate a significant positive correlation with the task dimensions of teacher leadership perceived by the pupils.

2. The school organizational climates perceived by the teachers would demonstrate a significant negative correlation with the authority dimensions of teacher leadership perceived by the pupils.

3. The school organizational climates perceived by the teachers would demonstrate a significant positive correlation with the expressive dimensions of teacher leadership perceived by the pupils.

The first hypothesis was accepted on the basis of a Spearman rho coefficient of correlation of +0.534, significant at the 0.01 level. It was found that all 20 teachers revealed high task orientations; however, those who perceived open climates received higher ratings on this dimension, as the hypothesis asserted.

The second hypothesis was not accepted. The correlation found was negative, but not low enough to invoke at the 95% level of probability. Therefore, it was concluded
that teachers' authority behavior did not correlate with climate rankings in the manner which the hypothesis had asserted.

The third hypothesis was accepted on the basis of a correlation coefficient of +0.636, which is significant at the 0.01 level. It was concluded that teachers who perceived open climates were rated higher on this characteristic than those who perceived closed climates.

It was concluded that the teachers of this sample were high on the three categories of leadership behavior. The task and expressive behaviors of teachers who perceived open climates, however, were higher than those of teachers who perceived closed climates. The authority dimension revealed no defensible pattern of linear correlation with the climates.

The study supported the following recommendations: (a) the role of teachers' authority behavior in the maximization of pupil results needs a great deal more study, especially as it is related to and combined with the effects of other areas of teacher behavior; (b) further study should be conducted on the effects of system characteristics upon teachers; (c) teachers and principals should be made aware of the effect of the total organizational climate upon them.
and of their roles in the creation of school and classroom climates; and (d) the creation of proper learning environments should be given a great deal of study.
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>CHAPTER</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. THE PROBLEM</td>
<td>1</td>
</tr>
<tr>
<td>The Models Used in This Study</td>
<td>4</td>
</tr>
<tr>
<td>The Gordon-Adler Study</td>
<td>4</td>
</tr>
<tr>
<td>The Halpin-Croft Organizational Climate Study</td>
<td>7</td>
</tr>
<tr>
<td>Statement of the Problem</td>
<td>10</td>
</tr>
<tr>
<td>Delimitation of the Problem</td>
<td>11</td>
</tr>
<tr>
<td>Importance of the Study</td>
<td>12</td>
</tr>
<tr>
<td>Methods of Procedure</td>
<td>13</td>
</tr>
<tr>
<td>Selection of Participants</td>
<td>13</td>
</tr>
<tr>
<td>Obtaining Organizational Climate Data</td>
<td>14</td>
</tr>
<tr>
<td>Obtaining Teacher Leadership Data</td>
<td>16</td>
</tr>
<tr>
<td>The Questionnaires Used</td>
<td>16</td>
</tr>
<tr>
<td>In Support of the Data-Gathering Méthods</td>
<td>19</td>
</tr>
<tr>
<td>Statistical Treatment</td>
<td>20</td>
</tr>
<tr>
<td>Organization of the Remainder of the Study</td>
<td>23</td>
</tr>
<tr>
<td>II. REVIEW OF RELATED LITERATURE</td>
<td>28</td>
</tr>
<tr>
<td>Research on Teaching</td>
<td>28</td>
</tr>
<tr>
<td>Research on Teacher Effectiveness</td>
<td>34</td>
</tr>
</tbody>
</table>

**xi**
<table>
<thead>
<tr>
<th>CHAPTER</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hypothesis 3</td>
<td>130</td>
</tr>
<tr>
<td>V:</td>
<td></td>
</tr>
<tr>
<td>SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS</td>
<td>133</td>
</tr>
<tr>
<td>Summary</td>
<td>133</td>
</tr>
<tr>
<td>Procedures</td>
<td>133</td>
</tr>
<tr>
<td>Findings</td>
<td>136</td>
</tr>
<tr>
<td>Conclusions</td>
<td>137</td>
</tr>
<tr>
<td>Recommendations</td>
<td>142</td>
</tr>
<tr>
<td>For Further Study</td>
<td>142</td>
</tr>
<tr>
<td>For Action</td>
<td>143</td>
</tr>
<tr>
<td>BIBLIOGRAPHY</td>
<td>146</td>
</tr>
<tr>
<td>APPENDIX I</td>
<td>151</td>
</tr>
<tr>
<td>APPENDIX II</td>
<td>173</td>
</tr>
</tbody>
</table>

xiii
# LIST OF TABLES

<table>
<thead>
<tr>
<th>TABLE</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. Climate Similarity Scores of the Original 37 Teachers</td>
<td>63</td>
</tr>
<tr>
<td>II. Climate Scores and Ranks of the Final Teacher Sample</td>
<td>64</td>
</tr>
<tr>
<td>III. Scores and Ranks Used in the Statistical Analysis of Task Question One</td>
<td>69</td>
</tr>
<tr>
<td>IV. Scores and Ranks Used in the Statistical Analysis of Task Question Two</td>
<td>71</td>
</tr>
<tr>
<td>V. Scores and Ranks Used in the Statistical Analysis of Task Question Three</td>
<td>73</td>
</tr>
<tr>
<td>VI. Scores and Ranks Used in the Statistical Analysis of Task Question Four</td>
<td>75</td>
</tr>
<tr>
<td>VII. Scores and Ranks Used in the Statistical Analysis of Task Question Five</td>
<td>77</td>
</tr>
<tr>
<td>VIII. Scores and Ranks Used in the Statistical Analysis of Task Question Six</td>
<td>79</td>
</tr>
<tr>
<td>IX. Scores and Ranks Used in the Statistical Analysis of Task Question Seven</td>
<td>81</td>
</tr>
<tr>
<td>X. Scores, Formulas, Ranks, and Correlation Coefficients Used in the Statistical Analysis of the Task Matrix</td>
<td>83</td>
</tr>
</tbody>
</table>
XI. Scores and Ranks Used in the Statistical Analysis of Authority Question One .......... 87

XII. Scores and Ranks Used in the Statistical Analysis of Authority Question Two .......... 88

XIII. Scores and Ranks Used in the Statistical Analysis of Authority Question Three .......... 89

XIV. Scores and Ranks Used in the Statistical Analysis of Authority Question Four .......... 91

XV. Scores and Ranks Used in the Statistical Analysis of Authority Question Five .......... 92

XVI. Scores and Ranks Used in the Statistical Analysis of Authority Question Six .......... 93

XVII. Scores and Ranks Used in the Statistical Analysis of Authority Question Seven .......... 94

XVIII. Scores and Ranks Used in the Statistical Analysis of Authority Question Eight .......... 96

XIX. Scores and Ranks Used in the Statistical Analysis of Authority Question Nine .......... 97

XX. Summary Table for Authority Dimension ................. 98

XXI. Scores and Ranks Used in the Statistical Analysis of Expressive Question One .......... 101

XV
<table>
<thead>
<tr>
<th>TABLE</th>
<th>XXII. Scores and Ranks Used in the Statistical Analysis of Expressive Question Two</th>
<th>103</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>XXIII. Scores and Ranks Used in the Statistical Analysis of Expressive Question Three</td>
<td>105</td>
</tr>
<tr>
<td></td>
<td>XXIV. Scores and Ranks Used in the Statistical Analysis of Expressive Question Four</td>
<td>107</td>
</tr>
<tr>
<td></td>
<td>XXV. Scores and Ranks Used in the Statistical Analysis of Expressive Question Five</td>
<td>109</td>
</tr>
<tr>
<td></td>
<td>XXVI. Scores and Ranks Used in the Statistical Analysis of Expressive Question Six</td>
<td>111</td>
</tr>
<tr>
<td></td>
<td>XXVII. Scores and Ranks Used in the Statistical Analysis of Expressive Question Seven</td>
<td>113</td>
</tr>
<tr>
<td></td>
<td>XXVIII. Scores and Ranks Used in the Statistical Analysis of Expressive Question Eight</td>
<td>115</td>
</tr>
<tr>
<td></td>
<td>XXIX. Scores and Ranks Used in the Statistical Analysis of Expressive Question Nine</td>
<td>117</td>
</tr>
<tr>
<td></td>
<td>XXX. Scores and Ranks Used in the Statistical Analysis of Expressive Question Ten</td>
<td>119</td>
</tr>
<tr>
<td></td>
<td>XXXI. Scores and Ranks Used in the Statistical Analysis of Expressive Question Eleven</td>
<td>121</td>
</tr>
<tr>
<td></td>
<td>XXXII. Summary Table for the Expressive Dimension</td>
<td>123</td>
</tr>
</tbody>
</table>
CHAPTER I

THE PROBLEM

The investigators of teaching have, for the most part, concentrated their studies within the classroom. The phenomenon of teaching has been intentionally studied in isolation from the total social system of which it is a part because it has first been necessary to comprehend teaching by itself. As knowledge has been accumulated, however, it has been realized that the development of a theory of teaching must account for many other factors that impinge upon and influence the transactions of the classroom.

In recent years, researchers in the behavioral sciences have developed complex models for the investigation of human behavior and have availed themselves of large-memoried, high-speed, digital computers for the statistical processing of complex multi-variable data. The use of many-factored models for research and analysis has now become possible. Systems analysis, a by-product of the applications of linear programming, is one of the most useful expressions of this development for the behavioral sciences. The feasibility of studying teaching
on a more complex level than formerly has been one of the results of these advances.

The scientific study of teaching, which received a marked upsurge with the publication of the *Handbook of Research on Teaching*, provided a number of complex models. Whether the approach to the study of teaching has been from a psychological or from a sociological standpoint, it has demanded an understanding of the interrelatedness of a great number of variables whose dynamics combine to determine the quality of pupil learning. The complex analyses required for such understandings have had to await the development of analytical concepts and models, methodology for their evaluation, the statistical tools, and the computers.

The systems approach, which is the simultaneous application of multi-variate analysis, for example, has gained wide application in the study of the schools. The systems approach to supervision as a multi-factored sociological system has been done by Wilson recently. Other researchers have applied it to the total organizational climate of the school, to the functioning and effectiveness of the teacher-leader in the classroom social systems, and to the effects of the community upon the school.
The scientific study of teaching is a relatively new phenomenon in educational research. While some preliminary work was done by Barr and his collaborators as far back as the 1930's, it was not until Medley and Mitzel developed the OScAR that systematic objective observation of classroom behavior became possible. Simultaneously, there developed a number of studies of teachers and teacher characteristics using personality approaches. These eventually were augmented by studies of the processes of teaching.

There are now a great number of complex models available for the study of the participants, the processes, and the environment of teaching. These models are a far cry from the early observation schedules and teacher characteristics studies.

Some attention is now being given to the social environments within which teaching occurs.

The need to consider larger social contexts seems reasonable, since a logical extension of the classroom as a social system concept would be the consideration of expanding concentric circles in a hierarchy of influence representing the school, the community, and the society. The linkages between and among these various social systems
and the effects these have upon pupil learning should be analyzed and could be the focus of future study as the search goes on for a comprehensive theory of teaching.

The Models Used in This Study

Two research endeavors, published in 1962 and 1963, made it possible to study the relationships between the classroom as a social system and the organizational climate of the school. While there had been some appreciation regarding the restraining as well as the liberating influences of the school principal on the teachers and the students, no study had been made about the specific effects of the school administration on teaching as a process and, ultimately, on student learning. The possibility of relating the organizational climate of a school with teaching effectiveness was made possible with the publication of the Halpin-Croft study of school organizational climates, and the Gordon-Adler study of teacher leadership dimensions in classroom social systems.

The Gordon-Adler Study. Gordon and Adler conceptualized the teacher in the classroom as a leader as defined in sociological rather than psychological terms. Modern sociological models for research on leadership posit it as being composed of three dimensions: task, authority, and
expressive. As Gordon and Adler applied these dimensions to teacher-leaders, they defined each as follows:

1. The task dimension described the teacher's organization and direction of pupil activities in order to accomplish certain learning goals involving mastery of skills, demonstration of learned material, and correction and sequencing of subject matter.

2. The authority dimension referred to the control of pupil action which the teacher induced and to the sanctions and demands which the teacher summoned in order to gain that control.

A teacher is considered high in the use of authority to the extent that he invokes the principle of uncritical acceptance as he initiates classroom activities and makes decisions. He is low in authority to the extent that he delegates the right to initiate activities and make decisions to the class, to committees, or to individual pupils, and to the extent that he qualifies his initiation and decision-making prerogatives by deferring to pupil opinion.

3. The expressive dimension referred to the teacher's concern with pupil interests, and was determined by the extent to which the teacher encouraged pupils' opinions, ideas, efforts and feelings. This dimension pertained to teacher behavior which was
acceptive, i.e., it pertained to the feeling on the part of the students that they were central to the purposes of classroom activities. This dimension was related to Anderson's "integrative" behavior,22 to Lippitt and White's "democratic" style,23 and to Cogan's "inclusive" behavior of teachers.24

Each of these dimensions of leadership was behaviorally defined by having the pupils specify the teacher behaviors as they perceived them. Pupil definitions of teacher behaviors were then categorized into twelve teacher leadership modes, each of which was then related to pupil effects.25 (See Appendix I for definitions of teacher leadership modes and related pupil effects.)

Avoiding the errors of previous studies on teaching which had focused solely upon the behaviors of teachers without relating them to pupil effects, these investigators related teacher leadership behaviors to five types of pupil learnings: volunteer work, achievement, morale, class order, and compliance with assigned work.26 They found that certain modes—which were combinations of task, authority, and expressive behaviors, ranked from low to middle to high—were related to certain student effects.
The investigators considered teacher behavior as the independent variable and pupil effects as the dependent variables. Two modes, G and H, were found to induce a greater number of pupil effects than the others; however, several of the other modes were found to be related to one or more pupil effects (see Appendix I). It became possible from this study to specify the teacher behaviors that were necessary to produce certain types of student learnings.27

The Halpin-Croft Organizational Climate Study.

Conceptualizing the organizational climate of a school in a manner analogous to the role of personality in psychological research,28 Halpin and Croft constructed the Organizational Climate Description Questionnaire29 (henceforth referred to as "OCDQ") and "invented a typology of 'climates' arranged along what we had construed as more or less of a continuum, with the 'open' climate at one end and the 'closed' climate at the other."30 They applied the OCDQ to 71 elementary schools31 and classified them into six types of climates: open, autonomous, controlled, familiar, paternal, and closed. (See Appendix II for detailed explanations of these climates.) These climates were derived as a result of the social interactions between the teachers and the principal.32 The interactions between teacher and principal and between teacher and teacher-group
were formulated in terms of three parameters: authenticity, satisfaction, and leadership initiation.\textsuperscript{33} Authenticity referred to openness of the leader's or the group members' behaviors. Satisfaction referred to group members' attainment of conjoint satisfaction with respect to task accomplishment and social needs. Leadership initiation referred to the latitude within which the group members, as well as the leader, could initiate leadership actions.\textsuperscript{34}

The school climate was determined on the basis of two loci of interaction: (1) the relationship between individual teachers and the teacher-group, and (2) the influence of the principal upon the teachers. The role of the principal was evaluated on the basis of four dimensions of behavior: aloofness, production emphasis, thrust, and consideration. Aloofness referred to behavior which was characterized as formal and impersonal. Production emphasis referred to how the principal supervised and tried to program the staff to get the job done. Thrust referred to the principal's efforts to motivate the organization to work by setting an example of hard work. Consideration referred to the principal's friendly concern with the teachers' welfare.\textsuperscript{35} (The similarity between these parameters and the three parameters used by Gordon and Adler was striking. See pp. 4-7).
The influence of the teacher-group upon the individual teacher was similarly conceived in four dimensions: disengagement, hindrance, esprit, and intimacy. Disengagement referred to the degree of commitment the group exhibited in a task-oriented situation. Hindrance referred to the extent to which teachers' work was hindered by routine duties. Esprit referred to the teachers' feelings regarding satisfaction of social needs, as well as job accomplishment. In short, this dimension referred to what is commonly called "morale." Intimacy referred to the level of social needs satisfaction through the dynamics of social relations. 36

Combinations of the four parameters associated with the school principal and the four associated with the teacher-group were then made. These combinations yielded profiles for the schools which were called "climates." Climates were arranged in a hierarchical scale with open and closed as the endpoints and the other four climates occupying intermediate points with respect to their degree of openness in the following order: open, autonomous, controlled, familiar, paternal, and closed. 37 (See Appendix II for the climate profiles.)

Halpin and Croft assumed that the open climate was the most desirable for a school organization, autonomous
the next most desirable, and so on down the scale. However, they failed to relate these climates to their effects upon participants. This study was designed to investigate precisely this relationship.

Statement of the Problem

The purpose of this study was to investigate the relationships between the organizational climates of schools and the behaviors of teacher-leaders in the classrooms. The relationships between the behaviors of the teachers and pupil effects which were established by Gordon and Adler were accepted in this study.

The general guiding hypothesis was that the open school climates would tend to contain teachers whose leadership modes would be high on the task dimension, low on the authority dimension, and high on the expressive dimension. This hypothesis asserted that open climates contained teachers whose leadership modes tended to be those that Gordon and Adler identified as maximizing pupil effects and, conversely, that closed climates would contain teachers whose leadership styles did not maximize pupil effects.

In order to utilize statistical methods, the climates were ranked on an openness scale, with the most open climate
corresponding to 1 and the most closed corresponding to 20. Each of the teacher leadership dimensions was also ranked from high to low with highest corresponding to 1 and lowest corresponding to 20. The following hypotheses were tested:

1. The school organizational climates perceived by the teachers would demonstrate a significant positive correlation with the task dimensions of teacher leadership perceived by the pupils.

2. The school organizational climates perceived by the teachers would demonstrate a significant negative correlation with the authority dimensions of teacher leadership perceived by the pupils.

3. The school organizational climates perceived by the teachers would demonstrate a significant positive correlation with the expressive dimensions of teacher leadership perceived by the pupils.

**Delimitations of the Problem**

This study attempted to investigate the effects of the principal and the teacher-group upon individual teachers.

It did not: (1) attempt to investigate the effects of teachers' behaviors upon pupils (this was done by
Gordon and Adler and was accepted for the discussions in this study; (2) attempt to investigate the effects of other areas of influence, either in the indigenous culture of the school or in larger social systems, upon either teachers or pupils; (3) attempt to find out whether or not schools with certain types of climates tend to select teachers with certain kinds of leadership modes (it may well be that the selection process establishes certain degrees of congruencies); (4) attempt to investigate the influence of teacher and teacher-group upon the principal; (5) attempt to find out the effects of the pupils upon teachers' behaviors; (6) attempt to relate background characteristics (such as personality traits, academic training, student teaching experiences, family background, age, sex, socio-economic derivation, etc.) to teaching modes.

The domain of influence investigated was uni-directional, flowing from the organizational climate (composed of two sets of parameters: principal and teacher-group behaviors) to teachers' leadership modes (based on three parameters: task, authority, and expressive dimensions of leadership).

Importance of the Study

Halpin and Croft devised the methods for classifying school organizational climates and identified the
characteristics of such environments. Gordon and Adler established the relationships between teacher leadership behaviors and the effects they had upon pupils. What had not been established were the relationships between organizational climates and teacher behaviors.

This study was conceived on the possibility that there are empirically determinable relationships between certain types of school organizational climates and specified teacher leadership behaviors, which, in turn, elicit certain desirable student behaviors. This conjecture, if verified, will establish a sound research base for the training of supervisors, principals, teachers, and other school personnel. The ultimate aim is to develop the technology for the establishment of desirable environments in the classrooms. This, of course, has vast implications in the pre-service and in-service training of teachers, administrators, and other auxiliary personnel.

Methods of Procedure

The following procedures were used in this study.

Selection of participants. The participants were selected in the spring of 1966 from lists of junior high school teachers in Albuquerque, Bernalillo, Taos, Santa Fe, East Las Vegas, and West Las Vegas. First, the names of
all the teachers in these junior high schools were placed on a list and numbered. Second, a list of 100 non-repeating random numbers was generated on the random number generator at the New Mexico Highlands University Computer Center. Third, teachers corresponding to the first 40 random numbers were selected.

**Obtaining organizational climate data.** The following steps were taken to obtain organizational climate data: (1) the principals of the schools where the chosen teachers were employed were contacted, the study was explained to them, and their permission to proceed to contact the teachers was obtained; (2) the teachers were contacted, the study was explained to them, and their participation was solicited; (3) arrangements were made to visit each teacher during the school day to obtain his responses to the OCDQ (two of the 40 teachers were absent at the appointed time and one asked to be excluded from participation); and (4) the 37 OCDQ's obtained were given to Croft, who processed them through the computer programs used in the original study, and the scores in Table I were produced. 41

Since the purpose of the study was the description of the relationships between teachers' perceptions of school organizational climates and pupils' perceptions of teachers' leadership dimensions, the usual requisites of inferential
studies were not observed. An arbitrary decision was made to test enough units to assure a representative distribution of climates, with at least three units in each climate category. Therefore, the first objective was to test the first 40 teachers and acquire climate perceptions. If these did not yield adequate distribution in the climate categories, further participants would be tested. However, the group of 40 teachers selected at random produced four teachers in the open category, three in the autonomous, three in the controlled, three in the familiar, three in the paternal, and six in the closed climate. It was decided that this distribution provided a suitable sample for the design of this study since it contained a representative range from very open to very closed climates, with adequate representation in the intermediate categories.

Of the 37 teachers tested, one was not processed by Croft's programs, 14 could not be classified definitely in any specific climate according to the scoring instructions provided by Croft, and two were not contacted further in spite of qualifying scores in the closed climate because this category was already well represented. It was felt that four teachers in the closed category would be sufficient to balance with the four in the open climate. Thus,
In our understanding of the nature of systematic operation.

To understand what is involved in systematic operation.

Accordingly, operations with large data units in such computer.

In the computer and data processing systems in the computer.

Computer and data processing systems in the computer.

Accordingly, the computer and data processing systems in the computer.

Accordingly, the computer and data processing systems in the computer.

Accordingly, the computer and data processing systems in the computer.

Accordingly, the computer and data processing systems in the computer.

Accordingly, the computer and data processing systems in the computer.

Accordingly, the computer and data processing systems in the computer.

Accordingly, the computer and data processing systems in the computer.

Accordingly, the computer and data processing systems in the computer.

Accordingly, the computer and data processing systems in the computer.

Accordingly, the computer and data processing systems in the computer.
20 teachers were selected for the final sample of the study.

**Obtaining teacher-leadership data.** The last step was the application of the Gordon-Adler modified questionnaires to the pupils of the 20 teachers in the sample. Arrangements were made with each teacher for the investigator to administer these questionnaires on a prearranged day.

The participants consisted of 534 pupils under the direction of the 20 teachers for one class period each. Each basic unit\(^{42}\) contributed data in the following areas: (1) the teacher described the organizational climate of the school which he perceived, and (2) the group of students described the teacher-leader in terms of the three leadership dimensions defined by Gordon and Adler.

**The Questionnaires Used**

Two questionnaires were used to acquire the data for this study. The final form IV\(^{43}\) of the Organizational Climate Description Questionnaire (Appendix II) was used to acquire climate data. Croft was positive in stating that the OCDQ could be applied to schools at any level with equal reliability.\(^{44}\) Halpin and Croft affirmed their confidence in the OCDQ in the following statement:

In like manner, we have devised a way of constructing a profile of "Organizational Climate" scores for each of the elementary
schools which we have studied. In seeking to dimensionalize the domain of Organizational Climates we have sought to abjure the more phenotypic bases of pertinence in favor of those which we hope will prove more genotypic, and hence will be more useful for predicting the consequences which will ensue from those Organizational Climates that we have identified. Furthermore, we have secured data from enough schools—and from schools in different parts of the country—to allow us to describe the "climate" of any school in terms of a set of standard scores.

The second questionnaires used were those of Gordon and Adler (see Appendix I), which were given to the pupils. These questionnaires were slightly modified to fit the purposes of this study, and the modifications are indicated in Appendix I.

Gordon and Adler applied the questionnaires to junior high combination classrooms in which one teacher was in contact with the pupils for a predominant amount of the day. This teacher taught them a combination of subjects. The present study applied the questionnaires to junior high classrooms in departmentalized systems in which the basic unit was one-period classrooms.

The coefficients of reproducibility, according to Gordon and Adler, are as follows:

1. The task scale contained seven items (one through seven in Appendix I) and had a coefficient
of reproducibility of 90.1 percent, with an item scalability of 66.3 percent.

2. The authority dimension contained nine items (eight through sixteen in Appendix I) and had a coefficient of reproducibility of 91.6 percent, with an item scalability of 70.1 percent.

3. The scale measuring expressive behavior contained eleven questions (seventeen through twenty-seven in Appendix I) and had a coefficient of reproducibility of 94.6 percent, with an item scalability of 83.2 percent.\textsuperscript{47}

Three hypotheses posed by Gordon and Adler add to an appreciation of the interrelationships between the three leadership dimensions.

III-1. There will be a generally negative relationship between authority and task scores.

III-2. There will be a generally negative relationship between authority and expressive scores.

III-3. There will be a generally positive relationship between task and expressive scores.\textsuperscript{48}

The findings of Gordon and Adler confirmed the second and third hypotheses at the one percent level of significance, but the first one was not significant at the five
percent level. As can be seen in Chapter III, the findings of this study are in agreement with Gordon and Adler concerning these relationships.

In Support of the Data-Gathering Methods

There is always the possibility that the percipient may either not be aware of his feelings and views or that he may try to hide them. That was taken into consideration in the gathering of data for this study, and the following procedures were observed in order to attempt to make the participant reports as genuine as possible.

First, all teachers were well informed in advance about the type of study to which they were contributing and how the data would be used. Their participation was solicited only if they had no strong objections.

Second, the items in the OCDQ refer to relatively simple, specific, and observable principal and teacher-group behaviors.

Third, both groups had a substantial period of time in which to form impressions, since the questionnaires were administered in the spring of the year.

Fourth, both teachers and pupils were thoroughly instructed on the purposes of the study in the classroom where they were together, and they were guaranteed that all information would be held in strict confidence and
would never be associated with personalities.

Fifth, the pupils were given questionnaires that were validated with sixth, seventh, and eighth graders in the Gordon-Adler study.

Sixth, the students were informed that their participation was strictly on a voluntary basis. Very few students refused to submit data.

Seventh, the questionnaires were read to the students, item by item, and each item, together with the available responses, was explained to them as a group. They were then asked to read through the questionnaires and indicate their responses. These precautions were taken to minimize the possibility that reading deficiencies may interfere with genuine responses.

**Statistical Treatment**

The first problem involved the treatment of the organizational climates. Consultation with Croft established the feasibility of ranking the climates from most open to most closed. This was done with 1 corresponding to most open and 20 to most closed.

