A STUDY OF RELATIONSHIPS BETWEEN ORGANIZATIONAL CLIMATE AND SELECTED LEADERSHIP FACTORS IN ADMINISTRATION

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PREFACE

As an addition to the body of knowledge available to school administrators which they may call upon to lead their organizations toward greater progress, this study investigated a proposition of relatedness between interpersonal climate as a possible measure of the administrator's effectiveness and selected other leadership contributory factors. Communication, perceived effectiveness, and motivation were analyzed and compared with the elementary school climates. The combinations presented, and the findings generated, augment the theory of administration by helping to answer pressing questions concerning leadership: What is it? Who has it? How is it used? and How can it be made a part of preparation programs? The results generated stand on their own merits as to their worth to the field of education, the special disciplines of administration and communication, and to broader areas of the behavioral sciences.

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CHAPTER I

A STUDY OF RELATIONSHIPS BETWEEN ORGANIZATIONAL CLIMATE AND SELECTED LEADERSHIP FACTORS IN ADMINISTRATION

Background

Leadership and administration have long been of great concern to students of organization and society. Leadership and administration were studied with the desire for better understanding of the factors and processes involved and to ultimately develop men with skills necessary to lead and administer societal organizations toward greater progress.

Attempts to assess leadership potential and practice have taken a variety of approaches. Three main approaches have been the "traits", "group", and the "situation" approaches.

Stogdill's report on the "Great Man" theory of leadership was, seemingly, the conclusive study on the traits approach. He concluded that leadership was not a mere possession of some combination of traits but rather a working relationship among members of a group. (Stogdill, 1948) He cited Jenkins, who had affirmed that there was no single trait or characteristic which set off the leader from members of his group. (Jenkins, 1947) Both were probably considered later by Gouldner who found no reliable evidence of the existence of universal leadership traits. (Gouldner, 1950)

Failing to find ubiquitous "traits" of leadership, the theorists next turned to the group as leadership's raison d' etre. Cattell (1951), French (1949), Katz, MacCoby, and Morse (1950), Lippitt and White (1947), Morris and Seeman (1950), Stogdill (1950), and others in the Survey Research Center (1948) should be noted here as interested in group leadership factors. The Morris and Seeman (1950) attitude was that group factors resulted from given behavior of the leader. They asserted that this was the causal type of finding which was usually assumed rather than tested that the behavior of the leader made a difference in the group. (Morris and Seeman, 1950) French (1949) noted that a leader's effectiveness was measured by the contribution which he made to group effectiveness. Campbell (1956) summarized these studies and indicated an area of needed research (reaffirming Morris and Seeman), that of testing rather than assuming that the behavior of some individual has modified the behavior of the group in some fashion. Interest in the group process declined as the studies dealing with situational leadership increased.

Campbell looked at situational studies by Hemphill (1950) and by Knickerbocker (1948) and reiterated the belief in the ineffectiveness of one-way approaches to the study of leadership. (Campbell, 1956) Any one of the three approaches failed to produce the hoped-for key to understanding leadership.

Stogdill (1957) re-entered the picture to point out beliefs held about leadership which had been an outgrowth of the previous studies. He held that the descriptive dimensions of leadership in an organized group constituted a constellation of interacting variables, and that dealing simultaneously with all or even a large part of the variables

operating in an interaction situation involving leadership was exceedingly difficult. Then Stogdill (1957) enumerated his beliefs: (1) that the leader was not isolated, but was involved with other members in responsibility differentiations and personal interactions; (2) that leadership could reside in several or many members; and (3) that the behavior of the leader conditioned the behaviors of other members of the organization. He further indicated that leaders were those who occupied positions to which certain highly specified expectations were attached, and one of these was that they were expected to act as leaders of their group. (Stogdill, 1957) He recognized as early as 1950 that progress remained to be made in developing methods for studying leadership as an aspect of organization. (Stogdill, 1950) At a later date he indicated that differences in organizations were related to - if not caused by - differences in behavior patterns of officials in the communication network and that performance patterns differed in different situations and were related to differences in the structure of personal interactions. (Stogdill, 1957)

Later and possibly more fruitful approaches to the study of leadership followed Stogdill's lead by studying organizational climate which combined aspects of the personal, group, and situational studies into a more comprehensive survey of the inter-personal relationships which made an organization function. Lending support as early as 1956 were Stogdill and Shartle (1956) who found that leadership was frequently evaluated in terms of organizational effectiveness. They also found that all aspects of organizational operations involving communications, performances, and personal interactions appeared to exert limiting or conditioning effects upon leadership. They hypothesized that if this

were true then it should have been possible to measure leadership in terms of relevant dimensions of organizations. (Stogdill and Shartle, 1956) Halpin and Croft (1962) stated that an essential determinant of a school's "Effectiveness" as an organization was the principal's ability - or his lack of ability - to create a "climate" in which he, and other group members, could initiate and consummate acts of leadership.

The public and educators themselves have demanded that educational organizations function with better quality and more effectiveness. The administrator, as reported by a leading encyclopedia, would be the catalytic agent to make this achievement possible. (Harris and Liba, 1960) A pressing problem, then, was that of finding out if the factors of communication, effective performance, and personal interaction orientation produced quality and effectiveness so these factors could be used in selecting and training present and future administrators.

In speaking of effectiveness, Barnard (1949) said that the test of adequacy of leadership was the extent of cooperation, gained in relation to ideals, and this was largely a matter of the disposition of followers. He also indicated that effective leadership depended upon quality leaders on one hand and a system of positions for them on the other - communicators in communication positions. (Barnard, 1949) Argyris (1962) also noted that effectiveness in human relationships increased as behavior was rational, logical, and clearly communicated.

Administrative processes have included integrating the efforts of personnel and of utilizing appropriate materials, techniques, and procedures to promote effectively the development of human qualities and operation of an organization. Communication, the transference of thought or feeling from one person to another, or others, through verbal

and non-verbal means, has been considered part of that process. Barnard (1951) gave communication top importance in organization by suggesting that organizations began when: (1) there were persons able to communicate with each other; (2) who were willing to contribute actions; and (3) to accomplish a common purpose.

Many other authorities considered communication the most important or at least the major part of the process of leadership. An example was that of the Canadian, J. S. Althouse (1958), who indicated that the leader's success depended for the greater part upon his ability to persuade others to follow where he led.

Most discussions of management included communication as an important facet of leadership. Stafford (1960) saw it as the sine qua non condition of the management process. Mandell and Duckworth (1955), in a survey of supervisors, found the top administrator doing nothing but communicating while lower level administrators spent a great bulk of their time in communicating. Bellows, Gilson, and Odiorne (1962) noted that the success of the executive and the enterprise depended upon adequacy of communications; that communication determined the quality and climate of human relationships; that it pervaded all work activity throughout the organization; but that it was one of the least understood, most neglected tools of the executive. Barnard (1949) had already expanded and specified this "neglected tool" when in 1949 he said that understanding human relations required an appreciation of the importance of persuasion in human affairs, and an emphasis in education upon expression in writing and speaking. He also declared that certainly the most important limitation or difficulty for the modern executive was an inability in writing or in speech making or in addressing substantial

bodies of people to express facts adequately and intelligently about complex situations which he alone understood. For the future executive he predicted that the increasing complexity of relationships would call more and more for explaining executive action, and more and more for justifying action in one field in relation to other fields. (Barnard, 1949) Later writers in administration have cited Barnard and noted that an elaboration of the communication process would occupy a central place in any comprehensive theory of administration. Authorities agreed that the process takes place in an organization continuously and links persons together, allowing them to define goals and to devise means of achieving goals They also agreed that it was hard to imagine how goals of an organization could be achieved without the use of communication. Stating the case differently, they asserted that the quantity and quality of communication in an organization were no doubt a basic determinant of administrative effectiveness, and that a carefully developed perspective for viewing communication processes, then, would undoubtedly lead to a better understanding of administration. (Culbertson, Jacobson, and Reller, 1960) If this theory held, then a worthy hypothesis would be that the more effective administrator would be the better communicator. Scholz (1962) agreed considerably because he saw communication at the bottom of all inter-personal relationships and regarded the ability to communicate effectively as an essential skill for integrating the enterprise.

The Bible also added support to the importance of communication in the affairs of men, for it was the confusion of language which stopped the organization building the Tower of Babel. The need for ability to communicate also was noted in I Corinthians 14: 8, "For if the trumpet

give an uncertain sound, who shall prepare himself to the battle?"

These relationships could be stated more succinctly in terms of a situation. The production of a group such as a school depends upon what the group does, which in turn depends upon its motivation based upon perception of the situation in terms of expectations, the actual situation, and communication about it. The action in the group will depend upon the values, experiences, and perceptions of each group member. The values will vary with pressure from within and without. The pressure and communication brought to bear on the situation by the administrator depend upon his motivation toward change.

Before the administrator can effectively communicate for change and progress in the situation he must desire change. Henry (1949) found that all successful executives show high drive and achievement desire plus strong mobility drives, all indicative of a desire to change things, people, or situations. Brown (1961) stated that being aware that problems exist and having a willingness to accept changes increased creativity. Creativity, as he defined the concept, operated in research, decision-making, problem solving, and communication and used ingenuity to produce unusual solutions to ordinary, everyday problems; to generate new ideas; to plan and look ahead; and in a constant seeking for a better way. (Brown, 1961) Stogdill (1948) reported that the factor of change was especially characteristic of the situation while the personal characteristics of the leader and the followers were, in comparison, highly stable. Thus an hypothesis relating administrator change orientation to the situation was deemed worthy of study. Recognition was given to the same idea by Browne (1957), who said that the basic nature of any activity or process was the change which occurred

in it. Browne (1957) also remarked that, although human nature resisted change and human beings preferred established patterns, a leader must recognize, accept, and adjust to constantly occurring changes in order to perform to the maximum as a leader in influencing the behavior of group members. He went on to say that a leader needed to develop a "set", or readiness to react in a certain way, which was a "set" for change. (Browne, 1957)

The Overstreets (1941) pictured the role of the leader another way which, however, dealt with the same elements. They felt that wherever two or three were gathered together, a leader appeared; that one man's voice was more persuasive than another's; that he had higher or stronger ambitions; or that his mind was more clear-cut in its grasp of affairs.

The basic problem of identifying the effective administrator and separating this measure of effectiveness from all its interrelationships, has been studied by many researchers in administration. Their efforts were not overlooked by others who were themselves trying to establish effectiveness criteria. For example, the study of "Climate" operated under the assumption derived from other studies that quality of administration depended upon leadership in the situation not just a "leadership" quality alone. (Halpin and Croft, 1962)

To assess leadership, its component factors must be studied. Communication promises to be the major factor in administration, leadership, or any other inter-personal relationship. Progress, a most important criterion for the leader, the administrator, and the organization, should involve the desire for change and the ability to see areas where change needs to be made.

If the administrator is expected to be a leader, should not he be

concerned with developing his capabilities in communication and change motivation?

If organizations are to progress in effectiveness, should not they be concerned with selecting and developing administrators with these selected leadership capacities?

These questions, then, provided the impetus for this study.

Statement of the Problem

The purpose of this study was to examine the relationships between organizational climate and selected leadership factors. The leadership factors were communication, effectiveness, and change motivation.

Climate was investigated as to the extent of its relationships with each of the leadership factors and also as to its power to differentiate between organizational units.

Communication factors included the use of communication principles and verbal output of a selected sample of writing. Verbal output included number of sentences, mean sentence length, mean word length in syllables, and number of different words in each sample.

Administrative effectiveness involved responses from teachers assessing the principal's decision-making behavior, communication behavior, general administrative behavior, and instructional leadership. These factors were related to the climate measure.

Change motivation operated as an indication of propensity to avoid or select words indicative or contraindicative of change. This measure was related to the climate factors.

Hypotheses to be Tested

The general hypothesis for this study was: administrators in climates which tended to be open differed significantly from administrators in climates which tended to be closed on measures of communication, effectiveness, and change motivation as factors of leadership. Each of the leadership factors was tested by a separate group of hypotheses stated as follows:

Hypotheses Related to Communication Factors

1. Significant differences will obtain between principals in open related climates and principals in closed related climates on measures of the use of communication principles.
2. Significant differences will obtain between principals in open related climates and principals in closed related climates on number of sentences used in a sample of writing.
3. Significant differences will obtain between principals in different climates on a measure of mean sentence length derived from a sample of writing.
4. Significant differences will obtain between principals in different climates on number of words over three syllables in length from a sample of writing.
5. Significant differences will obtain between principals in different climates on number of different words used in a sample of writing.

6. Significant differences will obtain between principals in different climates on a measure of readability of a sample of writing.

7. Significant differences will obtain between principals in different climates on teacher rated measures of communication skills.

Hypotheses Related to Effectiveness

8. Significant differences will obtain between principals in different climates on teacher rated measures of administrative decision-making.

9. Significant differences will obtain between principals in different climates on teacher rated measures of general administrative behavior.

10. Significant differences will obtain between principals in different climates on teacher rated measures of instructional leadership.

11. Significant differences will obtain between principals in different climates on teacher rated measures of total administrative effectiveness.

Hypothesis Related to Change Motivation

12. Significant differences will obtain between principals in different climates on measures of change motivation.

Importance of the Study

This study investigated the underlying proposition that the climate of the organization reflects a measure of the effectiveness of the administrator, to see if the climate instruments could be applied to organizations to assess administrative effectiveness. Comparing climate measures with measures of other leadership factors would give credit or discredit to this proposition. If the proposition held, climate measures would point out direction to those who wished to improve organizations. Top administrators needed to know which subordinate organizations are working as units toward designated goals (a factor indicated by the climate measure), and they needed to know the perceptions of the organization held by its members. This additive research on climate clearly augmented the theory of administration.

Much research still needs to be done in the area of leadership; finding out what it is, finding out who possesses leadership ability, and finding out how it is exercised. Hemphill (1949) agreed that questions of who should lead and how individuals may be prepared for effective leadership posed problems of primary concern for education in a modern democracy. The present research made some contribution toward analysis of leadership factors by utilizing previous research findings in communication, effectiveness, and motivation, and applying them in this study.

Concentration on communication factors helped refine methods of identifying influentials in organizations, for by means of communication the organizational activities were initiated and perpetuated. Roethlisberger (1953) has said that although man is determined by the complex relationships of which he is a part, nevertheless he is also in

some small part a determiner of these relationships. A great public need remains in all fields for identifying present and potential leaders, people skilled in influencing others. If the "traits" approach cannot meet this need, then other criteria should be identified to make meaningful the difference in leaders at work in organizations. This study's emphasis helped to review some differential criteria and methods for the selection and assignment of persons for positions of leadership.

Whole areas of new ideas in education need to be developed, explored, and stimulated. This will necessitate administrators who are motivated toward change and progress. Bellows and associates (1962) believed that training must place special emphasis on motivation as a necessary and crucial factor in the performance formula. There was a definite need to know if there were a difference between the motivation of administrators in relation to their effectiveness in a particular situation. Chief school administrators, for example, need to know which of their subordinates would be best suited for placement in a new school since new schools are being continuously created. If changes are to be effected, then interpersonal factors should be altered first. (Argyris, 1962) Change bound organizations need to know if change motivation is one of the crucial interpersonal factors. It has been said that changes, if they are to be lasting, need to begin at the top. (Argyris, 1962) There is a need to know if the "top" is amenable to change if it comes now.

Above all, there is an ever present need to observe the administrative position in organizations. Changes should be recognized when they appear. Requirements for certain positions are always evolving from one year to the next. Stogdill (1948) has reported that it is not especially difficult to find persons who are leaders, but that it is quite

another matter to place these persons in different situations where they will be able to function as leaders. This study directed attention to the kind of administrative leader who would function more effectively in a particular situation. For the health and welfare of organizations, even after this study, there remained the need to study the needs, the quantity, and the quality of present administrative personnel and situations to point out errors for correction, omissions for insertion, spaces for occupation, avenues for direction, and orbits for gyration.

Assumptions to be Considered

The interpretation of subjective data such as herein reported requires that certain assumptions be considered. The appropriate assumptions for interpreting results of this study were as follows:

1. Although assured of anonymity, some individuals are inclined toward protecting themselves and their school from possibly unfavorable comment which they would feel might appear in an analysis of the data. Respondents were assumed to be professional and secure enough that such inclination would not affect the veracity of the data.
2. Data were assumed to be reported accurately and to reflect the respondent's true perceptions concerning the subject matter of the items.
3. All respondents were assumed to be knowledgeable about the interrelationships present in their school.

4. Instruments used were assumed, on the basis of previous research or study, to be applicable, valid, and reliable for this study.

Limitations of the Study

The study was limited to some extent by the nature of the instruments and techniques used and by the factors which they measured. Other factors which might influence climate were not selected for inclusion in this study.

The investigation was limited to one metropolitan school district's elementary schools. Inferences from the results should be tempered by consideration of this limitation.

Only school administrators, school secretaries, and teachers participated in describing the prevailing relationships. Such limitation prohibited the possible contribution of students, parents, other school personnel, and other community citizens to the interpretation of relationships in the school.

These limitations were not deemed detrimental to the purposes, procedures, and results of the study.

