



The relationship between organizational climate and teacher-initiated educational change in the Billings, Montana public schools
by Jeffrey Alan Jacobson

A thesis submitted in partial fulfillment of the requirements for the degree of DOCTOR OF EDUCATION

Montana State University

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Abstract:

The problem of this study was to determine the relationship between organizational climate and seven predictor variables, one of which was the number of teacher-initiated educational changes made in Billings, Montana, Public Schools during the first semester of the 1978-79 school year.

The problem was investigated by: (1) a thorough review of the literature related to organizational climate and classroom instructional development concerning teacher-initiated change; (2) the development of a two-part questionnaire utilizing the Organizational Climate Description Questionnaire, designed by Andrew W. Halpin, to measure school climate and a checklist entitled "Survey of Teacher-Initiated Educational Change"; (3) the selection of a population criteria and distribution of survey instruments to a total population of 763 classroom teachers; and (4) the tabulation, analysis, and comparison of the data based on a response of 84.4 percent.

The major findings of the study were that: (1) school climate scores in the thirty-two schools varied extensively with the norm scores of an "open" climate as established for the O.C.D.Q.; (2) there is a significant positive relationship between organizational climate scores and the seven predictor variables when treated collectively; (3) there is a significant positive relationship between the number of teacher-initiated educational changes and the seven predictor variables when treated collectively; and (4) the predictor variables calculated to be significant when treated independently confirmed that female classroom teachers perceived school climate to be more "open" than their male colleagues, and the longer a classroom teacher is assigned to a building the more "closed" he/she perceives the climate.

The major recommendations of the study were: (1) that administrator preparation institutions should offer instruction concerning school climate evaluation; (2) that school administrators should make a concerted effort to become more aware of the concept of school climate and attempt to introduce a climate measurement into current personnel evaluation practices; (3) that staff and administrators should develop a dialogue concerning their knowledge of teaching techniques, methods, and materials that are infrequently utilized in their school; and (4) that further studies be conducted using a different set of predictor variables as well as attempting to discover what motivates classroom teachers to incorporate educational changes into their instructional program.

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THE RELATIONSHIP BETWEEN ORGANIZATIONAL CLIMATE AND
TEACHER-INITIATED EDUCATIONAL CHANGE IN THE
BILLINGS, MONTANA PUBLIC SCHOOLS

by

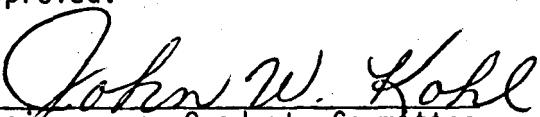
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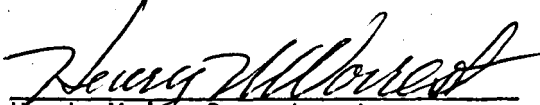
A thesis submitted in partial fulfillment
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of

DOCTOR OF EDUCATION

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MONTANA STATE UNIVERSITY
Bozeman, Montana

August, 1979

ACKNOWLEDGEMENTS

I would like to express my sincere thanks to the members of my graduate committee: Dr. John Kohl (chairman), Dr. Leroy Casagrande, Dr. Henry Worrest, Dr. Douglas Herbster, and Dr. Elnora Old Coyote. Also, I thank Dr. Kenneth Hapner, my graduate representative, and Dr. Albert Suvak, my statistician. A special thanks goes to the College of Education secretaries, Mrs. Darlene Hartze, Mrs. Joyce Forsgren, and Mrs. Carolyn Winchester, for their assistance and support.

Others deserving special thanks include Dr. Virgil Poore, superintendent; and Dr. Don Easton, administrative assistant; each of the school principals; and 644 of my very cooperative teacher colleagues in the Billings Public Schools. Many thanks go to my fellow graduate students, especially Dr. Bill Conover for the "extra step" he took to assist me in my efforts.

Beyond thanks go my special feelings to my dear wife, Connie, who served as my source of strength and support throughout some very wonderful and yet trying times. Her presence and love continually served to reinforce my efforts.

Finally, I would like to dedicate this study to my sons, Matthew and Mark, neither of whom know the "special moments" they have provided me throughout this multi-year effort.

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ABSTRACT

The problem of this study was to determine the relationship between organizational climate and seven predictor variables, one of which was the number of teacher-initiated educational changes made in Billings, Montana, Public Schools during the first semester of the 1978-79 school year.

The problem was investigated by: (1) a thorough review of the literature related to organizational climate and classroom instructional development concerning teacher-initiated change; (2) the development of a two-part questionnaire utilizing the Organizational Climate Description Questionnaire, designed by Andrew W. Halpin, to measure school climate and a checklist entitled "Survey of Teacher-Initiated Educational Change"; (3) the selection of a population criteria and distribution of survey instruments to a total population of 763 classroom teachers; and (4) the tabulation, analysis, and comparison of the data based on a response of 84.4 percent.