Second, each of the three dimensions of teacher leadership was also ranked on a 20-point scale, with 1 corresponding to highest and 20 to lowest. Thus, each
many ways to interpret the pattern of relationships. The data suggest that:

1. The variable X is significantly correlated with variable Y.
2. The relationship between X and Y is non-linear.
3. There is a seasonal effect on the relationship between X and Y.

Further analysis is required to determine the significance and implications of these findings.
unit (see footnote 42 for definition of "unit") had four ranked scores: an OCDQ score, a task score, an authority score, and an expressive score.

Third, using programs at the New Mexico Highlands University Computer Center, these scores were correlated by means of Spearman rho rank coefficients as follows:

a. The OCDQ scores were correlated with the task scores;
b. The OCDQ scores were correlated with the authority scores;
c. The OCDQ scores were correlated with the expressive scores;
d. The task scores were correlated with the authority scores;
e. The task scores were correlated with the expressive scores; and
f. The authority scores were correlated with the expressive scores.

After these correlations were completed, the data were once again scrutinized in view of the conclusions that seemed apparent from the results. It seemed that these conclusions could be bolstered by more minute analysis of the interactive perceptions taking place in
the classrooms. More detail was needed in the analysis of
the data concerning the pupils' evaluations of their
teachers' leadership dimensions. It was finally decided
to analyze each component question and to correlate its
data with that of the organizational climates. To
accomplish this, the following procedures were observed:

a. The pupils' evaluation of each teacher
with regard to each question was averaged,
that is, all pupil responses for a given
teacher were added, and the sum was divided
by the number of pupils;
b. These averages were ranked from high to
low and correlated with teachers' climate
perceptions;
c. An overall average for all teachers was
computed for each question, i.e., the averages
in (a) above were added and the sum was
divided by 20;
d. The range was computed for each question;
e. A standard deviation was computed for each
question; and
f. The standard error of the mean for the
questions within each dimension was computed.
Since the number of units was greater than 10, the significance of the correlations was also tested by means of a "t-score" computed by the formula
\[ t = \rho \sqrt{\frac{N - 2}{1 - \rho^2}} \]
This variable has a t-distribution with \( N - 2 \) degrees of freedom, and thus allows the use of t-tables. 51

Organization of the Remainder of the Study

Chapter II contains a review of the related literature.

An analysis of the findings is set forth in Chapter III. This chapter contains the data, the statistical results, and interpretations of the findings.

In Chapter IV, the findings are related to the hypotheses.

Chapter V consists of a summary, conclusions derived from the investigation, and recommendations for modifications of action and for future research.


11 Gage, op. cit., p. 247.

12 Ibid., p. 506.


15 Ibid., p. 209.

16 Halpin and Croft, op. cit.

17 Gordon and Adler, op. cit.

18 Ibid.

19 Ibid., pp. 30-31.

20 Ibid., p. 31.

21 Ibid., pp. 33-34.


24 Ibid., pp. 73-82.


26 Ibid., p. 216.

27 Ibid., pp. 261-264.
28 Halpin and Croft, *op. cit.*


31 Halpin's speech, p. 2.


41 The following explanation will facilitate an understanding of the method of climate classification used in this study.

First, each teacher's set of responses on the OCDQ contains elements of all six climates. That is, each teacher perceives the school climate as partly open, partly autonomous, etc. The question was: Which of the six climates is most manifest according to each teacher's perception?
Second, the responses of each teacher were compared with each of the six ideal climate profiles (see Appendix II) established by Halpin and Croft, thus deriving six climate similarity scores.

Third, the method of computation led to the following considerations: (a) each climate similarity score is relatively indicative of the degree of congruence between the perceived climate and the ideal profile, and (b) the lowest score indicates the most predominant climate. (This is in agreement with Croft's scoring instructions.)

42 Unit is defined as a social set consisting of one teacher and the student-group which is under his direction for one class period.


44 Personal interview with Don B. Croft, spring, 1966.

45 Halpin and Croft, op. cit., pp. 6-7.

46 Gordon and Adler, op. cit., pp. 139-153.


48 Ibid., p. 135.

49 Ibid.

50 Personal interview with Don B. Croft, spring, 1966.

CHAPTER II

REVIEW OF RELATED LITERATURE

This chapter presents a review of literature related to the problem of this study. The interest in discovering relationships between organizational climates of schools and teacher leadership dimensions led to the following areas of research: research on teaching, research on leadership, and research on climate. The last area is divided into studies of organizational climates of schools and studies of classroom climates---social and emotional. The research is presented under these headings.

I. RESEARCH ON TEACHING

As Kuethe has pointed out, recent times have seen an upsurge of interest in the educational enterprise: "What was once an area of public apathy has become a topic of concern to everyone---a concern so important that it often arouses emotions bordering on hysteria."¹ Not only has a manifest increase of interest in teaching evolved, but the influence of other disciplines has become more apparent. Humphrey alluded to a phase of this influence
when she stated recently:

... there is evidence ... to suggest that the study of teaching is becoming more scientific in approach and that the succeeding years may see the development of a body of theoretical knowledge that will serve to provide a more general conception of teaching and a more valid base for related evaluation procedures.²

In 1962, Gage expressed the concern that education had neither "drawn enough nourishment from theoretical and methodological developments in psychology, sociology, and anthropology," nor had it "provided those disciplines with return stimulation, as it did in its earlier periods."³ There are indications, however, that the dialogue between education and other disciplines is not in as dismal a state as that depicted by Snow⁴ between the arts and the sciences. Halpin discussed the "New Movement" in the training of educational administrators which "has drawn heavily upon research from the social sciences."⁵ The study of teacher leadership by Gordon and Adler drew its theoretical foundations from interdisciplinary sources:

The orientation of the present study, however, draws from three additional influences, the studies of leadership and its effects on participants developed in social psychology, sociological studies of formal organizations in social anthropology and sociology, and recent studies in the area of the sociology of education.⁶
together.  Posture and
expression of the head and
upper body should be relaxed
and comfortable for the
practitioner and practitioner.

Posture and
expression should
be consistent with
practitioner's
interaction with
and feelings towards
the practitioner.

The practitioner should
be able to maintain a
relaxed and comfortable
posture throughout
the session.

The practitioner should
be aware of their
own posture and
expression and
adjustments should
be made as necessary.

The practitioner should
be able to maintain a
relaxed and comfortable
posture throughout
the session.

The practitioner should
be aware of their
own posture and
expression and
adjustments should
be made as necessary.

The practitioner should
be able to maintain a
relaxed and comfortable
posture throughout
the session.

The practitioner should
be aware of their
own posture and
expression and
adjustments should
be made as necessary.

The practitioner should
be able to maintain a
relaxed and comfortable
posture throughout
the session.

The practitioner should
be aware of their
own posture and
expression and
adjustments should
be made as necessary.

The practitioner should
be able to maintain a
relaxed and comfortable
posture throughout
the session.

The practitioner should
be aware of their
own posture and
expression and
adjustments should
be made as necessary.

The practitioner should
be able to maintain a
relaxed and comfortable
posture throughout
the session.

The practitioner should
be aware of their
own posture and
expression and
adjustments should
be made as necessary.
The Halpin-Croft model has a long and distinguished ancestry in research in sociology and psychology. Its elements were derived from such works as Lewin's work on personality, 7 Barnard's work in The Functions of the Executive, 8 Rokeach's The Open and Closed Mind, 9 Weber's research on organizational theory, 10 Schutz's writings on interpersonal behavior, 11 Halpin's previous work on leadership behavior of school administrators 12 and Air Force personnel, 13 and Argyris' investigations of organizational climate. 14

Psychologists such as Bruner 15 and Maslow 16 have concerned themselves seriously with problems of teaching and learning and contributed to both of these areas.

Not only has education engaged the attention of behavioral scientists, it has also drawn assistance from the community of scientists. 17 Educational researchers are delving into the utilization of scientific systems and models in the study of classroom processes. 18 The use of scientific machinery and quantitative methods is well accepted.

Recent compilations document the enormous concern with studies of classroom interaction and concomitant factors as well as the breadth, scope, and variety of approaches.
The way to help people get to know you more effectively
includes careful selection of your topics. To be a good
storyteller, you need to be an expert in the field of
your expertise. Therefore, you need to be knowledgeable
and interested in the topic you are discussing. This
helps you to engage your audience and keep them
interested in what you are saying.

With the advancement of technology, digital storytelling
has become more prevalent. Videos, podcasts, and
blog posts are just a few examples of how people can
use digital media to share their stories. By creating
content that is engaging and informative, you can help
people learn more about a particular topic and make
them feel more connected to the subject.

In summary, effective storytelling involves
preparation, understanding of your audience,
and a strong narrative. By practicing these
elements, you can become a more
effective storyteller and help
people learn and connect with
your message.
Gage's *Handbook of Research on Teaching* is a well-known contribution to the field. It includes a wealth of research subjects and abundant resources for the researcher. Barr reviewed forty years of teacher effectiveness studies conducted at the University of Wisconsin. He concluded that "More research is needed to clear up many unsolved problems relative to the measurement and prediction of teacher effectiveness." Biddle and Elena edited the papers presented at a seminar and assembled them into a book entitled *Contemporary Research on Teacher Effectiveness*. Probably no aspect of education has been discussed with greater frequency, with as much deep concern, or by more educators and citizens than has that of teacher effectiveness—how to define it, how to identify it, how to measure it, how to evaluate it, and how to detect and remove obstacles to its achievement. Thus, they introduced the subject of the seminar. The chapter on "The Integration of Teacher Effectiveness Research" contained a cogent discussion of the problems involved in teacher effectiveness research and presented a "seven-variable model for teacher effectiveness" that should guide research in the future. Pi Lambda Theta sponsored a catena and published the papers which included discussion by such men as Ryans
and Smith. The discussions of the evaluation of teaching included in this book represented interests ranging from teaching and learning to detailed analyses of the teaching act.  

Amidon and Hough compiled a set of papers and articles dealing with the theoretical background, the instrumentation, and examples of applications of "Interaction Analysis."  

Simon and Boyer collected "classroom observation instruments."

The lengthy bibliographical section of this volume is an indication of the rapidly growing interest of the educational researcher and not the antiquity of the technique. This volume contains an overview of the field, a synthesis of the developments to date, a prognosis of future use, and annotated compilation of twenty-six instruments representing a variety of approaches both in the affective and cognitive domains, and an extensive bibliography of reports of research and teacher training activities using classroom observation instruments.  

Hyman edited a comprehensive collection of readings ranging over seven sections: "The seven vantage points are cognitive and intellectual behavior, communications, social climate, emotional climate, aesthetics, games, and strategy.  

Teaching has presented many challenging problems to many people. It has been compared to a number of other
endeavors, each of which demands special qualities from its participants. As Smith pointed out, "of all the professional occupations, the teaching profession is more concerned with personal characteristics of its members than is any other professional group." However, Smith went on to stress that when teaching is considered an art, the personal characteristics of teachers are of central consideration, whereas when teaching is thought of as a profession, then the dependability of teaching operations as measured by objective methods is emphasized.

Before any definitive research can be done on teaching, it may be necessary to brush away a great deal of the confusion which has characterized it.

Recent research has seen a proliferation of classroom observation instruments. The anthology by Simon and Boyer contains 26 instruments and, with one exception, the dated instruments were published in the sixties. They listed instruments to secure not only interaction data but also data regarding thinking processes (Taba), cognitive sequences (Bellack and Smith), affective influences (Hughes), logic of teaching (Smith), and a variety of foci.

In spite of the diversity of emphases on the various aspects of teaching, research has tended to focus on teaching as a process, teacher characteristics, and teacher
effectiveness as this is related to criterion variables—variables whose referents are pupil results. Gage outlined two paradigms which have been applied to research on teaching: (1) paradigms of teacher effectiveness and (2) teaching process paradigms.

Since this study has been partly concerned with the effectiveness of certain categories of teachers' behaviors as they relate to pupil results, teacher effectiveness studies will be discussed in this section.

Research on Teacher Effectiveness

The quality of teacher effectiveness research has been characterized by the paucity of its results. Paramount among its omissions has been the failure to relate teacher effectiveness to ultimate criterion variables. The chimera of the effective teacher has also led many an investigator in search of "some mystic power of personality." Jackson was especially emphatic in his criticism when he stated:

Almost all of the noble crusades that have set out in search of the best teacher and the best method—or even the better teacher and the better method—have returned empty-handed. The few discoveries to date . . . are pitifully small in proportion to their cost in time and energy. For example, the few drops of knowledge that can be squeezed out of half a century of
research on the personality characteristics of good teachers are so low in intellectual food value that it is almost embarrassing to discuss them. 42

An important contribution was made by Cogan 43 who related teacher behaviors to pupil work, i.e., he used proximate pupil variables instead of ultimate variables. His arguments for doing so were quite acceptable in the mid-fifties; however, it is believed by this investigator that the time is ripe for investigations relating teacher behaviors directly with ultimate pupil results. Some of the more recent research has tended to focus on pupil growth and achievement as criterion variables. 44

When it is considered that teaching output measured in terms of pupil results includes the multi-faceted areas of cognitive, affective, and psychomotor development, research seems to have barely scratched the surface. A great deal of teacher effectiveness research seems to have been concerned with the elimination of dead-end, isolated variables such as teacher personality, educational background, previous experiences, ratings by administrators, etc. Gordon and Adler emphasized the weaknesses in ratings in the following:

The usual practice has been to record impressions by marking a rating scale. Given the combination of differing
expectations and biases among rators, the halo effect in rating, and the wide daily fluctuations in teacher behavior, there is little wonder that high ratings did not necessarily mean high teaching performance or even an accurate description of the teacher's actions.  

Barr presented a comprehensive discussion of the weaknesses of the various criteria employed in the teacher effectiveness studies which he has reviewed.  

Three major studies on teacher effectiveness were those of Hughes, Flanders, and Gordon and Adler. Hughes observed 41 elementary school teachers. The observers, trained in observation techniques, took shorthand, sequential narratives of classroom discussions for thirty-minute periods. A total of 123 observations of one-half hour each were obtained. The group of teachers observed were representative of all types of classes of teachers, teaching all the subjects of elementary school. The data included both verbal and non-verbal behavior. Hughes classified teacher acts into seven categories or functions: control, imposition, facilitating, development of content, personal response, positive affectivity, and negative affectivity. She concluded that the "effective" teacher exhibited the following percentages of each of the seven functions:
<table>
<thead>
<tr>
<th>Controlling Functions</th>
<th>20-40%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Imposition</td>
<td>1-3%</td>
</tr>
<tr>
<td>Facilitating</td>
<td>5-15%</td>
</tr>
<tr>
<td>Content Development</td>
<td>20-40%</td>
</tr>
<tr>
<td>Personal Response</td>
<td>8-20%</td>
</tr>
<tr>
<td>Positive Affectivity</td>
<td>10-20%</td>
</tr>
<tr>
<td>Negative Affectivity</td>
<td>3-10%</td>
</tr>
</tbody>
</table>

This study was criticized because of its failure to relate teaching acts to any measures of pupil gain.

Hughes' research is representative of a group of studies which include the early work of Withall, Anderson, Lippitt and White, Cogan and others, all of which directed their attention to the classification of teacher behaviors, and in some cases to some relationships between these behaviors and pupil behaviors.

Flanders, using interaction analysis, investigated relationships among teacher influence, pupil attitudes, and achievement. He posed the following three hypotheses which were supported by the data of his study:

**HYPOTHESIS 1.** Restricting student freedom of participation early in the cycle of classroom learning activities increases dependence and decreases achievement.

**HYPOTHESIS 2.** Restricting student freedom of participation later in the cycle of classroom learning activities does not increase dependence but does increase achievement.
HYPOTHESIS 3. Expanding student freedom of participation early in the cycle of classroom learning activities decreases dependence and increases achievement.\textsuperscript{56}

Gordon and Adler studied relationships between teacher leadership modes and specified pupil effects. Conceiving of teacher leadership in the classroom social systems as being composed of three dimensions—task, authority, and expressive—they investigated the relationships between combinations of ranks on these three dimensions and the following pupil effects: general morale, total achievement, classroom order, volunteer work, and compliance with assigned work.\textsuperscript{57} They found that certain combinations (modes) of teacher leadership dimensions related to greater varieties of pupil effects than did others. For example, two modes, in particular, were related to four pupil effects, whereas some modes were related to none.\textsuperscript{58}

Because the Gordon-Adler and the Halpin-Croft studies provided the three critical components of the paradigm of this study, their contents are summarized in Appendices I and II respectively.
null
II. RESEARCH ON LEADERSHIP

Research on leadership has had a history somewhat similar to that of research on teaching. The leadership trends came about two decades before those of teacher effectiveness. Biddle referred to this historical lag when he stated: "We are, in a sense, at the same crossroads faced by leadership research two decades ago."\(^5^9\)

The search prior to 1940 was for "traits" and "behaviors" of leaders\(^6^0\) which could apply to all leaders in all situations. The variables sought in these leadership studies--energetic, honest, helpful, considerate--were closely akin to the teacher characteristics sought in teacher effectiveness studies. The final success of these investigations suffered from the same limitations found in educational research--their relationships with the criterion variables which they were supposed to affect were tenuous and attenuated at best. Redl, in 1942, was still concerned with a Freudian analysis of the central person in leadership situations.\(^6^1\)

Around the early forties, researchers turned to contextual investigations of leadership, studying the relationships among leaders, followers, and the organizations which framed the locus of their interaction.\(^6^2\) The Ohio State Leadership Study Group defined leadership in
terms of goals and organization. Stodgill and colleagues conceived of leadership in the organizational sense, that is, in terms of how the total situation defined, delimited, and motivated leadership actions. These efforts were directed by attempts to bring to leadership study the scientific emphasis of the period.

The Ohio State Leadership Studies are being conducted on the basis of these assumptions: (1) that group organization is a recognizable social phenomenon of our culture; (2) that as such it is a legitimate subject for scientific study; and (3) that the variables of organization can be isolated and defined so as to permit their scientific study.

Shartle reported the following conclusions of the Ohio studies: (1) There are two sets of demands on the leader--(a) setting goals, supervising their accomplishment, and evaluating performance; and (b) ministering to the needs and wishes of the members; (2) Leaders tend to select subordinate leaders "much like themselves in method, values, temperament, and the like"; (3) Leaders tend to be perceived by their subordinates pretty much as they themselves perceive their superiors; and (4) Leaders characteristically lead others as they are themselves led. Authoritarian leadership tends to create authoritarian leaders and democratic leadership tends to create
democratic leaders. This last result is analogous to the findings of Anderson and Lippitt and White.

The advent of leadership effects upon participants found its way to educational contexts early. The studies of Anderson and Lippitt and White were basically concerned with the effects of leadership styles upon pupils. Leaders with contrasting styles—dominative vs. integrative in the case of Anderson, autocratic vs. democratic in the case of Lippitt and White, and preclusive vs. inclusive in the case of Cogan—were studied and their effects were measured in terms of pupil results. The results of these studies supported the hypothesis that there may be a reciprocal relationship between the behavior of the adult leaders and their wards.

From the standpoint of research, the problem has been one of defining leadership operationally. In the context of the classroom, it seems that: (1) teacher leadership characteristics should be defined in terms of identified and identifiable pupil results, and (2) such characteristics and results should be based upon pupil evaluation. Cogan came close to such a definition, however; he measured proximate and not ultimate variables in his study.
Gordon and Adler have both defined leadership through pupil perceptions and related them to ultimate pupil variables. Their study was conducted in the "Bay City School System" and, whether or not the three clusters of teacher behaviors they used prove to relate to each other and to pupil effects, as they did in their study, will have to be determined by further research and experimentation. Since they investigated teacher leadership and related it to pupil effects in one school system, it seems reasonable to question whether or not their findings will hold under different school climates and to suggest that the relationships which they found must be examined in contrasting school climates. The examination of the possible exception lies at the heart of inquiry.

III. RESEARCH ON CLIMATES

In organizational terms, climate refers to a psychological atmosphere within which incumbents function. A meteorologist defined climate as the "weather you expect there." The weather which participants expect of the social situation in which they happen to be is the climate.

The intangibility of the concept of climate, while recognized as an existing factor influencing participant behavior, has been difficult to operationalize for purposes
school; figuratively, 'personality' is to the individual what 'climate' is to the organization."  
They posited the factors of social needs, esprit, and social control, and identified eight subtests representing eight characteristics of the principal and the faculty group, applied a profile analysis to the subtest scores, and constructed an ideal profile for each climate. In Halpin's own words:

We applied a profile-analysis to the subtest scores, and on the basis of this analysis, we invented a typology of "climates," arranged along what we had construed as more or less of a continuum, with the "open" climate at the one end, and the "closed" climate at the other. We found that "open" climate was characterized by what we have described as human authenticity, whereas the "closed" climate was marked by inauthenticity. . . . The "open" climates were designated as "healthy" and the "closed" climates as unhealthy.

The OCDQ has been used by various researchers. Some of these were reviewed by Halpin in an address delivered in November of 1965 at the Governor's Educational Conference.

Brown replicated the Organizational Climate Study on a sample of 81 schools, and found a pattern of intercorrelations among the subtest scores similar to those previously found by Halpin and Croft. However, he found
some differences in the factors which composed the climate patterns and came up with eight instead of six climates. Andrews applied the OCDQ to 165 Alberta schools, including both elementary and secondary levels. He found that the OCDQ possessed good construct validity, but noted that it limited the social interactions to principal and teachers--which Halpin and Croft had assumed--and did not include interactions between staff and parents and between teachers and pupils. The latter relationships have been included in the present study as established by Gordon and Adler.

Two studies by Anderson and Plaxton correlated the personality and personal-value patterns of school principals with OCDQ subtest scores. They found statistically significant relationships.

A study by Nicholas, Virjo, and Wattenberg dealt with the effects of the combinations of socio-economic settings and organizational climates of schools upon problems brought to elementary school offices. This study was done on a sample of thirteen elementary schools in Detroit. The principals' offices were "bugged" and videotaped. Seven of the thirteen schools had closed climates, and the other six were in the paternal category. In other words, all thirteen climates were in the closed end of the
continuum. These investigators found significant differences in the types of problems brought to the principals' offices. The more open schools were found to have significantly lower frequencies of behavior problems among the pupils.  

In reviewing the conclusions of Nicholas et al., Halpin concluded that the size of the school was the major factor involved in determining climates. He hypothesized that the principal of the small school had enough energy left over to devote to those activities which characterize open climate schools--involving parents, teachers, supportive staff, and outside agencies.  

Halpin and Croft summarized data which was made available to them by users of the OCDQ and found that urban-core schools are principally closed climate schools.  

Addressing himself to the matter of changing school climates, possibly from closed to open, Halpin made a clear argument for the belief that it could be effected neither by fiat nor by frontal assault. He went on to emphasize that

... we do not yet know very much about how to change a climate. More research is needed before any one of us can risk a headlong plunge into action programs in this area. But we do know several things that we should not do. And we do have a few viable leads on what we should do.
Research on Classroom Climates

Flanders defined classroom climate and referred to the magnitude of its influence upon pupils' behaviors in the following:

The words *classroom climate* refer to generalized attitudes toward the teacher and the class that pupils share in common in spite of individual differences. The development of these attitudes is an outgrowth of classroom social interaction. As a result of participating in classroom activities, pupils soon develop shared expectations about how the teacher will act, what kind of a person he is, and how they like their class. These expectations color all aspects of classroom behavior, creating a social atmosphere or climate that appears to be fairly stable, once established. Thus the word "climate" is merely a shorthand reference to those qualities that consistently predominate in most teacher-pupil contacts and contacts between pupils in the presence or absence of the teacher.  

Gump, referring to the studies of Barker and Wright, used the label "behavior setting" to discuss the influence of climate upon participant behavior.

The deceptively simple concept of behavior setting yields a unit of environmental analysis that has a number of virtues. . . . Behavior settings are visible, obvious, empirical facts about behavior; they are systems with internal and external dynamics; they are comprehensive (most of the observed behavior of persons occur within behavior settings already identified); and they coerce behavior.

Gump attributed the coercive power of behavior settings to a number of sources among which the outstanding are:
the effects of physical and social forces as well as the perceptual and adaptive inductions of the participants. Studies of classroom climate have concentrated on two areas for purposes of analysis—the emotional climate and the social climate.

The emotional climate. Studies of the emotional climate of the classroom have based their concepts on such psychological parameters as anxiety, hostility, interpersonal relationships, and withdrawal. They have postulated the central role of the teacher in the establishment and maintenance of a good emotional tone in the classroom, and posited that a favorable emotional atmosphere has a significant positive influence on achievement.

Simon and Boyer proposed the need for further study concerning the relationships between teachers' affective responses to pupil output and subsequent pupil cognitive growth. They also pointed out why the various dimensions of the affective domain may predict cognitive growth, arriving at the conclusions that

... it appears that a positive emotional environment is a very powerful asset to learning, and positive emotional environments are made by teachers whose reactions are supportive of their students' ideas, feelings, work efforts and behaviors.
Walberg and Anderson found that personal relationships among class members predict learning. They concluded that "it is not the identification with the group that correlates with learning but the perception that the class is personally gratifying and without hostilities among the members." 103

One of Withall's two postulates was that learning is most likely to take place when experiences "occur in a non-threatening situation, that is, the learner is free from a sense of personal threat, interacts with others in a wholesome social milieu, and is helped to evaluate himself on the basis of objective criteria." 104

The social climate.

Educators who view teaching from the vantage point of classroom social climate employ such concepts as leadership, power, influence, authority, and role. They ask such questions as: How does the teacher manifest his leadership position in the classroom? In what ways does the teacher use his power? What patterns of teaching influence can we identify in the classroom? Who is recognized as having the authority for making classroom decisions? In what ways do teachers respond to the social needs of the students? What roles does the teacher perform as he teaches? 105

According to Hyman, more empirical studies have been conducted on the social aspects of teaching than from any other viewpoint. 106
Jensen made reference to the social character of teaching when he stated:

As revealed by the research references cited throughout this article, the dimensions of the social structure of the classroom group represent manifestations of needs class members have (a) as individual personalities and (b) as group members. To participate effectively in the tasks or work of the group and to meet their individual needs, members are required to relate to other members in ways that make these accomplishments possible. Stated otherwise, each group member has need to establish between himself and the other group members the kind of relationships that are required for members (1) to work effectively as a group and (2) to maintain a satisfactory balance between the possible gratifications and deprivations of personal needs. These are the basic conditions for a collection of individuals to become and remain a classroom group.107

Jensen then pointed out seven dimensions along which classroom members seek to relate to each other: problem solving, authority-leadership, power, friendship, personal prestige, sex, and privilege.108

Jenkins, in seeking to describe leadership in the classroom, admitted both the sources of teacher leadership and the leadership which emanated from the group itself.109

In *A Climate for Individuality*, four national educational associations emphasized the role of the social group in the development of the individual. They stressed that it is only in the group, and as the group makes its
contributions, that desired individual traits can be nurtured. They also added support to the notion expressed earlier by Gump that the setting has pervadingly coercive powers. 110

IV. SUMMARY

The literature of this chapter was reviewed in the areas of research on teaching, research on leadership, and research on climates. The emphasis of particular interest to this study was that of teacher effectiveness, especially as this is related to pupil behaviors. Therefore, in leadership the emphasis was on the predominant role of the teacher in the total leadership function. The central role of the teacher in the classroom setting was continued in the discussion of classroom climates, where the possibility of creating certain types of learning climates was considered.
FOOTNOTES--CHAPTER II


5Andrew W. Halpin, Theory and Research in Administration, p. viii.