Definitions of Consequence

The following definitions were applicable to this study:

1. Administration - The performance of functions of an organizational leadership position.
2. Climate - The kind and quality of inter-personal relationships manifest in an organization.

3. Communication - The symbolic expression of thought or emotion to others through speech or writing.
4. Effectiveness - Perception of production of the desired result.
5. Leadership - An interaction structured on a multiple of variables in which a member relationship influences the responses of other members of a defined or developing group.
6. Motivation - That conscious or subconscious attitude, need, or desire which tends to influence behavior in ways which satisfy.
7. Organization - The structured arrangement of functions of members of a group or an institution.

Organization of the Inquiry

The conduct of the study and procedures used were as follows:

1. Initially and continuously the literature dealing with the many facets of the study was reviewed.
2. Instruments were selected to measure climate, communication, and effectiveness variables. Techniques were chosen to measure the communication variables. An instrument was developed to measure change motivation.
3. A sample of schools was selected with attendant principals, secretaries, and teachers who were administered instruments.
4. Questionnaire instruments were delivered to principals, teachers, and secretaries and returned.
5. The data collected were arranged, processed, and treated statistically.

A fuller explanation of each of the preceding steps, the results of the above action, the interpretation of the data, the drawing of conclusions, and the recommendations for further research follow in succeeding chapters.

CHAPTER II

REVIEW OF RELATED RESEARCH

Similar Studies

An extensive review of related research revealed no studies of which this could have been called a replication. A few studies, however, used related designs or were built upon similar ideas.

Many studies of school administrators' personality factors in their relationship to the facilitation of interpersonal and intragroup relations were founded on a similar idea that the school administrator is a significant factor in the establishment of relationships within his school. These studies tried to synthesize previous findings, many of which were in conflict, and resulted in conflicting findings themselves. But all the efforts led to new approaches for studying administrative behavior in organizations.

Jenkins and Blackman (1956) conducted a study with a group of elementary principals in Akron, Ohio, along similar lines. They used interviews and standard tests including sentence completion, a case analysis test, a sentiments inventory, and other personality inventories. They found younger principals more effective than older principals in working with teachers but no differences in effectiveness between sexes. Recency of graduate study, too, produced no significant differences. Their study did, however, support the hypothesis of a relationship between the administrator's personality and administrative practice, and

between communication patterns in the school and the atmosphere the principal was likely to establish.

A more behavioristic approach was that by Sharpe (1955). His study investigated how administrative behavior, as seen by teachers, the administrators themselves, and the superintendent's staff, deviated from role-norms held by these same individuals and how these deviations were related to evaluation of leadership and teacher morale. Instruments measuring morale, perceived behavior, and concepts of role-norms were administered to 243 teachers and thirteen principals in elementary schools in a city system and to twelve other staff members. The different groups possessed virtually the same conception of the ideal principal: highly communicative, closely identified with the group led, moderately open in his attitude toward change, and non dominant. Actual principals, however, were rated according to the differences among observers. Observers tended to be more conscious of weaknesses than strengths. Staff members saw principals deviating most from the ideal norms. Teachers perceived the principals deviating less than did the principals themselves. Significant correlations obtained between evaluations of the principals' over-all leadership and the degree of perceived conformation to ideal norms of high communication, low separation, open attitude toward change, low domination, high prestige, and strong influence in the community. High correlations, too, were found between morale and the same perceived conformation to the ideal norms.

An investigation into several relationships of administrators and staff in elementary schools was also reported by Leibson (1961). He observed relationships among principals' working patterns, idealized role, and staff satisfaction; among idealized role, staff satisfaction

and actual role perception; and between perceived source of professional changes and staff satisfaction. Using the Leader Behavior Description Questionnaire, Redefer's Morale Tendency Score and Farrar's Device to assess the relationships, he arrived at several conclusions. A dependent relationship appeared between the working pattern of the principal and satisfaction of the staff. Relationships were found between actual and ideal perceptions of principals' roles based upon the Leader Behavior Description Questionnaire factor of "consideration". Differences in perceived sources of goal-directed behavior were apparently related to staff satisfaction. Administrators in low satisfaction schools were low in "consideration" and either low in "initiating structure" in interaction or extremely high.

Use was made of the Leader Behavior Description Questionnaire and the Organizational Climate Description Questionnaire by Cook (1965). He studied 303 teachers in twenty elementary schools and concluded that: (1) leader behavior differed from situation to situation, (2) leader behavior on the part of the elementary principal had a definite effect in determining the organizational climate of his school, (3) size of staff and age of teachers may have some relationships to the organizational climate, and (4) the open and closed climates might just as well be determined by an analysis of scores on the Leader Behavior Description Questionnaire.

Continuing the line of studies investigating the leader behavior characteristics of elementary school principals as related to organizational climate, Wiggins (1969) reported different findings. In 35 schools among 715 teachers and principals, he found little support for the existance of a significant relationship between the leader behavior

characteristics and organizational climate. He used different instruments than the others reported, however, which may account for the variance. Organizational climate was interpreted by means of the Fundamental Interpersonal Relationship Orientation - Behavior by Schutz, the Orientation Inventory by Buss, and the Survey of Interpersonal Values by Gordon. He did find, though, stability in the organizational climate as perceived by teachers even when principals were replaced.

Divergent findings of these similar studies called for a continuing effort to determine if individual behavior dimensions play important roles in organizational orientation.

Administrative Effectiveness

In education the study of individual behavior dimensions in relationship to organizations has been conducted more under the terms administration and leadership than any other. Whatever the terminology, these studies strove to discover elements of effectiveness, effectiveness of the individual administrator in working with his subordinates and the organization or effectiveness of the organization in achieving its goals.

In keeping an eye on the head of the organization and identifying him as the leader, numerous studies including and in addition to those reported by Stogdill (1948) found that leaders possessed distinctive characteristics. These studies corroborated in finding that leaders were superior in intelligence, scholarship, vitality, self-confidence, social adaptability, athletic ability, good appearance, decisiveness, dependability, initiative, persistence, adventurousness, self-control, wide interests, good humor, absence of physical defects, and height. The point Stogdill (1948) made, however, was that such studies did not

find that the possession of any of these characteristics, in whatever combination, made a leader of the possessor. His report, nonetheless, only deterred studies of personal characteristics slightly.

Rather, following the trend of more recent leadership studies, researchers sensed a connection among characteristics, behavior, and the situation. Jennings (1944) analyzed leadership behavior in a New York study and found that a leader fitted into a particular dynamic group situation in such a way as to satisfy the needs of the members more than any other member. Meyer (1951), in a study of 200 supervisors of office workers and manual workers, found that a test to measure knowledge of leadership skills was unsuccessful, but found a significant correlation between quality leadership and a test designed to measure social attitudes. This finding indicated that leadership training should concentrate on changing attitudes rather than attempting to change performance by teaching leadership skills, a change in characteristics instead of behavior, but designed ultimately for more effective behavioral changes.

Zeleny (1939), Stogdill (1948), Libo (1953), and Brim (1954) indicate that self-esteem, esteem by others, and self-confidence affected the actions of others and the groups to which they belonged. Part of the change in performance of a group was produced by a change in status relationships Bass and Wurster (1953) found. They discovered increased correlation from .88 to .99 between rankings of executives and their successful leadership attempts as the group work became more related to their job activities. Mann (1957) found that intelligence correlated positively in 88 percent of the 28 studies he received on leadership, but found that on other personal factors not so easily tested correlations varied considerably depending upon whether peers were rating the

leader or whether observers were doing so with inferences about status.

Other studies relating personality to effectiveness were interesting. Olson (1967) found that the most effective principals were more congruent with their environment in terms of personality needs than the least effective leaders. In Harrell's (1966) study statistically significant relationships were found between sociometric rankings of 269 Master of Business administration students plus 65 business executives on participation, discussion guidance, best ideas, popularity, and other leadership and the participants' personality, interest, and attitude factors. Studying community leaders Gerhart (1966) found that personal characteristics influenced the style selected by the participant as the ideal posture for a community leader to adopt. Croft (1965) indicated that being more open-minded enables principals to estimate and display leadership behavior more accurately. But Klubeck and Bass (1954) pointed out that if persons could not exhibit much successful leadership in required situations then basic changes in personality were needed such as might be brought about by extensive psychotherapy. Such statement verifies the belief that personality factors are important in leadership and that they are subject to change just as the group involved is subject to change.

White (1965) compared 60 researchers and 60 deans with the general adult male population norms on the Sixteen Personality Factor Questionnaire. He found that the researchers and administrators differed significantly from the normal population on eleven factors, giving more credence to personality characteristics as a facet of effectiveness. Many studies, however, have taken a different choice of characteristics and found different results. Scott (1957) developed and tested an

attitude scale about the requirements of the principalship and tested it on 228 subjects. He found no significant relationship for sex, age, length of teaching experience, and number of positions held in the past ten years with effectiveness, but he did find significant that the most effective principals had more administrative experience and the least effective had more work experience outside education. Some other significant findings related to the principal's school.

All interest in personality and leader characteristics would have no bearing on effectiveness if Stogdill's (1948) findings were not challengable. But research revealed a related study by Feldman (1937) which indicated that leaders with certain characteristics (although unidentifiable in detailed terms) did carry over effectiveness from situation to situation. He described a study of 22 supervisors of above-average sections of insurance clerks who were exchanged with supervisors of below-average sections. The productivity of the sections changed to more nearly match the previous combinations of rankings of the supervisor's sections. Upon another chance shift the same phenomenon occurred. Feldman's (1937) study indicated that many differences in effectiveness produced by leaders were associated more with the leader than with the group he led. Stogdill (1951) himself indicated later that transferred executives exhibited some effective behaviors in the new situations which were characteristics of themselves rather than their new positions. But he left the admonition that to adequately analyze leadership involved not only a study of leaders but also of their situations. (Stogdill, 1948)

Studying the relationship of group characteristics to effectiveness, Worthy (1950) and Marriot (1951) found that effectiveness, defined as interaction (employee satisfaction) and task (operating efficiency)

effectiveness by Worthy (1950), tended to decrease as group size increased. Seashore (1954) surveyed 5,871 workers in factory groups of five to 50, and found that groups which were more cohesive in attraction to their group tended to be smaller. Smallness was accompanied by more effective work standards. Part of the findings may be related to inferences made by Gibb (1951) that a greater amount of leadership occurred when members had more interest in the group and its activity. This interest made smaller, more cohesive groups have more opportunities for attempted leadership. Hemphill and Pepinsky (1956); Bass, Klubeck, and Wurster (1953); Lippitt, Polansky, and Rosen (1952); and Back (1951) verified that successful leadership related to attempted leadership, opportunity for such attempts, and expectation of success.

Bass (1954, 1955) did considerable work with leaderless groups and found that attempted leadership correlated well with rated success as a leader. He even found that time spent talking correlated at .65 to .96 with rated success in 1954. Reilly (1968) found that task-oriented leaders talked significantly more to group participants, while Howard (1970) found that situational factors such as size, chain of command, and division of labor inhibit the atmosphere of organizations more than training and experience of the potential leader.

Halpin (1955) pointed out a need for multiple criteria approaches to studying leadership effectiveness and indicated that some findings rested on the leader's description of his own behavior which had little relationship to others' views of his behavior. Halpin (1956) decried the lack of objective measures of the "effectiveness" of leaders. In working to fill the gap in this neglected area of research, he modified the Leader Behavior Description Questionnaire from a previous study of

aircraft commanders.(Halpin, 1956) Knoell, French, and Stice (1953) had previously found that air crew commanders' effectiveness ratings correlated .83 with the effectiveness of the crews. Halpin (1956) compared 64 superintendents with 132 aircraft commanders and found significant differences in leadership behavior and leadership ideology. The commander initiated structure better while superintendents rated higher on consideration.

Other studies used the Leader Behavior Description Questionnaire in educational settings and have produced findings related to effectiveness of administrators. Jacobs (1965) found that the most significant factor in encouraging curricular change was the behavior that the principal employed in his relationship with the other staff members. Purrington (1968) concluded, in a study of two New York school systems, that administrator competencies were related to the effective functioning of the school system. This was found despite the fact that the questionnaires were given to teachers who, as Stotts (1968) also found, generally have higher expectations and lower perception of the role of the principal than he portrays in actual behavior. The categories of initiating structure and consideration from the Leader Behavior Description Questionnaire have greater relationship to the actual behavior and efficiency than the other categories according to some studies. Cunningham (1964) and Carter (1967) studied county extension agents to determine if initiating structure and consideration were sufficiently related to performance to allow their use as predictors of success. They found agents above the median on these categories to be more effective.

Gross and Herriott (1966) developed an executive professional leadership instrument which indicated that high scores on the instrument by

principals were indicative of more support from their supervisors, more sharing of decision-making with teachers, more service oriented behavior, and greater interpersonal skills. They found justifications for factors of high academic performance in college, high interpersonal skill, motive of service, willingness to spend off-duty time, and little seniority as a teacher being related to executive professional leadership, but none for teaching experience, assistant or vice-principal experience, number of courses in education or administration, sex of principal, or marital status. Although the authors found in their study of 175 elementary schools in cities of 50,000 or more population that correlation existed between the leadership of the principal and his supervisor, Doll (1969) found in a study of inner-city elementary school problems in education that successful principals tended to act independently of beureaucratic directives, while the unsuccessful principals were more rigid and hierarchy oriented. Rigidity was a factor in the study by Bailey (1959) who discovered that secondary school principals high in effectiveness (as measured by the Leader Behavior Description Questionnaire) displayed a moderate degree of personality rigidity. A parallel study by Harmes (1959) among elementary school principals found no significant relationships among any of the factors of personality rigidity, patterns of operation, and leadership effectiveness.

There seemed to be a definite need once some of the characteristics contributing to effectiveness were identified to see if any of them or some combination carried over from one situation to the next. Terman (1904) reported an early study verifying the consistency of leadership behavior among pupils occuring in subsequent problems they faced. Levi (1930) found a time span relationship. Between leadership activity in

elementary school and high school for the same students he found a correlation of .19, but between junior high and high school leadership there was a .52 correlation. (Levi, 1930) Three years later Clem and Dodge (1933) found a difference in leadership carry-over. They found high school leaders subsequently more successful and active in professional fields and a randomly selected group of comparable students exhibiting more community activity leadership after graduation from high school. From a different field, the military, Page (1935) reported a correlation of .67 between freshmen year and senior year rankings of cadets at West Point. Sterling and Rosenthal (1950), however, found by changing group activities that different leaders emerged and that the same leaders reemerged when the same phase of activity returned. Bass (1954) reconfirmed this finding in his survey of differences between leadership performance in test situations and real-life situations. Arbous and Maree (1951) found a correlation of .67 between the leadership of administrative candidates when appointed as discussion leaders and the leadership they displayed successfully in leaderless discussion groups. Lanzetta (1953) placed stress on the situation and found a correlation of .51 between the tendency of the same persons to emerge as leaders under more stressful conditions.

Investigating the effect that training could have on the organizational behavior effectiveness of the manager, Harrison and Oshry (1967) found no significant changes in behavior following training and only small correlations between the training behavior and the organizational behavior. They concluded that the determinants of organizational behavior seemed to be situational, and that there were strong barriers which may have existed between the organization and the training

laboratory to hinder the transfer of attitudes. Thomas (1970) found no such barrier. His study trained principals in interpersonal relations and found that this training produced positive changes in the administrator's behavior and in the social and emotional climate of his school.

Other hints at the possibility of training leaders for later effectiveness roles in organizations caused the initiation of studies to determine if prediction of success could be made on the basis of selected factors. Parsons (1964), working with the perceptual theory in the field of psychology, hypothesized that an understanding of an individual's self-concept would give insight into his perceptual field and could provide a consequent prediction of his behavior. The study investigated the areas of: (1) perceptual accuracy, (2) behavior, (3) attitude, (4) speech, and (5) details and organization. Ten principals were rated using the Leader Behavior Description Questionnaire and compared on the above factors. The areas of perceptual accuracy, behavior, attitudes, and details and organization confirmed that administrators' behavior could be predicted from knowledge of the self-concept which was measured by Bill's Index of Adjustment Values.[1] (Parsons, 1963) St. Clair (1962) investigated the possibility of predictors estimating the on-the-job behaviors of a group of elementary school principals. Predictors were furnished with: (1) aptitude test scores, (2) personality inventory scores, (3) an attitude toward education score, (4) sociometric measures, (5) professional promise ratings, (6) daily diaries of subjects completed in a summer session, and (7) complete biographical data for each principal. The predictors individually produced ratings which were compared with results of behavior assessed with the Leader Behavior Description Questionnaire, the Principal Behavior Check List, and an Interview-

Observation Guide. St. Clair (1962) concluded that a human predictor, using the kind of information provided above could predict with significant accuracy, which would be increased with personal acquaintance, certain global dimensions of administrative behavior and certain specific behaviors and practices the predictee would exhibit on the job.