The major findings of the study were that: (1) school climate scores in the thirty-two schools varied extensively with the norm scores of an "open" climate as established for the O.C.D.Q.; (2) there is a significant positive relationship between organizational climate scores and the seven predictor variables when treated collectively; (3) there is a significant positive relationship between the number of teacher-initiated educational changes and the seven predictor variables when treated collectively; and (4) the predictor variables calculated to be significant when treated independently confirmed that female classroom teachers perceived school climate to be more "open" than their male colleagues, and the longer a classroom teacher is assigned to a building the more "closed" he/she perceives the climate.

The major recommendations of the study were: (1) that administrator preparation institutions should offer instruction concerning school climate evaluation; (2) that school administrators should make a concerted effort to become more aware of the concept of school climate and attempt to introduce a climate measurement into current personnel evaluation practices; (3) that staff and administrators should develop a dialogue concerning their knowledge of teaching techniques, methods, and materials that are infrequently utilized in their school; and (4) that further studies be conducted using a different set of predictor variables as well as attempting to discover what motivates classroom teachers to incorporate educational changes into their instructional program.

Chapter 1

INTRODUCTION

"More today than yesterday, and more tomorrow than today, the survival of people and their institutions depends upon innovation" (Morton, 1971:1). Innovation, as described by Morton, means taking the old, updating and improving it, while developing new capabilities of people within their organizations. Morton goes on ". . . it (innovation) is the adaptive change and improvement of existing systems" (1971:1).

Though Morton, as vice-president of Bell Laboratories, speaks primarily of the business and industry sector in his book, his plea is recognized and given equal importance in the organizational setting of educational systems (Carlson, 1965:3).

Owens and Steinhoff (1976:1) describe how the American public schools are facing a crisis brought on by diminishing public trust and confidence. These authors feel such evidence as school levy failures and record numbers of administrator resignations and releases is proof of the immediate need for change.

Frequently, change in education is a direct result of coming in contact with ideas and concepts developed or simply utilized by others in the field (Owens and Steinhoff, 1976:34). Seeking to update and create necessary change in educational settings, educators have mounted great efforts to identify those conditions that tend to allow

for the exchange and dissemination of new ideas and meaningful change within school organizations.

Hughes (1971:19) states "Tantamount to the success of bringing change about is openness within the organization and free flow of communication." The organizational leadership that performs in a manner as to enhance such experiences or is "open" to such endeavors, meets with more success in adapting to needed change than the organizational leadership which operates to inhibit the free flow of ideas and leadership actions within the ranks (Halpin, 1966:131).

Hughes (1971:12) refers to an "open" climate as a situation within any organization in which participating members receive personal satisfaction from both interpersonal relationships with co-workers and accomplishment of assigned tasks. Contrariwise, Halpin (1966:137) defines a "closed" climate as being undesirable and crippling to students and instructors alike. Halpin includes, ". . . we prefer to view Closed Climate as unhealthy or sick--not as evil" (1966:137).

Brickell (1961:24) found administrators of schools to be the most significant source of change since the administrator has the power to allocate necessary resources in terms of personnel, finances, and time. The school principal position has been identified by McPhee as the motivating force which creates the climate that fosters change (1967:188). In that regard, Halpin states that in a "closed" climate, the behavior of the principal fails to foster a condition where staff

members are free to design, experiment, or initiate new techniques and methods for teaching or learning (1966:199). Likewise, Glines found evidence that an indirect role of school principals is the creation and development of a climate conducive to the support of innovation by staff members (1967:166).

As members of complex organizations, teachers are controlled in their behavior by the social context of the organization. "For this reason the focus of change efforts must be as much on the organizations as on the individual teachers who depend on the organizations in their practice" (Owens and Steinhoff, 1976:12).

Together, the attitudes, perceptions, and behaviors of all personnel within the organization serve as the "personality" of the system as a whole. This personality is what makes organizations whatever they actually are.

Halpin states:

And so, too, as one moves to other schools, one finds that each appears to have a "personality" of its own. It is this "personality" that we described here as the "Organizational Climate" of the school. Analogously, personality is to the individual what Organizational Climate is to the organization (1966:131).

This organizational climate or "health," as Mullin (1976:7) refers to it, is one very important aspect that determines whether or not an organization is amenable to change or innovation as well as the degree to which such change will actually be implemented.

STATEMENT OF THE PROBLEM

The problem of this study was to determine the relationship between school organizational climate as determined by the Organizational Climate Description Questionnaire and the number of teacher-initiated educational changes implemented in those schools.

NEED AND PURPOSE OF STUDY

Teacher behaviors are highly related to the total organizational behavior known as climate (Marcum, 1968:10). Those behaviors include all actions of teachers as they exist within the school. Behavior changes that are implemented in the context of the educational program are therefore related in some degree to the organizational climate found to be present in that educational organization.

These concepts prompted this investigator to believe that there is a relationship between the organizational climate and the number, variety, and extent of teacher-initiated educational changes. One technique for determining if such a relationship exists includes the examination and comparison of scores obtained through the measurement of organizational climate and a measurement of the number of classroom instructional changes initiated by the teacher. Awareness of such a relationship may offer educators an opportunity to modify those climates exhibiting low scores in order to stimulate changes in the

educational program to better meet the changing needs of both students and teachers.