7Halpin and Croft, op. cit., p. 6.

8Ibid., p. 11.

9Ibid., p. 3.

10Ibid., p. 19.

11Ibid., p. 20.

12Ibid., p. 25.

13Ibid., p. 29.

14Ibid., p. 1.


19 Gage, op. cit.


21 Barr, op. cit., p. 147.


23 Ibid., p. v.

24 Ibid., p. 1.

25 Ibid., pp. 6-8.

26 Pi Lambda Theta, op. cit.

27 Ibid., p. vii.


31 Hyman, *op. cit.*


33 Pi Lambda Theta, *op. cit.*, p. 69.


35 Biddle and Elena, *op. cit.*, pp. 3-4.

36 Simon and Boyer, *op. cit.*

37 Simon and Boyer, *op. cit.*

38 Gage, *op. cit.*, p. 113.

39 *Ibid.*, p. 120.


41 Pi Lambda Theta, *op. cit.*, p. 20.


45 Gordon and Adler, op. cit., p. 2.


49 Gordon and Adler, op. cit.

50 Hyman, op. cit., p. 214.

51 Amidon and Hough, op. cit., pp. 47-64.

52 Ibid., pp. 4-23.

53 Ibid., pp. 24-46.

54 Ibid., pp. 65-88.


56 Ibid., p. 221.


58 Ibid., p. 261.

59 Biddle and Elena, op. cit., p. 57.

60 Ibid.

62 Biddle and Elena, op. cit., p. 38.

63 Browne and Cohn, op. cit., p. 31.


66 Sartain, op. cit., p. 458.

67 Ibid., p. 459.

68 Ibid.

69 Ibid.

70 Amidon and Hough, op. cit., p. 104.

71 Ibid., p. 105.

72 Ibid., p. 4.

73 Ibid., p. 24.

74 Ibid., p. 65.

75 Ibid., p. 69.

76 Gordon and Adler, op. cit.

78 Hyman, *op. cit.*, pp. 147-294.

79 Speech delivered by Andrew W. Halpin before the Governor's Educational Conference on November 18, 1965, Maui, Hawaii.


83 Ibid., pp. 1-2.

84 Halpin, speech, November 18, 1965, p. 2.

85 Ibid.


87 Halpin and Croft, *op. cit.*


91 Halpin, speech, pp. 6-7.

92 Ibid., p. 4.

93 Ibid., p. 8.

94 Amidon and Hough, op. cit., pp. 103-104.

95 Biddle and Elena, op. cit., pp. 173-179.

96 Ibid., p. 174.

97 Ibid., pp. 174-175.

98 Hyman, op. cit., p. 147.

99 Amidon and Hough, op. cit., p. 48.

100 Hyman, op. cit., p. 147.

101 Simon and Boyer, op. cit., p. 5.

102 Ibid., p. 7.


104 Amidon and Hough, op. cit., p. 48.

105 Hyman, op. cit., p. 209.
106 Ibid.

107 Ibid., p. 241.

108 Ibid.

109 Ibid., p. 215.

110 American Association of School Administrators, op. cit., p. 29.
CHAPTER III
TREATMENT AND ANALYSIS OF DATA

In this chapter, the data obtained from the teachers and their pupils are presented and analyzed.

The chapter is organized in five parts. First, the selection of the basic teacher sample on the basis of climate perceptions is explained. Second, the statistical relationships sought are explained. The data for the task questions are then presented, together with discussions of the findings pertinent to the teacher behaviors referred to in the questions. In each case, the data are presented, the statistical results are discussed, the question and its possible responses are stated, and relationships between these and the climates are analyzed. A similar format comprises the presentation of the authority and expressive dimensions in the fourth and fifth sections of the chapter.

As indicated in the procedures, two research models were applied. One, The Organizational Climates of Schools, provided the model for obtaining teachers' perceptions of the organizational climate of the school. The other, Dimensions of Teacher Leadership in Classroom Social
Systems, provided the model for student perceptions of teachers' leadership dimensions.

The Organizational Climate Description Questionnaire was applied in the same form developed by Halpin and Croft (see Appendix II). Permission was obtained from both Halpin and Croft. The final scoring was done by Croft at the University of New Mexico Computer Center.

Permission to use the Gordon-Adler questionnaires was obtained from McNeil, who assisted in the original study. These questionnaires were slightly modified for this study (see Appendix I).

I. PRESENTATION OF DATA

Selection of Teacher Sample

In the "Organizational Climate Scoring Program," a mimeographed sheet, Croft gives the following instructions:

Climate Similarity Scores

A difference score between the climate profile scores for each climate type is presented in the test problem output. The smallest climate similarity score among the six scores is selected to identify the climate of the organization. The largest similarity score indicates which climate the organization is not like.

If the climate similarity score is greater than approximately 45, the climate of the organization is not clearly one type or another. If an organization obtains low similarity scores for two types of climates, the organization possesses characteristics of both climates.
For example, the organization may have attributes of both an open and an autonomous climate.\textsuperscript{5}

In view of these instructions, the OCDQ scores were analyzed and the results in Table I were derived from the 37 teachers in the original set. From these the 20 follow-up participants were selected, and their qualifying scores are shown in Table II.

Teacher number 19 was not processed by Croft's programs because of errors either in marking the questionnaire or in punching the data card. An examination of the remaining 36 climate similarity scores led to the following selections: teachers 2, 8, 13, and 37 were classified in the open category; teachers 14, 16, and 25 were classified in the autonomous climate; teachers 17, 29, and 30 in controlled; teachers 22, 24, and 34 in familiar; teachers 4, 5, and 21 in paternal; and teachers 7, 31, 32, and 33 in closed.

Teachers 18 and 20 were not included in spite of qualifying scores in the closed category because that category already had enough members to balance the four in the open category.

Following the guide that the lowest score within each category indicated the strongest tendency toward that climate,\textsuperscript{6} teacher number 2 was classified as perceiving the
TABLE I

CLIMATE SIMILARITY SCORES OF THE ORIGINAL 37 TEACHERS

<table>
<thead>
<tr>
<th>Teacher Number</th>
<th>Open</th>
<th>Autonomous</th>
<th>Controlled</th>
<th>Familiar</th>
<th>Paternal</th>
<th>Closed</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>80</td>
<td>98</td>
<td>97</td>
<td>62</td>
<td>62</td>
<td>62</td>
</tr>
<tr>
<td>2</td>
<td>25</td>
<td>63</td>
<td>88</td>
<td>71</td>
<td>82</td>
<td>111</td>
</tr>
<tr>
<td>3</td>
<td>78</td>
<td>68</td>
<td>70</td>
<td>80</td>
<td>70</td>
<td>92</td>
</tr>
<tr>
<td>4</td>
<td>89</td>
<td>92</td>
<td>81</td>
<td>71</td>
<td>38</td>
<td>60</td>
</tr>
<tr>
<td>5</td>
<td>73</td>
<td>108</td>
<td>104</td>
<td>55</td>
<td>34</td>
<td>67</td>
</tr>
<tr>
<td>6</td>
<td>84</td>
<td>99</td>
<td>62</td>
<td>90</td>
<td>67</td>
<td>78</td>
</tr>
<tr>
<td>7</td>
<td>103</td>
<td>104</td>
<td>91</td>
<td>67</td>
<td>49</td>
<td>36</td>
</tr>
<tr>
<td>8</td>
<td>39</td>
<td>62</td>
<td>93</td>
<td>52</td>
<td>74</td>
<td>107</td>
</tr>
<tr>
<td>9</td>
<td>47</td>
<td>57</td>
<td>77</td>
<td>61</td>
<td>79</td>
<td>101</td>
</tr>
<tr>
<td>10</td>
<td>104</td>
<td>73</td>
<td>78</td>
<td>82</td>
<td>81</td>
<td>48</td>
</tr>
<tr>
<td>11</td>
<td>74</td>
<td>44</td>
<td>98</td>
<td>68</td>
<td>94</td>
<td>74</td>
</tr>
<tr>
<td>12</td>
<td>56</td>
<td>81</td>
<td>70</td>
<td>87</td>
<td>77</td>
<td>94</td>
</tr>
<tr>
<td>13</td>
<td>43</td>
<td>51</td>
<td>77</td>
<td>74</td>
<td>91</td>
<td>99</td>
</tr>
<tr>
<td>14</td>
<td>58</td>
<td>34</td>
<td>79</td>
<td>53</td>
<td>90</td>
<td>103</td>
</tr>
<tr>
<td>15</td>
<td>64</td>
<td>57</td>
<td>103</td>
<td>68</td>
<td>84</td>
<td>76</td>
</tr>
<tr>
<td>16</td>
<td>68</td>
<td>37</td>
<td>73</td>
<td>79</td>
<td>95</td>
<td>85</td>
</tr>
<tr>
<td>17</td>
<td>83</td>
<td>76</td>
<td>42</td>
<td>90</td>
<td>67</td>
<td>90</td>
</tr>
<tr>
<td>18</td>
<td>112</td>
<td>81</td>
<td>75</td>
<td>104</td>
<td>90</td>
<td>41</td>
</tr>
<tr>
<td>19</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>ERROR</td>
</tr>
<tr>
<td>20</td>
<td>107</td>
<td>97</td>
<td>95</td>
<td>81</td>
<td>79</td>
<td>42</td>
</tr>
<tr>
<td>21</td>
<td>83</td>
<td>110</td>
<td>97</td>
<td>55</td>
<td>35</td>
<td>64</td>
</tr>
<tr>
<td>22</td>
<td>69</td>
<td>78</td>
<td>118</td>
<td>26</td>
<td>40</td>
<td>74</td>
</tr>
<tr>
<td>23</td>
<td>68</td>
<td>94</td>
<td>72</td>
<td>67</td>
<td>53</td>
<td>102</td>
</tr>
<tr>
<td>24</td>
<td>91</td>
<td>79</td>
<td>102</td>
<td>41</td>
<td>67</td>
<td>77</td>
</tr>
<tr>
<td>25</td>
<td>55</td>
<td>43</td>
<td>80</td>
<td>52</td>
<td>90</td>
<td>98</td>
</tr>
<tr>
<td>26</td>
<td>85</td>
<td>59</td>
<td>68</td>
<td>88</td>
<td>89</td>
<td>65</td>
</tr>
<tr>
<td>27</td>
<td>76</td>
<td>60</td>
<td>65</td>
<td>75</td>
<td>79</td>
<td>86</td>
</tr>
<tr>
<td>28</td>
<td>76</td>
<td>75</td>
<td>60</td>
<td>90</td>
<td>72</td>
<td>68</td>
</tr>
<tr>
<td>29</td>
<td>72</td>
<td>73</td>
<td>39</td>
<td>95</td>
<td>75</td>
<td>94</td>
</tr>
<tr>
<td>30</td>
<td>100</td>
<td>80</td>
<td>34</td>
<td>112</td>
<td>79</td>
<td>70</td>
</tr>
<tr>
<td>31</td>
<td>110</td>
<td>107</td>
<td>76</td>
<td>85</td>
<td>69</td>
<td>34</td>
</tr>
<tr>
<td>32</td>
<td>122</td>
<td>96</td>
<td>78</td>
<td>98</td>
<td>82</td>
<td>21</td>
</tr>
<tr>
<td>33</td>
<td>118</td>
<td>114</td>
<td>78</td>
<td>92</td>
<td>63</td>
<td>16</td>
</tr>
<tr>
<td>34</td>
<td>51</td>
<td>63</td>
<td>95</td>
<td>40</td>
<td>94</td>
<td>98</td>
</tr>
<tr>
<td>35</td>
<td>74</td>
<td>55</td>
<td>73</td>
<td>92</td>
<td>107</td>
<td>77</td>
</tr>
<tr>
<td>36</td>
<td>77</td>
<td>68</td>
<td>88</td>
<td>67</td>
<td>83</td>
<td>75</td>
</tr>
<tr>
<td>37</td>
<td>41</td>
<td>54</td>
<td>87</td>
<td>60</td>
<td>85</td>
<td>110</td>
</tr>
</tbody>
</table>
### TABLE II
CLIMATE SCORES AND RANKS OF THE FINAL TEACHER SAMPLE

<table>
<thead>
<tr>
<th>Teacher Number</th>
<th>Climate and Score</th>
<th>Rank on Climate</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Open 25</td>
<td>1</td>
</tr>
<tr>
<td>8</td>
<td>Open 39</td>
<td>2</td>
</tr>
<tr>
<td>37</td>
<td>Open 41</td>
<td>3</td>
</tr>
<tr>
<td>13</td>
<td>Open 43</td>
<td>4</td>
</tr>
<tr>
<td>14</td>
<td>Auto. 34</td>
<td>5</td>
</tr>
<tr>
<td>16</td>
<td>Auto. 37</td>
<td>6</td>
</tr>
<tr>
<td>25</td>
<td>Auto. 43</td>
<td>7</td>
</tr>
<tr>
<td>30</td>
<td>Cont. 34</td>
<td>8</td>
</tr>
<tr>
<td>29</td>
<td>Cont. 39</td>
<td>9</td>
</tr>
<tr>
<td>17</td>
<td>Cont. 42</td>
<td>10</td>
</tr>
<tr>
<td>24</td>
<td>Fam. 42</td>
<td>11</td>
</tr>
<tr>
<td>34</td>
<td>Fam. 40</td>
<td>12</td>
</tr>
<tr>
<td>22</td>
<td>Fam. 26</td>
<td>13</td>
</tr>
<tr>
<td>4</td>
<td>Pat. 38</td>
<td>14</td>
</tr>
<tr>
<td>21</td>
<td>Pat. 35</td>
<td>15</td>
</tr>
<tr>
<td>5</td>
<td>Pat. 34</td>
<td>16</td>
</tr>
<tr>
<td>7</td>
<td>Clsd. 36</td>
<td>17</td>
</tr>
<tr>
<td>31</td>
<td>Clsd. 34</td>
<td>18</td>
</tr>
<tr>
<td>32</td>
<td>Clsd. 21</td>
<td>19</td>
</tr>
<tr>
<td>33</td>
<td>Clsd. 16</td>
<td>20</td>
</tr>
</tbody>
</table>
most open climate with an open score of 25 and all other climate similarity scores above 63. Teacher number 8 was selected as the next most open with a score of 39 in the open category. In other words, teacher number 2 had a lower open score than teacher number 8. Therefore, teacher number 2 was considered to perceive a more open climate--teacher 2, by virtue of a lower similarity score, was closer to the open climate prototype established by Halpin and Croft than teacher 8. Thus, teacher 2 was ranked first and teacher 8 was ranked second.

On the other end of the continuum, the climate perceived by teacher number 33 was considered more closed than that perceived by teacher 32, since teacher 33 had a closed score of 16, whereas teacher 32 had a closed score of 21, that is, teacher 33 had a closer similarity score to the closed ideal profile than teacher 32. (See Appendix II for definitions of similarity scores.) Thus, teacher 32 was ranked nineteenth and 33 was ranked twentieth. The results can be seen in Table II.

II. ITEM ANALYSIS

The Gordon-Adler teacher leadership dimension questionnaires (Appendix I) provided the second set of scores for each unit. The first seven questions were used to compute
the task dimension scores; items 8 through 16 provided the 
authority dimension scores, and items 17 through 27 provided
the expressive dimension scores. Each teacher's scores in
these three dimensions were computed through computer
programs developed by the investigator at the New Mexico
Highlands University Computer Center.

The following procedures were followed in the computation
of the statistics used in this study:

1. The 20 teachers' OCDQ scores were arranged on an
ordered scale ranked from most open (=1) to most
closed (=20).

2. An arithmetic mean was computed for each teacher
with regard to each of the 27 questions in the Gordon-
Adler questionnaires. This was done by adding the
pupil responses to a particular question for a given
teacher and dividing by the number of pupils respond-
ing in that teacher's class.

3. An arithmetic mean was computed for each teacher
with regard to each dimension by adding that teacher's
averages for the questions comprising that dimension.

4. A range and a standard deviation were computed
for each of the sets described in (2) and (3) above.

5. The question-within-teacher averages were ranked
from highest (=1) to lowest (=20).
6. The dimension-within-teacher averages were ranked from highest (=1) to lowest (=20).

7. The final statistical treatment applied was that of correlation coefficients. Spearman rhos were computed between (a) the organizational climates and the set of averages for each question; (b) the organizational climates and the task averages; (c) the organizational climates and the authority averages; and (d) the organizational climates and the expressive averages. These coefficients were compared with probability tables and applied to the hypotheses of this study.

A presentation of the questions and responses used to acquire teacher leadership data provides additional insight into the dynamics of the classrooms studied.

In the following pages, each of the task items is presented and is accompanied by a summary of these items. The authority items are then presented, along with a summary. Finally, a similar presentation is made for expressive items. In presenting the data, each stem item from the questionnaire is given, accompanied by a table of teacher averages for that item. An interpretive analysis is given for each item, including the statistical results.
Analysis of Task Items

Interpretive analysis of Task Item 1. The data of this item revealed that the teachers in the sample in general assured the mastery of old work. All 20 teachers were conscientious about the learning of old material before going on to new work. Seven of the first eight teachers on the climate ranking scored above 2.000, and three of these were very close to 3.000. The highest scoring teacher averaged 3.000, which indicated a balance between the mastery of old work and the introduction of new work.

The correlation coefficient found in the first task item (rho = 0.44 significant at the .05 level) indicated a significant positive correlation between the openness of climate perception and the level of emphasis on new work. This correlation indicated that those teachers in open climates ranked higher on this item, which means that open climate teachers tended to place more emphasis on moving on to new work before complete mastery of the old had been achieved.

Task Question 1. ARE YOU GIVEN NEW WORK IN THIS CLASS BEFORE YOU ARE ABLE TO GET THE RIGHT ANSWERS TO OR UNDERSTAND THE OLD WORK?

1. I am not given new kinds of work until I can do the old kind correctly.
3. I am sometimes given new kinds of work before I can do the old kind.

5. I am almost always given new kinds of work before I can do the old kind.

TABLE III

SCORES AND RANKS USED IN THE STATISTICAL ANALYSIS OF TASK QUESTION ONE

<table>
<thead>
<tr>
<th>Teacher Number</th>
<th>Score on Question 1</th>
<th>Rank on Climate</th>
<th>Rank on Question 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>2.466</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>8</td>
<td>2.800</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>37</td>
<td>2.692</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>13</td>
<td>2.000</td>
<td>4</td>
<td>11</td>
</tr>
<tr>
<td>14</td>
<td>1.923</td>
<td>5</td>
<td>14</td>
</tr>
<tr>
<td>16</td>
<td>2.875</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>25</td>
<td>2.428</td>
<td>7</td>
<td>6</td>
</tr>
<tr>
<td>30</td>
<td>2.076</td>
<td>8</td>
<td>10</td>
</tr>
<tr>
<td>29</td>
<td>1.857</td>
<td>9</td>
<td>17</td>
</tr>
<tr>
<td>17</td>
<td>1.916</td>
<td>10</td>
<td>15</td>
</tr>
<tr>
<td>24</td>
<td>2.096</td>
<td>11</td>
<td>8</td>
</tr>
<tr>
<td>34</td>
<td>1.869</td>
<td>12</td>
<td>16</td>
</tr>
<tr>
<td>22</td>
<td>1.608</td>
<td>13</td>
<td>19</td>
</tr>
<tr>
<td>4</td>
<td>2.103</td>
<td>14</td>
<td>7</td>
</tr>
<tr>
<td>21</td>
<td>3.000</td>
<td>15</td>
<td>1</td>
</tr>
<tr>
<td>5</td>
<td>1.750</td>
<td>16</td>
<td>18</td>
</tr>
<tr>
<td>7</td>
<td>1.518</td>
<td>17</td>
<td>20</td>
</tr>
<tr>
<td>31</td>
<td>2.037</td>
<td>18</td>
<td>9</td>
</tr>
<tr>
<td>32</td>
<td>1.962</td>
<td>19</td>
<td>12</td>
</tr>
<tr>
<td>33</td>
<td>1.947</td>
<td>20</td>
<td>13</td>
</tr>
</tbody>
</table>

Interpretive analysis of Task Item 2. The correlation between climate perceptions and teacher averages on item 2, which refers to the teacher's supervision of written assignments, was -0.24. Although it was negative, it was not
significant at the 0.05 level. However, the pattern of averages revealed a general concern for the supervision of written assignments. With one exception, the teachers were rated considerably high on this item. Nine of them received averages above 4.000, and ten of them were above 3.400, which indicated that the completion of written assignments was seriously supervised.

The average for all teachers was 3.920 out of a maximum of 5.000 (completion of all written assignments). The highest teacher received a score of 4.870—very consistent completion of all written assignments—and the lowest received a score of 2.531, which is close to "sometimes makes sure we complete written assignments."

It is also pertinent that the difference between the highest and the lowest teacher was 2.339, which indicated substantial differentiation between teachers. On a scale where responses differ by 2 points, this range is in excess of one response difference.

Task Question 2. DOES THE TEACHER SEE TO IT THAT YOU COMPLETE ALL OF THE WRITTEN ASSIGNMENTS OR NOT?

1. Hardly ever makes sure we complete written assignments.

3. Sometimes makes sure we complete written assignments.

5. Makes sure we complete practically all written assignments.
**TABLE IV**

SCORES AND RANKS USED IN THE STATISTICAL ANALYSIS
OF TASK QUESTION TWO

<table>
<thead>
<tr>
<th>Teacher Number</th>
<th>Score on Question 2</th>
<th>Rank on Climate</th>
<th>Rank on Question 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>4.130</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>8</td>
<td>3.888</td>
<td>2</td>
<td>12</td>
</tr>
<tr>
<td>37</td>
<td>3.461</td>
<td>3</td>
<td>19</td>
</tr>
<tr>
<td>13</td>
<td>3.666</td>
<td>4</td>
<td>15</td>
</tr>
<tr>
<td>14</td>
<td>3.769</td>
<td>5</td>
<td>14</td>
</tr>
<tr>
<td>16</td>
<td>3.903</td>
<td>6</td>
<td>11</td>
</tr>
<tr>
<td>25</td>
<td>3.583</td>
<td>7</td>
<td>17</td>
</tr>
<tr>
<td>30</td>
<td>4.307</td>
<td>8</td>
<td>4</td>
</tr>
<tr>
<td>29</td>
<td>4.071</td>
<td>9</td>
<td>7</td>
</tr>
<tr>
<td>17</td>
<td>3.625</td>
<td>10</td>
<td>16</td>
</tr>
<tr>
<td>24</td>
<td>4.028</td>
<td>11</td>
<td>9</td>
</tr>
<tr>
<td>34</td>
<td>3.956</td>
<td>12</td>
<td>10</td>
</tr>
<tr>
<td>22</td>
<td>3.866</td>
<td>13</td>
<td>13</td>
</tr>
<tr>
<td>4</td>
<td>4.310</td>
<td>14</td>
<td>3</td>
</tr>
<tr>
<td>21</td>
<td>4.619</td>
<td>15</td>
<td>2</td>
</tr>
<tr>
<td>5</td>
<td>2.531</td>
<td>16</td>
<td>20</td>
</tr>
<tr>
<td>7</td>
<td>4.259</td>
<td>17</td>
<td>5</td>
</tr>
<tr>
<td>31</td>
<td>4.037</td>
<td>18</td>
<td>8</td>
</tr>
<tr>
<td>32</td>
<td>4.870</td>
<td>19</td>
<td>1</td>
</tr>
<tr>
<td>33</td>
<td>3.526</td>
<td>20</td>
<td>18</td>
</tr>
</tbody>
</table>

Interpretive analysis of Task Item 3. The biggest range in the task items was that of item 3. The difference between the highest and the lowest teacher was 2.900, with a relatively smooth distribution.

The correlation of +0.27 was not significant at the 5% level. Teachers in open and closed climates manifested a high concern with reviewing lessons. All teachers
received scores above "reviews some lessons," eighteen of them received scores above "reviews most lessons," and one group of students indicated that their teacher reviewed every lesson.

The overall teacher average for this item was 3.630, which is on the high part of the scale. In general, the scores suggest that teachers were conscientious about reviewing lesson material from the previous day. It would be expected that effective teachers would get high scores on this item, that is, such teachers would consistently establish relationships between lessons. This fact has been well manifested by this teacher sample.

Task Question 3. DOES THIS TEACHER GO OVER A DAY'S WORK WITH YOU AGAIN BEFORE GOING ON TO THE NEXT LESSON, OR DO YOU GO ON WITHOUT REVIEWING?

1. Hardly ever reviews lessons.
2. Reviews some lessons but not regularly.
3. Reviews most lessons.
4. Reviews every lesson (either at the end or at the beginning).
TABLE V

SCORES AND RANKS USED IN THE STATISTICAL ANALYSIS
OF TASK QUESTION THREE

<table>
<thead>
<tr>
<th>Teacher Number</th>
<th>Score on Question 3</th>
<th>Rank on Climate</th>
<th>Rank on Question 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>4.087</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>8</td>
<td>3.518</td>
<td>2</td>
<td>13</td>
</tr>
<tr>
<td>37</td>
<td>5.000</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>13</td>
<td>3.750</td>
<td>4</td>
<td>10</td>
</tr>
<tr>
<td>14</td>
<td>3.346</td>
<td>5</td>
<td>15</td>
</tr>
<tr>
<td>16</td>
<td>4.548</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>25</td>
<td>3.833</td>
<td>7</td>
<td>8</td>
</tr>
<tr>
<td>30</td>
<td>3.406</td>
<td>8</td>
<td>14</td>
</tr>
<tr>
<td>29</td>
<td>3.607</td>
<td>9</td>
<td>12</td>
</tr>
<tr>
<td>17</td>
<td>3.937</td>
<td>10</td>
<td>7</td>
</tr>
<tr>
<td>24</td>
<td>3.028</td>
<td>11</td>
<td>18</td>
</tr>
<tr>
<td>34</td>
<td>4.086</td>
<td>12</td>
<td>5</td>
</tr>
<tr>
<td>22</td>
<td>2.100</td>
<td>13</td>
<td>20</td>
</tr>
<tr>
<td>4</td>
<td>3.620</td>
<td>14</td>
<td>11</td>
</tr>
<tr>
<td>21</td>
<td>4.041</td>
<td>15</td>
<td>6</td>
</tr>
<tr>
<td>5</td>
<td>2.653</td>
<td>16</td>
<td>19</td>
</tr>
<tr>
<td>7</td>
<td>3.111</td>
<td>17</td>
<td>16</td>
</tr>
<tr>
<td>31</td>
<td>3.074</td>
<td>18</td>
<td>17</td>
</tr>
<tr>
<td>32</td>
<td>3.774</td>
<td>19</td>
<td>9</td>
</tr>
<tr>
<td>33</td>
<td>4.157</td>
<td>20</td>
<td>3</td>
</tr>
</tbody>
</table>

Interpretive analysis of Task Item 4. This item referred to the teacher's willingness to explain over again that which had not been understood by the pupils. The data indicated that all teachers in this sample were charitable with their explanations. The general pattern of teacher averages was consistent with the results of the first three items. Teachers gave new work before the old had been completely understood, they supervised written work closely,
they reviewed previous work, and, according to item 4, they tried to explain again that which had not been understood. The overall average of 1.602 was closer to 1 than to 3 and lay in the range which indicated willingness to explain the material over again. Seven of the teachers received scores less than 1.500. Only three were rated above 2.000, and these were within 0.07 (seven hundredths) in excess of 2.000. The majority of the pupil data revealed that the teachers varied their explanations, i.e., scores close to 1.000.