An extremely large study was conducted by Morphet and Schutz (1966) to establish procedures for identifying persons with potential for public school administrative positions. The study involved 5,847 board members, administrators, and parents from over 90 school districts in California and followed a pilot study involving four districts and 1,327 persons. Citing and reportedly building upon theories from the classifiable types of administrative performance studies, data were collected on personalities of administrators and sociological situations. The data were comparable to that obtained in studies of: (1) character traits, (2) group factors, (3) role expectation, and (4) organizational models, but, according to the investigators, the one thing that had not been done but was accomplished in this study was that all of the major factors were taken into account at one time, in one study, and all of the information was obtained from the same people. These data were related to Schutz's (1958) Firo theory of inclusion, control, and affection dimensions. They found that the over-all rating engendered in the study correlated with all but the technical knowledge dimension. The over-all rating ocrrelated highly with the characteristic of interpersonal competence. Organizational traits of principals and personal traits correlated at .91. Their conclusions were that it was possible to predict administrative performance from individual variables controlled for different district types and that technical knowledge training in law,

finance, organization, and buildings which indicated no relationship to administrative success might well be replaced with experiences in human relations, scientific method, organization and community theory, selection, and placement. (Morphet and Schutz, 1966)

Another gigantic study by Griffiths, Hemphill, et. al., (1961) investigated some selected dimensions of administrative performance in an effort to build a training program for administrators based upon simulated situations. Their study compared 120 variables to 15 factors after having extensively compared the 120 variables with each other in a variety of ways. The factor receiving the most loading of variables was "General Ability to Reason and Understand". Highest values were attributed to factors which loaded under the category "Superiors' Over-all Impression". A general conclusion was that effective performance of the principal in a strictly administrative role depended more on his general ability to reason and understand problems than his experience, but that the principal who interacts freely and in a pleasant manner with his teachers, who shows interest and concern in their problems, and who refrains from taking an independent analytical attitude toward administration is regarded favorably by them.

In a study of leadership behavior of school superintendents, Halpin (1956) found that the effective leader had a clear relationship between himself and the group members; had established a clear organizational pattern with channels of communication and ways of getting things done; but, still had behavioral patterns that were friendly, respectful, and warm. He concluded that leadership is a complex social phenomenon not capable of meaningful treatment when viewed as an isolated trait or entity apart from related situational factors.

As seen by this review, studies have ranged from specific items to global generalities, from simple to complex, from theory to practice all around and back again with many valuable ideas thrown in with every step and with many good administrators having been trained, employed, and then retired along the way. School administration still has the hope that if Dale Carnegie (1937) can with just a slight change of behavior cause people to win innumerable friends and be able to influence all kinds of people; if Charles Atlas can make a new man in just 15 minutes a day; if Napoleon Hill (1966) can make financial wizards almost overnight; and if Norman Vincent Peale (1952) can change the world with positive thinking - then educators ought to be able to simplify the task of producing effective administrators. Even a small clue to effectiveness would help. Therefore, the hypothesis of this study concerning effectiveness of the administrator in relation to his school's climate was proposed, and because of the variance reported in the literature the "no difference" mode was chosen.

Organizational Climate

Emphasis on the situation in the study of leadership has caused a return to look at the results of studies dealing with groups, group behavior, and eventually organizational theories as they explained the dimensions of behavior in a society replete with organizations. Findings from earlier works left the impression that there was such a thing as an organizational characteristic different from the characteristics of the individual members which might lend itself to description.

Cattell and Wispe (1948) in several studies found that much of the variance among small groups could be traced to the differences in selected

personality factors present among members. Haythorn (1953) found that the personality of individual members, not only the leader, affected the effectiveness of the group. He found cooperative and insightful members contributing to making groups more effective. But he also found that group effects existed in addition to the characteristics of individual members. Comrey (1953) investigated a skill, dexterity on the Purdue Pegboard, and found that only slightly more than half of the variance of 65 paris working on the pegboard could be accounted for by the differences in individual dexterity.

Some researchers have found that part of this group effect may come from the social attractiveness of the group. Among tractor factory employees and insurance employees Kahn and Katz (1953) found that higher productivity related to a feeling of belongingness among employees. Nagle (1954) found high correlations between productivity and the liking workers had for their supervisor and their company in 14 employee groups. Katz, MacCoby, and Morse (1950) noticed in insurance departments that productivity was higher where employees had more personal interest taken in them by their supervisor. Halpin and Winer (1952) found that almost half the variance in described leader behavior came from perceptions by air crewman of a factor they described as consideration. The considerate leader treated his crew favorably. Studying infantry squads, Goodacre (1953) indicated that squad effectiveness related to pride the squad members had in their squad, and that the 13 better performing squads agreed more with the leader, and were more satisfied with their status.

Other factors seemed to affect group attractiveness and production. Maller (1931) found that individuals would vary in attraction to the

same group in relation to factors in the personal history of the individual. For example, he studied the factor of family size and found that if the individual were faced with the problem of working toward a group goal or a personal prize, the group goal would be more attractive to the individual if his family were larger, up to four or five children. As his family increased above six the tendency was toward the individual prize. Studying production in two companies, Marriot (1951) found that employees in the company with less production were six years older on the average, traveled further to work, were less well trained, and were likely to be more inclined toward distrust of management. In school studies Rose (1968) found that schools and school personnel of the same general tupes vary on organizational behavior and personal values in definite relation to past and present environmental conditions; that the childhood of a principal produces some environmental effects upon his adult values; and that basic value systems of teachers and principals help them choose and locate in school communities related to those values.

Some studies such as Berkowitz and Levin (1950) have helped establish a generalization relating task effectiveness to effective interaction whether it stemmed from attractiveness of the group, personalities involved, or the individual characteristics. They found in 31 conferences that "low quality" ratings on problem solutions were more often achieved in groups "bogged down" in group process than in groups with higher rated interaction activity.

Allen and Levine (1968) endeavored to identify group related characteristics by attempting to break group consensus. They used objective and subjective stimuli to elicit exact agreement with a subject or to

provide dissent to the group response. The results indicated that conformity could be broken, but only with consideration given to the type of stimuli used and in relation to characteristics of the group members. Studying other structure of the group, Paloli (1967) identified role strains of uncertainty, disparity, and incompatibility. He hypothesized that role uncertainty and disparity would be more frequent in relatively unstructured organizations and role incompatibility would appear more often in highly structured organizations. These hypotheses were supported. Other findings reported were that role incompatibility was more highly related to an emphasis on work rules than any other feature, and that emphasis on stratification into formal administrative levels and type of supervision differences were keys to the role strain identification. (Paloli, 1967)

Productivity was found related to another dimension of interaction effectiveness identified as morale. Katz and Hyman (1947) measured production in a shipyard and found it highly related to morale.

Sweitzer (1963) and Franks (1963) combined in producing definitive studies of morale in the educational setting. Franks (1963) treated 63 hypotheses related to teacher morale and age, sex, social values, personality needs, teaching experiences, teaching level, professional preparation, principals' experiences and morale, role-expectation and role perceptions. Teacher morale was found related to age, age difference from principal, teaching experience with present principals, teacher's degree of closed-mindedness, similarity to principal's closed-mindedness, similarity to principal's general social values, expressed affection, perception of morale level of colleagues, and four areas of differences between teachers' and principals' role-behavior expectations

and perceptions. This study verified that the principal had an extremely important role to play in the development and maintenance of high staff morale. (Franks, 1963) Related to Franks' (1963) results, Rose (1968) found that congruence in values between principals and their teachers was not related to organizational behavior styles or other variables studied. Hodgkinson's (1970) study supported the proposition that the organization influences the individual's value system through interaction. Sweitzer (1963) found that a large majority of teachers and principals felt that the conditions in their school were rather favorable. He found morale higher in elementary schools than secondary. Principals, on the other hand, had higher morale at the secondary level. He did find, however, that in describing their "own morale" that both teachers and principals displayed inaccurate perception. (Sweitzer, 1963) Others have missed on hypothesizing perceptional areas, too. Croft (1964) studied open and closed-mindedness in relation to the principal's estimation of his superintendent's perception of the principal's leader behavior and his estimation of the teachers' perception of consideration. The open-minded principal was supposed to exhibit behaviors leading to higher morale through consideration. The findings were in the opposite direction. Closed-minded principals were more accurate although not significantly so.

Bentley and Rempel (1968) in a two-year, two-state study used the Purdue Teacher Opinionnaire as a measure of morale and attempted to determine if feedback to teachers and principals about their schools' problems and tensions could change morale. It did not.

Earthman (1964) in a summary of research at Colorado State College for a five year period points out findings, some of which conflicted

with the established theory in morale and group dynamics. He found (1) the principal's orientation toward the institution's goals was not a significant factor in producing high morale; (2) the principal's leadership which was oriented toward joint decision-making did not necessarily produce high morale; (3) improved teacher attitudes toward the principal were produced by close conformity of the principal to role preferences of the teachers; (4) individual efforts produced more alternatives than consensus group processes; (5) individual efforts produced more solutions to problems than group processes; and (6) increased group size and structure of the group both could contribute to inhibiting creative thinking.

Leibson (1962) contributed to the morale studies by doing a study using the Leader Behavior Description Questionnaire to assess principal characteristics of consideration and initiating structure in interaction; Farrar's Device to determine principal's work patterns (actual and ideal); Redefer's Morale Tendency Score to determine staff satisfaction level; and interviews for determining perceived source of goal directed behavior. He found significant relationships between (1) high satisfaction and the congruence between ideal and actual principals' role, (2) low satisfaction and divergence of ideal-actual role congruence. Other findings point out that it did make a difference which pattern the principal followed: (1) satisfaction of the staff depended upon the principal's working pattern, (2) consideration played a part in the variation on role perception, (3) high satisfaction schools saw goal directed behavior from central office, principal, and staff - low satisfaction schools saw only central office goal directed behavior, (4) low satisfaction schools had administrators low in consideration and either

low or extremely high in intiating structure in interaction, and (5) principals varied actual working pattern, but the teachers' perception of the principal's ideal role did not.

Searching for a resolution of the morale studies' discrepant findings led Halpin and Croft (1962) to study the "feel" or "atmosphere" of the elementary school. They designated this organizational "personality" of the school as the "climate," a term they undoubtedly adopted from Chris Argyris (1958). In that study (Halpin and Croft, 1962) of 71 elementary schools from six different regions of the nation, they discovered that effectiveness in the elementary school organization was essentially determined by the principal's ability, or lack of ability, to create a climate suitable for the initiation and consummation of acts of leadership. They developed the initial instruments on 1,151 respondents and identified four characteristics of groups - disengagement, hindrance, esprit, and intimacy - and four behaviors of the leader - aloofness, production emphasis, thrust, and consideration - from the list of 64 items. From their examination of the results they identified six different types of organizational climates ranging from Open through Autonomous, Controlled, Familiar, Paternal, to Closed. Although they thoroughly analyzed and standardized the instrument, the Organizational Climate Description Questionnaire, they still held that the terminology remained heuristic. Such an assertion left the way open for many subsequent validity studies.

Coker (1962) studied the relationships among Form III of the Organizational Climate Description Questionnaire, two forms of the Tennessee Rating Guide, and a third factor, the school's ranking on overall morale. The study used data from ten elementary schools, 203 teachers and

principals, and four system-wide supervisors of instruction. The four supervisors were used as a jury to rank the ten participating schools in terms of purported staff morale. Both the Guide and the Climate instrument were reliable at the .01 level of confidence. When checked against the "staff morale" ranking, however, a divergence appeared. The Guide had significant correlation of .01 level of confidence, while the Organizational Climate Description Questionnaire did not significantly correlate with the morale rank by the four supervisors. Item validity analysis, however, identified 22 items on the Climate instrument significantly related to the morale ranking at the .002 level. Mean score correlations between both forms of the Guide and the Climate instrument were significant at the .01 level. This indicated that both instruments were assessing somewhat the same behaviors of the organizations, but for the Organizational Climate Description Questionnaire it was not only "morale" which was being assessed.

Andrews (1965) reported several Canadian studies based upon 165 Alberta schools with more than five teachers. One of these had the teachers rate their school on teacher satisfaction, school effectiveness, and principal effectiveness. Distributions were not found significantly different from the sample used in developing the Organizational Climate Description Questionnaire. Another reported sub-study (Andrews, 1965) stratified 60 schools by climate from the original 165 and administered the Leader Behavior Description Questionnaire. Most of the relationships were as expected, however, "Superior Orientation" and "Hindrance" were negatively related and there was a lack of relationship between the subtests of both instruments labeled "consideration". This was explained in that the Leader Behavior instrument focuses on non-author-

itarianism while the Organizational Climate instrument describes consideration in terms of principal's personal assistance to teachers. Another sub-study (Andrews, 1965) related personality of the principal as a function of the Myers-Briggs Type Indicator to the Organizational Climate Description Questionnaire scores. This sub-study assumed order from open to closed and found no relationship between the principal's personality type and the climate, but Wiggins (1968) did find a significant relationship between the principal's interpersonal orientation and school climate. The Organizational Climate Description Questionnaire subtests, however, were found in Andrews (1965) to be significantly related to the eleven personality types. Teacher satisfaction was strongly related (correlation of .61) to the climate and even stronger (.68) to "Esprit". Principal effectiveness also correlated at .58 with climate, but school achievement was not significantly related to climate. Andrews (1965) reports that in other studies of achievement prediction the Organizational Climate Description Questionnaire was good but not quite the equal of the Leader Behavior Description Questionnaire in predicting school achievement. Andrews (1965) concluded that the subtests were better measures of important aspects of the school principal's leadership than the overall climate score from his viewpoint and definition.

Another study, reported by Owen and Steinhoff (1969), investigated relationships between the Organizational Climate Description Questionnaire and the Stein-Steinhoff Organizational Climate Index, another instrument designed to identify the characteristics which distinguish one organization from another, and to identify the factors that influence the behavior of members of the organization. Product-moment correlations identified significant relationships between the constructs of both instruments.

Koplyay and Mathis (1967) reinvestigated morale as an aspect of climate. They used the Chandler-Mathis Attitude Inventory, which measured morale in terms of school, community, administration, policy, and self. These scores were then related to selected factors, among which was type of salary schedule. Results indicated that an "open" climate was associated with high morale regardless of type of salary schedule, and that higher morale in "closed" climate schools was related to merit, rather than nonmerit, salary schedules.

"Closed" climates also prevailed in low income schools, Gentry and Kenny (1967) found. They also studied school location and size. Rural schools were more often perceived as having "closed" climates than urban, and suburban schools. Richens (1967) found no relationship between climate, and either urban or suburban location. Although no statistically significant relationship with size was found by Gentry and Kenney (1967), the findings did reveal that as school size increased the climate moved toward the "closed" end of the continuum. McLeod (1969) and Flagg (1964) found this evidence also.

Several studies have compared more innovative schools with less innovative schools. In relation to size and other factors, Marcum (1968) found that the most innovative of 30 schools in five Western States had larger professional staffs and had open climates. Johnson and Marcum (1969) continued to study this phenomena and verified that innovative schools had open climates and that teachers and administrators both perceived the relationship between open and closed climates and innovative and less innovative schools. Bickert (1968) cited differences between innovative and non-innovative schools as having been determined mostly by leadership for improvement of instruction, quality of instruction,

scope of educational programs, faculty-board roles in academic affairs, board-administration roles in policy making, communication adequacy, over-all intellectual climate and stimulation, stimulus to experimentation and innovation by individual teachers, and opportunities for faculty advancement.

Heller (1964) studied group perception of the existing organizational climate and concluded the perception of informal groups regarding the existing organizational climate contained no more similarity or variance than that of the total membership in the formal organization, but Tanner (1966) found that teachers tended to rate elementary school as more open, junior high school as familiar, and senior high school as more closed. Using the Organizational Climate Index, Steinhoff and Owens (1967) found differences in perception of climate among 21 more effective schools in New York City. With these differences, however, they concluded that school reorganization and increased staff may not be effective ways to raise achievement levels, rather that fundamentally different psychological and environmental conditions may be necessary first.

In a study of administrative controls and effective working relationships using the Organizational Climate Description Questionnaire and the McLeod Control Structure Description Questionnaire, Otto and Veldman (1966) could only conclude that principals and teachers do not use a common frame of reference for viewing their relationships and that they view decision-making and school climate from dissimilar vantage points. This may be the reason for much inconsistency in findings related to organizational leadership and climate. Such findings leave open areas for continued study of the "climate" and its organizational leadership relationships.

Communication

Related studies in communication were sought and categorized in two ways. One way was reserved for studies dealing with principles of communication: perceptions, networks, and views of communication as a totality. The other cited studies related to more objective measures of communication: speech, written expression, words, sentences, and readability measures.

In regard to the subject matter at hand, positive relationships were found between leadership and verbal capability by Terman (1904), Mallay (1936), and Burks (1938). Thurstone (1944) added to these studies and related verbal aptitude to administrative salaries. Thurstone found that administrators with relatively higher salaries had higher linguistic aptitude scores than lower salaried administrators but did not surpass them in word fluency. Taylor (1967) in a study of the Air Force communication effectiveness, concluded that communication abilities were high-level skills needed in many important activities, and that they consisted of a large number of variables.