GENERAL QUESTIONS TO BE ANSWERED

1. What is the organizational climate profile for each of the twenty-six elementary, four junior high, and two high schools located in the Billings Public School District?

2. How do the organizational climate scores of each of the schools located in the Billings School District compare with the standardized norms established for the Organizational Climate Description Questionnaire?

3. What is the organizational climate score achieved by each of the classroom teachers employed in the individual schools located in the Billings Public School District?

4. How many teacher-initiated educational changes were introduced in the Billings Public Schools by classroom teachers during the six month period prior to the end of the first semester of the 1978-79 school year?

5. Is there a relationship between the organizational climate scores, as derived through individual classroom teachers' scores, and the number of teacher-initiated educational changes made by these teachers, in Billings Public Schools, during the six month period prior to the end of the first semester of the 1978-79 school year?

6. Does the sex of the respondents affect the relationship of organizational climate scores and the number of teacher-initiated educational changes made in the classrooms of Billings Public Schools?

7. Does the respondent's age affect the relationship of organizational climate scores and the number of teacher-initiated educational changes made in the classrooms of Billings Public Schools?

8. Does the number of years of teaching experience of the respondents have an effect on the relationship of organizational climate scores and the number of teacher-initiated educational changes made in the classrooms of Billings Public Schools?

9. Does the recency of the respondent's professional training have an effect on the organizational climate scores obtained by classroom teachers in Billings Public Schools?

10. Does the recency of the respondent's professional training have an effect on the number of teacher-initiated educational changes implemented in Billings Public Schools?

LIMITATIONS AND DELIMITATIONS

A limitation was the measurement of organizational climate that involved only those items appearing in the Organizational Climate Description Questionnaire (O.C.D.Q.) as developed by Andrew W. Halpin and Donald B. Croft (Halpin, 1966:148-50).

The study was delimited to the number of classroom teachers in School District No. 2, Billings, Montana, during the 1978-79 school year. Only full-time classroom teachers assigned to a single building were included in the study.

DEFINITION OF TERMS

Classroom Teacher. A certified instructional staff member whose assignment includes teaching full-time in a single school building. This excludes librarians, counselors, administrators, teachers serving more than one school, and other staff members not assigned in terms of definition.

Organizational Climate. ". . . a delicate blend of interpretations (or perceptions as social psychologists would call it) by persons in the organization of their jobs or roles of others in the organization" (Cornell, 1955:222).

Organizational Climate Description Questionnaire (O.C.D.Q.). Created by Andrew W. Halpin and Donald B. Croft (Halpin, 1966:148-50). A measurement device designed ". . . to dimensionalize the behaviors that define the organizational climate of schools" (Hayes, 1973:3) and ". . . to place schools on a continuum from closed to open climate" (Mullen, 1976:9).

Teacher-Initiated Educational Change. As used in this investigation will refer to methods, techniques, materials, curriculum and

professional development conditions introduced into a classroom through the self-choice of the classroom teacher. These conditions are to be different from those used during the previous school year and may be entirely new, partly new, or a return to a formerly used technique that had been replaced by some other change.

The Eight Dimensions of Organizational Climate.

Teacher's Behavior

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

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

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

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

Principal's Behavior

5. Aloofness refers to behavior by the principal which is characterized as formal and impersonal. He "goes by the book" and prefers to be guided by rules and policies rather than to deal with the teachers in an informal, face-to-face situation. His behavior, in brief, is universalistic rather than particularistic; nomothetic rather than idiosyncratic. To

maintain this style, he keeps himself--at least, "emotionally"--at a distance from his staff.

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

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

8. Consideration refers to behavior by the principal which is characterized by an inclination to treat the teachers "humanly," to try to do a little something extra for them in human terms. (Halpin, 1966:150-1)

Description of Halpin and Croft's Six Climates.

1. The Open climate describes an energetic, lively organization which is moving toward its goals, and which provides satisfaction for the group members' social needs. Leadership acts emerge easily and appropriately from both the group and the leader. The members are preoccupied disproportionately with neither task achievement nor social-needs satisfaction; satisfaction on both counts seems to be obtained easily and almost effortlessly. The main characteristic of this climate is the "authenticity" of the behavior that occurs among all the members.

2. The Autonomous climate is described as one in which leadership acts emerge primarily from the group. The leader exerts little control over the group members; high Esprit results primarily from social-needs satisfaction. Satisfaction from task achievement is also present, but to a lesser degree.

3. The Controlled climate is characterized best as impersonal and highly task-oriented. The group's behavior

is directed primarily toward task accomplishment, while relatively little attention is given to behavior oriented to social-needs satisfaction. Esprit is fairly high, but it reflects achievement at some expense to social-needs satisfaction. This climate lacks openness, or "authenticity" of behavior, because the group is disproportionately pre-occupied with task achievement.

4. The Familiar climate is highly personal, but undercontrolled. The members of this organization satisfy their social needs, but pay relatively little attention to social control in respect to task accomplishment. Accordingly, Esprit is not extremely high simply because the group members secure little satisfaction from task achievement. Hence, much of the behavior within this climate can be construed as "inauthentic."