The correlation (rho = 0.46, significant at the 5% level) was high enough to conclude that teachers who perceived open climates tended to give fewer explanations. This was in line with the positive correlation found in item 1, which indicated that open teachers tended to move on to new work more readily, and the negative correlation of item 2, which, although not significant at the 5% level, may suggest that open teachers tended to be less concerned with the completion of written assignments.

All teachers were very close on this item. The range was 1.066. The highest teacher received a score of 2.066, which was well within the domain of copious explanations. One teacher received a score of 1.000, the lowest possible
score, and an indication of a completely consistent dedication to explaining material that was not understood.

**Task Question 4. WHAT DOES THIS TEACHER MOST OFTEN DO WHEN HE IS TEACHING THE CLASS SOMETHING NEW AND THE PUPILS DON'T UNDERSTAND?**

1. Tries to explain it again another way.

3. Gives the same explanation over again.

5. Moves on to something else, even though we don't understand.

**TABLE VI**

**SCORES AND RANKS USED IN THE STATISTICAL ANALYSIS OF TASK QUESTION FOUR**

<table>
<thead>
<tr>
<th>Teacher Number</th>
<th>Score on Question 4</th>
<th>Rank on Climate</th>
<th>Rank on Question 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>1.928</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>8</td>
<td>1.750</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>37</td>
<td>2.064</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>13</td>
<td>1.888</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>14</td>
<td>1.258</td>
<td>5</td>
<td>17</td>
</tr>
<tr>
<td>16</td>
<td>2.043</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>25</td>
<td>1.833</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>30</td>
<td>1.461</td>
<td>8</td>
<td>14</td>
</tr>
<tr>
<td>29</td>
<td>1.875</td>
<td>9</td>
<td>6</td>
</tr>
<tr>
<td>17</td>
<td>1.333</td>
<td>10</td>
<td>16</td>
</tr>
<tr>
<td>24</td>
<td>1.628</td>
<td>11</td>
<td>10</td>
</tr>
<tr>
<td>34</td>
<td>1.580</td>
<td>12</td>
<td>12</td>
</tr>
<tr>
<td>22</td>
<td>1.000</td>
<td>13</td>
<td>20</td>
</tr>
<tr>
<td>4</td>
<td>1.551</td>
<td>14</td>
<td>13</td>
</tr>
<tr>
<td>21</td>
<td>2.066</td>
<td>15</td>
<td>2</td>
</tr>
<tr>
<td>5</td>
<td>1.001</td>
<td>16</td>
<td>19</td>
</tr>
<tr>
<td>7</td>
<td>1.095</td>
<td>17</td>
<td>18</td>
</tr>
<tr>
<td>31</td>
<td>1.566</td>
<td>18</td>
<td>9</td>
</tr>
<tr>
<td>32</td>
<td>1.384</td>
<td>19</td>
<td>15</td>
</tr>
<tr>
<td>33</td>
<td>1.631</td>
<td>20</td>
<td>11</td>
</tr>
<tr>
<td>Rank</td>
<td>Name</td>
<td>Date</td>
<td>Age</td>
</tr>
<tr>
<td>------</td>
<td>------</td>
<td>------</td>
<td>-----</td>
</tr>
<tr>
<td>1</td>
<td>Bob</td>
<td>1980</td>
<td>25</td>
</tr>
<tr>
<td>2</td>
<td>Alice</td>
<td>1981</td>
<td>24</td>
</tr>
<tr>
<td>3</td>
<td>Jack</td>
<td>1982</td>
<td>23</td>
</tr>
<tr>
<td>4</td>
<td>Jill</td>
<td>1983</td>
<td>22</td>
</tr>
<tr>
<td>5</td>
<td>Tom</td>
<td>1984</td>
<td>21</td>
</tr>
<tr>
<td>...</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Interpretive analysis of Task Item 5. The data of this item indicated that the teachers in this sample required pupils to demonstrate their understanding of what was being taught. The overall teacher average was 2.830, which is very close to "almost every day." All 20 teachers asked that pupils show their understanding more than several times a week—all were above 2.200. Six of the first seven on the climate ranking received scores of 3.000 or higher on this item, which indicated that demonstration of understanding was exacted by these teachers "almost every day" or more frequently. This was consistent with the results of item 2—the teachers in this sample supervised the learning of subject matter conscientiously.

The range of 1.063 was quite narrow. However, it covered from 2.233 to 3.296, which supported the idea that all teachers demanded demonstration of understanding from "several times a week" to "almost every day."

The significantly high positive correlation (rho = 0.54, significant at the 0.01 level) indicated that teachers in open climates tended to demand more frequent demonstrations of understanding of class work.
Task Question 5. HOW OFTEN ARE YOU REQUIRED TO SHOW THE TEACHER (BY WRITING OR TELLING THE ANSWER TO A QUESTION OR A PROBLEM) THAT YOU UNDERSTAND WHAT IS BEING TAUGHT?

1. Never.

2. Several times a week.

3. Almost every day.

4. Once every day.

5. Several times every day.

**TABLE VII**

SCORES AND RANKS USED IN THE STATISTICAL ANALYSIS OF TASK QUESTION FIVE

<table>
<thead>
<tr>
<th>Teacher Number</th>
<th>Score on Question 5</th>
<th>Rank on Climate</th>
<th>Rank on Question 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>3.296</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>8</td>
<td>3.002</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>37</td>
<td>3.001</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>13</td>
<td>3.083</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>14</td>
<td>2.501</td>
<td>5</td>
<td>17</td>
</tr>
<tr>
<td>16</td>
<td>2.903</td>
<td>6</td>
<td>10</td>
</tr>
<tr>
<td>25</td>
<td>3.000</td>
<td>7</td>
<td>6</td>
</tr>
<tr>
<td>30</td>
<td>2.914</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>29</td>
<td>2.857</td>
<td>9</td>
<td>12</td>
</tr>
<tr>
<td>17</td>
<td>2.692</td>
<td>10</td>
<td>15</td>
</tr>
<tr>
<td>24</td>
<td>2.800</td>
<td>11</td>
<td>14</td>
</tr>
<tr>
<td>34</td>
<td>2.913</td>
<td>12</td>
<td>9</td>
</tr>
<tr>
<td>22</td>
<td>2.233</td>
<td>13</td>
<td>20</td>
</tr>
<tr>
<td>4</td>
<td>2.931</td>
<td>14</td>
<td>7</td>
</tr>
<tr>
<td>21</td>
<td>3.285</td>
<td>15</td>
<td>2</td>
</tr>
<tr>
<td>5</td>
<td>2.500</td>
<td>16</td>
<td>18</td>
</tr>
<tr>
<td>7</td>
<td>2.481</td>
<td>17</td>
<td>19</td>
</tr>
<tr>
<td>31</td>
<td>2.666</td>
<td>18</td>
<td>16</td>
</tr>
<tr>
<td>32</td>
<td>2.870</td>
<td>19</td>
<td>11</td>
</tr>
<tr>
<td>33</td>
<td>2.842</td>
<td>20</td>
<td>13</td>
</tr>
</tbody>
</table>
Interpretive analysis of Task Item 6. The range (R = 1.477) for this item was centered about an overall teacher average of 3.180. The highest teacher received a score of 4.000, and the rest of the sample was closer to 3.000: "keep using a kind of lesson sometimes after we have taken up a new kind." According to the data, the teachers re-used material after going on to new material; however, they did not keep using it over and over—namely, pupils perceived that old material was used in subsequent classes, but not to the point of hindering progress.

The correlation (rho = 0.44, significant at the 0.05 level) indicated that open climate teachers used previous lessons less. In agreement with item 1, they gave pupils the impression that they took up new work before the old work had been understood. They seemed to be slightly more concerned with moving the group on to new material, and, therefore, gave the impression of spending less time reinforcing what had been taken up before.

Task Question 6. WHEN YOU HAVE LEARNED A CERTAIN KIND OF LESSON, DO YOU USE IT OVER AGAIN DURING THE YEAR OR STOP USING IT AFTER YOU HAVE TAKEN UP A DIFFERENT KIND OF WORK?

1. Keep using a kind of lesson over and over again.

3. Keep using a kind of lesson sometimes after we have taken up a new kind.

5. Hardly ever use an old kind after we take up a new kind.
not only marked all mistakes, but they used their corrections
to direct pupil performance.

The correlation (rho = 0.50, significant at the 0.05
level) indicated that teachers who perceived open climates
were higher on this response, i.e., these teachers tended
to use paper-grading as part of the therapy of error under
proper guidance.

**Task Question 7. HOW ARE YOUR PAPERS USUALLY CORRECTED?**

1. I don't know; papers aren't returned.

2. A grade or comment for the whole paper is
given, but all mistakes are not marked.

4. All mistakes are marked.

5. All mistakes are marked, and we are shown how
the work is wrong.
TABLE IX

SCORES AND RANKS USED IN THE STATISTICAL ANALYSIS OF TASK QUESTION SEVEN

<table>
<thead>
<tr>
<th>Teacher Number</th>
<th>Score on Question 7</th>
<th>Rank on Climate</th>
<th>Rank on Question 7</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>4.478</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>8</td>
<td>4.074</td>
<td>2</td>
<td>14</td>
</tr>
<tr>
<td>37</td>
<td>4.692</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>13</td>
<td>4.583</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>14</td>
<td>4.384</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>16</td>
<td>4.419</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>25</td>
<td>4.541</td>
<td>7</td>
<td>4</td>
</tr>
<tr>
<td>30</td>
<td>4.375</td>
<td>8</td>
<td>9</td>
</tr>
<tr>
<td>29</td>
<td>4.178</td>
<td>9</td>
<td>12</td>
</tr>
<tr>
<td>17</td>
<td>4.125</td>
<td>10</td>
<td>13</td>
</tr>
<tr>
<td>24</td>
<td>3.714</td>
<td>11</td>
<td>17</td>
</tr>
<tr>
<td>34</td>
<td>4.043</td>
<td>12</td>
<td>15</td>
</tr>
<tr>
<td>22</td>
<td>3.692</td>
<td>13</td>
<td>18</td>
</tr>
<tr>
<td>4</td>
<td>3.665</td>
<td>14</td>
<td>19</td>
</tr>
<tr>
<td>21</td>
<td>4.571</td>
<td>15</td>
<td>3</td>
</tr>
<tr>
<td>5</td>
<td>4.384</td>
<td>16</td>
<td>8</td>
</tr>
<tr>
<td>7</td>
<td>3.111</td>
<td>17</td>
<td>20</td>
</tr>
<tr>
<td>31</td>
<td>4.259</td>
<td>18</td>
<td>10</td>
</tr>
<tr>
<td>32</td>
<td>3.774</td>
<td>19</td>
<td>16</td>
</tr>
<tr>
<td>33</td>
<td>4.210</td>
<td>20</td>
<td>11</td>
</tr>
</tbody>
</table>

Summary of Task Items

The task dimension, in general, made reference to the pacing imposed on the student group by the teacher to cover subject material.

The Spearman rho analysis of the summary matrix of all task items revealed a significant correlation ($\rho = +0.534$, significant at the 0.01 level) between task rankings (from
high to low) and climate rankings (from open to closed). The highest scoring teacher received a summary score of 24.492, which was above an average of 3.500 per item. As can be seen by the scale used in the responses, this summary score is in the upper part of the task scale. On the other hand, the lowest scoring teacher received a score of 17.584, which was approximately an average of 2.512 per item. The average range between the highest and the lowest scoring teachers was approximately 1.000 per item. Since 3.000 was the midpoint in the item response scale, the highest scoring teacher was clearly above the midpoint per item average, and the lowest scoring teacher as much below.

As the analysis of individual questions in the previous pages has demonstrated, these teacher behaviors were well exemplified by all teachers in the sample; however, teachers in open climates rated higher than those in closed climates in five of the seven questions. This fact was supported by the summary matrix and the correlation found in the summary statistical treatment.

It can be concluded from the statistical data presented with relation to this dimension that:
TABLE X

SCORES, FORMULAS, RANKS, AND CORRELATION COEFFICIENTS
USED IN THE STATISTICAL ANALYSIS
OF THE TASK MATRIX

<table>
<thead>
<tr>
<th>Teacher Number</th>
<th>Task Score</th>
<th>Rank on Climate</th>
<th>Rank on Task</th>
<th>d</th>
<th>d²</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>24.384</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>8</td>
<td>22.474</td>
<td>2</td>
<td>6</td>
<td>4</td>
<td>16</td>
</tr>
<tr>
<td>37</td>
<td>24.492</td>
<td>3</td>
<td>1</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>13</td>
<td>22.386</td>
<td>4</td>
<td>7</td>
<td>3</td>
<td>9</td>
</tr>
<tr>
<td>14</td>
<td>20.026</td>
<td>5</td>
<td>17</td>
<td>12</td>
<td>144</td>
</tr>
<tr>
<td>16</td>
<td>24.207</td>
<td>6</td>
<td>3</td>
<td>3</td>
<td>9</td>
</tr>
<tr>
<td>25</td>
<td>22.384</td>
<td>7</td>
<td>8</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>30</td>
<td>22.475</td>
<td>8</td>
<td>5</td>
<td>3</td>
<td>9</td>
</tr>
<tr>
<td>29</td>
<td>21.445</td>
<td>9</td>
<td>13</td>
<td>4</td>
<td>16</td>
</tr>
<tr>
<td>17</td>
<td>20.503</td>
<td>10</td>
<td>16</td>
<td>6</td>
<td>36</td>
</tr>
<tr>
<td>24</td>
<td>20.351</td>
<td>11</td>
<td>15</td>
<td>4</td>
<td>16</td>
</tr>
<tr>
<td>34</td>
<td>21.707</td>
<td>12</td>
<td>10</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>22</td>
<td>17.350</td>
<td>13</td>
<td>18</td>
<td>5</td>
<td>25</td>
</tr>
<tr>
<td>4</td>
<td>21.584</td>
<td>14</td>
<td>11</td>
<td>3</td>
<td>9</td>
</tr>
<tr>
<td>21</td>
<td>24.111</td>
<td>15</td>
<td>4</td>
<td>11</td>
<td>121</td>
</tr>
<tr>
<td>5</td>
<td>17.584</td>
<td>16</td>
<td>20</td>
<td>4</td>
<td>16</td>
</tr>
<tr>
<td>7</td>
<td>18.123</td>
<td>17</td>
<td>19</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>31</td>
<td>21.272</td>
<td>18</td>
<td>14</td>
<td>4</td>
<td>16</td>
</tr>
<tr>
<td>32</td>
<td>21.789</td>
<td>19</td>
<td>9</td>
<td>10</td>
<td>100</td>
</tr>
<tr>
<td>33</td>
<td>21.523</td>
<td>20</td>
<td>12</td>
<td>8</td>
<td>64</td>
</tr>
</tbody>
</table>

\[
\rho = 1 - \frac{6 \sum d^2}{N(N^2-1)} ; \quad \sum d^2 = 620 ; \quad \rho = 0.534
\]

\[
t = \rho \sqrt{\frac{N - 2}{1 - \rho^2}} ; \quad t = 2.670
\]
1. The pupils were being moved on to new material.  
In general, however, this was being done while  
assuring that the old material had been learned.  
In particular, teachers in the open climates were  
moving slightly faster than those in the closed  
climates.

2. Written assignments were being supervised to  
completion by all teachers.

3. Lessons were being reviewed in subsequent  
class activities by all teachers.

4. Teachers were re-explaining that which was not  
understood, and teachers in open climates rated  
higher in this behavior.

5. Demonstration of understanding was being  
extacted by all teachers, and open climate teachers  
rated higher on this response.

6. Learned material was being reinforced by use  
in subsequent lessons, and open climate teachers  
rated higher on this behavior.

7. Student work was being corrected and sometimes  
the corrections were being used to direct student  
learning. Open climate teachers rated higher on  
this behavior.
Summary of Implications. Teachers should examine carefully the balance in emphasis between mastery of the old work and the introduction of new work. Material should be reviewed thoroughly enough to insure a feeling of continuity on the part of the students. Written work should be carefully supervised, and students should have the feeling that their work is seriously considered. The exaction of understanding should be a motivating factor, and correlation of student work, when done by open teachers, can be an important part of the direction of learning.

Analysis of Authority Items

Since no significant correlations were found between the teachers' scores on the individual authority items and the climate rankings, no attempt will be made to present the complete correlation tables for these items.

Each authority questionnaire item will be presented and followed by the table of data concerning that item. In the table, three numbers will be included for each of the 20 teachers. The first number in parentheses will be the number assigned to that teacher for identification purposes. The second number, also in parentheses, indicates the ranking that teacher received on that specific item. The third number is the average of student responses
for that teacher in that item. For example, (2)(1) 4.157 indicates that teacher number 2 ranked first on authority item 1 with an average of 4.157 per pupil response.

Interpretive analysis of Authority Item 1. The data of this item were strongly directed toward 4.000. The overall average was 3.640. Two teachers rated low (2.200 and 2.956), which indicates that the pupils could leave their seats without permission. One classroom was rated 4.555, which is highly teacher-controlled, i.e., pupils can only leave their seats with permission. The other 17 teachers rated between 3.111 and 4.157, which indicates that the teachers allowed the pupils to leave their seats without asking permission, providing they satisfied certain contingencies.

The range was wide, 2.355. There was adequate differentiation between the consensus of pupils in high and low classrooms.

The correlation between the data of this item and the climate ranking was -0.186, which is not significant at the 0.05 level. The highest authority ranking on this item belonged to the teacher who perceived the most closed climate. The correlation does not support any relationship between the teacher behaviors described in this item and teacher perceptions of climate.
Authority Question 1. DO PUPILS HAVE TO GET PERMISSION TO LEAVE THEIR SEATS IN THIS CLASS OR NOT?

1. We can leave our seats without getting permission almost any time.

3. We can leave our seats without permission if we follow certain rules.

5. We can never leave our seats without getting permission.

TABLE XI

SCORES AND RANKS USED IN THE STATISTICAL ANALYSIS OF AUTHORITY QUESTION ONE

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>(2)</td>
<td>(1)</td>
<td>4.157</td>
<td>3.111</td>
</tr>
<tr>
<td>(8)</td>
<td>(2)</td>
<td>3.750</td>
<td>4.000</td>
</tr>
<tr>
<td>(37)</td>
<td>(3)</td>
<td>3.153</td>
<td>2.200</td>
</tr>
<tr>
<td>(13)</td>
<td>(4)</td>
<td>3.952</td>
<td>4.000</td>
</tr>
<tr>
<td>(14)</td>
<td>(5)</td>
<td>3.321</td>
<td>3.709</td>
</tr>
<tr>
<td>(16)</td>
<td>(6)</td>
<td>3.956</td>
<td>3.387</td>
</tr>
<tr>
<td>(25)</td>
<td>(7)</td>
<td>3.971</td>
<td>3.468</td>
</tr>
</tbody>
</table>

Interpretive analysis of Authority Item 2. All the teachers were above 2.000 on this item, and 19 were above 3.000. The indication is that the teachers told the group what to do and how to do it. Three classrooms (4.769, 4.914, and 4.903) indicated that they never have projects.

The overall average was 3.990, which is very close to 4.000--"The teacher tells the group what to do and how to do it."--and the range was 2.203, which is equivalent to two points on the response scale.
The correlation coefficient with climate rankings was a mere 0.004, which, for all practical purposes, was a zero correlation.

**Authority Question 2.** HOW MUCH INSTRUCTION DOES THE TEACHER GIVE TO GROUPS WHO ARE WORKING ON SPECIAL PROJECTS?

1. The teacher leaves almost everything up to the group.

2. The teacher tells the group what to do but lets it decide how to do it.

4. The teacher tells the group exactly what to and how to do it.

5. We never have special projects.

**TABLE XII**

SCORES AND RANKS USED IN THE STATISTICAL ANALYSIS OF AUTHORITY QUESTION TWO

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>(2)</td>
<td>(1)</td>
<td>3.473</td>
<td>(30)</td>
<td>(8)</td>
</tr>
<tr>
<td>(8)</td>
<td>(2)</td>
<td>3.500</td>
<td>(29)</td>
<td>(9)</td>
</tr>
<tr>
<td>(37)</td>
<td>(3)</td>
<td>4.769</td>
<td>(17)</td>
<td>(10)</td>
</tr>
<tr>
<td>(13)</td>
<td>(4)</td>
<td>4.142</td>
<td>(24)</td>
<td>(11)</td>
</tr>
<tr>
<td>(16)</td>
<td>(6)</td>
<td>3.913</td>
<td>(22)</td>
<td>(13)</td>
</tr>
<tr>
<td>(25)</td>
<td>(7)</td>
<td>4.914</td>
<td>(4)</td>
<td>(14)</td>
</tr>
</tbody>
</table>

Interpretive analysis of Authority Item 3. The most immediately striking result in this item was the perfect agreement of the students in the classroom of teacher number 37. All classrooms are very close to or above 4.000, which indicates that the teachers were involved in the
planning in all of them. There were twelve classrooms above 4.500, which is closer to "we do it the way the teacher plans it" than to the response below it. The other eight indicated that pupils were allowed some participation.

The overall average was 4.522, which supports the generalization that there was a high degree of teacher-centered planning in these classrooms.

The correlation (rho = 0.131) was too low to support any conclusions concerning the relationships between the behaviors described in this item and the perceptions of climate.

**Authority Question 3. WHEN THE CLASS STARTS A NEW UNIT, WHO PLANS HOW YOU WILL DO THE WORK?**

1. The plan is entirely up to the pupils.

2. The teacher expects the pupils to work out a plan, but he gives advice if we ask him.

4. The teacher and the pupils plan it together.

5. We do it the way the teacher plans it.

**TABLE XIII**

**SCORES AND RANKS USED IN THE STATISTICAL ANALYSIS OF AUTHORITY QUESTION THREE**

<p>| | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>(2)</td>
<td>(1)</td>
<td>4.157</td>
<td>(30)</td>
<td>(8)</td>
<td>4.555</td>
</tr>
<tr>
<td>(8)</td>
<td>(2)</td>
<td>4.375</td>
<td>(29)</td>
<td>(9)</td>
<td>4.653</td>
</tr>
<tr>
<td>(37)</td>
<td>(3)</td>
<td>5.000</td>
<td>(17)</td>
<td>(10)</td>
<td>4.600</td>
</tr>
<tr>
<td>(13)</td>
<td>(4)</td>
<td>4.904</td>
<td>(24)</td>
<td>(11)</td>
<td>4.986</td>
</tr>
<tr>
<td>(14)</td>
<td>(5)</td>
<td>4.923</td>
<td>(34)</td>
<td>(12)</td>
<td>4.903</td>
</tr>
<tr>
<td>(16)</td>
<td>(6)</td>
<td>4.521</td>
<td>(22)</td>
<td>(13)</td>
<td>4.451</td>
</tr>
<tr>
<td>(25)</td>
<td>(7)</td>
<td>4.571</td>
<td>(4)</td>
<td>(14)</td>
<td>4.031</td>
</tr>
</tbody>
</table>
Interpretative analysis of Authority Item 4. The teachers rated very close to each other in this item—the range was 0.982. The lowest teacher received an average of 3.695, and the overall average for all teachers in the sample was 4.140. The statistical data was highly concentrated about response 4, which is that teachers have changed their minds a few times when pupils had good reasons. One teacher received a score of 4.677, which indicates that this teacher hardly ever changed his mind, in the opinion of the majority of the pupils in his class.

The correlation (rho = -0.176) was not significant at the 0.05 level; therefore, no conclusive generalizations can be inferred from this statistic.

Authority Question 4. WHEN THE TEACHER HAS MADE UP HIS MIND ABOUT SOMETHING, HAS HE EVER CHANGED IT WHEN THE PUPILS OBJECTED?

1. Practically every time anyone objected.
2. Quite often, whether the pupils had good reasons or not.
4. A few times when the pupils had good reasons.
5. Hardly ever.
### TABLE XIV

**SCORES AND RANKS USED IN THE STATISTICAL ANALYSIS OF AUTHORITY QUESTION FOUR**

<p>| | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>(2)</td>
<td>(1)</td>
<td>3.736</td>
<td></td>
<td>(30)</td>
<td>(8)</td>
</tr>
<tr>
<td>(8)</td>
<td>(2)</td>
<td>4.312</td>
<td></td>
<td>(29)</td>
<td>(9)</td>
</tr>
<tr>
<td>(37)</td>
<td>(3)</td>
<td>4.000</td>
<td></td>
<td>(17)</td>
<td>(10)</td>
</tr>
<tr>
<td>(13)</td>
<td>(4)</td>
<td>4.047</td>
<td></td>
<td>(24)</td>
<td>(11)</td>
</tr>
<tr>
<td>(14)</td>
<td>(5)</td>
<td>4.428</td>
<td></td>
<td>(34)</td>
<td>(12)</td>
</tr>
<tr>
<td>(16)</td>
<td>(6)</td>
<td>3.695</td>
<td></td>
<td>(22)</td>
<td>(13)</td>
</tr>
<tr>
<td>(25)</td>
<td>(7)</td>
<td>4.457</td>
<td></td>
<td>(4)</td>
<td>(14)</td>
</tr>
</tbody>
</table>

**Interpretive analysis of Authority Item 5.** The teachers in the sample showed up very well on this item. They let pupils express their opinions and looked at both sides. These data support the idea that the teachers did allow pupils the opportunity to speak in class, and gave them the impression of being listened to. In spite of Flanders' two-thirds rule, pupils in this sample perceived that their opinions were held in recognition. Only four teachers scored above 2.000—only four seemed to see only their side.