Reaching beyond the communication leader and his style, or rather, extending the leadership style, Shaw (1955) studied the resulting communication nets and found that the "concon" net added to the effectiveness and the variation in leader communication. Shaw (1955) found that the net reduced the time involved for each problem, increased the number of messages, resulted in fewer errors, and made communication more satisfying. These kinds of studies investigated myriads of aspects of the communication net: internal and external messages; formal and informal contexts; the media and channels used; and "who sends what messages to whom" types

of investigations. In a late study of this nature, Smith (1966), observed and analyzed the internal communications of a research center. Smith (1966) found that bureaucracies and hierarchies tended to inhibit free flowing communication but, at the same time, provided protection for communicants and prevented some types of jamming activities in the network. A major division of communication was found to somewhat ignor some rank, function, and status formally set up in the organization and to function in relation to two operational or characteristic behavioral orientations - whether the communicator emphasized organization in his dealings or if he preferred to emphasize research affairs. Thus the leader became either an organization man or a research man with most communications occurring among people sharing the same orientation and very little across to the other orientation.

Thelen (1954) found, though, that members of groups change more because of interaction rather than isolation, that most of the problem-solving in groups occurs as a result of acts of communication, and that individual actions are usually reactions, interactions, or cooperative actions of two or more persons. Pennington and others (1957) investigated whether change would be brought about more through interaction than through individual activity. They found that the use of group discussion and group decision-making brought about greater change in agreement among group members than either discussion or decision-making alone. Recognition for the role of the individual in communication, however, has been given in some studies. As an uncomplicated example, Wegrocki (1934) found that more intelligent children were influenced to change less through propaganda than less intelligent ones.

Miller and Roberts (1965) studied another factor of the individual, his open or closed minded attitude, to see if this had an effect on message retention. They found, in checking the dogmatism of the communicatee, that open or closed-mindedness affected attitudes toward the message content more than did race of the communicator, but race had more effect on message retention than closed or open-mindedness.

Attitudes regarding communication effectiveness were assessed by Greenham (1964) using a seventeen item communication scale. In this study of 66 teachers in five departments of secondary schools, he found that the personal characteristics of the communicator and the communicatee affected interpersonal communication but that the variables were more complicated than the seventeen item instrument could fathom. Other relevant findings Greenham (1964) reported were that staff attitudes about the school, the administration, and policies did not directly affect the school's informal and formal communication processes and that sub-group's perception of the school leader as an effective communicator allows him to play a more important role in the informal communication structure. This more important informal communication role was deemed to increase the leadership possibilities for the administrator, but only if he could maintain his formal obligation to the system since efforts to initiate action for change, at least in this study (Greenham, 1964), were usually communicated formally in the established channels. Greenham (1964) concluded that communication should be viewed as the central activity in the administration of complex systems such as schools.

Carson and Schultz (1964) investigated perceptions and expectations of leadership behavior among deans of junior colleges. Using the Leader Behavior Description Questionnaire to assess the perception and expecta-

tions, they found that both students and department heads expected more leadership from the deans than they perceived in practice and cited the need for greater communication between their positions as the factor which could reduce the discrepancy.

Much early study was done on principles of communication for school administrators in the Michigan communication studies. (Roe, Hauh, and McIntyre, 1954) Another extensive study was conducted at Ohio State University in the Center for Education Administration. (Knower and Wagner, 1959) Under the chairmanship of Professor Franklin H. Knower, the Interdepartmental Committee on Research in Communication developed an "Administrator's Self Evaluation Inventory of Communication Principles" among the many instruments it used. This instrument has received extensive use in studies of administrative communication and skills. An adaptation of this original instrument was used by Dugan (1967) in a study of the relationship between communication behavior of elementary school principals and the organizational climate of their schools. In this study of 48 principals and 1,368 teachers, he found significant relationships between communication behavior and climate. Among the identified relationships was the finding that teachers in open climates tended to rate their principals as more satisfactory communicators.

Harkin (1968) also related communication and organizational climate. His study also found significant relationships between communication behavior and organizational climate perceptions, but found no relationships for personal factors.

One failing in the available studies of principles of communication as related to administration of schools was that the instruments were

mostly self-reporting, subjective-statement types of questionnaires. Long needed in studies of administrative communication as it applies to leadership were instruments or means of objectively measuring communication messages, skills, or procedures.

Although linguists, semanticists, verbal behaviorists, and other students of language realize the value of the communications media and skills in its use, few studies in educational leadership have explored these basic skill areas. Green (1950), for instance, cited studies supporting the position that successful leaders have relatively higher verbal aptitude. He found a .30 correlation between vocabulary, as a simple measure of verbal aptitude, and leadership in conferences. Bass (1951) found a correlation of .25 for sales and management trainee applicants between linguistic test scores and success in initially leaderless discussions. Carroll (1968) reported several investigations into dimensions of individual differences in school students concerning speaking, writing, and other verbal areas of ability. These in turn were related to personality characteristics, background and experience factors, and effectiveness of different teaching methods on improving skills in written compositions and verbal ability tests. Significant relationships were lacking between the personality measures and measures of spoken or written expressions. Speaking abilities were found to be very complex with factoral variance dependent partially on the methods used to measure or observe the performance. Certain teaching methods were found to produce significant improvements in verbal skills. Jenkins and Blackman (1956) studied elementary principals in Akron, Ohio, with interviews, standardized tests, sentence completions, case analysis tests, sentiments inventories, and other personality tests. They

obtained support for a hypothesized relationship between the principal's personality and his administrative practice, including a definite relationship between the communication patterns in the school and the "atmosphere" the principal was likely to establish.

One of the ideas presented to achieve more objectivity in communication assessment was that of determining differences in ability as expressed in speaking or writing which called for analysis of these two practices. Feider (1969) reported a study of 800 spoken sentences and 280 written sentences of six graduate students. In analyzing the differences in syntactic structure, the utterances were described in terms of a transformational generative grammar. A source grammar was built to encompass all structures found in the written expressions and also included the spoken expressions which could be explained by the same rules. Left over were 50 rules needed to explain structures which were peculiar to spoken English which had no written correspondent. Bavery (1968) checked differences between oral and written language of fifth-grade students. He had a panel of judges rate oral and written responses, to a series of slides, expressed by 124 students. The students were found to have written more words than were spoken and that the written responses were of a higher quality, as rated by judges; that word selection in speech and writing vary greatly; that no significant correlation existed between frequency of use of words; that longer words with more syllables were used in writing as opposed to speaking; and that written and spoken vocabularies do not necessarily overlap.

The communication leader has been cited as the most important element of organizational change and effectiveness. Slater (1955) indicated that this effect may be the result of gross amount of talking

more than any other factor. Slater found a .88 correlation between quantity of talk and receipts of communications from others. Talking correlated at .80 with valuable ideas and .75 with guidance evidenced. Bass (1951) found a correlation of .65 between time spent talking and leader success ratings of sales and management trainees. Bass and others (1958) later used amount of time spent talking as an operational definition of attempted leadership in initially leaderless discussions. Horsfall and Arensberg (1949), however, in studying a different kind of situation, shoe factory production groups, found that those who did the most talking were not the same groups which produced the most.

Other recent studies of school children's communications reveal other dimensions of importance. Beaird and others (1966) used an interpersonal communication behavior analysis instrument and discovered that a child's ability to communicate was not limited to speech, although the school curriculum concentrated more on speech than any other area of communication. Smith (1969) conducted a study with 69 children from kindergarten through grade three. He used objects and pictures of objects to elicit a verbal response to assess the influence of dyadic communication patterns, peer group discussion, and role-playing on level of abstraction and length and complexity of sentence structure in the children's speech. The evidence collected verified that dimensions of the communication situation interacted significantly with the child's speech response. Sandel (1967) found that different ways of teaching orthography resulted in differences in quantity of writing, in used vocabulary, and in number of thought units. This supported the possibility of differences which could be brought about through instruction which could possibly be hypothesized as capable of being transferred to

acts of leadership in other situations.

Assessment of writing has almost become a separate science because of the amount of work done in the area and its interest. Because written words usually exceed spoken words in quantity and variety, written materials lend themselves more to objective observation of communication skills. Historically the attempts to assess written communication have usually resulted in some kind of formula for measuring the readability of the written materials. Lively and Pressey (1923) may have started the science with their attempts to measure the difficulty levels of materials. They calculated the number of different words per 1,000 words, and counted the number of words not on an accepted list. Washburne and Vogel (1926) were possibly first to use grade level in reference to the resulting calculation of number of different words, prepositions not on an accepted list, and number of simple sentences. Johnson (1930) hypothesized that polysyllables were more difficult than monosyllables. His inquiry was the forerunner of a group of studies adding to the many factors used in measuring readability. Dale and Tyler (1934) studied reading difficulty as experienced by adults and concluded that the three factors of different technical words, different hard nontechnical words, and number of indeterminate clauses obtained just as high a correlation as ten other factors. Ojeman (1934) found that reading difficulty for adults was more differentiated by vocabulary, sentence structure, and number of prepositional phrases. Dale and Chall (1948) continued in the tradition set by Ojeman. Their formula has been validated on the adult level, but had a weakness in that it was based upon an accepted word list. Flesh (1948) used the four factors of average sentence length, average word length, average percent of personal

words, and average percent of personal sentences to evolve a formula with possibly more wide-spread use than any other in the readability field. Others have substituted various factor and calculated words, sentences, and relationships in a variety of ways to develop many different formulas, which studies Martin (1962) reviewed and summarized, concluding that the most widely-used formulas relied on difficulty scores using mostly two factors: word count of difficult or unfamiliar words and average sentence length. Other factors added to these did not appear to Martin (1962) to add enough predictive power or cut enough from measurement error to pay for their inclusion. Johnson (1944) reported studies of a variety of ways to measure differences in language behavior with one study reporting the same results for written materials and for spoken materials in general. Moses (1959), however, found that the method used (writing or speaking) produced significant differences in word diversification.

Miller (1961) seemed to have done the most extensive job in relating the readability types of measures to the administrator's behavior. She used the in-basket responses from a nationwide sample of principals in the Dimensions of Administrative Performance study by Griffiths, et.al. (1961). Her (Miller, 1961) problem in analyzing the principal's written compositions was threefold: (1) describing their language abilities in terms of several quantitative measures; (2) identifying significant relationships between those measures; and (3) identifying existing significant relationships between those measures and selected biographical items and between those measures and principals' scores on some administrative effectiveness measures. Objective written language measures used in her study were: (1) seven analyses of gross

errors such as spelling, capitalization, and grammar; (2) total number of sentences; (3) mean sentence length; (4) number of sentence faults; (5) an index of vocabulary level; (6) a ratio of number of different words to the total number of words in the written sample; (7) a ratio of dependent predicates to the total number of predicates in the composition sample; and (8) percentage of sentence types such as simple, compound, complex, or compound-complex. Miller's (1961) sample consisted of 129 principals' compositions from large city systems, 88 from small cities, and 15 from rural settings. In another way there were 38 from Northeastern states, 104 from the South, 30 from North Central states, and 60 from the West. Miller (1961) compared men with women principals and found some differences even though she labored under the lack of variability within the group. In her men and women comparisons: (1) men made more errors than women at the .05 probability level; (2) women were better spellers and better at capitalization; (3) there were no significant differences on punctuation, number of sentences, mean sentence length, number of sentence faults, vocabulary level, and ratio of different words to total words; (4) more subordinate clauses were used by women at the .01 level; (5) men used more simple sentences at the .05 level; (6) women used more complex sentences at the .05 level; and (7) women used more words than men. The study did not find support for academic preparation as a factor for increased writing skill. Using factors of consideration and initiating structure from scores made by the principals on a principal behavior description questionnaire, she found no significance for consideration in relation to any of the language indices. Initiating structure produced significantcant differences between men and women principals. High scores on

initiating structure for men were not related to correctness of expression, linquistic precision, vocabulary level, and kind of sentence structure but were related to gross writing errors. Women scoring high on initiating structure made fewer gross errors and had higher vocabulary levels but used more simple sentences and had fewer subordinating qualifications in their writing. No significant differences were obtained for most of the language indices and age, education of parents, and academic preparation, and no single language index related to all the others in any expected way. Relationships were found, however, between the language indices and the in-basket measures of administrative performance. Again, the language indices were good predictors of high in-basket performance scores, more so for men than women.

As indicated previously and as Miller (1961) herself admitted, the lack of significant findings may have reflected the homogeneity of the sample. Using a different sample may produce different findings. Efforts to find significant measures of quantitative linguistic expression which relates to administrative behaviors and results were considered worthy of continued pursuit. Such an effort was assayed in this study.

Motivation

A first problem encountered in the literature on motivation was that of definition of the concept. The generalized definition accepted by behavioral scientists seemed to mean those physical and social conditions which initiate, direct, and perpetuate goal-seeking behavior. (Wispe, 1965) Although most psychologists and other scientists working in the area agreed with the term "goal-seeking behavior" as being relevant, there was much variance in the acceptance of the other delimiting terms, "initiate", "direct", and "perpetuate".

Part of the difficulty may have stemmed from samples chosen by psychologists in order to gain greater control over the experimental data. Most of these samples were rats, pigs, chimpanzees, and other less than human animals. These early definitive experiments contributed rigorous meaningful behavioral theories, but they also arbitrarily determined the traditional classification of the motivational processes which classifications have been difficult to change even after later contradictory findings have appeared.

Most of the traditional experiments assumed or tested some basic bodily "need", and all behaviors, drives, drive reduction, avoidance, and other motivational activities referred back to those needs either directly or indirectly. Nissen (1954), however, has suggested from his findings a biogenic drive for external stimulation, a concept seemingly encompassed in a postulate of a biologically directed need to know or understand the world around the organism. Festinger (1954), Woodworth (1958), and Hebb (1955) reported findings which supported the idea of cognitive and perceptual factors in the human search for stimulation not necessarily related to basic needs as traditionally identified.

Although traditionally "drive" based upon a necessity for need reduction in the basic areas has been considered the energizer of motivational activities, Leeper's (1951) work with monkeys threw a new term, "expectation" into the process. He found his subjects striving to change the situation, or at least resist, until the situation conformed with an expectation. Such findings occurred when experimenters branched outside the primary needs area into such concepts as achievement, power, change, and affiliation. Hebb (1958) defined a mediational process to take care of such concepts as "expectation" by classifying them as intervening functions between the stimulus and the resultant behavior. His findings helped to define motivations in terms of sets of mediational processes which could control the direction and activation level of behaviors.

An assumption of this study related to the more recent findings in that identifiable motives or mediational processes existed and had for individuals reached some level of stability or perpetuational status and were not following the traditional pattern of need expression, drive, reduction, reinforcement, and avoidance but were capable of being somewhat self sustaining on a continuous schedule.

In speaking of a subject related to the motive of change investigated herein, creativity, Madi (1965) indicated that none of the traditional theories quite explained the approach to creativity which seemed to be needed. Madi (1965) cited other studies in which positive correlations were found between creativity related items such as unusualness of response; interest; need and preference for novelty; likes; dislikes; novelty of productions; sensitivity to experience; experimenting tendency; liking for travel and new experiences; imaginative, aesthetic minds; more well informed people; less inclined to moralize; need for

change; impulsivity, and high level of activation. The concept did not correlate with socially desirable responding, dogmatism, productivity, need for achievement, affiliation, power, or social class.

Some of these uncorrelated concepts, however, have been the very ones found to be most indicative of successful administrative behaviors. Berkowitz and Levy (1956), French (1956), and Gardner (1948) found more successful executives displaying higher task motivation, pride in the group, and higher need for achievement.

Other studies looked at the individual and his behavior. Rupe (1951) found motivation more than ability high among executives who complemented, thanked, and rewarded subordinates. The personal values of educational administrators were studied by Sjorgren (1969). They sampled 210 administrators and found little or no relationship between value orientation classifications of administrators and their personal characteristics but did find that school administrators had ethical-moralistic personal value orientations more so than pragmatic orientations which was opposite to findings among managers.

Stromberg (1966) found value orientation related variably to leadership behavior of the principal. He studied eighteen secondary and twelve elementary schools for a total of 30 principals and 972 teachers. Fifteen principals were rated as traditional oriented and fifteen as emergent on the basis of their scores on the Differential Values Inventory. Their teachers responded to the Leader Behavior Description Questionnaire and the "Esprit" questions from the Organizational Climate Description Questi[redacted] He found: (1) emergent principals higher in initiating structure at the .01 level, (2) emergent principals higher in consideration at the .05 level, (3) esprit not related to similarity of value

orientation between teacher and principal, (4) the leader's behavior more strongly oriented to value structure than variables of school organizational level, size, rural or urban community type, or principal's age, (5) value orientation not related to age, sex, school organization level, or amount of education of principal, (6) high correlation between the teachers' esprit and the ratings they gave on the Leader Behavior Description Questionnaire, and (7) esprit was not related to age or value orientation of the principal, school organizational level, size, or community type.

The effect of kinds of feedback in relation to the individual's conceptual structure has some effect on motivation, Stuempfig and Maehr (1970) found. High school students with abstract conceptual orientation and concrete conceptual structure were given both personal and impersonal feedback on a performance task. Abstract students showed no difference in motivation, but concrete students had increased motivation after personal feedback.