5. The Paternal climate is characterized best as one in which the principal constrains the emergence of leadership acts from the group and attempts to initiate most of these acts himself. The leadership skills within the group are not used to supplement the principal's own ability to initiate leadership acts. Accordingly, some leadership acts are not even attempted. In short, little satisfaction is obtained in respect to either achievement or social needs; hence, Esprit among the members is low.

6. The Closed climate is characterized by a high degree of apathy on the part of all members of the organization. The organization is not "moving"; Esprit is low because the group members secure neither social-needs satisfaction nor the satisfaction that comes from task achievement. The members' behavior can be construed as "inauthentic"; indeed, the organization seems to be stagnant (Halpin and Croft, 1963:2-3).

SUMMARY

This study was undertaken to gain information through measurement and comparison of the relationship between teachers' interpretations of the organizational climate of their respective

school buildings and the number of teacher-initiated changes attempted in their classroom. Due to the expressed need for change in education and because variations in organizational climate scores have been found to either enhance or stifle productive and necessary change, this study will afford school leaders the opportunity to know to what degree climate must be considered if established goals of meaningful change are to be achieved in the classrooms of their school districts.

Chapter 2

REVIEW OF RELATED LITERATURE

The review of literature is arranged to present concepts of both organizational climate and educational change. These variables are treated separately and also in their relationship to one another. In order to more fully understand the concept of organizational climate it is discussed as follows: (1) Early Development of Organizational Climate Concept; (2) Definitions of Organizational Climate; (3) Components of Organizational Climate Measurement; and (4) Instruments Designed for Measuring Organizational Climate.

The concept of educational change is discussed in the following sequence: (1) Definition; (2) Summary Review of Literature Concerning Studies Involving Educational Change; and (3) The Role of a Classroom Teacher.

The final section of this chapter concerns a review of the studies that have utilized organizational climate measurements in research relating to educational change. In conclusion a summary is provided.

ORGANIZATIONAL CLIMATE: EARLY DEVELOPMENT

Much of organizational theory and organizational research in education has evolved from the thoughts and efforts of persons outside the education setting. These thoughts and efforts have been created by

individuals involved in the field of industrial management and most recently those fields of public administration, sociology, and psychology. Individual contributions from the field of industrial management and public administration are traced to Henri Fayol, Frederick W. Taylor, and Elton Mayo, who wrote in the late nineteenth and twentieth centuries, and more recently to the works of James G. March and Herbert A. Simon; L. Gulick and L. Urwick; and Chris Argyris. From sociology there are the contributions of Phillip Selznick, Peter M. Blau, and Talcott Parsons. In the area of psychology, contributions were made through the works of Bruce J. Biddle and Daniel Katz (Wright, 1969:123).

It would be incorrect to assume that research of organizations began with any one of the previously mentioned men or for that matter during the time frame represented by the works of these individuals. The study of organizational problems is centuries old. Hoagland suggests that we are no doubt at the level of knowledge today because of the efforts made during the latter part of the nineteenth century (Hoagland, 1964:38).

Early literature with respect to organization, as evidenced by Barnard (1938), described the thrust of organizations to be twofold in nature. Barnard stated that organizations must strive for both effectiveness in achievement of the organizational goals and efficiency

of goal achievement in light of regard for the individuals making up the organization (Barnard, 1938:1-3).

Development of such ideas as those of Barnard led to the movement in organizational theory and research known as the "Human Relations" movement (Rogers and Rogers, 1976:45).

Rogers and Rogers identified other such noted individuals as Mayo, Roethlisberger, Dickson, McGregor, Likert, and Argyris as being very instrumental in this Human Relations movement.

These latter-day scholars are often labeled the Human Resources group, because they assumed that all segments of the organization (workers and managers) could benefit from more appropriate human relationships in the organization (Rogers and Rogers, 1976:131).

ORGANIZATIONAL CLIMATE: DEFINITIONS

Credit is given Francis Cornell for originating the term "organizational climate" in 1955. In an article appearing in Phi Delta Kappan in 1955, Cornell defined the concept of organizational climate as a blend of perceptions by persons in an organization concerning their jobs or roles in relation to colleagues and their roles within the organization (1955:222).

Argyris (1958) used the term organizational climate as an analytic component in a study he conducted dealing with behavior of role participants in a bank setting. He defined organizational climate as a living complexity composed of three related systems of

variables: formal organizational procedures, personal needs, "and the complicated pattern of variables associated with the individual's efforts to accommodate his own needs with those of the organization" (1958:501).

George Stern in 1962 described organizational climate as the different forms of "press" or pressures of both the organization and the individual to strive to meet each other's needs (1970:10-12).

Forehand and Gilmer (1964) defined organizational climate as

The set of characteristics that describe an organization and that (a) distinguish the organization from other organizations, (b) are relatively enduring over time, and (c) influence the behavior of people in the organization (1964:362).

Halpin (1966) briefly suggests that organizational climate is to the organization what personality is to the individual (1966:131).

Tagiuri defines the concept of organizational climate as follows:

The climate of an organizational setting is defined as a relatively enduring quality of the internal environment of the organization, that is (a) experienced by its members, (b) influences their behavior, and (c) can be described in terms of the values of a particular set of characteristics (or attitudes) of the organization (1968:27).