The overall average was 1.680, and the range was 1.477, both of which support the interpretation given above.

The correlation (rho = 0.272) was not significant at the 0.05 level. Thus, there was no decisive correlation with the climate rankings.
Authority Question 5. WHAT DOES THE TEACHER DO WHEN HE AND THE PUPILS DISAGREE ABOUT SOME IDEA?

1. Lets pupils express their opinions and we look at both.

3. Lets the pupils express their opinions, but only sees his side.

5. Doesn't encourage pupils to express opinions.

TABLE XV

SCORES AND RANKS USED IN THE STATISTICAL ANALYSIS OF AUTHORITY QUESTION FIVE

<table>
<thead>
<tr>
<th>(2)</th>
<th>(1)</th>
<th>1.842</th>
<th>(30)(8)</th>
<th>1.148</th>
<th>(21)(15)</th>
<th>1.370</th>
</tr>
</thead>
<tbody>
<tr>
<td>(8)</td>
<td>(2)</td>
<td>1.375</td>
<td>(29)(9)</td>
<td>1.692</td>
<td>(5)(16)</td>
<td>2.153</td>
</tr>
<tr>
<td>(37)</td>
<td>(3)</td>
<td>1.153</td>
<td>(17)(10)</td>
<td>2.600</td>
<td>(7)(17)</td>
<td>1.933</td>
</tr>
<tr>
<td>(13)</td>
<td>(4)</td>
<td>1.285</td>
<td>(24)(11)</td>
<td>2.043</td>
<td>(31)(18)</td>
<td>1.666</td>
</tr>
<tr>
<td>(14)</td>
<td>(5)</td>
<td>1.500</td>
<td>(34)(12)</td>
<td>1.697</td>
<td>(32)(19)</td>
<td>1.500</td>
</tr>
<tr>
<td>(16)</td>
<td>(6)</td>
<td>1.434</td>
<td>(22)(13)</td>
<td>1.451</td>
<td>(33)(20)</td>
<td>1.370</td>
</tr>
<tr>
<td>(25)</td>
<td>(7)</td>
<td>1.514</td>
<td>(4)(14)</td>
<td>2.625</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Interpretive analysis of Authority Item 6. The results in this item ranged from 1.347 to a high of 3.466, with a range of 2.119. The teachers were rated from "almost always explains why" to "sometimes explains why," but no higher. The teachers gave the impression that explanations should be expected of them, that is, that they were reasonable persons and that they supported their demands with reasonable explanations. The pattern, of course, was
one of teacher direction of pupil activities with proper interaction intended to convince the pupils of the efficacy of their lessons.

The correlation of -0.166 was not significant at the 0.05 level. Thus, it is not possible to support any correlative generalizations.

Authority Question 6. WHEN THE TEACHER ASKS PUPILS TO DO SOMETHING THEY DO NOT WANT TO DO, DOES HE OR DOES HE NOT EXPLAIN WHY THEY HAVE TO DO IT?

1. He almost always explains why.
2. He sometimes explains why.
3. He hardly ever explains why.

| TABLE XVI |
| SCORES AND RANKS USED IN THE STATISTICAL ANALYSIS OF AUTHORITY QUESTION SIX |
| (2) (1) 2.052 | (30) (8) 1.518 | (21) (15) 2.333 |
| (8) (2) 1.750 | (29) (9) 2.846 | (5) (16) 2.076 |
| (37) (3) 2.384 | (17) (10) 3.466 | (7) (17) 3.466 |
| (13) (4) 2.428 | (24) (11) 1.347 | (31) (18) 2.583 |
| (14) (5) 2.285 | (34) (12) 2.483 | (32) (19) 2.416 |
| (16) (6) 1.956 | (22) (13) 2.225 | (33) (20) 1.370 |
| (25) (7) 2.885 | (4) (14) 2.875 |

Interpretive analysis of Authority Item 7. The teachers changed assignments infrequently, if at all, and then only if the pupils had good reasons. This was revealed by the fact that eight of the teachers were above 4.500—
close to "hardly ever"—and the rest clustered about 4.000—
"a few times when the pupils had good reasons." The overall
average was 4.419, midway between these two responses. The
lowest teacher score was 3.833, which is very close to
response number 4. All teachers were high on this item.
The distribution of data on this item was consistent with
the findings of item 4: the teachers hardly ever change
their minds, and then only with good reason.

The correlation (ρ = 0.176) was not significant at
the 0.05 level.

Authority Question 7. HOW OFTEN WOULD YOU SAY THIS TEACHER
HAS CHANGED ASSIGNMENTS THIS YEAR BECAUSE THE PUPILS
OBJECTED TO THEM?

1. Practically every time anyone objected.
2. Quite often, whether the pupils had good
reasons or not.
3. A few times when the pupils had good reasons.
4. Hardly ever.

TABLE XVII

SCORES AND RANKS USED IN THE STATISTICAL ANALYSIS
OF AUTHORITY QUESTION SEVEN

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>1</td>
<td>4.263</td>
<td>(30)</td>
<td>(8)</td>
</tr>
<tr>
<td>8</td>
<td>2</td>
<td>4.312</td>
<td>(29)</td>
<td>(9)</td>
</tr>
<tr>
<td>37</td>
<td>3</td>
<td>4.692</td>
<td>(17)</td>
<td>(10)</td>
</tr>
<tr>
<td>13</td>
<td>4</td>
<td>4.476</td>
<td>(24)</td>
<td>(11)</td>
</tr>
<tr>
<td>14</td>
<td>5</td>
<td>4.750</td>
<td>(34)</td>
<td>(12)</td>
</tr>
<tr>
<td>16</td>
<td>6</td>
<td>4.217</td>
<td>(22)</td>
<td>(13)</td>
</tr>
<tr>
<td>25</td>
<td>7</td>
<td>4.771</td>
<td>(4)</td>
<td>(14)</td>
</tr>
</tbody>
</table>
Interpretive analysis of Authority Item 8. The teachers were very much at the center of decision-making. One teacher, number 24, discussed matters with the pupils and helped them decide. All the others made the decisions themselves. Fourteen teachers received ratings closer to 4.000—which indicated that in the opinion of the pupils, these teachers listened, but still made the decisions. Five of them were decidedly closer to the highest response—"the teacher decides and tells us."

The overall average was 4.130.

The correlation (rho = -0.140) was too low in absolute value to support any generalizations. It was not significant at the 0.05 level.

Authority Question 8. AFTER YOU KNOW WHAT YOU ARE GOING TO DO IN THIS CLASS, WHO USUALLY DECIDES HOW YOU ARE GOING TO DO IT?

1. The teacher lets us decide.
3. The teacher talks it over with us, and helps us decide.
4. The teacher listens to our ideas about it, but he decides.
5. The teacher decides and tells us.
TABLE XVIII

SCORES AND RANKS USED IN THE STATISTICAL ANALYSIS OF AUTHORITY QUESTION EIGHT

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th>(2) (1) 3.789</th>
<th>(30) (8) 3.888</th>
<th>(21) (15) 3.740</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>(8) (2) 3.937</td>
<td>(29) (9) 3.846</td>
<td>(5) (16) 4.461</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(37) (3) 4.615</td>
<td>(17) (10) 4.033</td>
<td>(7) (17) 3.766</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(13) (4) 3.761</td>
<td>(24) (11) 3.347</td>
<td>(31) (18) 4.541</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(14) (5) 4.178</td>
<td>(34) (12) 4.741</td>
<td>(32) (19) 4.166</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(16) (6) 4.304</td>
<td>(22) (13) 4.258</td>
<td>(33) (20) 4.333</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(25) (7) 4.628</td>
<td>(4) (14) 4.281</td>
<td></td>
</tr>
</tbody>
</table>

Interpretive analysis of Authority Item 9. All scores were above 4.000. The overall average for all was 4.681. There were no committees in these classrooms. The three that received evaluations close to 4.000 (teachers 8, 13, and 16) were social studies teachers, and these classrooms seem to have had an occasional committee—one or two.

The correlation was too low (rho = -0.267, not significant at the 0.05 level) to support any generalizations concerning the relationships between the teacher behavior referred to in this item and climate rankings.

Authority Question 9. HOW MANY COMMITTEES HAVE YOU BEEN ON THIS YEAR IN THIS CLASS?

1. Five or more.  4. One or two.
2. Four.  5. None.
3. Three.
TABLE XIX

SCORES AND RANKS USED IN THE STATISTICAL ANALYSIS
OF AUTHORITY QUESTION NINE

<table>
<thead>
<tr>
<th>Rank</th>
<th>Score</th>
<th>Rank</th>
<th>Score</th>
<th>Rank</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>(2) (1)</td>
<td>4.578</td>
<td>(30) (8)</td>
<td>4.888</td>
<td>(21) (15)</td>
<td>4.518</td>
</tr>
<tr>
<td>(8) (2)</td>
<td>4.375</td>
<td>(29) (9)</td>
<td>4.500</td>
<td>(5) (16)</td>
<td>4.923</td>
</tr>
<tr>
<td>(37) (3)</td>
<td>4.692</td>
<td>(17) (10)</td>
<td>4.900</td>
<td>(7) (17)</td>
<td>4.633</td>
</tr>
<tr>
<td>(13) (4)</td>
<td>4.142</td>
<td>(24) (11)</td>
<td>4.521</td>
<td>(31) (18)</td>
<td>4.833</td>
</tr>
<tr>
<td>(14) (5)</td>
<td>4.964</td>
<td>(34) (12)</td>
<td>4.935</td>
<td>(32) (19)</td>
<td>5.000</td>
</tr>
<tr>
<td>(16) (6)</td>
<td>4.260</td>
<td>(22) (13)</td>
<td>4.935</td>
<td>(33) (20)</td>
<td>4.555</td>
</tr>
<tr>
<td>(25) (7)</td>
<td>4.942</td>
<td>(4) (14)</td>
<td>4.531</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Summary of Authority Items

The authority dimension had a shorter range than either the task or the expressive dimension. The ranges for both task and expressive dimensions averaged one response point per question, whereas the authority range of 6.481 for nine questions was approximately two-thirds of a point per question.

A median of 33.586 on nine questions and a short range together indicated that the scores were high and close together. The lowest score (30.777) averaged slightly above three and one-third points per question, and three was the median response for these questions. The highest score (37.258) averaged in excess of four points per question. This is high authority behavior.
TABLE XX

SUMMARY TABLE FOR AUTHORITY DIMENSION

<table>
<thead>
<tr>
<th>Teacher Number</th>
<th>Rank on Climate</th>
<th>Authority Score</th>
<th>Rank on Authority</th>
<th>d</th>
<th>$d^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>1</td>
<td>32.052</td>
<td>16</td>
<td>15</td>
<td>225</td>
</tr>
<tr>
<td>8</td>
<td>2</td>
<td>31.687</td>
<td>18</td>
<td>16</td>
<td>256</td>
</tr>
<tr>
<td>37</td>
<td>3</td>
<td>34.461</td>
<td>6</td>
<td>3</td>
<td>9</td>
</tr>
<tr>
<td>13</td>
<td>4</td>
<td>33.142</td>
<td>13</td>
<td>9</td>
<td>81</td>
</tr>
<tr>
<td>14</td>
<td>5</td>
<td>34.821</td>
<td>4</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>16</td>
<td>6</td>
<td>31.260</td>
<td>19</td>
<td>13</td>
<td>169</td>
</tr>
<tr>
<td>25</td>
<td>7</td>
<td>36.657</td>
<td>2</td>
<td>5</td>
<td>25</td>
</tr>
<tr>
<td>30</td>
<td>8</td>
<td>30.777</td>
<td>20</td>
<td>12</td>
<td>144</td>
</tr>
<tr>
<td>29</td>
<td>9</td>
<td>34.384</td>
<td>7</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>17</td>
<td>10</td>
<td>33.366</td>
<td>12</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>24</td>
<td>11</td>
<td>32.043</td>
<td>17</td>
<td>6</td>
<td>36</td>
</tr>
<tr>
<td>34</td>
<td>12</td>
<td>37.258</td>
<td>1</td>
<td>11</td>
<td>121</td>
</tr>
<tr>
<td>22</td>
<td>13</td>
<td>33.548</td>
<td>11</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>4</td>
<td>14</td>
<td>33.843</td>
<td>9</td>
<td>5</td>
<td>25</td>
</tr>
<tr>
<td>21</td>
<td>15</td>
<td>32.555</td>
<td>14</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>5</td>
<td>16</td>
<td>34.462</td>
<td>5</td>
<td>11</td>
<td>121</td>
</tr>
<tr>
<td>7</td>
<td>17</td>
<td>32.233</td>
<td>15</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>31</td>
<td>18</td>
<td>34.833</td>
<td>3</td>
<td>15</td>
<td>225</td>
</tr>
<tr>
<td>32</td>
<td>19</td>
<td>33.625</td>
<td>10</td>
<td>9</td>
<td>81</td>
</tr>
<tr>
<td>33</td>
<td>20</td>
<td>33.925</td>
<td>8</td>
<td>12</td>
<td>144</td>
</tr>
</tbody>
</table>

$$\rho = 1 - \frac{6 \sum d^2}{N(N^2-1)} ; \quad \sum d^2 = 1680 ; \quad \rho = -0.263$$
As reflected in the authority questions, this meant that decision-making and planning were teacher-centered activities, although teachers gave reasonable justification for their opinions. The teachers were in command of the classrooms, as indicated by the analyses of questions 1, 2, 3, and 8. Pupils were allowed to express their opinions, participate in planning new units, and even influence the teacher's decisions sometimes. However, they had very little opportunity to exert influence through organized committees.

There was a tendency toward a negative correlation between teacher authority ratings and climate perception rankings; however, the correlation (rho = -0.27) was not significant at the 0.05 level. Teachers in all six types of climates manifested a high degree of authority behavior, and it is not possible to infer a correlational pattern such as that hypothesized in proposition 2.

Summary of Implications

The fact that no discernible pattern supporting the second hypothesis was found in this study implies that the authority dimension needs a great deal more study. Better instruments should be devised, and the overall locus of authority in the classroom should be investigated.
Teachers in this sample were generally high in authority; however, other research has indicated that desirable teacher behaviors include low authority behavior.

Analysis of Expressive Items

In general, teachers in the sample tried to make work interesting. The overall average for all teachers was 3.985 on this question. All teachers were rated above 3.000, and half of them were rated above 4.000 by the students.

In particular, the majority of the teachers tried to make the work "sometimes interesting," and one-fifth of them tried to make work "almost always interesting."

The correlation (rho = 0.582, significant at the 0.01 level) indicated that teachers in open climates rated higher on this item than those who perceived closed climates.

Expressive Question 1. DOES THIS TEACHER SHOW THAT HE WANTS TO MAKE THE WORK INTERESTING FOR THE PUPILS OR DOES HE NOT?

1. Practically never interesting.

2. Not very interesting.

4. Sometimes interesting.
### TABLE XXI

**SCORES AND RANKS USED IN THE STATISTICAL ANALYSIS OF EXPRESSIVE QUESTION ONE**

<table>
<thead>
<tr>
<th>Teacher Number</th>
<th>Score on Question 1</th>
<th>Rank on Climate</th>
<th>Rank on Question 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>4.541</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>8</td>
<td>4.814</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>37</td>
<td>3.692</td>
<td>3</td>
<td>14</td>
</tr>
<tr>
<td>13</td>
<td>4.714</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>14</td>
<td>4.812</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>16</td>
<td>4.037</td>
<td>6</td>
<td>10</td>
</tr>
<tr>
<td>25</td>
<td>4.074</td>
<td>7</td>
<td>9</td>
</tr>
<tr>
<td>30</td>
<td>3.806</td>
<td>8</td>
<td>12</td>
</tr>
<tr>
<td>29</td>
<td>4.129</td>
<td>9</td>
<td>8</td>
</tr>
<tr>
<td>17</td>
<td>3.133</td>
<td>10</td>
<td>20</td>
</tr>
<tr>
<td>24</td>
<td>3.750</td>
<td>11</td>
<td>13</td>
</tr>
<tr>
<td>34</td>
<td>4.315</td>
<td>12</td>
<td>6</td>
</tr>
<tr>
<td>22</td>
<td>4.304</td>
<td>13</td>
<td>7</td>
</tr>
<tr>
<td>4</td>
<td>3.642</td>
<td>14</td>
<td>16</td>
</tr>
<tr>
<td>21</td>
<td>3.692</td>
<td>15</td>
<td>15</td>
</tr>
<tr>
<td>5</td>
<td>3.965</td>
<td>16</td>
<td>11</td>
</tr>
<tr>
<td>7</td>
<td>3.514</td>
<td>17</td>
<td>17</td>
</tr>
<tr>
<td>31</td>
<td>4.391</td>
<td>18</td>
<td>5</td>
</tr>
<tr>
<td>32</td>
<td>3.156</td>
<td>19</td>
<td>19</td>
</tr>
<tr>
<td>33</td>
<td>3.233</td>
<td>20</td>
<td>18</td>
</tr>
</tbody>
</table>

**Interpretive analysis of Expressive Item 2.** In general, the teachers projected a good deal of kindness in the way they asked questions. However, they sometimes made pupils feel uncomfortable. The overall average for all teachers was approximately 4.018.

The correlation (rho = 0.568, significant at the 0.01 level) indicated that teachers in open climates rated higher
on this item than those who perceived closed climates. Teachers in open climates tended to ask questions which caused students less discomfort.

Eighteen of the 20 classes submitted averages closer to 4.000 than to any other response when evaluating their teachers on this response. Two teachers were rated close to 5.000—"just about always kind."

Expressive Question 2. DOES THE TEACHER ASK YOU QUESTIONS IN A WAY WHICH MAKES YOU NERVOUS AND UNCOMFORTABLE ABOUT ANSWERING THEM, OR DOES HE ASK YOU QUESTIONS IN A KIND WAY?

1. Just about always makes me nervous and uncomfortable.

2. Often makes me feel nervous and uncomfortable, but not always.

4. Often kind, but occasionally makes me uncomfortable.

5. Just about always kind.
<table>
<thead>
<tr>
<th>Teacher Number</th>
<th>Score on Question 2</th>
<th>Rank on Climate</th>
<th>Rank on Question 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>4.333</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>8</td>
<td>4.666</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>37</td>
<td>3.692</td>
<td>3</td>
<td>16</td>
</tr>
<tr>
<td>13</td>
<td>4.476</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>14</td>
<td>4.192</td>
<td>5</td>
<td>8</td>
</tr>
<tr>
<td>16</td>
<td>4.375</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>25</td>
<td>4.444</td>
<td>7</td>
<td>4</td>
</tr>
<tr>
<td>30</td>
<td>4.111</td>
<td>8</td>
<td>10</td>
</tr>
<tr>
<td>29</td>
<td>3.741</td>
<td>9</td>
<td>15</td>
</tr>
<tr>
<td>17</td>
<td>4.516</td>
<td>10</td>
<td>2</td>
</tr>
<tr>
<td>24</td>
<td>3.600</td>
<td>11</td>
<td>18</td>
</tr>
<tr>
<td>34</td>
<td>4.125</td>
<td>12</td>
<td>9</td>
</tr>
<tr>
<td>22</td>
<td>4.315</td>
<td>13</td>
<td>7</td>
</tr>
<tr>
<td>4</td>
<td>3.434</td>
<td>14</td>
<td>20</td>
</tr>
<tr>
<td>21</td>
<td>3.750</td>
<td>15</td>
<td>13</td>
</tr>
<tr>
<td>5</td>
<td>3.653</td>
<td>16</td>
<td>17</td>
</tr>
<tr>
<td>7</td>
<td>3.793</td>
<td>17</td>
<td>12</td>
</tr>
<tr>
<td>31</td>
<td>3.742</td>
<td>18</td>
<td>14</td>
</tr>
<tr>
<td>32</td>
<td>4.043</td>
<td>19</td>
<td>11</td>
</tr>
<tr>
<td>33</td>
<td>3.375</td>
<td>20</td>
<td>19</td>
</tr>
</tbody>
</table>

Interpretive analysis of Expressive Item 3. The teachers projected a good image on this item. The average for all teachers was 4.580, which was almost midway between "shows dislike for none of the pupils" and "shows dislike for a few pupils." Twelve of the scores were above 4.500, and two of these were perfect 5.000's. These teachers showed dislike for none of the pupils in class, in the opinion of the majority of the pupils in their classes.
Seven of the remaining eight teachers were rated above 4.000, and the lowest rating was 3.812. Thus, the remaining eight showed dislike only for a few of the pupils in class.

The correlation, which was in excess of 0.70 (significant at the 0.01 level), strongly supported the generalization that there was a high correlation between the openness of climate and the variable of teacher behavior reflected in this item: teachers in open climates showed dislike for far fewer pupils than teachers in closed climates.

**Expressive Question 3.** DOES THIS TEACHER SHOW THAT HE DISLIKES PUPILS IN HIS CLASS OR NOT?

1. Shows dislike for everyone in the class.
2. Shows dislike for most pupils in the class.
3. Shows dislike for some pupils in the class.
4. Shows dislike for a few pupils in the class.
5. Shows dislike for none of the pupils in the class.
### Table XXIII

**Scores and Ranks Used in the Statistical Analysis of Expressive Question Three**

<table>
<thead>
<tr>
<th>Teacher Number</th>
<th>Score on Question 3</th>
<th>Rank on Climate</th>
<th>Rank on Question 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>5.000</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>8</td>
<td>4.777</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>37</td>
<td>5.000</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>13</td>
<td>4.761</td>
<td>4</td>
<td>7</td>
</tr>
<tr>
<td>14</td>
<td>4.884</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>16</td>
<td>4.437</td>
<td>6</td>
<td>15</td>
</tr>
<tr>
<td>25</td>
<td>4.740</td>
<td>7</td>
<td>8</td>
</tr>
<tr>
<td>30</td>
<td>4.777</td>
<td>8</td>
<td>6</td>
</tr>
<tr>
<td>29</td>
<td>4.580</td>
<td>9</td>
<td>10</td>
</tr>
<tr>
<td>17</td>
<td>4.516</td>
<td>10</td>
<td>12</td>
</tr>
<tr>
<td>24</td>
<td>4.433</td>
<td>11</td>
<td>16</td>
</tr>
<tr>
<td>34</td>
<td>4.500</td>
<td>12</td>
<td>13</td>
</tr>
<tr>
<td>22</td>
<td>4.578</td>
<td>13</td>
<td>11</td>
</tr>
<tr>
<td>4</td>
<td>4.782</td>
<td>14</td>
<td>4</td>
</tr>
<tr>
<td>21</td>
<td>4.464</td>
<td>15</td>
<td>14</td>
</tr>
<tr>
<td>5</td>
<td>4.423</td>
<td>16</td>
<td>17</td>
</tr>
<tr>
<td>7</td>
<td>4.413</td>
<td>17</td>
<td>18</td>
</tr>
<tr>
<td>31</td>
<td>4.600</td>
<td>18</td>
<td>9</td>
</tr>
<tr>
<td>32</td>
<td>4.304</td>
<td>19</td>
<td>19</td>
</tr>
<tr>
<td>33</td>
<td>3.812</td>
<td>20</td>
<td>20</td>
</tr>
</tbody>
</table>

**Interpretive analysis of Expressive Item 4.** There was good indication in the data of this question to suggest that the teachers in the sample gave their pupils the impression of trying to make classes enjoyable. The average for the 20 teachers was 3.809, which was almost midway between 3 and 5—"sometimes tries to make the class enjoyable" and "almost always tries to make the class enjoyable."
Almost all the teachers, with one exception, were rated between 3 and 5. Eight were rated above 4.000. Thus, the pupil reports indicated that the teachers tried to make classes enjoyable "sometimes" or "almost always."

The correlation (rho = 0.456, significant at the 0.05 level) indicated that there was a 95% probability correlation between climate perception rankings of teachers and pupil-reported teacher behaviors reflected on this item, such that: teachers who perceived open climates tried to make classes enjoyable more often than those who perceived closed climates.

**Expressive Question 4. DOES THE TEACHER TRY TO MAKE THE CLASS ENJOYABLE FOR THE PUPILS OR NOT?**

1. Practically never tries to make the class enjoyable.
2. Occasionally tries to make the class enjoyable.
3. Sometimes tries to make the class enjoyable.
4. Almost always tries to make the class enjoyable.
TABLE XXIV

SCORES AND RANKS USED IN THE STATISTICAL ANALYSIS
OF EXPRESSIVE QUESTION FOUR

<table>
<thead>
<tr>
<th>Teacher Number</th>
<th>Score on Question 4</th>
<th>Rank on Climate</th>
<th>Rank on Question 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>4.333</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>8</td>
<td>4.777</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>37</td>
<td>4.538</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>13</td>
<td>4.238</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>14</td>
<td>3.769</td>
<td>5</td>
<td>12</td>
</tr>
<tr>
<td>16</td>
<td>4.500</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>25</td>
<td>3.814</td>
<td>7</td>
<td>10</td>
</tr>
<tr>
<td>30</td>
<td>3.592</td>
<td>8</td>
<td>15</td>
</tr>
<tr>
<td>29</td>
<td>3.193</td>
<td>9</td>
<td>19</td>
</tr>
<tr>
<td>17</td>
<td>3.774</td>
<td>10</td>
<td>11</td>
</tr>
<tr>
<td>24</td>
<td>3.266</td>
<td>11</td>
<td>18</td>
</tr>
<tr>
<td>34</td>
<td>3.583</td>
<td>12</td>
<td>16</td>
</tr>
<tr>
<td>22</td>
<td>4.684</td>
<td>13</td>
<td>2</td>
</tr>
<tr>
<td>4</td>
<td>4.217</td>
<td>14</td>
<td>7</td>
</tr>
<tr>
<td>21</td>
<td>2.785</td>
<td>15</td>
<td>20</td>
</tr>
<tr>
<td>5</td>
<td>3.615</td>
<td>16</td>
<td>14</td>
</tr>
<tr>
<td>7</td>
<td>3.689</td>
<td>17</td>
<td>13</td>
</tr>
<tr>
<td>31</td>
<td>3.914</td>
<td>18</td>
<td>9</td>
</tr>
<tr>
<td>32</td>
<td>4.130</td>
<td>19</td>
<td>8</td>
</tr>
<tr>
<td>33</td>
<td>3.437</td>
<td>20</td>
<td>17</td>
</tr>
</tbody>
</table>

Interpretive analysis of Expressive Item 5. The results of this question were consistent with the previous four questions, especially with those of question 3, which revealed that the teachers showed little dislike for the pupils. The average for all teachers was 4.360, which indicated that the teacher sample as a whole showed that they liked most pupils in class. All teachers were rated above 3.500.
Eleven could be classified in response 4.000—"shows he likes most pupils in this class." The other nine were close to 5.000, which means that they showed that they liked all pupils in the class. These data were an indication of good teacher attitudes toward the pupils.