Feedback to administrators and its relation to their commitment to change was studied by Jones (1969). She hypothesized that 206 elementary principals fed back: (1) the teachers' ratings of their principals' actual behavior and their rating of an ideal principal, (2) the teachers' ratings of the ideal principal only, (3) their ratings of the principal's actual behavior only, or (4) no feedback, would be motivated differently dependent upon the commitment-to-change group to which they were assigned. The principals were either not asked to commit themselves to change or had been asked to commit themselves to change by displaying either task-assistance behaviors or personal-support behaviors. No significant differences were found but ideal or ideal and actual feedback tended to

support positive change. Actual feedback and direct request to gain commitment to change tended to inhibit change in the desired direction.

Superintendents' willingness to accept innovation or change was investigated by Johnson (1967). He used Cattell's Sixteen Personality Factor Questionnaire and an innovation scale on 164 superintendents from 13 states who had been identifed as innovators. He reported a difference between personality characteristics of high and low innovators and significant correlations between personality factors of superintendents and their willingness to accept and implement change. The high change oriented superintendents' personalities were more outgoing, assertive, venturesome, imaginative, experimenting, and relaxed.

Semrow (1965) also used the Sixteen Personality Factor Questionnaire in a study of school superintendents in Wisconsin. The superintendents were ranked on effectiveness and scores made on a self-role conflict instrument. Superintendents from the top and bottom of the ranking with a random selection in between were used in the study. They were given the Sixteen Personality Factor Questionnaire, and Administrative Assessment Index, a sentence completion test, a personal history questionnaire, and interviews. Findings revealed that superintendents high in effectiveness had higher mean scores than those low in effectiveness in the areas of: Activity Drive (at the .05 level), Achievement Drive (at the .02 level), and Social Ability (at the .05 level).

Among managers, though, Costello (1963) found that attitudes toward a planned merger were most favorable among the least successful managers. But Chapin (1935) had already found that leaders surpassed non-leaders in adaptability. This seems to infer that if the change

were to affect the leader's status it would be resisted but if it came the leader would be able to cope with it better than the non-leader or less successful administrators.

A study by Belasco (1967) found that individuals most likely to change after a training experience had, in descending order, high tolerance of ambiguity, high self-esteem, high authoritarianism, high intelligence, female sex, younger age, and less experience. The best predictor of change, however, he found to be role expectations. If the individual expected to change or knew that he was expected by others to change, this expectation served as a mediational process to motivate him to change.

Helsel (1968) used the Organizational Climate Description Questionnaire in relating teachers' expectations of change to the school's climate. He found no significant relationship between the openness of the climate and the teachers' expectations of successful change, but did find relationships between such expectation and several of the subtests indicating the possibility of a linking role for the principal. Ricker (1968) did, however, find a significant relationship between secondary school faculty readiness to change and openness of the organizational climate of the school. Too, he found that year of teaching experience, age, degree held, amount of continuing education, and communication behaviors in the school all were positively related to openness of climate.

For motivation then, particularly as applied to the administrator's orientation or value structure or personality characteristics related to change, a variety of findings have been reported. The findings have neither overwhelmingly denied nor supported an assumption of the pos-

session by the administrator of a change motive, drive, or mediation process leaving such assumption still amenable to testing by hypothesis.

Thus the literature was investigated in the areas of administrative effectiveness, organizational climate, communication, and motivation and the research stage prepared for the conduct of this study.

CHAPTER III

PROCEDURES

To test the hypotheses of this study necessitated the selection of an appropriate sample of the administrative population; the identification, choice and development of instruments by use of which the necessary information could be obtained; the administration of certain data collection procedures; and the selection of statistical treatments for the data. Such are the concerns of this chapter.

Population Sample

Since the instrument against which most comparisons in the study would be made had only been validated at the elementary level, and since a greater number and variety of comparisons and descriptions were possible at the elementary level, the decision was made to use elementary schools for the sample. Other considerations of feasibility, control, and economics resulted in the participating schools, and their subordinate populations, being drawn from a large urban school system.

Permission was obtained from the superintendent and the director of elementary education for the system. Then the voluntary participation of principals and teachers was elicited. Eighty-seven principals and one thousand, three hundred and twenty-eight teachers and other professional persons in the schools were asked to participate.

The schools ranged in size from a large 35-teacher school to a small 4-teacher situation and in characteristics as varied as rural-urban, slum-elite neighborhood, middle-high-low income, old-new buildings, and black-white-integrated racially. All except three of the schools conducted kindergarten through grade six classes. In all, the characteristics appeared to provide a suitable cross section of typical elementary schools in a district of this complexity.

From the 87 schools, returns were obtained from 86 principals and 1,188 teachers, a satisfactory percentage of return. One principal changed positions during the data collection period so his school was eliminated. Forty-one percent, or 36 schools responded 100%. The schools had a mean number of 15.24 teachers.

Instruments Administered

Instruments used consisted of: (1) the Organizational Climate Description Questionnaire, (2) a Communications Inventory, (3) a School Functions Questionnaire, (4) a Written Communication Questionnaire, and (5) an Adjective Checklist. Each of the instruments were given to different respondents or treated differently because of subordinate parts.

Organizational Climate Description Questionnaire (OCDQ)

The OCDQ, Form IV, was used to assess the organizational climate of each of the schools. Halpin and Croft (1962) developed the questionnaire using 71 schools from six different regions of the United States with a total of 1,151 respondents. There were 64 items in the instrument which were assigned to eight subtests. Subtests were divided into two groups. One group dealt with questions pertaining to

the characteristics of the teachers as a group, while the other dealt with the behavior of the leader. Group characteristic subtests were identified as: (1) Disengagement, (2) Hindrance, (3) Esprit, and (4) Itimacy. The principal's behavior was described in terms of: (1) Aloofness, (2) Production Emphasis, (3) Thrust, and (4) Consideration.

Further factor analysis and examination of the scores during the development of the instrument led the authors to an indentification of meaningful profile types for different schools. These profile types allowed the classification of schools into three different degrees of openness and three different degrees of closedness. These different degrees were named: (1) Open, (2) Autonomous, (3) Controlled, (4) Familiar, (5) Paternal, and (6) Closed.

Validity studies were conducted on the OCDQ as described in the Review of Related Research. Several authors, Andrews (1965), Roseveare (1966), McFadden (1966), and Pritchard (1966), reported inconclusive or questionable results when comparing the climates to other measures purported to express ratings of the interpersonal atmosphere of the school. Watkins (1968) questioned the concept of a continuum from open to closed in the OCDQ climates and concluded that the middle classifications were apparently weak. A resolution of all these questions had already been made by Halpin and Croft (1962) who indicated that they had created the climate categories for heuristic purposes, to see if these classifications could help add to the knowledge of schools. They also called the climates inductively derived prototypes and not exemplars.

Because of the inconclusiveness of the reported findings concerning the specific validity of the named climate classifications, the decision was made to use the categories of open and closed not as specific

descriptors but as generalized locations near the end of a continuum. This treatment was deemed not to violate the purposes of the instrument's creators nor to claim, for the interest of those who criticized the nomenclature, an infallible classification for any school in the study.

Communications Inventory

An interest in discovering if non-professional subordinates of the school principal viewed the communication practices differently from his professional subordinates resulted in a search for a generalized school communications instrument. Two instruments which had had extensive research application were found.

Knower and Wagner (1959) at the Center for Educational Administration had worked with communication activities of school administrators and developed the Administrators' Self Evaluation Inventory of Communication Principles. This instrument seemed to treat of the kinds of things of which some non-professional subordinates would be aware, therefore, the same principles were used in designing an instrument to be given to school secretaries in this study. Because of the differences in the instrument and possible differences between secretaries' responses and the responses made by persons on whom the Knower-Wagner instrument was developed no citation has been made to reliability or validity coefficients. The other study on communication principles, however, was used in comparison to see if differences were present on this variable. This other study is described as a sub-section of the effectiveness measures.

School Functions Questionnaire

For lack of a better term, and to save having to answer questions about the title of the instrument this questionnaire was labeled simply "School Functions". In actuality the instrument was a consolidation of the administrative effectiveness measures identified by Schutz and others (1961). They identified their instruments as the PAI-JOB scales, meaning "Perception of Administrative Interaction with Job." Five sub-scales were used in the PAI-JOB instrument: (1) Decision-Making, (2) Communication, (3) Administration, (4) Instructional Leadership, and (5) Sum.

The "Decision-Making" scale addresses itself to the problem solving ability of the administrator. It purports to assess the context in which problems are readily perceived, objectively and critically considered, and resolved with an eye to possible unique solutions.

"Communication" checks the status of communication facilitation among staff, parents, and students so that they are free to express feelings and opinions; to make suggestions; and to exchange information, facts, and ideas. This is a more generalized face-to-face concept of communication but less comprehensive than the Communication Inventory covered in the preceding section.

"Administration" as measured by PAI-JOB relates to the general administrative skill of the principal. Thus the instrument asks questions to assess the presence of adequate systems and policies governing teacher supervision, guidance and discipline of students, maintenance of school, and availability of supplies.

"Instructional Leadership" refers to the efforts made to improve the quality of the educational program in that there is encouragement and stimulation of teachers; to whether or not help is given readily

when needed; and to whether teaching materials are easily available.

The "Sum" is, of course, a reference to the total ability on administrative tasks. The score is derived from totaling the scores on each of the other four scales.

The PAI-JOB scales each have a reproducibility coefficient of .90 or above. The instruments were developed in four California communities and had school board members, community leaders, and parents among the over 1,300 respondents which also included a full range of professional and non-professional staff. In this study the questions were answered by teaching staff.

Written Communication Questionnaire

Contrary to all of the preceding instruments the Written Communication Questionnaire was entirely objective. The measures were derived through quantitative techniques applied to written expressions made by principals. Self-perceptions, perceptions by others, context knowledge, or attitudes played no significant part in the measures since only the mode of expression and not the content was assessed.

The instrument for obtaining the written response of the principals consisted of three questions:

(1) What can elementary schools do to keep pupils from becoming disinterested in school?

(2) What do you envision as the elementary administrator's role in keeping pupils interested in school?

(3) Of teachers that you have known, what have some of them done to motivate students?

Each question was allowed approximately one-half of an $8\frac{1}{2}$ x 11 page of paper for response, and many of the principals exceeded this. The responses were divided into series of 100 word samples and the following

techniques applied:

(1) Mean number of sentences per 100 word sample.

(2) Mean sentence length.

(3) Number of long words.

(4) Gunning Fog Index.

(5) Type Token Ratio.

Mean number of sentences per 100 words was derived by count. Idea communicating fragments were counted as sentences.

Mean sentence length also was simple to calculate. Since the samples were already counted for totals of 100 words and sentences numbered, each sample count of 100 was simply divided by the number of sentences identified therein. For each person, his ratios were summed and divided by the number of 100 word samples to arrive at his mean sentence length.

Number of long words were those in the sample (or the mean of samples) which had three syllables or more. Proper names were not counted and neither were combinations of simple words such as butterfly or bookkeeper. Three syllable words made by adding verb forms such as "ed" in "created" or plurals such as "es" were not counted.

Each of these measures has been correlated with maturity, age, education, or leadership in some form, as was reported in Chapter II.

The fourth measure of written expression was the Gunning Fog Index. Gunning (1952) developed this technique as a simple means of measuring readability. Although possibly not as discrete at lower age levels as others mentioned in the Review of Related Studies, the Fog Index does allow for grade level interpretation into adulthood farther than other scales and does not depend upon a word list for its interpretation. It

is derived by adding the mean sentence length for 100 words and the number of words of three syllables or more per 100 words and multiplying by .4. Each of the principals' written samples were treated for a Fog Index.

A Type Token Ratio was also calculated for each principals' writing sample. This technique translated into a ratio the number of different words (types) to number of total words (tokens). Since the sample was already based upon 100, the procedure for measurement was simply to count the number of different words for each sample and compute a mean for multiple samples.

The most difficulty in getting full response occurred with the writing samples. But, then, only nine principals failed to return a questionnaire or write enough to be counted. This 89% return on the writing questionnaire was not considered small enough to jeopardize the final results.

Adjective Checklist

Measurement of attitudes or motivation toward change posed the most difficult problem. At the beginning of the search, the closest measure seemed to be a sub-scale of the Edwards Personal Preference Schedule developed by Allen L. Edwards, University of Washington. The scale purported to measure a need or motive labeled as "change". Change in this sense meant to do new and different things, to meet new people, to travel, and to take up new fads and fashions. Edwards (1953) particularly planned and constructed the instrument to overcome the natural tendency for respondents to choose the socially desirable answer. His norms were based on 9,000 adults and 1,500 college students from 29 institutions.

Before the present study, the Schedule was applied to an Oklahoma college's classes and the results discussed by those taking the scale. The response was less than desirable. Respondents felt that the forced choice items were forcing them to choose between socially unacceptable answers on some items, neither of which answers were acceptable to the respondent. Other discussion points were concerned with some inhibiting factors of the occupation of the teacher: meeting new people after the first day of class; sublimating the desire to travel for a nine or ten month period; or taking up new fads and fashions in a profession which had traditionally resisted such. The desirable direction seemed to be toward a deeper motive toward change rather than the apparently limited expression of the Edwards instrument.

Further study indicated that some authors had been having success with adjective checklists. (Heilbrun, 1959) Most of these, however, did not avoid the choosing of the socially acceptable answer as well as Edwards (1953). The lists were exhausting, and did not arrive at a score which could be called an indication of change motivation. The decision was made, then, to develop an adjective checklist with only socially acceptable adjectives in it and only adjectives which could be constructively related to the concept of change motivation.

Extensive lists of adjectives were identified as related to the construct by meaning, and these were given to a group of college students and a group of practicing educational professionals. Instructions were given to them to identify those adjectives which were complimentary or otherwise socially acceptable. From this list, pairs of adjectives were chosen which appeared to be on opposite sides of the same continuum.

Of the 42 adjectives finally selected, half were identifed as change motivation items and half were identified as stability motivation items. The selected adjectives were then rearranged alphabetically and made into a one-page Adjective Checklist.

Although the instrument was designed to measure a somewhat different motivational area than that measured by the Edwards Personal Preference Schedule, an inference was drawn hypothesizing some correlational relationship because of the similarity of the psychological constructs and the inherent difficulty of measuring psychological conceptualizations. Therefore, a small correlational study was conducted.

Sixty-seven subjects were chosen. Twenty were from random encounters, seventeen from a college class, and thirty from an in-service seminar. Forty-nine were males and eighteen females. In the total there were single responses for a college instructor, a high school student, and a military person; two responses each for housewives, secretaries, and central office administrators; five graduate student respondents; six principals; twelve counselors; sixteen elementary teachers; and nineteen secondary or special teachers.

Using a standard correlational formula:

$$r = \frac{N\Sigma XY - \Sigma X \cdot \Sigma Y}{\sqrt{[N\Sigma X^2 - (\Sigma X)^2]\,[N\Sigma Y^2 - (\Sigma Y)^2]}}$$

scores from the "change" subtests and the Adjective Checklist made by respondents were compared.

Using numbers of change indicative words chosen compared to number of change oriented statements resulted in a correlation of +.22, while treating the scores as a ratio, the change indicators chosen as a proportion of the total selections made, resulted in a correlation of +.14. In addition to the differences previously mentioned, there may

have been significant differences in the way the two instruments elicited responses and in the limitation imposed or freedom allowed in expressing deep seated attitudes. These differences may have been enough to lower the correlation. Nonetheless, the correlations found were sufficient to show the kind of relation expected.

As a concluding gesture the two sets of scores were treated with the t test. Neither scoring method produced enough difference to reject the "no difference" hypothesis at the .05 level or below.

The brief correlational study did support the Adjective Checklist as an indicator of at least slight quality in measuring the concept of change motivation, so it, too, was employed in the study on the assumption that change motivation on the part of the principal should be investigated for its possible effects on the climate of the principal's school.

Procedures of Collection

Under the authority of a letter from the director of elementary education, the questionnaires were personally delivered to and picked up from the elementary schools in the study.

The Organizational Climate Description Questionnaire and the School Functions Questionnaire were organized into a self-instructing format. Sufficient copies were given to the secretary to be delivered to each teacher with instructions to return them to the secretary. The principal was instructed to encourage the teachers to fill out the questionnaires but to tell the teachers that they were to give them to the secretary and that he would not be viewing any of them. Questionnaires were not left in the schools more than three days of which teachers

were only supposed to have used one day in answering the items.

At the same distribution, each secretary was given a Communication Inventory and asked to respond to the questions on it. Many of the school secretaries were nonplused by having an important questionnaire given to them, and some needed a little help on questionnaire answering techniques. Such help was given them at the time of delivery of the questionnaires. They were also cautioned about keeping responses anonymous and free from ratee interaction.

The principal, at this first distribution, was also asked to complete the Adjective Checklist. Cooperation in distributing and collecting the questionnaires was excellent on the part of all respondents.

Later the Written Communication Questionnaire was sent to the principals by school mail. They were asked to fill it out and return it in the next mail run. Needless to say, a follow-up inquiry had to be sent to raise the level of response. Eventually, though, 77 responses were forthcoming.