In his most recent attempt to "map the domain" of organizational structure, Forehand (1968) saw climate as involving at least three sets of variables: (1) environmental variables, size, structure;

- (2) personal variables; motivations, attitudes, desires, needs; and
- (3) outcome variables; such as satisfaction, job motivation, and productivity.

ORGANIZATIONAL CLIMATE: SOME COMPONENTS OF MEASUREMENT

One of the earliest attempts to measure "organizational climate" was carried out by Hemphill in 1955. His study was developed as part of a ten-year research program on leadership conducted in cooperation with the Ohio State Leadership Studies. Hemphill's research concluded with his identification of thirteen characteristics of organizations common to all and measurable to some varying degree. Characteristics listed by Hemphill include: autonomy, control, flexibility, hedonic tone, homogeneity, intimacy, participation, permeability, polarization, potency, stability, stratification, and viscosity (1955:388-89).

Halpin and Croft (1963) in their attempt to design an instrument for measuring organizational climate geared their efforts toward the development of a more exacting qualitative device that would determine intraorganizational behavior patterns. These researchers came up with four behaviors characteristic of administrative leaders in school settings, and four behaviors most characteristic in staff members of a school setting. Administrative behaviors included:

(1) aloofness, (2) production emphasis, (3) thrust, and (4) consideration. Teacher behaviors were identified as: (1) disengagement, (2) hindrance, (3) esprit, and (4) intimacy. Halpin and Croft went to even greater lengths in utilizing profiles of individual's scores on the instrument to establish six commonly found climates of organizations. Halpin and Croft found that when all individual members had completed the survey, all of the individual profiles could be gathered and upon analysis, the total organizational climate could be placed near one of the following six points of a continuum scale ranking climates as open, autonomous, controlled, familiar, paternal, or closed (Halpin, 1966:150-181).

Though his concern was not to develop climate measurement instrumentation, the effort of Getzels in the development of a theoretical organizational model (Figure 1) gave another dimension to the internal structure of organizations, thereby, adding to the rapidly growing understanding of key components involved. Getzels' model served as visual representation of the typical social behavior and interaction found to exist in organizations. His model was formulated on the basis of three criteria: (1) it was to provide a set of integrated concepts and relations capable of posing and answering questions related to administration structure; (2) the concepts involved were to be operational; and (3) the model was to be exact (Getzels, 1967:152).

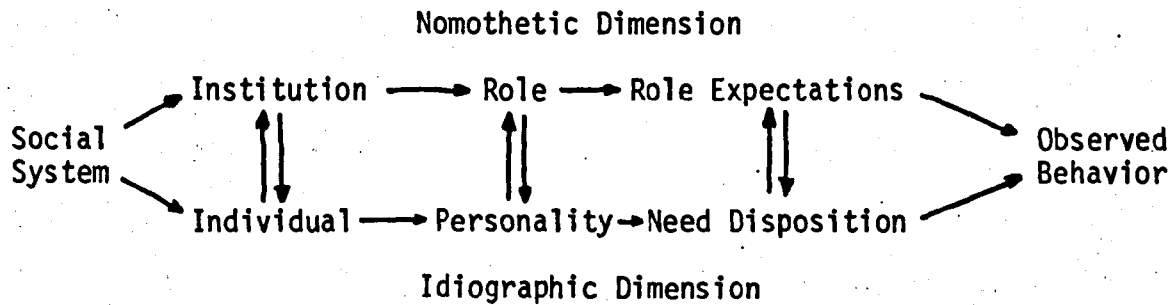


Figure 1

General Model Showing the Nomothetic and Idiographic Dimensions of Social Behavior (Getzels, 1967:156)

The relationship of the behavior of the individual and the work performed in line with role expectations was developed by Getzels in equation form: $B = f(RxP)$, where B is the observed behavior, R is a given institutional role defined by the expectations attached to it, and P is the personality of the role incumbent defined by his need-disposition (Getzels, 1967:157). Observed behavior, then, can be described as a function of the interaction that takes place between the personality of an individual and the role which he is expected to fulfill, as defined by the institution.

Briner, in a 1970 study, suggests that in modifying the Getzels Model by interchanging organizational climate for observed behavior and structural properties for institutional role, the interaction process among the variables concerned with his study would be expressed as $C = f(SxP)$. As an interaction model, therefore, this

indicates that the organizational climate (C) within a school can be defined as a function (f) of the interaction that occurs between the role expectations inherent in the structural properties of the organization (S) and certain personality factors of organizational members (P). This modification reveals that an individual's perception of the climate of the organization with which he is associated is influenced by the compatibility of his personality traits and the role given him by the institution (Briner, 1970:25).

Likert (1967) states that organizations cause most of their own climate deficiencies by not measuring beyond variables he refers to as "end-result" variables. These organizations become too narrow to go beyond production, sales, profits, and percentages of net earnings to sales. Likert claims that two other types of variables must not only be recognized, but dealt with, because just as the "end-result" variables do, these others also make up the organization's climate. The other two categories to which Likert refers are:

"Causal" variables include the structure of the organization and management's policies, decisions, business and leadership strategies, skills, and behavior.