The correlation (rho = 0.645, significant at the 0.01 level) indicated that teachers in open climates displayed a higher rating on this item than did those who perceived closed climates. This result lent support to the generalization that there is a positive correlation between the open climate and the open individual.

**Expressive Question 5.** DOES THIS TEACHER SHOW THAT HE LIKES PUPILS IN THIS CLASS OR NOT?

1. Shows liking for none of the pupils in this class.

2. Shows he likes just a few students in this class.

3. Shows he likes some pupils in this class.

4. Shows he likes most pupils in this class.

5. Shows he likes all the pupils in this class.
## TABLE XXV

Scores and ranks used in the statistical analysis of expressive question five

<table>
<thead>
<tr>
<th>Teacher Number</th>
<th>Score on Question 5</th>
<th>Rank on Climate</th>
<th>Rank on Question 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>5.000</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>8</td>
<td>4.296</td>
<td>2</td>
<td>11</td>
</tr>
<tr>
<td>37</td>
<td>4.692</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>13</td>
<td>4.619</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>14</td>
<td>4.423</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td>16</td>
<td>4.687</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>25</td>
<td>4.814</td>
<td>7</td>
<td>2</td>
</tr>
<tr>
<td>30</td>
<td>4.592</td>
<td>8</td>
<td>7</td>
</tr>
<tr>
<td>29</td>
<td>4.290</td>
<td>9</td>
<td>12</td>
</tr>
<tr>
<td>17</td>
<td>4.193</td>
<td>10</td>
<td>15</td>
</tr>
<tr>
<td>24</td>
<td>3.966</td>
<td>11</td>
<td>17</td>
</tr>
<tr>
<td>34</td>
<td>4.583</td>
<td>12</td>
<td>8</td>
</tr>
<tr>
<td>22</td>
<td>4.789</td>
<td>13</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td>4.217</td>
<td>14</td>
<td>13</td>
</tr>
<tr>
<td>21</td>
<td>3.571</td>
<td>15</td>
<td>20</td>
</tr>
<tr>
<td>5</td>
<td>3.923</td>
<td>16</td>
<td>18</td>
</tr>
<tr>
<td>7</td>
<td>4.068</td>
<td>17</td>
<td>16</td>
</tr>
<tr>
<td>31</td>
<td>4.200</td>
<td>18</td>
<td>14</td>
</tr>
<tr>
<td>32</td>
<td>4.565</td>
<td>19</td>
<td>9</td>
</tr>
<tr>
<td>33</td>
<td>3.718</td>
<td>20</td>
<td>19</td>
</tr>
</tbody>
</table>

Interpretive analysis of expressive item 6. Question 6 dealt with the teachers' fairness in their transactions with pupils. The results of this question indicated that teachers were fair, in general. The average for the teachers in the sample was 4.061, which was very close to response 4—"usually fair." Two teachers were above 4.500—closer to "always fair"—and the rest clustered about "usually fair."
The results of this question were consistent with the teacher behaviors indicated in the first five questions. The teachers manifested good attitudes toward the students as the students perceived them.

The correlation (rho = 0.639, significant at the 0.01 level) supported a positive relationship between the degree of fairness of the teachers and their climate perceptions. Teachers in open climates were perceived by the students to have a higher degree of fairness than those in closed climates.

Expressive Question 6. IS THE TEACHER USUALLY FAIR OR USUALLY UNFAIR WHEN HE DECIDES THINGS ABOUT PUPILS?

1. He is unfair to most pupils.

2. He is fair to most pupils; a few are treated better; a few are treated worse.

4. He is usually fair.

5. He is always fair.
TABLE XXVI

SCORES AND RANKS USED IN THE STATISTICAL ANALYSIS
OF EXPRESSIVE QUESTION SIX

<table>
<thead>
<tr>
<th>Teacher Number</th>
<th>Score on Question 6</th>
<th>Rank on Climate</th>
<th>Rank on Question 6</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>4.458</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>8</td>
<td>4.481</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>37</td>
<td>4.153</td>
<td>3</td>
<td>8</td>
</tr>
<tr>
<td>13</td>
<td>4.523</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>14</td>
<td>3.923</td>
<td>5</td>
<td>13</td>
</tr>
<tr>
<td>16</td>
<td>4.062</td>
<td>6</td>
<td>11</td>
</tr>
<tr>
<td>25</td>
<td>4.222</td>
<td>7</td>
<td>6</td>
</tr>
<tr>
<td>30</td>
<td>4.074</td>
<td>8</td>
<td>10</td>
</tr>
<tr>
<td>29</td>
<td>4.580</td>
<td>9</td>
<td>1</td>
</tr>
<tr>
<td>17</td>
<td>3.838</td>
<td>10</td>
<td>17</td>
</tr>
<tr>
<td>24</td>
<td>3.500</td>
<td>11</td>
<td>19</td>
</tr>
<tr>
<td>34</td>
<td>4.041</td>
<td>12</td>
<td>12</td>
</tr>
<tr>
<td>22</td>
<td>4.315</td>
<td>13</td>
<td>5</td>
</tr>
<tr>
<td>4</td>
<td>3.869</td>
<td>14</td>
<td>15</td>
</tr>
<tr>
<td>21</td>
<td>3.857</td>
<td>15</td>
<td>16</td>
</tr>
<tr>
<td>5</td>
<td>3.692</td>
<td>16</td>
<td>18</td>
</tr>
<tr>
<td>7</td>
<td>3.920</td>
<td>17</td>
<td>14</td>
</tr>
<tr>
<td>31</td>
<td>4.085</td>
<td>18</td>
<td>9</td>
</tr>
<tr>
<td>32</td>
<td>4.217</td>
<td>19</td>
<td>7</td>
</tr>
<tr>
<td>33</td>
<td>3.406</td>
<td>20</td>
<td>20</td>
</tr>
</tbody>
</table>

Interpretive analysis of Expressive Item 7. In general, the teachers gave their pupils help. The average for all teachers in the sample was 4.190, which was an indication that students usually got all the help they needed. Fourteen classes were above 4.000; the other six indicated that they got "some help."
The results of this question were in agreement with the first six items--teachers were fair, they liked their pupils, made their classes enjoyable, and helped students with their work.

The high positive correlation (rho = 0.731, significant at the 0.01 level) indicated a strong positive relationship between teacher-perceived climate rankings and the rankings of pupil-assigned teachers' scores on this item from high ("I get all the help I need.") to low ("I hardly get any help."). Teachers in open climates projected a higher score on this behavior than teachers in closed climates.

Expressive Question 7. DOES THIS TEACHER HELP YOU WITH THE WORK OR LET YOU GET IT FOR YOURSELF?

1. I hardly get any help.

3. I get some help, but not as much as I need.

5. I get all the help I need.
### TABLE XXVII

**Scores and Ranks Used in the Statistical Analysis of Expressive Question Seven**

<table>
<thead>
<tr>
<th>Teacher Number</th>
<th>Score on Question 7</th>
<th>Rank on Climate</th>
<th>Rank on Question 7</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>4.583</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>8</td>
<td>4.703</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>37</td>
<td>4.230</td>
<td>3</td>
<td>10</td>
</tr>
<tr>
<td>13</td>
<td>4.523</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>14</td>
<td>4.153</td>
<td>5</td>
<td>13</td>
</tr>
<tr>
<td>16</td>
<td>4.500</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>25</td>
<td>4.259</td>
<td>7</td>
<td>9</td>
</tr>
<tr>
<td>30</td>
<td>4.555</td>
<td>8</td>
<td>4</td>
</tr>
<tr>
<td>29</td>
<td>4.677</td>
<td>9</td>
<td>2</td>
</tr>
<tr>
<td>17</td>
<td>4.354</td>
<td>10</td>
<td>7</td>
</tr>
<tr>
<td>24</td>
<td>3.733</td>
<td>11</td>
<td>18</td>
</tr>
<tr>
<td>34</td>
<td>3.750</td>
<td>12</td>
<td>17</td>
</tr>
<tr>
<td>22</td>
<td>4.157</td>
<td>13</td>
<td>11</td>
</tr>
<tr>
<td>4</td>
<td>4.130</td>
<td>14</td>
<td>14</td>
</tr>
<tr>
<td>21</td>
<td>4.285</td>
<td>15</td>
<td>8</td>
</tr>
<tr>
<td>5</td>
<td>4.153</td>
<td>16</td>
<td>12</td>
</tr>
<tr>
<td>7</td>
<td>3.965</td>
<td>17</td>
<td>15</td>
</tr>
<tr>
<td>31</td>
<td>3.514</td>
<td>18</td>
<td>20</td>
</tr>
<tr>
<td>32</td>
<td>3.956</td>
<td>19</td>
<td>16</td>
</tr>
<tr>
<td>33</td>
<td>3.625</td>
<td>20</td>
<td>19</td>
</tr>
</tbody>
</table>

**Interpretive analysis of Expressive Item 8.** All averages were between 2 and 4. Response 2 described a teacher who was more interested in pupils' learning the facts, whereas response 4 combined both supervision of fact acquisition and a concern for the feelings of the pupils. Eleven teachers received ratings closer to response 4, and the other nine were closer to response 2.
Response 4 typified a combination of a good taskmaster and also a person who is deeply concerned with the welfare of his wards.

The correlation (\(\rho = 0.702\), significant at the 0.01 level) strongly supported the conclusion that teachers who perceived open climates in their schools were more concerned with seeing that their pupils learned facts and that their feelings were also recognized, whereas teachers in closed climates were more concerned with making sure that the pupils learned the facts. The three highest scores on this question were second, third, and fourth in the climate rankings.

**Expressive Question 8. DOES THIS TEACHER MAKE SURE YOU LEARN THE FACTS OR IS HE MORE INTERESTED IN HOW PUPILS FEEL ABOUT THINGS?**

1. Shows little or no concern about the facts or how we feel.
2. Just makes sure we learn the facts.
3. Makes sure we learn the facts, but is sometimes interested in our feelings.
4. More interested in our feelings than in our learning the facts.
TABLE XXVIII

SCORES AND RANKS USED IN THE STATISTICAL ANALYSIS
OF EXPRESSIVE QUESTION EIGHT

<table>
<thead>
<tr>
<th>Teacher Number</th>
<th>Score on Question 8</th>
<th>Rank on Climate</th>
<th>Rank on Question 8</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>3.166</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>8</td>
<td>3.851</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>37</td>
<td>3.692</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>13</td>
<td>3.619</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>14</td>
<td>3.346</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>16</td>
<td>3.125</td>
<td>6</td>
<td>8</td>
</tr>
<tr>
<td>25</td>
<td>3.222</td>
<td>7</td>
<td>6</td>
</tr>
<tr>
<td>30</td>
<td>2.888</td>
<td>8</td>
<td>13</td>
</tr>
<tr>
<td>29</td>
<td>2.612</td>
<td>9</td>
<td>20</td>
</tr>
<tr>
<td>17</td>
<td>3.354</td>
<td>10</td>
<td>4</td>
</tr>
<tr>
<td>24</td>
<td>3.033</td>
<td>11</td>
<td>11</td>
</tr>
<tr>
<td>34</td>
<td>2.833</td>
<td>12</td>
<td>17</td>
</tr>
<tr>
<td>22</td>
<td>2.947</td>
<td>13</td>
<td>12</td>
</tr>
<tr>
<td>4</td>
<td>2.782</td>
<td>14</td>
<td>18</td>
</tr>
<tr>
<td>21</td>
<td>3.035</td>
<td>15</td>
<td>10</td>
</tr>
<tr>
<td>5</td>
<td>3.115</td>
<td>16</td>
<td>9</td>
</tr>
<tr>
<td>7</td>
<td>2.862</td>
<td>17</td>
<td>16</td>
</tr>
<tr>
<td>31</td>
<td>2.742</td>
<td>18</td>
<td>19</td>
</tr>
<tr>
<td>32</td>
<td>2.869</td>
<td>19</td>
<td>15</td>
</tr>
<tr>
<td>33</td>
<td>2.875</td>
<td>20</td>
<td>14</td>
</tr>
</tbody>
</table>

Interpretive analysis of Expressive Item 9. The results of Question 9 were expected. Two teachers, 8 and 21, received scores close to 4, which is a balance between concern for school work and other things. All others clustered closely about 3. These teachers projected a helpful attitude; however, their main concern was with school work.
The correlation (rho = 0.057, not significant at the 0.05 level) is too low to support any correlative relationship. The teacher sample was distributed over a very small range (range less than 1).

Expressive Question 9. DOES THIS TEACHER SHOW THAT HE WILL HELP YOU WITH THE SCHOOL WORK AND ALSO HELP YOU WITH ANYTHING ELSE YOU WOULD LIKE TO TALK TO HIM ABOUT.

1. Neither with school work nor anything else.
2. With school work, but nothing else.
3. More with school work than other things.
4. About the same with school work and other things.
5. More with other things than school work.
### Table XXIX

**Scores and Ranks Used in the Statistical Analysis of Expressive Question Nine**

<table>
<thead>
<tr>
<th>Teacher Number</th>
<th>Score on Question 9</th>
<th>Rank on Climate</th>
<th>Rank on Question 9</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>3.250</td>
<td>1</td>
<td>8</td>
</tr>
<tr>
<td>8</td>
<td>3.629</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>37</td>
<td>3.153</td>
<td>3</td>
<td>10</td>
</tr>
<tr>
<td>13</td>
<td>3.000</td>
<td>4</td>
<td>16</td>
</tr>
<tr>
<td>14</td>
<td>3.076</td>
<td>5</td>
<td>11</td>
</tr>
<tr>
<td>16</td>
<td>3.437</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>25</td>
<td>3.037</td>
<td>7</td>
<td>13</td>
</tr>
<tr>
<td>30</td>
<td>2.703</td>
<td>8</td>
<td>19</td>
</tr>
<tr>
<td>29</td>
<td>2.741</td>
<td>9</td>
<td>18</td>
</tr>
<tr>
<td>17</td>
<td>3.225</td>
<td>10</td>
<td>9</td>
</tr>
<tr>
<td>24</td>
<td>2.633</td>
<td>11</td>
<td>20</td>
</tr>
<tr>
<td>34</td>
<td>3.250</td>
<td>12</td>
<td>7</td>
</tr>
<tr>
<td>22</td>
<td>3.368</td>
<td>13</td>
<td>4</td>
</tr>
<tr>
<td>4</td>
<td>3.000</td>
<td>14</td>
<td>15</td>
</tr>
<tr>
<td>21</td>
<td>3.535</td>
<td>15</td>
<td>2</td>
</tr>
<tr>
<td>5</td>
<td>3.269</td>
<td>16</td>
<td>6</td>
</tr>
<tr>
<td>7</td>
<td>3.034</td>
<td>17</td>
<td>14</td>
</tr>
<tr>
<td>31</td>
<td>2.971</td>
<td>18</td>
<td>17</td>
</tr>
<tr>
<td>32</td>
<td>3.304</td>
<td>19</td>
<td>5</td>
</tr>
<tr>
<td>33</td>
<td>3.062</td>
<td>20</td>
<td>12</td>
</tr>
</tbody>
</table>

**Interpretive analysis of Expressive Item 10.** On the whole, the teachers in the sample tended to give credit for papers, tests, effort, and improvement. The average for all 20 teachers was 2.710, which was close to response number 3. Response 3 was favored by all except one of the student groups evaluating the teachers in this sample. Response 3—"for how well I do on papers and tests and for
trying and showing improvement"—combined four concerns in the classroom. One evaluation averaged 1.900, which tended toward the first response, and this seemed to be a reasonable perception for students. There were seven others with scores ranging from approximately 2.500 to 2.000 who seemed to tend toward the lower end of the scale. Teacher number 16 received an average of 3.625, the highest score received; the other eleven ranged from approximately 2.700 to 3.200.

The correlation found in this question was a near-zero correlation between the teacher behavior reflected in this item and teacher-perceived climate rankings. No relationship can be invoked.

Expressive Question 10. DOES THIS TEACHER GIVE YOU CREDIT FOR HOW WELL YOU DO ON YOUR PAPERS AND TESTS OR DOES HE GIVE YOU CREDIT FOR TRYING AND SHOWING IMPROVEMENT?

1. Only for how well I do on papers and tests.

3. For how well I do on papers and tests and for trying and showing improvement.

5. For trying and improving whether I do well on papers and tests or not.
TABLE XXX

SCORES AND RANKS USED IN THE STATISTICAL ANALYSIS
OF EXPRESSIVE QUESTION TEN

<table>
<thead>
<tr>
<th>Teacher Number</th>
<th>Score on Question 10</th>
<th>Rank on Climate</th>
<th>Rank on Question 10</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>2.583</td>
<td>1</td>
<td>14</td>
</tr>
<tr>
<td>8</td>
<td>3.148</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>37</td>
<td>2.692</td>
<td>3</td>
<td>12</td>
</tr>
<tr>
<td>13</td>
<td>2.619</td>
<td>4</td>
<td>13</td>
</tr>
<tr>
<td>14</td>
<td>3.000</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>16</td>
<td>3.625</td>
<td>6</td>
<td>1</td>
</tr>
<tr>
<td>25</td>
<td>2.703</td>
<td>7</td>
<td>11</td>
</tr>
<tr>
<td>30</td>
<td>2.777</td>
<td>8</td>
<td>10</td>
</tr>
<tr>
<td>29</td>
<td>2.354</td>
<td>9</td>
<td>17</td>
</tr>
<tr>
<td>17</td>
<td>2.483</td>
<td>10</td>
<td>15</td>
</tr>
<tr>
<td>24</td>
<td>1.900</td>
<td>11</td>
<td>20</td>
</tr>
<tr>
<td>34</td>
<td>2.833</td>
<td>12</td>
<td>7</td>
</tr>
<tr>
<td>22</td>
<td>3.000</td>
<td>13</td>
<td>6</td>
</tr>
<tr>
<td>4</td>
<td>2.826</td>
<td>14</td>
<td>8</td>
</tr>
<tr>
<td>21</td>
<td>2.357</td>
<td>15</td>
<td>16</td>
</tr>
<tr>
<td>5</td>
<td>2.076</td>
<td>16</td>
<td>19</td>
</tr>
<tr>
<td>7</td>
<td>2.793</td>
<td>17</td>
<td>9</td>
</tr>
<tr>
<td>31</td>
<td>2.142</td>
<td>18</td>
<td>18</td>
</tr>
<tr>
<td>32</td>
<td>3.173</td>
<td>19</td>
<td>2</td>
</tr>
<tr>
<td>33</td>
<td>3.156</td>
<td>20</td>
<td>3</td>
</tr>
</tbody>
</table>

Interpretive analysis of Expressive Item 11. The averages for this question tended toward response 3. This was a reasonable combination of "the teacher's ideas, the ideas in the books, and our own ideas." Sixteen of the 20 teachers' scores were below 3.000, which indicated that there was a tendency toward the low end of the scale. The overall average was 2.690—close to 3.000, which meant that
there was a tendency to include "our own ideas" also, as evidenced by the averages.

The correlation coefficient (rho = 0.015) was almost a zero correlation. The variable distributions were not correlationally related according to the coefficient.

Expressive Question 11. IN THIS CLASS ARE YOU SUPPOSED TO USE THE TEACHER'S IDEAS, THE IDEA IN THE BOOK, OR YOUR OWN IDEAS?

1. We are only supposed to use the teacher's ideas and the ideas in the books.

3. We are supposed to use the teacher's ideas, the ideas in the books, and our own ideas.

5. We are supposed to use our own ideas more than the teacher's or those in the books.
TABLE XXXI

SCORES AND RANKS USED IN THE STATISTICAL ANALYSIS
OF EXPRESSIVE QUESTION ELEVEN

<table>
<thead>
<tr>
<th>Teacher Number</th>
<th>Score on Question 11</th>
<th>Rank on Climate</th>
<th>Rank on Question 11</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>2.916</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>8</td>
<td>3.222</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>37</td>
<td>2.230</td>
<td>3</td>
<td>18</td>
</tr>
<tr>
<td>13</td>
<td>2.523</td>
<td>4</td>
<td>14</td>
</tr>
<tr>
<td>14</td>
<td>2.692</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>16</td>
<td>3.125</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>25</td>
<td>2.407</td>
<td>7</td>
<td>16</td>
</tr>
<tr>
<td>30</td>
<td>2.406</td>
<td>8</td>
<td>17</td>
</tr>
<tr>
<td>29</td>
<td>2.451</td>
<td>9</td>
<td>15</td>
</tr>
<tr>
<td>17</td>
<td>2.612</td>
<td>10</td>
<td>11</td>
</tr>
<tr>
<td>24</td>
<td>2.006</td>
<td>11</td>
<td>20</td>
</tr>
<tr>
<td>34</td>
<td>2.666</td>
<td>12</td>
<td>8</td>
</tr>
<tr>
<td>22</td>
<td>3.421</td>
<td>13</td>
<td>2</td>
</tr>
<tr>
<td>4</td>
<td>3.608</td>
<td>14</td>
<td>1</td>
</tr>
<tr>
<td>21</td>
<td>2.571</td>
<td>15</td>
<td>12</td>
</tr>
<tr>
<td>5</td>
<td>2.538</td>
<td>16</td>
<td>13</td>
</tr>
<tr>
<td>7</td>
<td>2.931</td>
<td>17</td>
<td>5</td>
</tr>
<tr>
<td>31</td>
<td>2.085</td>
<td>18</td>
<td>19</td>
</tr>
<tr>
<td>32</td>
<td>2.652</td>
<td>19</td>
<td>9</td>
</tr>
<tr>
<td>33</td>
<td>2.625</td>
<td>20</td>
<td>10</td>
</tr>
</tbody>
</table>

Summary of Expressive Items

The correlation between the summary matrix of the expressive dimension and the climate perception rankings supported the idea that there was a reciprocal relationship between the open society and the open individual ($\rho = +0.636$, significant at the 0.01 level). Those teachers who perceived that they taught in open climates were, in
turn, perceived as more open teachers by their pupils than those who perceived closed climates. This result would lead to interesting speculation were it not that closed teachers also were credited with relatively open expressive behavior. The lowest rating a teacher received in this dimension was 35.266, which was above three points per question. However, the highest scoring teacher was considerably higher at 46.370, which was in excess of four points per question.

The data of the first eight questions were significantly correlated with climates, as indicated in the item analyses. The correlations of the last three questions were very low; however, the pupil evaluations of their teachers presented under this dimension constituted what this investigator considered a substantive tribute to the teachers. According to the pupil reports, teachers, in general, made classwork interesting and enjoyable, were often kind in the way they asked questions, showed that they dislike very few pupils and liked most of them, were fair, and gave a great deal of help, showed that they were interested in both teaching pupils facts while also recognizing their feelings, gave credit for paper-work, tests, and demonstrated improvement, and gave credit for a balanced combination of pupils' ideas, ideas in books, and teachers' ideas.
### TABLE XXXII

**SUMMARY TABLE FOR THE EXPRESSIVE DIMENSION**

<table>
<thead>
<tr>
<th>Teacher Number</th>
<th>Rank on Climate</th>
<th>Expressive Score</th>
<th>Rank on Expressive</th>
<th>d</th>
<th>d²</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>1</td>
<td>44.166</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>8</td>
<td>2</td>
<td>46.370</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>37</td>
<td>3</td>
<td>41.769</td>
<td>6</td>
<td>3</td>
<td>9</td>
</tr>
<tr>
<td>13</td>
<td>4</td>
<td>43.619</td>
<td>5</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>14</td>
<td>5</td>
<td>40.961</td>
<td>10</td>
<td>5</td>
<td>25</td>
</tr>
<tr>
<td>16</td>
<td>6</td>
<td>44.687</td>
<td>2</td>
<td>4</td>
<td>16</td>
</tr>
<tr>
<td>25</td>
<td>7</td>
<td>41.703</td>
<td>12</td>
<td>5</td>
<td>25</td>
</tr>
<tr>
<td>30</td>
<td>8</td>
<td>40.555</td>
<td>11</td>
<td>3</td>
<td>9</td>
</tr>
<tr>
<td>29</td>
<td>9</td>
<td>39.032</td>
<td>15</td>
<td>6</td>
<td>36</td>
</tr>
<tr>
<td>17</td>
<td>10</td>
<td>41.000</td>
<td>9</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>24</td>
<td>11</td>
<td>35.266</td>
<td>20</td>
<td>9</td>
<td>81</td>
</tr>
<tr>
<td>34</td>
<td>12</td>
<td>39.916</td>
<td>13</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>22</td>
<td>13</td>
<td>43.894</td>
<td>4</td>
<td>9</td>
<td>81</td>
</tr>
<tr>
<td>4</td>
<td>14</td>
<td>41.173</td>
<td>8</td>
<td>6</td>
<td>36</td>
</tr>
<tr>
<td>21</td>
<td>15</td>
<td>37.857</td>
<td>17</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td>16</td>
<td>38.153</td>
<td>16</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>7</td>
<td>17</td>
<td>39.137</td>
<td>14</td>
<td>3</td>
<td>9</td>
</tr>
<tr>
<td>31</td>
<td>18</td>
<td>37.514</td>
<td>18</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>32</td>
<td>19</td>
<td>41.608</td>
<td>7</td>
<td>12</td>
<td>144</td>
</tr>
<tr>
<td>33</td>
<td>20</td>
<td>36.250</td>
<td>19</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

\[
\rho = 1 - \frac{6 \sum d^2}{N(N^2-1)} ; \quad \sum d^2 = 484 ; \quad \rho = +0.636
\]

**Summary of Implications**

Teachers should be aided in obtaining feedback about their own behavior in classrooms. In particular, they should analyze carefully what has been referred to in this study as expressive behavior. There are indications both in this study and in the Gordon-Adler study that those teachers who maximize pupil effects are high in expressive
behavior. Therefore, those in positions of leadership should aid and encourage the cultivation of expressive behavior on the part of the teachers.
FOOTNOTES--CHAPTER III

1. Halpin and Croft, op. cit.

2. Gordon and Adler, op. cit.

3. Personal interviews with Halpin and Croft.


5. Don B. Croft, Mimeographed Instruction Sheet, p. 2.

6. This procedure was verified in an interview with Croft in the spring of 1966, and a detailed explanation of the role of "Climate Similarity Scores" is given in Chapter I.


8. Ferguson, op. cit., p. 316.

9. Significance will be invoked at the 5% level (0.05 level) of significance. For N = 20 the critical value at this level is 0.377. The critical value at the 1% level is 0.534, and it will be used whenever applicable. All significance references will be made in comparison with the table in Ferguson, op. cit., p. 316.