Complexity of scoring required that the Organizational Climate Description Questionnaire be scored by machine. Cards were punched by the school system personnel and given to a representative of the International Business Machines Company. This representative took the cards and the scoring program which had been previously furnished by Mr. Don B. Croft and found a machine capable of processing it. The results were shortly returned.

The other instruments were scored by hand using the services of several helpers.

Statistical Methods Used

Variety of data collected in the study created a problem for choosing the proper statistical method. Most of the measures had no known norms to compare against. Sampling procedures, too, could not guarantee that the scores were from a normal population. These factors called for a nonparametric statistical test, one that could deal with countables as well as measurables. Peatman (1963) described the Median Test by Chi-Square as a "distribution free" nonparametric test which did not assume a normally distributed population. It was also described as being very useful for measurable data from such suspect populations. The test orders the measurables into either one of two categories - above or below the combined sample results median. The null hypothesis of equal medians is tested. The formula related to the four fold or 2 x 2 contingency table was:

$$X^2 = \frac{N\,(BC - AD)^2}{(A+C)\,(B+D)\,(A+B)\,(C+D)}$$

Although possibly not as strong as other nonparametric tests, the Median Test by Chi-Square is at least one of the most versatile of the distribution free techniques for hypothesis testing. Basically it tests for independence among independent, related, or matched samples.

In this study only the "open" and "closed" scores of the Organizational Climate Description Questionnaire were used for hypothesis testing, primarily because the "open-closed" concept or continuum was the only desired climate description from the OCDQ, and, because of other limitations, these two scores would provide sufficient work and were deemed to provide sufficient testing of the hypotheses. The "more open" climates became those scores that were above the median (lower scores

on the OCDQ) or at the end of the "open" classification. The "more closed" scores were those below the median (higher scores on the OCDQ) or at the extreme "closed" end of the continuum.

For one treatment of the data, that of comparing the "more open" schools with the "more closed" schools, the definition of "more" was those ten scores nearest the climate profile cut-off score. This procedure reduced the total number of cases to twenty. Since any two cells in a 2 x 2 table would be likely to fall under ten in observed frequency then this negated prediction of results on the basis of Chi-Square even with Yates' Correction for Continuity. Therefore, a more exact test was necessitated. This was found in Fisher's Exact Probability Test. (Siegel, 1956)

Each of the other instrument's scores for all treatments was classified also as being above or below the median. Scores from each instrument were compared with like classifications of scores on the "open" or "closed" climate instrument by use of the Median Test by Chi-Square. Acceptable significance level was set at the .05 level in accordance with standard practice in educational, social, and psychological research. Thus the null hypotheses were tested in the study and the results reported in the following chapter.

CHAPTER IV

RESULTS OF THE STUDY

Statistical Treatment

The distribution-free nonparametric Median Test by Chi-Square was applied to test each of the twelve hypotheses of the study. Two possible ways of classifying a school unit on each of the climate measures allowed for testing sub-hypotheses for each measure.

The basic hypothesis was tested by dividing all scores made on the open climate into "Above the Median" or "Below the Median" categories and charting the data on the variable being compared into "High" and "Low" classifications corresponding to the "Above the Median" and "Below the Median" division. This was done for both "Open" and "Closed" climates.

To further investigate the possible relationships and since no school could be classified as "Open" or "Closed" from the scores obtained, another arrangement for treatment was determined. Each of the ten schools nearest the "Open" climate designation score was compared on other items of variability with each of the ten schools nearest the "Closed" climate designation score. In effect this comparison was made with the "highest" open and "highest" closed score, although "highest" in each of the climate profile areas is marked as the numerically lowest score. This comparison was made using the Fisher Exact Test (Siegel, 1956) for 2 x 2 bivariate distributions. The probabilities were calcu-

lated for any arrangement of cell frequencies for a given set of marginal frequencies by the following formula:

$$P = \frac{(A + B)\,!\,(C + D)\,!\,(A + C)\,!\,(B + D)\,!}{N\,!\,A\,!\,B\,!\,C\,!\,D\,!}$$

Using Siegel's (1956) interpretation each third sub-hypothesis of the following series was tested for exact probability. These three arrangements of the hypotheses:

(1) Median differences for all tested variables within the Open Related Climate,

(2) Median differences for all tested variables within the Closed Related Climate, and

(3) Median differences for all tested variables within More Open Related Climate scores and More Closed Related Climate scores

then, were used to explore the null hypotheses. The statistical tests used were designed and applied as one-tailed tests. Results were deemed significant if they met or exceeded the .05 level of significance.

Results of Calculations

Hypotheses Related to Communication

$H_o1.1$. Significant differences will not obtain between principals in open related climates falling above the median and below the median on measures of the use of communication principles.

As revealed in Table I the use of communication principles by principals in more open climates was significantly different from the less open as seen by the school secretary. The data rejected the null hypothesis at the .05 level. Principals scoring above the median were perceived as higher in communicative behavior.

TABLE I

USE OF COMMUNICATION PRINCIPLES BY PRINCIPALS
IN OPEN RELATED CLIMATES

Climate (Mdn = 55)	Communication Principles: High (Mdn = 281)	Low	Total
Above Median	27	16	43
Below Median	15	27	42
Total	42	43	N = 85
			$X^2 = 6.232$*

* Significant at the .05 level

H_o1.2. Significant differences will not obtain between principals in closed related climates falling above the median and below the median on measures of the use of communication principles.

TABLE II

USE OF COMMUNICATION PRINCIPLES BY PRINCIPALS
IN CLOSED RELATED CLIMATES

Climate (Mdn = 92.06)	Communication Principles: High (Mdn = 281)	Low	Total
Above Median	15	27	42
Below Median	27	16	43
Total	42	43	N = 85
			$X^2 = 6.232$*

* Significant at the .05 level

Principals, perceived by their teachers as administering in more closed schools, were rated by their secretaries as being lower in the use of communication principals in the school's operation. The null hypothesis was rejected at the .05 level because of the significant difference found. Principals in schools tending to be less closed were considered better users of communication principles. In Table II was presented the relevant data for this hypothesis.

$H_o1.3$. Significant differences will not obtain between principles in more open schools and more closed schools on measures of the use of communication principles.

TABLE III

USE OF COMMUNICATION PRINCIPLES BY PRINCIPALS IN DIFFERENT CLIMATES

Climate	Communication Principles High (Mdn = 281)	Low	Total
More Open	6	4	10
More Closed	3	7	10
Total	9	11	N = 20

Probability for Cell "C" at .05 $\leq$ 1

The limitations of sampling procedures may have been responsible for the failure to reject this null hypothesis. As shown in Table III, however, the data had a tendency to follow the pattern established by $H_o1.1$. and $H_o1.2$.

$H_o2.1$. Significant differences will not obtain between principals above and below the median in open related climates on number of sentences used in a sample of writing.

TABLE IV

NUMBER OF SENTENCES USED IN A SAMPLE OF WRITING BY PRINCIPALS IN OPEN RELATED CLIMATES

Climate (Mdn = 55)	Number of Sentences: High (Mdn = 6)	Low	Total
Above Median	21	19	40
Below Median	19	21	40
Total	40	40	N = 80
			X^2_1 = .200

The variation between above and below the median open related climates as reported in Table IV was not sufficient to be considered significant at the .05 level on number of sentences used per 100 word samples. By indicating acceptance of this hypothesis, the data encourage no expectation of differences beyond chance in a principal's quantity of writing related to the climate of his school.

H_o2.2. Significant differences will not obtain between principals above and below the median in closed related climates on number of sentences used in a sample of writing.

The number of sentences used in a sample of writing by principals in closed related climates was equivalent for schools rating above the median and below the median on the climate measure as indicated by data in Table V. Based upon these findings, a prediction could be made that the next hypothesis would produce no rejection mode, either.

TABLE V

NUMBER OF SENTENCES USED IN A SAMPLE OF WRITING
BY PRINCIPALS IN CLOSED RELATED CLIMATES

Climate (Mdn = 92.06)	Number of Sentences: High (Mdn = 6)	Low	Total
Above Median	20	20	40
Below Median	20	20	40
Total	40	40	N = 80
			X^2 = .000

H_o2.3. Significant differences will not obtain between principals in more open and more closed climates on number of sentences used in a sample of writing.

TABLE VI

NUMBER OF SENTENCES USED IN A SAMPLE OF WRITING
BY PRINCIPALS IN DIFFERENT CLIMATES

Climate	Number of Sentences: High (Mdn = 6)	Low	Total
More Open	5	5	10
More Closed	6	4	10
Total	11	9	N = 20

Probability for Cell "C" at .05 $\leq$ 0

At the .05 level of significance, the hypothesis concerning number of sentences used in a sample of writing was accepted for data in Table VI.

No significant differences obtained between open and closed classifications of climate and number of sentences used by the principal in a sample of writing.

H_o3.1. Significant differences will not obtain between principals above and below the median climates on a measure of mean sentence length derived from a sample of writing.

TABLE VII

MEAN SENTENCE LENGTH FROM A SAMPLE OF WRITING BY PRINCIPALS IN OPEN RELATED CLIMATES

Climate (Mdn = 55)	Mean Sentence Length: High (Mdn = 16)	Low	Total
Above Median	19	22	41
Below Median	21	19	40
Total	40	41	N = 81
			X^2 = .307

No significant differences were found, as evidenced in Table VII. The subject of this hypothesis is logically related to the previous hypotheses concerning number of sentences used in writing samples. Logic dictates that if the number of total words remains constant, the principal who writes more sentences will have a lower mean sentence length.

H_o3.2. Significant differences will not obtain between principals above and below the median in closed related climates on measures of mean sentence length derived from a sample of writing.

TABLE VIII

MEAN SENTENCE LENGTH FROM A SAMPLE OF WRITING
BY PRINCIPALS IN CLOSED RELATED CLIMATES

Climate (Mdn = 92.06)	Mean Sentence Length High (Mdn = 16)	Low	Total
Above Median	19	21	40
Below Median	21	20	41
Total	40	41	N = 81
			X^2 = .112

The identified relationship remained as constant for the closed school climates resulting in an acceptance of the null hypothesis for Table VIII data, also.

H_o3.3. Significant differences will not obtain between principals from more open climate and principals from more closed climates on measures of mean sentence length derived from a sample of writing.

TABLE IX

MEAN SENTENCE LENGTH FROM A SAMPLE OF WRITING
BY PRINCIPALS IN DIFFERENT CLIMATES

Climate	Mean Sentence Length High (Mdn = 16)	Low	Total
More Open	5	5	10
More Closed	2	8	10
Total	7	13	N = 20

Probability for Cell "C" at .05 $\leq$ 0

The data for this test of an hypothesis were nog discreet enough to justify rejection of the hypothesis at the .05 level. Mean sentence length as evidenced from the hands of the principals in this study produced no identifiable relationship to the established climate of the school.

$H_o4.1$. Significant differences will not obtain between principals in open related climates above and below the median on number of words over three syllables in length from a sample of writing.

TABLE X

NUMBER OF WORDS OVER THREE SYLLABLES IN LENGTH FROM A SAMPLE OF WRITING BY PRINCIPALS IN OPEN RELATED CLIMATES

Climate (Mdn = 55)	Three Syllable Words High (Mdn = 15)	Low	Total
Above Median	21	20	41
Below Median	20	20	40
Total	41	40	N = 81
			X^2 = .051

Hypothesis 4.1 was accepted. Equivalence existed among the full range of principal's sampled writings of three syllable words.

$H_o4.2$. Significant differences will not obtain between principals in closed related climates above and below the median on number of words over three syllables in length from a sample of writing.

TABLE XI

NUMBER OF WORDS OVER THREE SYLLABLES IN LENGTH FROM A SAMPLE OF WRITING BY PRINCIPALS IN DIFFERENT CLIMATES

Climate (Mdn = 92.06)	Three Syllable Words High (Mdn = 15)	Low	Total
Above Median	19	21	40
Below Median	22	19	41
Total	41	40	N = 81
			X^2 = .307

From Table XI information, the null hypothesis of differences in three syllable words used by principals in closed climates was accepted. At the .05 level no difference in three syllable word writing behavior could be projected.

TABLE XII

NUMBER OF WORDS OVER THREE SYLLABLES IN LENGTH FROM A SAMPLE OF WRITING BY PRINCIPALS IN DIFFERENT CLIMATES

Climate	Three Syllable Words High (Mdn = 15)	Low	Total
More Open	5	5	10
More Closed	7	3	10
Total	12	8	N = [illegible]

Probability for Cell "C" at .05 $\leq$ 0

$H_o4.3$. Significant differences will not obtain between principals from more open climates and principals from more closed climates on number of words over three syllables in length from a sample of writing.

Comparison of more open and more closed climates on number of words over three syllables in length produced no significant differences as evidenced in Table XII. The null hypothesis was accepted.

$H_o5.1$. Significant differences will not obtain between principals from open related climates above and below the median on number of different words used in a sample of writing.

TABLE XIII

NUMBER OF DIFFERENT WORDS USED IN A SAMPLE OF WRITING BY PRINCIPALS IN OPEN RELATED CLIMATES

Climate (Mdn = 55)	Number of Different Words: High (Mdn = 75)	Low (Mdn = 75)	Total
Above Median	23	17	40
Below Median	17	23	40
Total	40	40	N = 80
			$X^2 = 1.800$

No significant differences were found in the number of different words used in samples of different principals' writings. Table XIII data did indicate direction in favor of more different words used by the more open climate principals, but there was no significant difference at the .05 level. Hypothesis was accepted.

$H_o5.2$. Significant differences will not obtain between above the median and below the median closed climates on number of different words used in samples of writings by principals in closed related climates.

TABLE XIV

NUMBER OF DIFFERENT WORDS USED IN A SAMPLE OF WRITING BY PRINCIPALS IN CLOSED RELATED CLIMATES

Climate (Mdn = 92.06)	Number of Different Words: High (Mdn = 75)	Low	Total
Above Median	16	24	40
Below Median	24	17	41
Total	40	41	N = 81
			$\chi^2 = 2.783$

Table XIV data showed differences approaching significance, but not reaching it. The hypothesis of no difference between above and below the median closed climates and number of different words used in a writing sample was accepted.

TABLE XV

NUMBER OF DIFFERENT WORDS USED IN A SAMPLE OF WRITING BY PRINCIPALS IN DIFFERENT CLIMATES

Climate	Number of Different Words: High (Mdn = 75)	Low	Total
More Open	9	1	10
More Closed	2*	8	10
Total	11	9	N = 20

Probability for Cell "C" at .05 $\leq$ 4

* Significant at the .05 level

$H_o5.3$. Significant differences will not obtain between principals from more open climates and principals from more closed climates on number of different words used in a sample of writing.

Data in Table XV revealed a significant difference at the .05 level between more open climate principals and more closed principals. The difference had more open principals using more variety, a greater number of words, in their sample of writing. The hypothesis was rejected.

$H_o6.1$. Significant differences will not obtain between principals above and below the median in open related climates on readability of a sample of their writing.

TABLE XVI

READABILITY OF A SAMPLE OF WRITING BY PRINCIPALS IN OPEN RELATED CLIMATES

Climate (Mdn = 55)	Readability High (Mdn = 12.8)	Low	Total
Above Median	22	19	41
Below Median	19	21	40
Total	41	40	N = 81
			X^2 = .307

The Gunning Fog Index recorded for the principals' writing samples contained no identification of significant difference between principals above the median or below the median at the .05 level. Table XVI data supported the hypothesis as stated.

$H_o6.2$. Significant differences will not obtain between principals above and below the median in closed related climates on readability of a sample of their writing.

TABLE XVII

READABILITY OF A SAMPLE OF WRITING BY PRINCIPALS IN CLOSED RELATED CLIMATES

Climate (Mdn = 92.06)	Readability: High (Mdn = 12.8)	Readability: Low	Total
Above Median	18	22	40
Below Median	23	18	41
Total	41	40	N = 81
			X^2 = .998

The data in Table XVII supported the hypothesis as stated. Readability measures revealed no significant differences among principals in closed climates.

TABLE XVIII

READABILITY OF A SAMPLE OF WRITING BY PRINCIPALS IN DIFFERENT CLIMATES

Climate	Readability: High (Mdn = 12.8)	Readability: Low	Total
More Open	7	3	10
More Closed	4	6	10
Total	11	9	N = 10
Probability for Cell "C" at .05 $\leq$ 2			

H_o6.3. Significant differences will not obtain between principals from more open climates and principals from more closed climates on readability of a sample of writing.

Fisher's Exact Test revealed no significant difference in readability of writing samples between more open and more closed principals in Table XVIII.

H_o7.1. Significant differences will not obtain between principals above and below the median in open related climates on teacher rated communication skills.

TABLE XIX

TEACHER RATED COMMUNICATION SKILLS BY PRINCIPALS IN OPEN RELATED CLIMATES

	Communication Skills		
Climate (Mdn = 55)	High (Mdn = 5.3)	Low	Total
Above Median	32	11	43
Below Median	11	32	43
Total	43	43	N = 86
			X^2 = 20.512*

* Significant at the .05 level

A finding of strong Chi-Square significance rejected this hypothesis at the .05 level. Teachers perceived their principals in above median open climates as possessing and displaying more communicative skill behavior, while teachers in below the median climates identified more of their principals as low in quality communication.