The "intervening" variables reflect the internal state and health of the organization, e.g., the loyalties, attitudes, motivations, performance goals, and perceptions of all members and their collective capacity for effective interaction, communication, and decision making (Likert, 1967:29).

ORGANIZATIONAL CLIMATE: MEASUREMENT INSTRUMENTS

Since the establishment of "climate" as a major concern to the effectiveness and efficiency of complex organizations, much research has been conducted and reported concerning this concept. The reports of Hemphill, in the early 1950's, were credited as the first attempts at measurement of organizational climate. Sustained efforts to design a climate measuring device were not reported until the early sixties through the work of several men. Two of the first to give a great deal of attention to measurement were Andrew W. Halpin and Donald B. Croft. Working together in the early sixties these men developed what was to become one of the most widely used climate measuring devices. This instrument, the Organizational Climate Description Questionnaire, or O.C.D.Q., completed in 1961, was first tested in seventy-one schools located in six different regions of the United States. The first data were obtained from 1,151 respondents. The original findings included both a dimensionalization of the behaviors of the participants and a ranking of school climates based upon criteria indicating likelihood of innovation and change.

Brown (1964) replicated the Halpin and Croft study at eighty-one elementary schools in the Minneapolis-St. Paul region of Minnesota. The O.C.D.Q. was completed by 1,772 professional staff members. Findings substantiated the original study of Halpin and Croft.

Though the O.C.D.Q. has been more extensively used than any other measures of organizational climate (ERIC, 1978:2), Kenny and Rentz (1970), after reviewing the findings of 123 studies using the O.C.D.Q. contended that "Halpin and Croft deliberately excluded urban core schools, choosing instead schools in communities where the concentration of Negroes was low" (Kenny and Rentz, 1970:63). It was the purpose of their study to prove inappropriateness of the O.C.D.Q. in urban situations. The Kenny and Rentz study involved a total of 2,047 staff respondents involved in 102 schools located in four geographic regions: (1) South; (2) East Coast; (3) Mid-Continent; and (4) Southwest. The investigators designed their sample so that "all schools were in urban or suburban areas of cities having a population of at least one million" (1970:63-4). Kenny and Rentz concluded that "the urban school is unique, and its problems call for radical departure from traditional measurement techniques" (1970:68). At no time, however, did the researchers refute the need for gathering internal climate knowledge and understanding.

The original design of Halpin and Croft's O.C.D.Q. was based upon research in elementary schools. Andrews (1965:320) challenged the appropriateness of the O.C.D.Q. for use at the secondary level. Wright (1969) and Brumbaugh and Christ (1972) utilized the O.C.D.Q. in measuring secondary school climates. In supporting Wright, Brumbaugh and Christ made several conclusions including:

(1) At the secondary level the O.C.D.Q. seems to possess strong face validity; (2) the O.C.D.Q. conformed closely to preliminary impressions of climate by the investigators during personal visits; and (3) O.C.D.Q. subtest scores do predict staff attitudes toward six educational change attitudinal items (Brumbaugh and Christ, 1972:8-9).

Other climate measurement devices were introduced during the 1960's and 70's. Kimpston and Sonnabend (1975) developed an instrument to measure staff perception of climate. These investigators picked up on an idea expressed by Matthew B. Miles in 1965, in which he stated ". . . attention to organizational health ought to be priority one for any administrator seriously concerned with innovativeness in today's educational environment" (Miles, 1965:13). Kimpston and Sonnabend conducted research with their newly designed instrument, the Organizational Health Description Questionnaire, in the Minneapolis-St. Paul area of Minnesota.

Another climate measurement device was developed by Jane G. Likert and Rensis Likert (1967). This instrument, Profile of a School, was developed after several years of trial of a similar instrument developed by Rensis Likert to analyze the organizational climate of the business and industry sector. This original instrument was known as the Profile of Organizational Characteristics. The effort of Likert and Likert has resulted in the development of separate forms of the instrument for principals, teachers, students, parents, board members, administrative staff, superintendents, and college-level

personnel. The original instrument attempted to identify different types of organizational structures, identify distinct characteristics, and classify all researched groups into one of four major categories. The new instrument, Profile of a School, was designed to order to provide measurement of organizational make up involved in the school setting (Likert, 1967:13-46).

Hall (1972) designed and carried out a study that served to measure the relationship between Halpin and Croft's organizational climates as classified by the O.C.D.Q. and Likert and Likert's organizational climates as classified by the teacher form of the Profile of a School questionnaire. The study employed both instruments in forty-three elementary schools within a two hundred-mile radius of St. Lawrence University, Canton, New York. The procedure included administering the O.C.D.Q. first in twenty of the schools and the Likert instrument immediately afterwards; in the remaining twenty-three schools the order was reversed. Hall, in conclusion, states that: "The positive significant relationship found between these two instruments supports the concept that the two models from which these instruments were developed are comparable" (Hall, 1972:586-87).