CHAPTER IV

APPLICATION OF FINDINGS TO HYPOTHESES

In this chapter the hypotheses set forth in Chapter I are presented, and the data analyzed in Chapter III are applied to them.

This study was exploratory. It sought to investigate the relationships, if they existed, between the organizational climates of schools and teacher leadership behaviors. Both of these were measured from the viewpoints of primary participants. Therefore, using teachers' perceptions of the climates within which they worked and their pupils' perceptions of the leadership qualities exhibited in the classroom by their teachers, three hypotheses were tested.

First, each hypothesis is presented; then an interpretive discussion, using the data of the study, is presented for at least two reasons: (1) as support for the acceptance or rejection of the guiding hypotheses; and (2) as further interpretation of the findings.

Hypothesis 1

The school organizational climates perceived by the teachers would demonstrate a significant positive
correlation with the task dimensions of teacher leadership perceived by the pupils.

This hypothesis was strongly accepted by the findings. The spearman rho correlation coefficient (rho = 0.534) relating the two variables of this hypothesis was significant at the 0.01 level,\(^1\) which provides a strong endorsement for the hypothesis. Since \(N\) was larger than 10,\(^2\) a t-ratio was also computed and found to be 2.723, which supports the acceptance of the hypothesis at the 0.01 level.\(^3\)

**Interpretive discussion.** Although the hypothesis was accepted at a very significant level of confidence, teachers in closed climates did not rate low on this dimension. As the item analysis in Chapter III has revealed, all 20 teachers in this sample showed high task orientation. The lowest scoring teacher in the summary task scores rated 17.584, which is an average of 2.512 per task item on a scale where 3.000 is the midpoint. However, it should be emphasized that teachers in open climates rated higher than those in closed climates. The range was 6.908, which was almost one response point per item between the highest and the lowest task rating.
The acceptance of the hypothesis means that the degree of openness in climate perception of teachers was associated with the level of ranking on the task scale in such a way that teachers in open climates were higher on the task dimension than teachers in closed climates. The summary of the task items, Chapter III, pp. 81-84, includes a discussion of the meaning of this conclusion in terms of the teacher behaviors which comprise the dimension.

Two teacher behaviors, those in items 2 and 3, were not significantly correlated with climate perception rankings. In spite of the low correlations, the teachers in the sample received ratings on these two behaviors, which indicated that they were, in general, concerned with the completion of written assignments and that they reviewed lessons consistently.

All other behaviors were positively correlated with climate rankings. The coefficients associated with items 1, 4, 6, and 7 were significant at the 0.05 level, and item 5 exhibited a coefficient that was significant at the 0.01 level.

Hypothesis 2

The school organizational climates perceived by the teachers would demonstrate a significant negative
correlation with the authority dimensions of teacher leadership perceived by the pupils.

This hypothesis was rejected. The rho rank coefficient of correlation found was -0.263, which is not significant at the 0.05 level. For this sample size, the critical value of rho is 0.377 at the 5% level of significance.

Although the hypothesis was rejected, it should be emphasized that the rejection was an expected one. The review of the literature conducted in the investigation of the theoretical basis of this problem revealed that previous investigations of authoritarian behavior had yielded inconsistent conclusions. The relationships established by Gordon and Adler between teacher leadership modes and pupil effects (see Appendix I) also indicate that the role of the authority dimension is not clearly established. All three combinations that are related with three or more pupil effects are middle to high on task and middle to high on the expressive dimension. What is more, those modes that are low on either one or both of these dimensions are associated with no more than two pupil effects. The authority dimension does not exhibit such regularity. Modes G and H, both of which are associated with four pupil effects, are low on authority. Mode L, which is associated with three pupil effects, is high on
authority. Given middle to high task and middle to high expressive behaviors, it seems as though the authority dimension can be either low or high, and the overall teacher effect is still high.

The rejection of hypothesis 2 is well supported by the coefficients computed for the nine component behaviors. These coefficients all indicated low-order correlations.

**Hypothesis 3**

The school organizational climates perceived by the teachers would demonstrate a significant positive correlation with the expressive dimensions of teacher leadership perceived by the pupils.

This hypothesis was accepted. The correlation coefficient between the climates and the behaviors comprising this dimension was 0.636, which is significant at the 0.01 level.

The expressive dimension is a wholesome indication of the relationship between the open environment and the open individual. The teacher behaviors which comprise this dimension are affectively laden. They appeal to perceptions of fairness, attempts to provide interesting classroom activities, credit given for individual motivation, amounts of consideration provided by the teacher, and attempts on the part of the teacher to give pupils the
feeling that their interests constitute the central concern
of the classroom.

The correlation found supported the third hypothesis—that teachers in open climates rate higher on this dimension
than do teachers in closed climates. There was a consider-
able difference on a well-distributed set of scores. The
highest scoring teacher (second on the climate rankings)
received a rating of 46.370 on eleven items. This is
equivalent to an average of 4.2 per item on a scale with
a maximum of 5. The lowest scoring teacher received a
total rating of 35.266, which is equivalent to an average
of 3.2 per item. There is a total difference of one
response point per item between these two teachers.

The acceptance of the hypothesis means only that
open climate teachers were rated higher by their pupils.
It does not mean that closed climate teachers were low.
In fact, the analysis of component items reported in
Chapter III revealed that all teachers rated well on these
behaviors. It is significant to recognize that the
general image that teachers project upon pupils is a
wholesome one, according to the results of this investiga-
tion.
FOOTNOTES--CHAPTER IV

1 Ferguson, op. cit., p. 316.

2 Ibid., p. 183.

3 Ibid., p. 308.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

This chapter includes a summary of the procedures and findings of the study, conclusions reached, and recommendations for action and research.

I. SUMMARY

The study was concerned with examining the relationships between school organizational climates and teacher leadership dimensions. It applied the Halpin-Croft questionnaire of school organizational climate to a sample of teachers as well as an adaptation of the Gordon-Adler questionnaire of teacher leadership dimensions to groups of students under their tutelage.

Procedures

Based on the concept of the classroom as a social system in which participants orient their actions toward one another, this study investigated the relationships between teacher perceptions of school organizational climate and pupil perceptions of teacher leadership modes.
Forty junior high school teachers were chosen at random from six school systems. Out of this group, 37 were given the OCDQ and their responses were processed by Croft, deriving the "climate similarity scores" shown in Table I, p. 63.

An examination of these scores led to the selection of 20 teachers for further study. This subset was selected on the basis of qualifying climate scores, and their scores were ranked from most open to most closed, as indicated in Table II, p. 64. These teachers were contacted, and arrangements were made to apply the Gordon-Adler pupil questionnaires to students in a chosen class for each teacher.

The investigator personally administered all questionnaires, making sure that the purposes of the study had been thoroughly explained to principals and teachers before their consent was solicited. Each participating teacher was assured that the data would be used purely for research purposes and would be kept in confidence.

The basic unit of study consisted of one teacher and one group of students under his direction for one class period. The following sets of data were obtained for each unit: (1) teacher perceptions of school organizational climate; (2) pupil perceptions of the teacher's task
dimension; (3) pupil perceptions of the teacher's authority dimension; and (4) pupil perceptions of the teacher's expressive dimension.

The design posited the organizational climate of the school as the independent variable \((V_o)\), and measured the behaviors of teachers \((V_t, V_a, V_e)\) as the dependent variables. The following paradigm expresses the relationships:

\[
V_o \rightarrow (V_t, V_a, V_e)
\]

The analysis of the data included: (1) determination of the relationship between the organizational climates of the schools and the teachers' task dimensions; (2) determination of the relationships between the organizational climates of the schools and each of the behaviors included in the measurement of the teachers' task dimensions; (3) determination of the relationships between the organizational climates of the schools and the teachers' authority dimensions; (4) determination of the relationships between the organizational climates of the schools and each of the behaviors included in the measurement of the teachers' authority dimensions; (5) determination of the relationship between the organizational climates of the schools and teachers' expressive dimensions; and (6) determination of
the relationships between the organizational climates of the schools and each of the behaviors included in the measurement of the teachers' expressive dimensions.

The information gained through the various analyses was then applied to the three hypotheses used to guide this study, and the following results were established.

Findings

Hypothesis 1 stated:

The climates perceived by the teachers will demonstrate a significant positive correlation with the task dimensions of the teachers reported by the students.

This hypothesis was accepted at the 0.05 level of significance. Teachers who perceived open climates in their schools were significantly higher on the task dimensions than those who perceived closed climates. What is more, five of the seven task questions were positively correlated with the climates at the 0.05 level of significance.

Hypothesis 2 stated:

The climates perceived by the teachers will demonstrate a significant negative correlation with the authority dimensions of the teachers as reported by the students.

This hypothesis was rejected. Although a negative correlation was found, it is not high enough in absolute value (rho = -0.263) to invoke the probabilities at the 0.05
level of significance. It was thought that the low correlation might have been due to the linearity of the Spearman rho coefficient, which might have excluded some non-linear relationships.

Hypothesis 3 stated:

The climates perceived by the teachers will demonstrate a significant positive correlation with the expressive dimensions of the teachers as reported by the students.

A Spearman coefficient of correlation of 0.636 provided the basis for the acceptance of this hypothesis. This statistic is significant at the 0.01 level of significance. Teachers who perceived open climates were considerably higher on the expressive dimension than those in closed climates.

II. CONCLUSIONS

The school has an indigenous culture as well as cultures in which it is embedded—the community and the greater social system. This study has dealt with the quality of interaction within the culture of the school—the quality of the relationships between principal and teacher, between teacher and teacher-group, and between teachers and pupils. Although no serious attempt has been made to rule out those influences from outside the school, they have been included only as they are part of
the inner dynamics of the social structure of the classrooms used in this study.

The analyses of the relationships between the organizational climates of the schools and teacher leadership dimensions have led to the following conclusions:

1. It was found that teachers were rated considerably high on all three dimensions. The task dimension was not as high as the other two dimensions. Task had an overall summary average of 21.501 on seven items (Table X, p. 83). The authority dimension had an overall summary average of 33.540 on nine items (Table XX, p. 98), and the expressive dimension had 40.730 on eleven items (Table XXXII, p. 123).

2. If levels—low, middle, and high—are determined by directed deviations from a designated profile, the data of this study have made the following important associations:

a. The task and expressive characteristics of three of the four modes that maximized pupil effects have been associated with climates on the open side of the continuum, and

b. The task and expressive characteristics of eight of the nine modes that minimized pupil
effects have been associated with climates on the closed side of the continuum.

3. The results of the data in the authority dimension provide a number of speculations. First, teacher authority behavior was quite high. The whole process of activity initiation and decision-making seems to be highly centralized about the teachers. Second, the range for this dimension was considerably shorter than those of the other two. This indicates that the distribution of teachers' scores was shorter in this dimension—there was considerably less differentiation between teachers in the various climate categories. These two conclusions indicate that all teachers manifested high authority behavior. Third, there was a very low correlation between climates and teacher authority behavior.

The second hypothesis was rejected at the 0.05 level of significance. It is proposed that the low correlation may have been due to any one or any combination of the following: (a) the linear correlation failed to pick up significant non-linear relationships; (b) the questionnaire did not record subtle differences in authority behaviors; (c) the
experiences of the pupils with other sources of authority may have mitigated against their sensitivity to authority in the classrooms; and (d) the most salient of all may be that the teachers actually use different types of authority behavior in their classrooms.

Other studies have found a great deal of confusion concerning the effects of authority behavior. The combinations of teacher leadership established by Gordon and Adler indicate that middle to high expressive and middle to high task behaviors are associated with more pupil effects than other combinations. However, the authority behaviors are not that clearly designated. Modes G and H are related to four pupil effects each, and they are comprised of low authority behavior, whereas mode J is related to three pupil effects, and it combines high authority behavior in its configuration. What is more, mode A is low on authority, and it is related to none of the pupil effects. It seems as though authority behavior can be either high or low, providing the expressive and task dimensions complement it by both being middle to high.
4. The powerful traditions which have made work a necessary and sometimes sufficient condition for learning seem to be a pervading influence of the classrooms in this sample. The findings of this study indicate that teachers in this sample led their pupils to task accomplishment rigorously, and that teachers in open climates, in fact, were a little more assiduous in their endeavors.

The positive correlation found between climate rankings and task dimension scores led to the conclusion that there is a defensible relationship between climates and task behaviors. In general, open climate teachers were higher on the behaviors that comprise the task dimension.

5. The whole pattern of expressive scores constitutes a substantial tribute to the teachers in the sample. The expressive dimension, referring to the teacher's concern with pupil-interests, was determined by the extent to which the teacher credited and encouraged pupils' opinions, ideas, efforts, and feelings. This dimension pertained to teacher behavior that was integrative, i.e., placed the student at the center of the concern of the classroom. It pertained
to the feeling on the part of the students that they were central to the purposes of the classroom and that their ideas, opinions, and feelings were as important as other components of the class.

According to the correlation (significant at the 0.01 level) found, open climates contained teachers whose expressive behaviors were higher than those of teachers in closed climates.

III. RECOMMENDATIONS

For Further Study

1. The authority dimension needs a great deal more study than it has received so far. This study found no discernible pattern between organizational climates of schools and teacher authority behavior. As was mentioned before, no satisfactory consensus has been established. Therefore, it is proposed that a study be done combining the behaviors used by Gordon and Adler, the scales developed by Anderson, Lewin, Lippitt, and White, and the research of such investigators as Adorno, Frankl-Brunswick, and Stodgill.

2. It is also recommended that further study be done of the effects of system characteristics upon
teachers and pupils. It is evident from the results of this study that the organizational climate does affect them. However, there are other aspects of the system which were not considered here.

For Action

1. Teachers should be involved in sensitivity development programs in which the following aspects of the school should be considered:
   a. how teachers are affected by the organizational climate of the school;
   b. the role the principal plays in the organizational climate of the school;
   c. the influence of the teacher and the teacher-group on the organizational climate of the school;
   d. the effect of the teacher on the climate of the classroom, especially the effects of teacher behavior related to task, authority, and the expressive dimensions on pupil results; and
   e. the effects of the classroom climate upon pupil behaviors.

2. Appropriate programs should be developed to train principals in areas such as:
a. the effect of the principal on the organizational climate of the school;
b. the role of leadership in organizational functioning and individual participation; and
c. the effects of the principal's behavior upon teachers and ultimately upon pupils.

3. Schools should devote attention to the creation of proper social and emotional climates both for teachers and pupils. Specialists should emanate from these efforts whose main role would be to: (a) help administrators to establish desirable organizational school climates, and (b) help teachers to establish desirable classroom climates. Systems for acquiring feedback should be designed, and the proper conceptual framework should be developed to evaluate and modify behavior. Teachers should be motivated to develop a sense of significance in their roles, and especially to develop a profound appreciation for the powerful effects their behavior has upon pupils.

4. Teacher preparation programs should include the findings of this investigation and the many mentioned in preparation for it.
1. The symbol $\Rightarrow$ was adopted from symbolic logic, and has the "logical" meaning.

2. Gordon and Adler, _op. cit._, p. 126.

3. See Appendix I for definitions of modes.
BIBLIOGRAPHY
BIBLIOGRAPHY

A. BOOKS


B. PERIODICALS


C. OTHERS

Flanders, Ned A. "Teacher Influence in the Classroom," a mimeographed paper.

Halpin, Andrew W. "Change and Organizational Climate," a speech delivered at the Governor's Educational Conference, Maui, Hawaii, November 18, 1965.
APPENDIX IA. ORIGINAL GORDON-ADLER PUPIL QUESTIONNAIRE

INSTRUCTIONS: The questions below are about your teacher in this class. Circle the answer on the answer sheet which best describes your answer to the question.

1. ARE YOU GIVEN NEW WORK IN ARITHMETIC BEFORE YOU ARE ABLE TO GET THE RIGHT ANSWERS TO THE OLD WORK?

1. I am not given new kinds of arithmetic until I can do the old kind correctly.

3. I am sometimes given new kinds of arithmetic before I can do the old kind.

5. I am almost always given a new kind of arithmetic before I can do the old kind.

2. DOES THE TEACHER SEE TO IT THAT YOU COMPLETE ALL OF THE WRITTEN ASSIGNMENTS OR NOT?

1. Makes sure we complete practically all written assignments.

3. Sometimes makes sure we complete written assignments.

5. Hardly ever makes sure we complete written assignments.

3. DOES THIS TEACHER GO OVER A DAY'S WORK WITH YOU AGAIN BEFORE GOING ON TO THE NEXT LESSON, OR DO YOU GO ON WITHOUT REVIEWING?

1. Reviews every lesson (either at the end or at the beginning).

3. Reviews most lessons.

4. Reviews some lessons, but not regularly.

5. Hardly ever reviews lessons.
4. WHAT DOES THIS TEACHER MOST OFTEN DO WHEN HE IS TEACHING THE CLASS SOMETHING NEW AND THE PUPILS DON'T UNDERSTAND?

1. Tries to explain it again another way.

3. Gives the same explanation over again.

5. Moves on to something else, even though we don't understand.

5. HOW OFTEN ARE YOU REQUIRED TO SHOW THE TEACHER (BY WRITING OR TELLING THE ANSWER TO A QUESTION OR A PROBLEM) THAT YOU UNDERSTAND WHAT IS BEING TAUGHT?

1. Several times every day.

2. Once every day.

3. Almost every day.

4. Several times a week.

5. Never.

6. WHEN YOU HAVE LEARNED A CERTAIN KIND OF ARITHMETIC, DO YOU USE IT OVER AGAIN DURING THE YEAR OR STOP USING IT AFTER YOU HAVE TAKEN UP A DIFFERENT KIND OF PROBLEM?

1. Keep using a kind of arithmetic over and over again.

3. Keep using a kind of arithmetic sometimes after we have taken up a new kind.

5. Hardly ever use an old kind of arithmetic after we have taken up a new kind.

7. HOW ARE YOUR PAPERS USUALLY CORRECTED?

1. All mistakes are marked and we are shown how the work is wrong.

2. All mistakes are marked.

4. A grade or comment for the whole paper is given, but all mistakes are not marked.
5. I don't know, papers aren't returned.

8. DO PUPILS HAVE TO GET PERMISSION TO LEAVE THEIR SEATS IN THIS CLASS OR NOT?

1. We can never leave our seats without getting permission.

2. We can leave our seats without permission if we follow certain rules.

5. We can leave our seats without getting permission almost any time.

9. HOW MUCH INSTRUCTION DOES THE TEACHER GIVE A SOCIAL STUDIES COMMITTEE?

1. We never have social studies committees.

2. The teacher tells the committee exactly what to do and how to do it.

4. The teacher tells the committee what to do, but lets us decide how to do it.

5. The teacher leaves almost everything up to the committee.

10. WHEN THE CLASS STARTS A NEW SOCIAL STUDIES UNIT, WHO PLANS HOW YOU WILL DO THE WORK?

1. We do it the way the teacher plans it.

2. The teacher and the pupils plan it together.

4. The teacher expects the pupils to work out a plan, but he gives advice if we ask him.

5. The plan is entirely up to the pupils.

11. WHEN THE TEACHER HAS MADE UP HIS MIND ABOUT SOMETHING, HAS HE EVER CHANGED IT WHEN THE PUPILS OBJECTED?

1. Hardly ever.

2. A few times when the pupils had good reasons.
4. Quite often, whether the pupils had good reasons or not.

5. Practically every time anyone objected.

12. WHAT DOES THE TEACHER DO WHEN HE AND THE PUPILS DISAGREE ABOUT SOME IDEA IN SOCIAL STUDIES?

1. Doesn't encourage pupils to express opinions.

3. Lets pupils express their opinions, but only sees his side.

5. Lets pupils express their opinions and we look at both sides.

13. WHEN THE TEACHER ASKS PUPILS TO DO SOMETHING THEY DO NOT WANT TO DO, DOES HE OR DOES NOT EXPLAIN WHY THEY HAVE TO DO IT?

1. He hardly ever explains why.

3. He sometimes explains why.

5. He almost always explains why.

14. HOW OFTEN WOULD YOU SAY THIS TEACHER HAS CHANGED ASSIGNMENTS THIS YEAR BECAUSE THE PUPILS OBJECTED TO THEM?

1. Hardly ever.

2. A few times when the pupils had good reasons.

4. Quite often, whether the pupils had good reasons or not.

15. AFTER YOU KNOW WHAT YOU ARE GOING TO DO IN THIS CLASS, WHO USUALLY DECIDES HOW YOU ARE GOING TO DO IT?

1. The teacher decides and tells us.

2. The teacher listens to our ideas about it, but he decides.

4. The teacher talks it over with us, and helps us decide.
5. The teacher lets us decide.

16. HOW MANY COMMITTEES HAVE YOU BEEN ON THIS YEAR IN THIS CLASS?

1. None.
2. One or two.
3. Three.
4. Four.
5. Five or more.

17. DOES THIS TEACHER SHOW THAT HE WANTS TO MAKE THE WORK INTERESTING FOR THE PUPILS OR DOES HE NOT?

1. Almost always interesting.
2. Sometimes interesting.
4. Not very interesting.
5. Practically never interesting.

18. DOES THE TEACHER ASK YOU QUESTIONS IN A WAY WHICH MAKES YOU NERVOUS AND UNCOMFORTABLE ABOUT ANSWERING THEM, OR DOES HE ASK YOU QUESTIONS IN A KIND WAY?

1. Just about always kind.
2. Often kind, but occasionally makes me uncomfortable.
4. Often makes me feel nervous and uncomfortable, but not always.
5. Just about always makes me nervous and uncomfortable.

19. DOES THIS TEACHER SHOW THAT HE DISLIKES PUPILS IN THE CLASS OR NOT?

1. Shows dislike for none of the pupils.
2. Shows dislike for a few pupils.
3. Shows dislike for some pupils.
4. Shows dislike for most pupils.
5. Shows dislike for everyone in the class.

20. DOES THIS TEACHER TRY TO MAKE THE CLASS ENJOYABLE FOR THE PUPILS OR NOT?

1. Almost always tries to make the class enjoyable.
3. Sometimes tries to make the class enjoyable.
5. Practically never tries to make the class enjoyable.

21. DOES THIS TEACHER SHOW THAT HE LIKES PUPILS IN THIS CLASS OR NOT?

1. Shows he likes all pupils.
2. Shows he likes most pupils.
3. Shows he likes some pupils.
4. Shows he likes just a few students.
5. Shows liking for none of the pupils.

22. IS THIS TEACHER USUALLY FAIR OR USUALLY UNFAIR WHEN HE DECIDES THINGS ABOUT PUPILS?

1. He is always fair.
2. He is usually fair.
4. He is fair to most pupils; a few are treated better; a few are treated worse.
5. He is unfair to most pupils.
23. DOES THIS TEACHER HELP YOU WITH THE WORK OR LET YOU GET IT FOR YOURSELF?

1. I hardly get any help.

3. I get some help, but not as much as I need.

5. I get all the help I need.

24. DOES THIS TEACHER MAKE SURE YOU LEARN THE FACTS OR IS HE MORE INTERESTED IN HOW PUPILS FEEL ABOUT THINGS?

1. Shows little or no concern about the facts or how we feel.

2. Just makes sure we learn the facts.

4. Makes sure we learn the facts, but is sometimes interested in our feelings.

5. More interested in our feelings than in our learning the facts.

25. DOES THIS TEACHER SHOW THAT HE WILL HELP YOU WITH THE SCHOOL WORK AND ALSO HELP YOU WITH ANYTHING ELSE YOU WOULD LIKE TO TALK TO HIM ABOUT?

1. More with other things than school work.

2. About the same with school work and other things.

3. More with school work than other things.

4. With school work, but nothing else.

5. Neither with school work nor anything else.

26. DOES THIS TEACHER GIVE YOU CREDIT FOR HOW WELL YOU DO ON YOUR PAPERS AND TESTS OR DOES HE GIVE YOU CREDIT FOR TRYING AND SHOWING IMPROVEMENT?

1. Only for how well I do on papers and tests.
3. For how well I do on papers and tests, and for trying and showing improvement.

5. For trying and improving whether I do well on papers and tests or not.

27. IN THIS CLASS ARE YOU SUPPOSED TO USE THE TEACHER'S IDEAS, THE IDEAS IN THE BOOK, OR YOUR OWN IDEAS?

1. We are supposed to use our own ideas more than the teacher's or those in the books.

3. We are supposed to use the teacher's ideas, the ideas in the books, and our own ideas.

5. We are only supposed to use the teacher's ideas and the ideas in the books.
APPENDIX IB. MODIFIED GORDON-ADLER PUPIL QUESTIONNAIRE

INSTRUCTIONS: The questions below are about your teacher in this class. Circle the answer on the answer sheet which best describes your answer to the question.

1. ARE YOU GIVEN NEW WORK IN THIS CLASS BEFORE YOU ARE ABLE TO GET THE RIGHT ANSWERS TO OR UNDERSTAND THE OLD WORK?
   
   1. I am not given new kinds of work until I can do the old kind correctly.
   
   3. I am sometimes given new kinds of work before I can do the old kind.
   
   5. I am almost always given new kinds of work before I can do the old kind.

2. DOES THE TEACHER SEE TO IT THAT YOU COMPLETE ALL OF THE WRITTEN ASSIGNMENTS OR NOT?
   
   1. Hardly ever makes sure we complete written assignments.
   
   3. Sometimes makes sure we complete written assignments.
   
   5. Makes sure we complete practically all written assignments.

3. DOES THIS TEACHER GO OVER A DAY'S WORK WITH YOU AGAIN BEFORE GOING ON TO THE NEXT LESSON, OR DO YOU GO ON WITHOUT REVIEWING?
   
   1. Hardly ever reviews lessons.
   
   2. Reviews some lessons, but not regularly.
   
   3. Reviews most lessons.
   
   5. Reviews every lesson (either at the end or at the beginning).
4. WHAT DOES THIS TEACHER MOST OFTEN DO WHEN HE IS TEACHING THE CLASS SOMETHING NEW AND THE PUPILS DON'T UNDERSTAND?

1. Tries to explain it again another way.

3. Gives the same explanation over again.

5. Moves on to something else, even though we don't understand.

5. HOW OFTEN ARE YOU REQUIRED TO SHOW THE TEACHER (BY WRITING OR TELLING THE ANSWER TO A QUESTION OR A PROBLEM) THAT YOU UNDERSTAND WHAT IS BEING TAUGHT?

1. Never.

2. Several times a week.

3. Almost every day.

4. Once every day.

5. Several times every day.

6. WHEN YOU HAVE LEARNED A CERTAIN KIND OF LESSON, DO YOU USE IT OVER AGAIN DURING THE YEAR OR STOP USING IT AFTER YOU HAVE TAKEN UP A DIFFERENT KIND OF WORK?