H_o7.2. Significant differences will not obtain between principals above and below the median in closed related climates on teacher rated communication skills.

TABLE XX

TEACHER RATED COMMUNICATION SKILLS BY PRINCIPALS IN CLOSED RELATED CLIMATES

Climate (Mdn = 92.06)	Communication Skills: High (Mdn = 5.3)	Low	Total
Above Median	10	33	43
Below Median	33	10	43
Total	43	43	N = 86
			$X^2 = 24.605$*

* Significant at the .05 level

Teachers reported at the .05 level a significant difference in principals from above and below the median of the closed related climate measure. Above the median closed climate principals were rated much lower in communication skills. The farther away from the closed climate end of the ratings, the more communication skills were perceived as being displayed for teachers to observe. The hypothesis was rejected.

H_o7.3. Significant differences will not obtain between principals from more open climates and principals from more closed climates on teacher rated communication skills.

TABLE XXI

TEACHER RATED COMMUNICATION SKILLS
BY PRINCIPALS IN DIFFERENT CLIMATES

Climate	Communication Skills		
	High (Mdn = 5.3)	Low	Total
More Open	10	0	10
More Closed	0*	10	10
Total	10	10	N = 20

Probability for Cell "C" at .05 $\leq$ 6

* Significant at the .05 level

Hypothesis 7.3. was rejected by data differing at the .05 level of significance. Teachers in more open climates rated their principals high in communication skills and teachers in the more closed climates rated their principals as low in communication skills.

Hypotheses Related to Effectiveness

H_o8.1. Significant differences will not obtain between principals above and below the median in open related climates on teacher rated administrative decision-making.

TABLE XXII

TEACHER RATED ADMINISTRATIVE DECISION-MAKING
BY PRINCIPALS IN OPEN RELATED CLIMATES

Climate (Mdn = 55)	Decision-Making High (Mdn = 7.1)	Low	Total
Above Median	31	12	43
Below Median	12	31	43
Total	43	43	N = 86
			$X^2 = 16.791$*

* Significant at the .05 level

The hypothesis was rejected in Table XXII at the .05 level on the basis of significant differences between teachers' perceptions of decision-making in relation to climate of the school. Principals in higher status of openness rated higher on decision-making behavior.

TABLE XXIII

TEACHER RATED ADMINISTRATIVE DECISION-MAKING
BY PRINCIPALS IN CLOSED RELATED CLIMATES

Climate (Mdn = 92.06)	Decision-Making High (Mdn = 7.1)	Low	Total
Above Median	11	32	43
Below Median	32	11	43
Total	43	43	N = 86
			$X^2 = 20.512$*

* Significant at the .05 level

H_o8.2. Significant differences will not obtain between principals above and below the median in closed related climates on teacher rated administrative decision-making.

Significant differences were found between principals from climates rated more closed and principals from climates rated less closed in Table XXIII. The data rejected the hypothesis at the .05 level, indicating that the more closed climates were related to lower ratings on decision-making on the part of the principal.

H_o8.3. Significant differences will not obtain between principals from more open climates and principals from more closed climates on teacher rated administrative decision-making.

TABLE XXIV

TEACHER RATED ADMINISTRATIVE DECISION-MAKING
BY PRINCIPALS IN DIFFERENT CLIMATES

Climate	Decision-Making High (Mdn = 7.1)	Low	Total
More Open	8	2	10
More Closed	2*	8	10
Total	10	10	N = 20

Probability for Cell "C" at .05 $\leq$ 3

* Significant at the .05 level

Leading principals from each climate display significant differences at the .05 level on teacher rated decision-making behaviors. More open principals had higher decision-making scores.

H_o9.1. Significant differences will not obtain between principals above and below the median in open related climates on teacher rated general administrative behavior.

TABLE XXV

TEACHER RATED GENERAL ADMINISTRATIVE BEHAVIOR
BY PRINCIPALS IN OPEN RELATED CLIMATES

Climate (Mdn = 55)	Administrative Behavior High (Mdn = 5.2)	Low	Total
Above Median	30	13	43
Below Median	13	30	43
Total	43	43	N = 86
			X^2 = 13.442*

* Significant at the .05 level

Data in Table XXV revealed significant differences at the .05 level to reject the null hypothesis of no difference between higher openness of schools and administrative behavior scores. Teachers perceived their principals as displaying better general administrative behavior if their school climate was more open.

TABLE XXVI

TEACHER RATED GENERAL ADMINISTRATIVE BEHAVIOR
BY PRINCIPALS IN CLOSED RELATED CLIMATES

Climate (Mdn = 92.06)	Administrative Behavior High (Mdn = 5.2)	Low	Total
Above Median	10	33	43
Below Median	33	10	43
Total	43	43	N = 86
			X^2 = 24.605*

* Significant at the .05 level

H_o9.2. Significant differences will not obtain between principals above and below the median in closed related climates on teacher rated general administrative behavior.

Administrative behavior was perceived by teachers in closed related climates as being on the low end of the scale. Table XXVI data rejected the no difference hypothesis at the .05 level.

H_o9.3. Significant differences will not obtain between principals from more open climates and principals from more closed climate on teacher rated general administrative behavior.

TABLE XXVII

TEACHER RATED GENERAL ADMINISTRATIVE BEHAVIOR BY PRINCIPALS IN DIFFERENT CLIMATES

Climate	Administrative Behavior		
	High (Mdn = 5.2)	Low	Total
More Open	10	0	10
More Closed	2*	8	10
Total	12	8	N = 20

Probability for Cell "C" at .05 = 6

* Significant at the .05 level

Summarized in Table XXVIII were the data for the comparison of more open and more closed climates in relation to teacher rated general administrative behavior. Behaviors differed at the .05 level of significance. More open climates were related to higher scores on perceived general administrative behavior.

H_o10.1 Significant differences will not obtain between principals above and below the median in open related climates on teacher rated instructional leadership.

TABLE XXVIII

TEACHER RATED INSTRUCTIONAL LEADERSHIP
BY PRINCIPALS IN OPEN RELATED CLIMATES

Climate (Mdn = 55)	Instructional Leadership High (Mdn = 5.4)	Low	Total
Above Median	29	14	43
Below Median	14	29	43
Total	43	43	N = 86
			$X^2 = 10.465$*

* Significant at the .05 level

Hypothesis 10.1 was rejected in Table XXVIII at the .05 level indicating that more openness of climate was directly related to higher scores on teacher rated instructional leadership.

TABLE XXIX

TEACHER RATED INSTRUCTIONAL LEADERSHIP BY
PRINCIPALS IN CLOSED RELATED CLIMATES

Climate (Mdn = 92.06)	Instructional Leadership High (Mdn = 5.4)	Low	Total
Above Median	13	30	43
Below Median	30	13	43
Total	43	43	N = 86
			$X^2 = 13.442$*

* Significant at the .05 level

H_o10.2. Significant differences will not obtain between principals above and below the median in closed related climates on teacher rated instructional leadership.

Lower rated instructional leaders appeared to be predominant in schools perceived to have a more closed interpersonal relationship. This caused the null hypothesis to be rejected as reported in Table XXIX.

H_o10.3. Significant differences will not obtain between principals in more open climates and principals in more closed climates on teacher rated instructional leadership.

TABLE XXX

TEACHER RATED INSTRUCTIONAL LEADERSHIP
BY PRINCIPALS IN DIFFERENT CLIMATES

Climate	Instructional Leadership		
	High (Mdn = 5.4)	Low	Total
More Open	10	0	10
More Closed	3*	7	10
Total	13	7	N = 20

Probability for Cell "C" at .05 = 6

* Significant at the .05 level

Teachers rated their principals higher on instructional leadership if they were in more open climates. Data summarized in Table XXX indicated that the hypothesis projecting no difference was rejected at the .05 level.

H_o11.1. Significant differences will not obtain between principals above and below the median in open related climates on teacher rated total administrative effectiveness.

TABLE XXXI

TEACHER RATED TOTAL ADMINISTRATIVE EFFECTIVENESS
BY PRINCIPALS IN OPEN RELATED CLIMATES

Climate (Mdn = 55)	Total Effectiveness High (Mdn = 23.0)	Low	Total
Above Median	34	9	43
Below Median	9	34	43
Total	43	43	N = 86
			$X^2 = 29.070$*

* Significant at the .05 level

The score on administrative effectiveness was a composite of other scores so the expectation was that the rejection possibility would follow the pattern established by the other scores - teacher rated decision-making, communication, general administrative behavior, and instructional leadership. It did. The no difference hypothesis was rejected at the .05 level. Teachers overwhelmingly indicated that above the median open climates had principals who were perceived as displaying higher total administrative effectiveness.

H_o11.2. Significant differences will not obtain between principals above and below the median in closed related climates on teacher rated total administrative effectiveness.

TABLE XXXII

TEACHER RATED TOTAL ADMINISTRATIVE EFFECTIVENESS
BY PRINCIPALS IN CLOSED RELATED CLIMATES

Climate (Mdn = 92.06)	Total Effectiveness High (Mdn = 23.0)	Low	Total
Above Median	10	33	43
Below Median	33	10	43
Total	43	43	N = 86
			$X^2 = 24.605$*

* Significant at the .05 level

Data summarized in Table XXXII resulted in a rejection of the null hypothesis at the .05 level. Teachers in closed related climates gave their principals lower scores on total administrative effectiveness.

TABLE XXXIII

TEACHER RATED TOTAL ADMINISTRATIVE EFFECTIVENESS
BY PRINCIPALS IN DIFFERENT CLIMATES

Climate	Total Effectiveness High (Mdn = 23.0)	Low	Total
More Open	10	0	10
More Closed	1*	9	10
Total	11	9	N = 20

Probability for Cell "C" at .05 $\leq$ 6

* Significant at the .05 level

H_o11.3. Significant differences will not obtain between principals from more closed climates on teacher rated total administrative effectiveness.

The Exact Test used in Table XXXIII identified significant differences at the .05 level between teacher rated total administrative effectiveness and whether or not the principal's school was rated high on the open or closed climate scale. More open climates were significantly related to higher total administrative effectiveness.

Hypotheses Related to Change Motivation

H_o12.1. Significant differences will not obtain between principals above and below the median in open related climates on measures of change motivation.

TABLE XXXIV

MEASURES OF CHANGE MOTIVATION BY PRINCIPALS IN OPEN RELATED CLIMATES

	Change Motivation		
Climate (Mdn = 55)	High (Mdn = .59)	Low	Total
Above Median	20	23	43
Below Median	23	20	43
Total	43	43	N = 86
			X^2 = .419

As projected in the statement of the null hypothesis, data in Table XXXIV revealed no difference between principals in open related climates on measures of change motivation.

H_o12.2 Significant differences will not obtain between principals in closed related climates on measures of change motivation.

TABLE XXXV

MEASURES OF CHANGE MOTIVATION BY PRINCIPALS
IN CLOSED RELATED CLIMATES

Climate (Mdn = 92.06)	Change Motivation High (Mdn = .59)	Low	Total
Above Median	22	21	43
Below Median	21	22	43
Total	43	43	N = 86
			X^2 = .047

The Chi-Square results of the Median Test treated in Table XXXV dictated the acceptance of the null hypothesis of no difference between principals at different ends of the closed climate continuum in terms of measured change motivation.

TABLE XXXVI

MEASURES OF CHANGE MOTIVATION BY
PRINCIPALS IN DIFFERENT CLIMATES

Climate	Change Motivation High (Mdn = .59)	Low	Total
More Open	4	6	10
More Closed	5	5	10
Total	9	11	N = 20

Probability for Cell "C" at .05 $\leq$ 0

H_o12.3. Significant differences will not obtain between principals from more open climates and principals from more closed climates on measures of change motivation.

No significant differences were reported in Table XXXVI between more open climates and more closed climates in relation to measures of change motivation.

Summary of Findings

In relation to openness of climate in the elementary schools studied herein, significant relationships were found in the areas of: (1) use of communication principles, (2) teacher rated measures of communication skills, (3) teacher rated measures of administrative decision-making, (4) teacher rated measures of general administrative behavior, (5) teacher rated measures of instructional leadership, and (6) teacher rated measures of total administrative effectiveness.

Closed related climate scores were found to effectively reverse the standing on the preceding six areas. In the six areas, principals from schools rating higher on the closed climate scale scored lower on the six measures of communication principles and skills, decision-making, general administrative behavior, instructional leadership, and total administrative effectiveness.

The comparison of principals rating at the top of the closed climate scale and principals rating at the top of the open climate scale produced significant differences in the areas of: (1) number of different words used in a sample of writing, (2) teacher rated measures of communication skills, (3) teacher rated measures of administrative decision-making, (4) teacher rated measures of general administrative behavior, (5) teacher rated measures of instructional leadership, and

(6) teacher rated measures of total administrative effectiveness.

No significant relationships were found in any comparison of open or closed climate with: (1) number of sentences used by principal in a 100-word sample of writing, (2) a measure of mean sentence length from the sample of writing, (3) the number of words over three syllables in length from the sample of writing, (4) a measure of readability of the sample of writing, and (5) measures of change motivation.

Although open climate ratings and closed climate ratings were based upon a different median and mean in this study, no significant differences were found in the schools' predicted positions on one scale made as a result of scores made on the other scales. This suggested that for openness or closedness perhaps one scale could effectively define the apparent continuum being measured.

Comparing the findings of the Chi-Square Median Test with the Exact Test interpretations resulted in no significant differences between the two tests since they varied only twice in the 36 specific findings. Therefore, for the data treated in this study, neither test was significantly more powerful than the other.

CHAPTER V

CONSUMMATION OF THE TREATISE

Summary of the Action

This study examined some identifiable relationships between selected categories of a phenomenon known as organizational climate and certain areas of leadership in the elementary schools. Leadership factors relating to communication, effectiveness, and change motivation were investigated for salient relationships between characteristics and behaviors of elementary school principals from different climates.

Instruments were selected to measure, and hypotheses were constructed to test, differences between open and closed related climates on the following specific factors:

(1) Use of communication principles

(2) Number of sentences used in a sample of writing

(3) Mean sentence length derived from a sample of writing

(4) Number of words over three syllables in length

(5) Number of different words used in a sample of writing

(6) Readability of a sample of writing

(7) Communication skills

(8) Administrative decision-making

(9) General administrative behavior

(10) Instructional leadership

(11) Total administrative effectiveness

(12) Change motivation.

The sample on which these instruments were tried consisted of 86 elementary schools in a metropolitan school district. Eighty-six elementary principals, 86 secretaries, and 1,188 teachers participated in the study as subjects.

Principals responded to an adjective checklist, to assess their motivation toward change, and a questionnaire designed to elicit their written response which was later quantitatively analyzed.

Secretaries answered questions on a communications inventory about the use of communication principles by their superior, the principal.

Teachers responded to the Organizational Climate Description Questionnaire to determine the prevailing interpersonal climate in their school and to the School Functions questionnaire designed to check their perceptions of their principal's effectiveness in terms of decision-making, communication skills, general administrative behavior, instructional leadership and total administrative effectiveness.

The data were collected, scored, and statistically treated. Non-parametric tests were used to assess the results.

Conclusions of the Research

Of the 36 null sub-hypotheses relating differences in organizational climate to the various factors of the study, eighteen were found significant at the .05 level, and the other half maintained no differentiating characteristics.

Schools with above the median scores on the open climate scale were found to have principals who:

(1) Scored higher on use of communication principles

(2) Used more different words in a sample of writing

(3) Displayed higher communication skills

(4) Scored higher on administrative decision-making

(5) Scored higher on general administrative behavior

(6) Scored higher on instructional leadership

(7) Scored higher on total administrative effectiveness.

Schools with above the median scores on the closed climate scale were found to have principals who:

(1) Scored lower on use of communication principles

(2) Used less different words in a sample of writing

(3) Displayed lower communication skills

(4) Scored lower on administrative decision-making

(5) Scored lower on general administrative behavior

(6) Scored lower on instructional leadership

(7) Scored lower on total administrative effectiveness.

Two hypotheses produced differences which were identified differently by the way they were treated statistically. On the use of communication principles, significant differences were found within each of the open and closed climate scales, but when more closed climates were compared with more open climates no difference was found. In the area of number of different words used, no significant differences were found within each of the open and closed climate scales, but when more open climates were compared with more closed climates, differences were found significant at the .05 level.

Both discrepancies could have been attributed to selection of the subjects on a non-random basis and from a limited population. The first

may have been a fault of the statistical test used. The second was more likely to have been a fault of the limitation on size and content of the writing sample used.

Five hypothesized areas produced no differences significant enough to reject the null at the .05 level. These areas dealt with the climate measures in relation to:

(1) Number of sentences used in a sample of writing

(2) Mean sentence length derived from a sample of writing

(3) Number of words over three syllables in length from a sample of writing

(4) Readability of a sample of writing

(5) Change motivation.