Still another instrument developed to measure the organizational climate of an organization is the Organizational Climate

Index, O.C.I., developed by Stern and his associates (1962). Stern's work began with modification of the Activities Index, originally developed in 1950-51 at the University of Chicago. This instrument, made up of four hundred items, was used as a personality assessment measure in its original form. In 1953, it was shortened to three hundred items and modifications began to delimit items enabling various forms to be available. Renamed, the Characteristics Index, the first alternate form was the College Characteristic Index, C.C.I., developed in 1957, and used to measure the environment (climate) of a college setting. To follow were indices for high school climate (HSCI) in 1960, evening college (ECCI) in 1961, and the comprehensive educational climate instrument the Organizational Climate Index (OCI) in 1962 (Stern, 1970:13-15). As stated by Stern:

The OCI, Form 1163, represents the first attempt to develop a more general instrument, in this case applicable to the analysis of all formal administrative structures (1970:15).

One of Stern's former associates, Carl R. Steinhoff, teamed with Robert G. Owens in 1969 to conduct a comparison study of the relationships between Stern's O.C.I. and Halpin and Croft's O.C.D.Q. Owens and Steinhoff sampled in matched pairs, fifty-three staff members of a New York City public school. Owens and Steinhoff determined:

The researchers in the present study contend that both sets of constructs are powerful heuristic tools for describing organizational behavior and that the second order factors of both instruments were in fact describing at least similar phenomena (Owens and Steinhoff, 1969:6).

EDUCATIONAL CHANGE: DEFINITION

Educational change could be an action to affect any of a countless number of areas concerned with educational systems. Changes, as discussed by Miller, generally occur from outside sources or from sources within the educational organization (1967:6). Brickell (1961), Owens and Steinhoff (1976), and others support Miller's contention that more recently "pressures from outside the realm of professional education have accounted for considerable change in American education in the last 15 years" (Miller, 1967:6).

Reasons for educational changes are as numerous as the number of possible changes themselves. Areas directly involved in the instructional program include categories as defined by Heathers in 1967. Areas often included in change efforts involved curriculum, physical facilities, reorganization, instructional and evaluational methodologies, material and financial resources as well as others.

Miles states briefly that change denotes some "noticeable alteration" (1964:13); therefore, educational change is simply a noticeable alteration in one or more of the many facets making up the broad spectrum of the education profession. In reference to the

category of teacher-initiated educational changes, such change could vary from a change as insignificant as the choice of color for the background of a bulletin board display, to as monumental a change as the implementation of a complete individualized program of instruction offered for the first time.

More recently, the term "educational change" was revised and now reads to include the term "planned." Planned educational change has become a more desired as well as a more definable term. Bennis defines a planned change as ". . . a conscious, deliberate, and collaborative effort to improve the operations of a system . . . through the utilization of scientific knowledge" (1961:3). Recent literature deals with the concept of educational change almost exclusively with the more adequate terminology of planned educational change as is noted in the next section of this review.

The confusion of meaning, yet the importance of consideration of change is brought to the surface by Oppenheimer's statement made in 1955, when he wrote:

What is new is new not because it has never been there before, but because it has changed in quality. One thing that is new is the prevalence of newness, the changing scale and scope of change itself, so that the world alters as we walk in it . . . we need to recognize the change and learn what resources we have (Oppenheimer, 1955:10-11).

EDUCATIONAL CHANGE: SUMMARY REVIEW OF
LITERATURE CONCERNING STUDIES
INVOLVING EDUCATIONAL CHANGE

Miller, in 1967, stated that "surprisingly little literature in terms of book-length studies and/or research projects has been addressed to the process of educational change" (1967:v). Rogers (1962) had earlier discussed the lack of written reports and/or studies and sought to provide a reason for this perceived gap. Rogers set about to trace what he referred to as the "diffusion of innovations," the phrase used as the title of his book (1962). In his work, he summarized more than five hundred reports dealing with innovation diffusion in six "traditions" areas. Rogers reveals in his volume a timeline showing that the "tradition" of education relies heavily in its earliest planned development stages on anthropology "traditions," and more recently on the work of early sociologists and rural sociologists (Rogers, 1962:53).

Early attempts to determine the "when" of educationalists' adoption of a planned system of change required a statement of historical description of theories existing before acceptance of the new planned change concept. Ward in the early 1900's was given credit for one of the earliest efforts to systematically design change when he stated: "The origination and distribution of knowledge can no longer be left to chance or to nature" (Ward, 1950:214).

The statement of Ward was prompted as a reaction to the change theory prevalent in many fields including education during the 1800's and early 1900's. Bennis identified this change theory as that of "automatic adjustment," characterized by a non-controlled, random, and undesigned effort. Bennis wrote:

Proponents of "automatic adjustment" tended to relegate social scientists to an observer role and to deny them participation or leadership in influencing the direction or the form of practical affairs. This conception of "nonintervening" social science fitted the main-line traditions of the natural sciences and of the older social studies--history, economics, and political theory. This view of the proper relationships between social science and social action was further reinforced by aspirations of the younger and more behavior-oriented sciences--psychology and sociology--to achieve and maintain their autonomy and "purity" within the academic world in which they were parvenus (Bennis, 1961:7-8).