1. Keep using a kind of lesson over and over again.

3. Keep using a kind of lesson sometimes after we have taken up a new kind.

5. Hardly ever use an old kind after we take up a new kind.

7. HOW ARE YOUR PAPERS USUALLY CORRECTED?

1. I don't know; papers aren't returned.

2. A grade or comment for the whole paper is given, but all mistakes are not marked.

4. All mistakes are marked.

5. All mistakes are marked, and we are shown how the work is wrong.
8. DO PUPILS HAVE TO GET PERMISSION TO LEAVE THEIR SEATS IN THIS CLASS OR NOT?

1. We can leave our seats without getting permission almost any time.

4. We can leave our seats without permission if we follow certain rules.

5. We can never leave our seats without getting permission.

9. HOW MUCH INSTRUCTION DOES THE TEACHER GIVE TO GROUPS WHO ARE WORKING ON SPECIAL PROJECTS?

1. The teacher leaves almost everything up to the group.

2. The teacher tells the group what to do, but lets it decide how to do it.

4. The teacher tells the group exactly what to do and how to do it.

5. We never have special projects.

10. WHEN THE CLASS STARTS A NEW UNIT, WHO PLANS HOW YOU WILL DO THE WORK?

1. The plan is entirely up to the pupils.

2. The teacher expects the pupils to work out a plan, but he gives advice if we ask him.

4. The teacher and the pupils plan it together.

5. We do it the way the teacher plans it.

11. WHEN THE TEACHER HAS MADE UP HIS MIND ABOUT SOMETHING, HAS HE EVER CHANGED IT WHEN THE PUPILS OBJECTED?

1. Practically every time anyone objected.

2. Quite often, whether the pupils had good reasons or not.
4. A few times when the pupils had good reasons.

5. Hardly ever.

12. WHAT DOES THE TEACHER DO WHEN HE AND THE PUPILS DISAGREE ABOUT SOME IDEA?

1. Lets pupils express their opinions, and we look at both sides.

3. Lets pupils express their opinions, but only sees his side.

5. Doesn't encourage pupils to express opinions.

13. WHEN THE TEACHER ASKS THE PUPILS TO DO SOMETHING THEY DO NOT WANT TO DO, DOES HE OR DOES HE NOT EXPLAIN WHY THEY HAVE TO DO IT?

1. He almost always explains why.

3. He sometimes explains why.

5. He hardly ever explains why.

14. HOW OFTEN WOULD YOU SAY THIS TEACHER HAS CHANGED ASSIGNMENTS THIS YEAR BECAUSE THE PUPILS OBJECTED TO THEM?

1. Practically every time anyone objected.

2. Quite often, whether the pupils had good reasons or not.

4. A few times when the pupils had good reasons.

5. Hardly ever.

15. AFTER YOU KNOW WHAT YOU ARE GOING TO DO IN THIS CLASS, WHO USUALLY DECIDES HOW YOU ARE GOING TO DO IT?

1. The teacher lets us decide.

2. The teacher talks it over with us, and helps us decide.

4. The teacher listens to our ideas about it, but he decides.
5. The teacher decides and tells us.

16. HOW MANY COMMITTEES HAVE YOU BEEN ON THIS YEAR IN THIS CLASS?

1. Five or more.
2. Four.
3. Three.
4. One or two.
5. None

17. DOES THIS TEACHER SHOW THAT HE WANTS TO MAKE THE WORK INTERESTING FOR THE PUPILS OR DOES HE NOT?

1. Practically never interesting.
2. Not very interesting.
4. Sometimes interesting.
5. Almost always interesting.

18. DOES THE TEACHER ASK YOU QUESTIONS IN A WAY WHICH MAKES YOU NERVOUS AND UNCOMFORTABLE ABOUT ANSWERING THEM, OR DOES HE ASK YOU QUESTIONS IN A KIND WAY?

1. Just about always makes me nervous and uncomfortable.
2. Often makes me feel nervous and uncomfortable, but not always.
4. Often kind, but occasionally makes me feel uncomfortable.
5. Just about always kind.
19. DOES THIS TEACHER SHOW THAT HE DISLIKES PUPILS IN THIS CLASS OR NOT?

1. Shows dislike for everyone in the class.
2. Shows dislike for most pupils in the class.
3. Shows dislike for some pupils in the class.
4. Shows dislike for a few pupils in the class.
5. Shows dislike for none of the pupils in the class.

20. DOES THIS TEACHER TRY TO MAKE THE CLASS ENJOYABLE FOR THE PUPILS OR NOT?

1. Practically never tries to make the class enjoyable.
3. Sometimes tries to make the class enjoyable.
5. Almost always tries to make the class enjoyable.

21. DOES THIS TEACHER SHOW THAT HE LIKES PUPILS IN THIS CLASS OR NOT?

1. Shows liking for none of the pupils.
2. Shows he likes just a few students.
3. Shows he likes some pupils.
4. Shows he likes most pupils.
5. Shows he likes all pupils.

22. IS THIS TEACHER USUALLY FAIR OR USUALLY UNFAIR WHEN HE DECIDES THINGS ABOUT PUPILS?

1. He is unfair to most pupils.
2. He is fair to most pupils; a few are treated better; a few are treated worse.
4. He is usually fair.

5. He is always fair.

23. DOES THIS TEACHER HELP YOU WITH WORK OR LET YOU GET IT FOR YOURSELF?

1. I hardly get any help.

3. I get some help, but not as much as I need.

5. I get all the help I need.

24. DOES THIS TEACHER MAKE SURE YOU LEARN THE FACTS, OR IS HE MORE INTERESTED IN HOW PUPILS FEEL ABOUT THINGS?

1. Shows little or no concern about the facts or how we feel.

2. Just makes sure we learn the facts.

4. Makes sure we learn the facts, but is sometimes interested in our feelings.

5. More interested in our feelings than in our learning the facts.

25. DOES THIS TEACHER SHOW THAT HE WILL HELP YOU WITH THE SCHOOL WORK AND ALSO HELP YOU WITH ANYTHING ELSE YOU WOULD LIKE TO TALK TO HIM ABOUT?

1. Neither with school work nor anything else.

2. With school work but nothing else.

3. More with school work than other things.

4. About the same with school work and other things.

5. More with other things than school work.
26. DOES THIS TEACHER GIVE YOU CREDIT FOR HOW WELL YOU DO ON YOUR PAPERS AND TESTS, OR DOES HE GIVE YOU CREDIT FOR TRYING AND SHOWING IMPROVEMENT?

1. Only for how well I do on papers and tests.

3. For how well I do on papers and tests and for trying and showing improvement.

5. For trying and improving whether I do well in papers and tests or not.

27. IN THIS CLASS ARE YOU SUPPOSED TO USE THE TEACHER'S IDEAS, THE IDEAS IN THE BOOK, OR YOUR OWN IDEAS?

1. We are only supposed to use the teacher's ideas and the ideas in the books.

3. We are supposed to use the teacher's ideas, the ideas in the books, and our own ideas.

5. We are supposed to use our own ideas more than the teacher's or those in the books.
APPENDIX IC. TEACHER MODES AND RELATED PUPIL EFFECTS*

A mode is a description of teacher behavior with reference to the task, authority, and expressive dimensions. Each mode is the result of the reports submitted by a group of students concerning their perceptions of their teacher's behavior.

The following is a list of the modes and the related pupil effects established by Gordon and Adler.

1. Mode A: low on task, low on authority, low on expressive; related to none of the pupil effects.

2. Mode B: low on task, low on authority, middle on expressive; related to pupil volunteer work and total gain.

3. Mode C: low on task, middle on authority, low on expressive; related to none of the pupil effects.

4. Mode D: low on task, middle on authority, middle on expressive; related to pupil general morale and to volunteer work.

5. Mode E: low on task, high on authority, low on expressive; related to pupil total gain.

6. Mode F: low on task, high on authority, middle on expressive; related to pupil total gain.

*Information taken from Gordon and Adler, op. cit.
7. Mode G: middle to high on task, low on authority, middle on expressive; related to pupil general morale, volunteer work, compliance to assignment, and total gain.

8. Mode H: middle to high on task, low on authority, high on expressive; related to pupil general morale, volunteer work, compliance to assignment, and class order.

9. Mode I: middle to high on task, middle on authority, low on expressive; related to pupil total gain.

10. Mode J: middle to high on task, middle on authority, middle on expressive; related to pupil volunteer work.

11. Mode K: middle to high on task, high on authority, low on expressive; related to compliance to assignment.

12. Mode L: middle to high on task, high on authority, middle on expressive; related to pupil volunteer work, class order, and total gain.
APPENDIX ID. DEFINITIONS OF PUPIL EFFECTS*

The dependent variables defined for the study, like the dimensions of teacher behavior, are derived from the framework of the classroom as a social system. Specifically, they derive from the goals, functions, and conditions outlined above from which the observational measures were defined accordingly:

**Pupil Productivity.** Pupil productivity is measured as pupil learning gain, the fall-spring difference between the pupils' performance on three achievement tests: reading, writing, and arithmetic. Pupil learning gain is understood as evidence at the pupil and classroom level of the goal attainment of the school. Also, it is a variable related to the selected mode of teacher behavior.

**Pupil Morale.** Pupil morale is the degree of satisfaction expressed by the pupil with selected objects of the class or school situation. Morale is viewed as the state of satisfaction expressed as a result of various levels of goal attainment derived from the major force of the school and classroom system. In the study, four morale variables are defined to specify pupil morale: school, work, peer, and teacher. The assumption is that something approximating a general morale results from the combination of morale from the various points of reference, and that among various classrooms the four kinds of morale may vary independently or may vary together, depending on the mode of teacher behavior. The teacher is assumed to be the major agent productive of morale, but the mode of behavior determines the level of morale derived from school, work, and peer as well as teacher.

The four kinds of morale cover the satisfactions derived from both cognitive and affective processes. The affectively neutral sources of learning mathematics for instance may be equally as productive of

*Quoted directly from Gordon and Adler, *op. cit.*, pp. 35-37.
satisfaction as the feeling-laden interaction with teacher and peer. Morale as an effect may vary considerably through time since a given mode of teacher behavior may result in a different morale effect, if it is sustained, than if produced at the outset. Also, the mode of teacher behavior itself may change through time, resulting in different effects. Measures of morale were taken for both fall and spring to get at these bases for morale change.

**Pupil Compliance.** Pupil compliance as an effect is behavior which has two major implications for definition. One is the degree to which the pupil conforms to the defined expectations of the classroom. The second possible definition is to treat the extent to which the pupil engages in the expected activity itself as a measure of productivity, that is, with its implied results in acquired values and competencies. In education it has sometimes been assumed that activity itself is a value. In this study learning gain will serve as the primary productivity measure and compliance will be defined as the extent to which the pupil meets the expectations of assignments. The actual measurement of the results of compliance is not undertaken except as it relates to the other observed effects.

**Volunteer Work.** Pupil volunteer work as implied is the activity the pupil engages in among a set of possible activities which he is not required to perform. Volunteer work should vary as an indicator of the nature of pupil involvement and as a function of teacher leadership mode. Some type of teacher behavior should be expected to encourage and some to discourage voluntaristic activity among pupils.

**Classroom Order.** Order is one of the expressed values of the classroom system; as an indicator of teacher effect, it expresses the extent to which this system goal is being achieved. As a system goal, it is assumed to facilitate the attainment of other goals and is presumed to epitomize the
degree of both functional and normative integration. In relation to this assumption, it is of interest to determine the relationship of teaching mode and classroom order. Order is treated as present when the pupils agree that their individual conduct and group conduct is positive.
APPENDIX IIA

ORGANIZATION CLIMATE DESCRIPTION QUESTIONNAIRE

by

A. W. Halpin and D. B. Croft

The items in this questionnaire describe typical behaviors or conditions that occur within an elementary-school organization. Please indicate to what extent each of these descriptions characterizes your school. Please do not evaluate the items in terms of "good" or "bad" behavior, but read each item carefully and respond in terms of how well the statement describes your school.

The descriptive scale on which to rate the items is printed at the top of each page. Please read the Instructions which describe how you should mark your answers.

The purpose of this questionnaire is to secure a description of the different ways in which teachers behave and of the various conditions under which they must work. After you have answered the questionnaire, we will examine the behaviors or conditions that have been described as typical by the majority of the teachers in your school, and we will construct from this description a portrait of the Organizational Climate of your school.
Printed below is an example of a typical item found in the Organizational Climate Description Questionnaire:

1. Rarely occurs
2. Sometimes occurs
3. Often occurs
4. Very frequently occurs

Teachers call each other by their first names.

1 2 3 4

In this example, the respondent marked alternative 3 to show that the interpersonal relationship described by this item "often occurs" at his school. Of course, any of the other alternatives could be selected, depending upon how often the behavior described by the item does, indeed, occur in your school.

Please mark your response clearly, as in the example. PLEASE BE SURE THAT YOU MARK EVERY ITEM.
**BIOGRAPHICAL INFORMATION**

1-2. Name____________________________________

3. School____________________________________

4. Sex:
   - Man 1.____
   - Woman 2.____

5. Age:
   - 20-29 1.____
   - 30-39 2.____
   - 40-49 3.____
   - 50-59 4.____
   - 60 or over 5.____

6. Years of Experience in Education
   1.____ 5.____ 9.____
   2.____ 6.____ 10.____
   3.____ 7.____ 11.____
   4.____ 8.____ 12 or over ____

7. Years at This School
   1.____ 5.____ 9.____
   2.____ 6.____ 10.____
   3.____ 7.____ 11.____
   4.____ 8.____ 12 or over ____
8. Years Working with This Principal
   1.____  5.____  9.____
   2.____  6.____  10.____
   3.____  7.____  11.____
   4.____  8.____  12 or over ____

9. Ethnic Origin:
   Spanish Speaking  1.____
   Indian  2.____
   Other  3.____

10. Parents' Occupation:
   Professional  1.____
   Semi-skilled  2.____
   Unskilled  3.____

11. Number of Teachers in school—approximately:
   0 - 9  1.____
   10 - 19  2.____
   20 - 29  3.____
   30 - 39  4.____
   40 - 49  5.____
   50 - 59  6.____
   60 - 69  7.____
   70 - 79  8.____
   80 - 89  9.____
   Over 90  10.____
12. Marital Status:

Married 1.____

Single 2.____
13. Teachers' closest friends are other faculty members at this school. 1 2 3 4
14. The mannerisms of teachers at this school are annoying. 1 2 3 4
15. Teachers spend time after school with students who have individual problems. 1 2 3 4
16. Instructions for the operation of teaching aids are available. 1 2 3 4
17. Teachers invite other faculty to visit them at home. 1 2 3 4
18. There is a minority group of teachers who always oppose the majority. 1 2 3 4
19. Extra books are available for classroom use. 1 2 3 4
20. Sufficient time is given to prepare administrative reports. 1 2 3 4
21. Teachers know the family background of other faculty members. 1 2 3 4
22. Teachers exert group pressure on non-conforming faculty members. 1 2 3 4
23. In faculty meetings, there is a feeling of "let's get things done." 1 2 3 4
24. Administrative paper-work is burdensome at this school. 1 2 3 4
25. Teachers talk about their personal lives to other faculty members. 1 2 3 4
26. Teachers seek special favors from the principal.

27. School supplies are readily available for use in class work.

28. Student progress reports require too much work.

29. Teachers have fun socializing together during school time.

30. Teachers interrupt other faculty members who are talking in staff meetings.

31. Most of the teachers here accept the faults of their colleagues.

32. Teachers have too many committee requirements.

33. There is considerable laughter when teachers gather informally.

34. Teachers ask nonsensical questions in faculty meetings.

35. Custodial service is available when needed.

36. Routine duties interfere with the job of teaching.

37. Teachers prepare administrative reports by themselves.

38. Teachers ramble when they talk in faculty meetings.

39. Teachers at this school show much school spirit.

40. The principal goes out of his way to help teachers.
41. The principal helps teachers solve personal problems.

42. Teachers at this school stay by themselves.

43. The teachers accomplish their work with great vim, vigor, and pleasure.

44. The principal sets an example by working hard himself.

45. The principal does personal favors for teachers.

46. Teachers eat lunch by themselves in their own classrooms.

47. The morale of the teachers is high.

48. The principal uses constructive criticism.

49. The principal stays after school to help teachers finish their work.

50. Teachers socialize together in small, select groups.

51. The principal makes all class-scheduling decisions.

52. Teachers are contacted by the principal each day.

53. The principal is well prepared when he speaks at school functions.

54. The principal helps staff members settle minor differences.

55. The principal schedules the work for the school day.

56. Teachers leave the grounds during the school day.
57. The principal criticizes a specific act rather than a staff member. 1 2 3 4
58. Teachers help select which courses will be taught. 1 2 3 4
59. The principal corrects teachers' mistakes. 1 2 3 4
60. The principal talks a great deal. 1 2 3 4
61. The principal explains his reasons for criticism to teachers. 1 2 3 4
62. The principal tries to get better salaries for teachers. 1 2 3 4
63. Extra duty for teachers is posted conspicuously. 1 2 3 4
64. The rules set by the principal are never questioned. 1 2 3 4
65. The principal looks out for the personal welfare of teachers. 1 2 3 4
66. School secretarial service is available for teachers' use. 1 2 3 4
67. The principal runs the faculty meeting like a business conference. 1 2 3 4
68. The principal is in the building before teachers arrive. 1 2 3 4
69. Teachers work together preparing administrative reports. 1 2 3 4
70. Faculty meetings are organized according to a tight agenda. 1 2 3 4
71. Faculty meetings are mainly principal-report meetings. 1 2 3 4
72. The principal tells teachers of new ideas he has run across. 1 2 3 4
73. Teachers talk about leaving the school system.  
74. The principal checks the subject-matter ability of teachers.  
75. The principal is easy to understand.  
76. Teachers are informed of the results of a supervisor's visit.  
77. Grading practices are standardized at this school.  
78. The principal insures that teachers work to their full capacity.  
79. Teachers leave the building as soon as possible at day's end.  
80. The principal clarifies wrong ideas a teacher may have.

Thank you!
APPENDIX IIB

TEACHER-GROUP'S AND PRINCIPAL'S BEHAVIOR

**Teachers' Behavior**

1. **DISENGAGEMENT** refers to the teachers' tendency to be "not with it." This dimension describes a group which is "going through the motions," a group that is "not in gear" with respect to the task at hand. It corresponds to the more general concept of *amorit* as first described by Durkheim. In short, this subtest focuses upon the teachers' behavior in a task-oriented situation.

2. **HINDRANCE** refers to the teachers' feeling that the principal burdens them with routine duties, committee demands, and other requirements which the teachers construe as unnecessary busy-work. The teachers perceive that the principal is hindering rather than facilitating their work.

3. **ESPRIT** refers to "morale." The teachers feel that their social needs are being satisfied, and that they are, at the same time, enjoying a sense of accomplishment in their job.

4. **INTIMACY** refers to the teachers' enjoyment of friendly social relations with each other. This dimension describes a social-needs satisfaction which is not necessarily associated with task-accomplishment.

**Principal's Behavior**

1. **ALOOFNESS** refers to behavior by the principal which is characterized as formal and impersonal. He "goes by the book" and prefers to be guided by rules and policies rather than to deal with the teachers in an informal, face-face situation.

---

*Quoted directly from Halpin and Croft, *op. cit.*, pp. 40-41.*
His behavior, in brief, is universalistic rather
than particularistic; nomothetic rather than
idiosyncratic. To maintain this style, he keeps
himself—at least, "emotionally"—at a distance
from his staff.

2. PRODUCTION EMPHASIS refers to behavior by the
principal which is characterized by close
supervision of the staff. He is highly directive,
and plays the role of a "straw boss." His
communication tends to go in only one direction,
and his is not sensitive to feedback from the
staff.

3. THRUST refers to behavior by the principal which
is characterized by his evident effort in trying
to "move the organization." "Thrust" behavior
is marked not by close supervision but by the
principal's attempt to motivate the teachers
through the example which he personally sets.
Apparently, because he does not ask the
teachers to give of themselves any more than he
willingly gives of himself, his behavior, though
starkly task-oriented, is nonetheless viewed
favorably by the teachers.

4. CONSIDERATION refers to behavior by the principal
which is characterized by an inclination to treat
the teachers "humanly," to try to do a little
something extra for them in human terms.

Combinations of the eight parameters defined above
yield the six ideal profiles of organizational climates,
as follows:*

1. THE OPEN CLIMATE is one in which the members feel
high esprit, low hindrance, high intimacy, and low
disengagement. These refer to group influence; thus,

*Paraphrased from Halpin and Croft, op. cit., pp. 80-89.
the teachers work well together, are not burdened with busy-work, enjoy friendly relations, and, in general, obtain considerable job satisfaction. The principal rates high in consideration, low in aloofness, low in production emphasis, and high in thrust. He is viewed as exhibiting genuine behavior, setting a good example, helping teachers with their problems, and providing adequate leadership.

2. THE AUTONOMOUS CLIMATE is characterized by low hindrance, high *esprit*, high intimacy, low disengagement, average consideration, high aloofness, low production emphasis, and high thrust. The principal allows the group almost complete freedom. The group characteristics are the same as in the open climate, and the principal differs in that he is average in considerations and remains quite aloof from the group. The principal runs the organization in a formal and businesslike manner. He is willing to set the objectives, rules, and procedures, and let the teachers see that they are accomplished.

3. THE CONTROLLED CLIMATE depicts a situation in which the group characteristics are: high hindrance, low *esprit*, low intimacy, and disengagement. The principle
characteristics are: low consideration, average aloofness, high production emphasis, and average thrust. It is climate in which the principal emphasizes hard work above everything on task accomplishment. The teachers are committed to the task, which is fraught with busy-work, and there is no time for friendly relations. This is still a climate which is more open than closed, because of the job satisfaction derived by the teachers in spite of the despotic role projected by the principal.

4. THE FAMILIAR CLIMATE is characterized by "the conspicuously friendly manner of both the principal and the teachers. Social-needs satisfaction is extremely high, while little is done to control or direct the group's activities toward goal achievement."
The group rates low on hindrance, average on esprit, high on intimacy, and high on thrust. The group members accomplish little, feel that they are not burdened with busy-work, have a feeling of friendship, and think their welfare is held in high regard despite the lack of direction.

5. THE PATERNAL CLIMATE is one in which the principal attempts to impose control on the teachers while
keeping the satisfaction of their social needs as a foremost concern. His behavior is viewed as non-genuine, and the group is fragmented as a result of lack of directed activities. The group is low on hindrance, esprit, and intimacy, and high on disengagement. The principal is perceived as high on consideration and production emphasis, low on aloofness, and average in thrust. Although the principal considers his job as his main responsibility and is completely devoted to it, the teachers consider him unworthy of emulation.

6. THE CLOSED CLIMATE is high on hindrance (the teachers are burdened with routine busy-work), low on esprit, average on intimacy, high on disengagement (teachers do not work well together), low on consideration (the principal is not concerned with the social needs of teachers), high aloofness and production emphasis (the principal wants the job done and he directs the group in a highly controlled and directed manner), and low on thrust. Thus, although he emphasizes getting the job done, his words are devoid of meaning because he does not set a good example by his own work. He is considered ungenuine. This organization is in dire need of correction.
The following table is a summary of what has been said concerning the six climate classifications:

**SIX ORGANIZATIONAL CLIMATES RANKED IN RESPECT TO EIGHT GROUP AND LEADER CHARACTERISTICS**

<table>
<thead>
<tr>
<th>OCDQ SUBTESTS</th>
<th>Hindrance</th>
<th>Espirit</th>
<th>Intimacy</th>
<th>Disengagement</th>
<th>Consideration</th>
<th>Aloofness</th>
<th>Production</th>
<th>Emphasis</th>
<th>Thrust</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CLIMATES</strong></td>
<td>SC</td>
<td>SN</td>
<td>SN</td>
<td>SC</td>
<td>SN</td>
<td>SC</td>
<td>SC</td>
<td>SN</td>
<td></td>
</tr>
<tr>
<td>Open</td>
<td>L</td>
<td>H</td>
<td>H</td>
<td>L</td>
<td>H</td>
<td>L</td>
<td>L</td>
<td>L</td>
<td>H</td>
</tr>
<tr>
<td>Autonomous</td>
<td>L</td>
<td>H</td>
<td>L</td>
<td>A</td>
<td>H</td>
<td>L</td>
<td>H</td>
<td>L</td>
<td></td>
</tr>
<tr>
<td>Controlled</td>
<td>H</td>
<td>H</td>
<td>L</td>
<td>L</td>
<td>A</td>
<td>H</td>
<td>L</td>
<td>L</td>
<td></td>
</tr>
<tr>
<td>Familiar</td>
<td>L</td>
<td>A</td>
<td>H</td>
<td>H</td>
<td>H</td>
<td>L</td>
<td>L</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>Paternal</td>
<td>L</td>
<td>L</td>
<td>L</td>
<td>H</td>
<td>H</td>
<td>L</td>
<td>H</td>
<td>H</td>
<td>A</td>
</tr>
<tr>
<td>Closed</td>
<td>H</td>
<td>L</td>
<td>A</td>
<td>H</td>
<td>L</td>
<td>H</td>
<td>H</td>
<td>H</td>
<td>L</td>
</tr>
</tbody>
</table>

SC - Social Control Characteristic  
SN - Satisfaction of Social Needs Characteristic.  
L - Low    H - High    A - Average  

*Halpin and Croft, *op. cit.*
CURRICULUM VITAE

Mr. Willie Sanchez was born in the village of Dixon, New Mexico, where he attended St. Joseph's Elementary and High Schools.

He received his B. A. degree from New Mexico Highlands University, Las Vegas, New Mexico, in 1953, with a major in Mathematics and minors in Education and English. His Master of Arts degree was completed in the summer of 1956 at Highlands University in the fields of English and Education.

Mr. Sanchez has also: (1) attended lectures and taught classes at Colorado College, Colorado Springs, Colorado; (2) done graduate work in Mathematics and Math-Education under the auspices of the National Science Foundation at Washington University in St. Louis, Missouri; (3) been a recipient of the John Hay Whitney Foundation Fellowship for graduate work in Education at the University of New Mexico; (4) been a research assistant in computer science for a project of the Department of Saline Water; (5) done statistical design as the principal consultant in statistics for an Economic Development Agency program involving extensive study of the labor characteristics of
migrant families and as consultant to TRANS-CENTURY, of Washington, D. C., on a study of the social and economic characteristics of the "Green Card Commuters." At present, he is the statistical consultant for Interstate Research Associates, Washington, D. C.

Mr. Sanchez has taught in the public schools of New Mexico for ten years in elementary, junior high, and senior high schools, coordinated the Data Processing Center of the Albuquerque Public Schools, participated as lecturer and consultant for the UNM-USAID teacher preparation and textbook development program in Ecuador, and taught in the Department of Physics and Mathematics at New Mexico Highlands University for the past five years.