Interesting to note in viewing these results was that the communication measures which dealt with perception of "communication" by others were the only communication instruments to consistently produce significant differences in relation to climate. All of the objective measures except number of different words were not discriminately related to climate of the elementary school. Perceptions of others' behaviors were not the characteristic measures for communication alone. The climate and effectiveness instruments obtained scores this way, also. The effectiveness scores were based on perceptions of job performance related in theory to areas assumed indicative of administrative effectiveness.

The change motivation findings probably suffered from weak theoretical background, a lack of factoral study, and limited standardization efforts. No support was found for relating the measure of the principal's change motivation as used in the study to any climate category which identified the participating schools.

In summary, then, two generalized significant findings were that, the more open the climate of the schools studied, the higher were the: (1) perceptions of the secretary and the teachers of the principal's communication behavior and his use of different words in writing, and (2) perceptions of teachers of the principal's total administrative effectiveness in terms of decision-making, general administrative behavior, and instructional leadership.

Implications for Future Investigations

Several areas for further investigation appeared in the conduct of the study. They generalized themselves into the categories of studies needed to verify and extend these findings, studies of implementation and experimentation on the salient factors, and studies of causal relationships.

To verify these findings for extension to a broader population will require a randomly selected population with appropriate statistical treatment. Parts of the study where significant findings occurred could be replicated with benefit accruing to the field of educational administration.

In the communication area, questions related to objective measures which could correlate with the significant subjective measures still remain to be answered. The development of the appropriate measuring instrument may be the key, or the measure may already be extant, but only the sample or some other perceivably related factor need be changed. A study which was considered, but not deemed feasible for concurrent accomplishment was that of measuring speech patterns of principals in relation to climate.

Effectiveness of the principal, as measured in this study was found significant, but this area, too, needs to have available more objective measures or some more generally applicable measures for all classes of administrators.

Studies could be generated from each effectiveness area. For example, decision-making might be reduced to ways decisions are made — intuitively, planned, or shared — to see if climate changes result from these variables.

Investigation of the apparent correlation between climate and effectiveness as measured by the instruments used needs to be made. The possibility that both instruments measure the same phenomena might help to reduce the extensive educational taxonomy to fewer more meaningful terms.

The principal as an instrument for establishing the interpersonal climate of the school needs continuing investigation. That change motivation, as defined and measured in this study, was not a factor related to climate in the schools studied should not deter the serious student from seeking other motivational areas for sociological, psychological, and behavioral factors leading to leadership in school positions.

Experimental studies are needed to see if training for the kinds of behaviors teachers perceived as contributing to open climates could effectively change climate. An experiment using principals with special training in communication skills or effectiveness behavior placed into closed, open, or middle-of-the-continuum school climates to assess if change occurred in the school's climate would be highly desirable.

Lacking specific controls as required in an experimental study, a researcher may wish to work on attributable cause for the principal's

effect on a school's climate or the historical effects which may have contributed to the establishment of the current climate.

The number of studies which could be done approaches perpetuity, thereby attesting to the value of this study. Although only part of the results were significantly different in this study, all of the findings were worthwhile to the field of education, and the areas of administration, communication, and the behavioral sciences. For where no significant differences were found, that part of the theory of leadership remains operational, but where differences appeared, this new knowledge may require changes in the theoretical base to account for the significance of identified behaviors.

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APPENDIX

INSTRUMENTS

A SAMPLE OF WRITING

Elementary Principals:

Considerable interest in new programs at the elementary school level has been expressed lately throughout our nation. The Department of Educational Research would like to keep up with these programs and help the _____ Elementary Schools, through research, develop the kinds of programs deemed desirable. You can help by answering the following questions about one of the crucial areas of education, pupil interest. Please answer in your own handwriting and, if possible, use no more space than hereon provided.

WHAT CAN ELEMENTARY SCHOOLS DO TO KEEP PUPILS FROM BECOMING DISINTERESTED IN SCHOOL?

WHAT DO YOU ENVISION AS THE ELEMENTARY ADMINISTRATOR'S ROLE IN KEEPING PUPILS INTERESTED IN SCHOOL?

OF TEACHERS THAT YOU HAVE KNOWN, WHAT HAVE SOME OF THEM DONE TO MOTIVATE STUDENTS?

Please sign your name or give the name of your school and return this paper to the Department of Educational Research. Thank you.

_____

Name or Name of School

ORGANIZATIONAL CLIMATE DESCRIPTION QUESTIONNAIRE*

by A. W. Halpin and D. B. Croft

This questionnaire describes some typical conditions 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 first seven items on your answer sheet are project identification numbers, so you should not make marks in these spaces. Each section of the questionnaire will be introduced by instructions which tell you how to mark your answers.

I. BIOGRAPHICAL INFORMATION

Please place an "X" on the number in the answer sheet which corresponds to the number in parentheses beside the appropriate category in the items below.

8. Position: (1) Principal, (2) Teacher, (3) Other
9. Sex: (1) Man, (2) Woman
10. Age: (1) 20-29, (2) 30-39, (3) 40-49, (4) 50-59, (5) 60 or over
11. Years of experience in education: (1) 0-9, (2) 10-19, (3) 20-29, (4) 30 or over
12. Years at this school: (1) 0-4, (2) 5-9, (3) 10-19, (4) 20 or over

II. BEHAVIOR - CONDITION ITEMS

The descriptive scale on which to rate the following items is:
1. Rarely occurs, 2. Sometimes occurs, 3. Often occurs, 4. Very frequently occurs.

Printed below is an example of a typical item found herein:

		(Answer Sheet Numbers)
120.	Teachers call each other by their first names.	120. 1 2 **X** 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 Mark EVERY ITEM;

Scale:
1. Rarely occurs, 2. Sometimes occurs, 3. Often occurs, 4. Very frequently occurs.

13. Teachers' closest friends are other faculty members at this school.
14. The mannerisms of teachers at this school are annoying.
15. Teachers spend time after school with students who have individual problems.
16. Instructions for the operation of teaching aids are available.
17. Teachers invite other faculty to visit them at home.
18. There is a minority group of teachers who always oppose the majority.
19. Extra books are available for classroom use.
20. Sufficient time is given to prepare administrative reports.

21. Teachers know the family background of other faculty members.
22. Teachers exert group pressure on non-conforming faculty members.
23. In faculty meetings, there is a feeling of "let's get things done."
24. Administrative paper work is burdensome at this school.
25. Teachers talk about their personal life to other faculty members.
26. Teachers seek special favors from the principal.
27. School supplies are readily available for use in classwork.
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 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.

Scale:
1. Rarely occurs, 2. Sometimes occurs, 3. Often occurs, 4. Very frequently occurs.

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 teachers.
56. Teachers leave the grounds during the school day.
57. The principal criticizes a specific act rather than a staff member.
58. Teachers help select which courses will be taught.
59. The principal corrects teachers' mistakes.
60. The principal talks a great deal.

61. The principal explains his reasons for criticism to teachers.
62. The principal tries to get better salaries for teachers.
63. Extra duty for teachers is posted conspicuously.
64. The rules set by the principal are never questioned.
65. The principal looks out for the personal welfare of teachers.
66. School secretarial service is available for teachers' use.
67. The principal runs the faculty meetings like a business conference.
68. The principal is in the building before teachers arrive.
69. Teachers work together preparing administrative reports.
70. Faculty meetings are organized according to a tight agenda.

71. Faculty meetings are mainly principal-report meetings.
72. The principal tells teachers of new ideas he has run across.
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.

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COMMUNICATION INVENTORY*

In the following inventory, please write in the blank the job title held by the person you are considering. Circle the number indicating the extent of his participation in the following activities.

The _____.
(Principal, Assistant Principal, etc.)

NEVER	SELDOM	OCCASIONALLY	OFTEN	ALWAYS
1	2	3	4	5

1. Makes staff publications thorough and systematic in reporting news of interest to the staff.
   1 2 3 4 5

2. Is alert to both the quantity and quality of his communication.
   1 2 3 4 5

3. Keeps records on all decisions of policy.
   1 2 3 4 5

4. Encourages the staff to guide their actions on the basis of policies rather than wait for orders.
   1 2 3 4 5

5. Uses communication to coordinate and expedite rather than control.
   1 2 3 4 5

6. Resists pressures which prevent him from communicating.
   1 2 3 4 5

7. Backs verbal communication with action which is consistent with and supports such communication.
   1 2 3 4 5

8. Organizes work to facilitate communication with immediate subordinates.
   1 2 3 4 5

9. Makes a special effort to keep in touch with persons remote in the organization.
   1 2 3 4 5

10. Builds communication morale of others by giving consideration to their communications.
    1 2 3 4 5

11. Provides opportunities for regular communication among subordinates.
    1 2 3 4 5

	NEVER	SELDOM	OCCASIONALLY	OFTEN	ALWAYS
	1	2	3	4	5
12.	Resolves strong personal conflicts among employees.				
	1	2	3	4	5
13.	Enlists school-community people to help in communicating with the community about the school.				
	1	2	3	4	5
14.	Keeps the community aware of school needs.				
	1	2	3	4	5
15.	Communicates effectively in school-community activities.				
	1	2	3	4	5
16.	Adapts communications to the situation.				
	1	2	3	4	5
17.	Gets adequate consideration for his communications because of his personal acceptability.				
	1	2	3	4	5
18.	Maintains authority but tempers it with consideration and tact.				
	1	2	3	4	5
19.	Has a reputation for dependability in communication matters.				
	1	2	3	4	5
20.	Keeps cool when he must communicate under pressure.				
	1	2	3	4	5
21.	Is sensitive about the dangers of distraction caused by personal mannerisms.				
	1	2	3	4	5
22.	Takes responsibility for making and communicating necessary administrative decisions which only he has the authority to make.				
	1	2	3	4	5
23.	Generally communicates for specific purposes.				
	1	2	3	4	5
24.	Emphasizes the idea to be communicated.				
	1	2	3	4	5
25.	Checks school publications for style and content.				
	1	2	3	4	5
26.	Uses varied sources of information.				
	1	2	3	4	5

	NEVER	SELDOM	OCCASIONALLY	OFTEN	ALWAYS
	1	2	3	4	5
27.	Explains the meaning of delays in making decisions and in taking action.				
	1	2	3	4	5
28.	Acts and communicates with constructive suggestions for the solution of problems.				
	1	2	3	4	5
29.	Gives reasons, ordinarily, for decisions and policies.				
	1	2	3	4	5
30.	Reads and acknowledges communications received.				
	1	2	3	4	5
31.	Makes a continuing effort to be fair and objective in communicating about controversial subjects.				
	1	2	3	4	5
32.	Uses visual aids to communicate.				
	1	2	3	4	5
33.	Listens to complaints calmly and patiently.				
	1	2	3	4	5
34.	Uses methods in communicating suited to the purpose and content of the message.				
	1	2	3	4	5
35.	Knows how and when to use different communication forms.				
	1	2	3	4	5
36.	Is flexible in the use of formal and informal communication.				
	1	2	3	4	5
37.	Uses criticism or reproof sparingly and privately.				
	1	2	3	4	5
38.	Shows appreciation for good work.				
	1	2	3	4	5
39.	Is tactful as the leader of a discussion.				
	1	2	3	4	5
40.	Provides adequate channels of communication to avoid bottlenecks.				
	1	2	3	4	5
41.	Commits himself to the principle that communications equipment of importance in regular operation should be kept in order.				
	1	2	3	4	5

	NEVER	SELDOM	OCCASIONALLY	OFTEN	ALWAYS
	1	2	3	4	5
42.	Adapts his communications to the recipients.				
	1	2	3	4	5
43.	Bases communications on what others already know about the subject.				
	1	2	3	4	5
44.	Consults employees about any information received about them.				
	1	2	3	4	5
45.	Confers with interested persons on meeting agenda.				
	1	2	3	4	5
46.	Encourages the capable but timid to communicate.				
	1	2	3	4	5
47.	Announces the agenda for meetings in advance.				
	1	2	3	4	5
48.	Encourages the candor of subordinates.				
	1	2	3	4	5
49.	Checks to see that communications are received and understood.				
	1	2	3	4	5
50.	Works to prevent false and harmful rumors.				
	1	2	3	4	5
51.	Is cautious about the possibility of misinterpreting the communications of others.				
	1	2	3	4	5
52.	Solicits reports on communication breakdowns.				
	1	2	3	4	5
53.	Traces causes of communication failures, and does what he can to correct them.				
	1	2	3	4	5
54.	Times his communications carefully.				
	1	2	3	4	5
55.	Comes to the point as quickly as possible without being abrupt.				
	1	2	3	4	5
56.	Makes careful preparation of communications.				
	1	2	3	4	5

NEVER	SELDON	OCCASIONALLY	OFTEN	ALWAYS
1	2	3	4	5

57. Prepares such written communications as manuals, bulletins, and memos often enough and well enough to keep those with whom he works as well informed as possible.
1 2 3 4 5

58. Strives regularly to improve his own communications.
1 2 3 4 5

59. Evaluates communications by multiple standards.
1 2 3 4 5

60. Evaluates his own communications regularly and systematically.
1 2 3 4 5

* Adapted by permission, Center for Educational Administration, Ohio State University.

SCHOOL FUNCTIONS*

Following are several statements related to school functioning. Please respond to each item as it applies to your school. On the answer sheet place a mark on the number of the appropriate choice which means:

1. Almost never true of my school
2. Rarely true of my school
3. Sometimes true of my school
4. Often true of my school
5. Usually true of my school
6. Almost always true of my school

1. Possible problems or issues are anticipated.
2. Situations in the school where real problems exist are recognized and acknowledged.
3. All relevant information is obtained before decisions are made.
4. Sources of information are weighed carefully.
5. All elements relating to problems or issues are taken into account.
6. Unique possible solutions are considered for school problems.
7. Possible solutions to a problem are weighed critically.
8. Consideration is given to the important implications of a course of action.
9. Solutions, once agreed upon, reflect critical and logical thinking.
10. Teachers are kept informed of central office policy changes affecting the school.

11. The community and parents are kept aware of the accomplishments of the school and the students.
12. Teachers are kept informed as to how their work is evaluated.
13. Staff members discuss their problems and concerns freely with each other.
14. Teachers and parents feel free to make suggestions for improving the school.
15. Staff members know how people feel about the school and its program.
16. Teachers express their opinions and feelings freely.
17. The staff has a good knowledge of the feelings and opinions of the children about school.
18. There is good communication between the teachers and other members of the school staff (custodians, gardeners, cafeteria workers, etc.).
19. An effective system of pupil discipline is supported and maintained.
20. Adequate help and supervision are provided for teachers.

21. An effective system of guidance for the pupils is supported and maintained.
22. Adequate materials needed for instruction are available.
23. Teachers are not overloaded with non-teaching assignments (hall duty, yard supervision, etc.).
24. Extracurricular activities are organized so that they function smoothly.
25. Schedules required for the effective operation of the school are made.

26. Buildings and grounds are maintained in a satisfactory and attractive manner.
27. There is an adequate system for reporting the progress of pupils to their parents.
28. Experimentation and new approaches in instruction occur reasonably often.
29. There is a constant evaluation of the total learning program.
30. New ideas and information relating to education are regularly discussed.

31. New developments in each subject area are called to the staff's attention.
32. Information is regularly available on new teaching materials, aids, resources, etc.
33. Current events of significance and importance for the school are regularly discussed.
34. The staff's attention is called to important and interesting articles or publications.
35. Released time is available for teachers to work on special projects or ideas designed to improve the school program.
36. High standards of academic achievement and learning are expected of the students.

* Use of instrument permitted under grant from Cooperative Research Program of the Office of Education, U. S. Department of Health, Education, and Welfare.

ADJECTIVE CHECKLIST

Check the adjectives below that are indicative of your personality or feelings. Do not consider any adjectives as being "good" or "bad." This is an effort to find out how leaders describe themselves, so be honest in helping us define the areas of personal description. Thank you.

_____ACTIVE

_____ADAPTABLE

_____ADVENTUROUS

_____CHANGEABLE

_____CONSERVATIVE

_____CONSISTENT

_____CONTENTED

_____CONVENTIONAL

_____CURIOUS

_____DARING

_____DISSATISFIED

_____DISTRACTIBLE

_____ENTHUSIASTIC

_____EXCLUSIVE

_____FIRM

_____FLEXIBLE

_____FUN LOVING

_____IMPERTURBABLE

_____IMPULSIVE

_____INDEPENDENT

_____INDIFFERENT

_____INDIVIDUALISTIC

_____INITIATIVE

_____INTERESTS NARROW

_____INTERESTS WIDE

_____METHODICAL

_____NONCONFORMING

_____PATIENT

_____PERSISTENT

_____RELIANT

_____RESTLESS

_____RESTRAINED

_____RETIRING

_____SELF-DENYING

_____SPONTANEOUS

_____STABLE

_____TRANQUIL

_____UNCONVENTIONAL

_____UNEMOTIONAL

_____UNPREDICTABLE

_____VERSATILE

_____WITHDRAWN

VITA

James Lavern Casey

Candidate for the Degree of

Doctor of Education

Thesis: A STUDY OF RELATIONSHIPS BETWEEN ORGANIZATIONAL CLIMATE AND SELECTED LEADERSHIP FACTORS IN ADMINISTRATION

Major Field: Educational Administration

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