The early efforts of Ward and others to entice leaders of various disciplines to consider a program of planned change methods, in order to better utilize expanding knowledge in their respective fields, remained low-keyed for a decade or more. In education, the earliest attempts to rationalize a need for a modified attempt to make systematic changes belonged almost entirely to Paul R. Mort and his associates (Carlson, 1965:7). The most lasting effect of early Mort studies was the revelation that adoption of most educational changes required an average time span of approximately fifty years, a finding supported by Owens and Steinhoff (1976:37).

In 1964, Mort's research returned to the literary scene with a report that disclosed the most current summary to date, of studies conducted concerning planned change efforts. Mort reported:

Over the past two decades, approximately 200 studies have been carried on . . . dealing with the adaptability of public school systems, and with the adaptation process The studies through 1957 (150 in all) were analyzed by Ross (1958) The fifty studies completed (to June, 1961) since the Ross book went to press deal almost exclusively with influences on the adaptability of school systems, though three deal with the adaptation process itself (Mort, 1964:317-18).

EDUCATIONAL CHANGE: THE ROLE OF A CLASSROOM TEACHER

The role of the teacher in the diffusion of innovations is not given much attention throughout the several hundred studies conducted in this area. Good, Biddle, and Brophy have stated that "despite general and personal interest in education and despite the important role the school fills, not a great deal is known about the effects of schools on students" (1975:1).

The few studies showing the importance played by the classroom teacher have resulted in a characteristic index of identified attributes as displayed by effective teachers. In 1967, Chall conducted studies concerning reading instruction. Chall's conclusion was that teachers and teaching do indeed make a difference in product. Good, Biddle, and Brophy explain that the classroom teacher is not the only

important variable in the education process; however, he/she is and shall continue to be a vital influence (1975:7).

The definite lack of study concerning the role of teachers in the school systems' educational change process lends credence to the desire for more study. "Typically, schools, not teachers, are used as the unit of analysis and when teachers are used, variance estimates are frequently missing" (Good, Biddle, and Brophy, 1975:8).

The importance of teacher-initiated educational change was apparent in the studies of Rosenshine and Furst (1973). These researchers concluded that students learned best when the following characteristics were present: variability in teaching methods, curricula, and/or media; variability in grouping, discussion, lecture, and personal interaction techniques; and variability in questioning and cognitive level of discourse.

In 1974, Dunkin and Biddle conducted process-product studies concerning teacher role in the educative process. Overall conclusions were similar to the findings of Rosenshine and Furst. Dunkin and Biddle found that teacher behaviors concerning traditional practices were important, but so, too, is the teacher behavior towards use of affective variables such as student attitudes towards themselves as learners, towards teachers or school.

RESEARCH INVOLVING ORGANIZATIONAL CLIMATE
IN RELATIONSHIP TO EDUCATIONAL CHANGE

The emphasis of studies concerning organizational climate and its effect on innovation and change in education is recent. Such research has been called for in order to answer unsolved questions concerning organizational functions as well as questions concerning diffusion of innovation and change. Miles contends that leadership and innovativeness are highly related and the amount of variation should be analyzed both for the support of the theorists and the practical knowledge base for the practitioner (1962:251). This view calling for research was reiterated by Miller (1967) and the Committee for Economic Development in 1968.

Marcum (1968) studied what he determined to be the fifteen most innovative and the fifteen least innovative schools based on a sample from a five-state area of the Northwestern United States. Classification of innovativeness in Marcum's study was made through use of a checklist questionnaire of innovative characteristics. Of the thirty schools selected, fourteen were high schools, six were junior high schools, eight were elementary schools, and one school was classified as operating grades one through twelve. The O.C.D.Q. was then administered to each school and Marcum found that the most innovative schools had (1) open climates, (2) higher expenditures per student, (3) lower age of staff, (4) fewer numbers of years of staff

service, and (5) a larger professional staff (Marcum, 1968:20-77). As a follow-up and expansion of the Marcum study, Reynoldson conducted a study in 1968 involving fifty-two schools in Oregon, Idaho, Washington, Utah, and Nevada. These schools had been identified and ranked according to innovativeness by the earlier Marcum study. Reynoldson expanded his study to include those earlier identified as the fifteen most and least innovative schools and a block of twenty schools comprising an intermediate innovativeness group. Each participant in the fifty schools selected completed a checklist of educational innovation and the O.C.D.Q. Data collected included responses from 1,250 staff members located in forty-nine schools. Reynoldson found that schools with open climates were more likely to be innovative than schools with closed climates (1969:38). He concludes:

Such factors as the personality characteristics of the administrator and his willingness to adopt innovative ideas, the leadership style of the administrator, and the diffuseness of the communication network may have more influence on individual and group decisions to adopt innovative ideas than does the structure for decision making (Reynoldson, 1969:40).

Brumbaugh and Christ conducted research on organizational climate and attitudes toward change in schools in 1972. These researchers administered a short attitudinal scale to determine perceptions of 131 staff members of a parochial high school concerning potential changes being examined by the school administration. Respondents were also asked to complete the O.C.D.Q. instrument to determine current

