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ABSTRACT

This study serves as a basis for revisions of the Organizational Climate Description Questionnaire (OCDQ) and as the second part of a larger study in which the conceptual model of climate introduced by Halpin and Croft, and the OCDQ, will be revised. The purposes were (1) to determine the factor structure of the OCDQ when a large, national sample of data were subjected to the sophisticated factor-analytic procedures that have become available since the original Halpin-Croft study was conducted; and, (2) to identify "climate types" that are based on the factor structure that was identified through the new analyses. Maximum-likelihood factor-analytic methods, with subsequent oblique rotations of the factor matrixes, and taxonomic clustering procedures followed by multiple discriminant-analyses yielded factor solutions and climate types that differ from those which Halpin and Croft identified in their original climate study. (Author)

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A REAPPRAISAL

OF THE HALPIN-CROFT MODEL

OF THE ORGANIZATIONAL CLIMATE OF SCHOOLS

by

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A Paper Presented to

Division A of

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CHAPTER I

INTRODUCTION

Statement of the Problem

The purpose of this study was to determine the extent to which the Organizational Climate Description Questionnaire (OCDQ) is currently useful for supporting a conceptualization of the Organizational Climate of schools.

To achieve this goal the following research questions were answered:

1. Which factor structure will best describe the current, national sample of OCDQ data if those data are subjected to maximum-likelihood factor-analytic procedures with oblique rotations of the solutions?

2. How do the dimensions of climate which the current data reveal differ from those which were identified from the Halpin-Croft data?

3. Which climate groups can be identified that will describe the between-schools variations in Organizational Climate for the current sample of schools?

4. How do the climate groups which are revealed by the current sample of data differ from those groups which are revealed by the Halpin-Croft data?

5. What revisions of the OCDQ are required to assure that the questionnaire will provide dependable measures of the dimensions of climate which are revealed by the present research?

Origin of the Problem

In August 1962, Halpin and Croft reported the findings of their original study on The Organizational Climate of Schools.[1] They pointed out the limitations in using the term "morale" to describe the "personality" of an organization, and, in attempting to describe organizational "personality" multi-dimensionally, they described their domain of inquiry as the "Organizational Climate." Furthermore, they developed the Orgainzational Climate Description Questionnaire (the OCDQ) to measure the dimensions of climate in elementary schools.

The development of the OCDQ provided a basis for the identification and naming of the eight dimensions that compose the Halpin-Croft conceptual model of Organizational Climate. Several hundred items were selected to compose preliminary forms of the questionnaire, but these were reduced, ultimately, to the 64 items that compose the present eight subtests, four of which pertain to the behavior of teachers and four to the behavior of principals. The scores on each of these subtests were summarized for the

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[1] The final report of their project was made in August, 1962 [USOE, HEW Contract Number SAE 543 (8639)]. In February, 1963, Halpin summarized the findings of the original study in a paper that he presented in Chicago at the American Educational Research Association meeting. In March, 1963, the essence of that paper was published by Halpin and Croft in the Administrator's Notebook (Vol. XI, No. 7). The original study, in only slightly abridged form, was published as a monograph by the Midwest Administration Center, University of Chicago, in August, 1963. This monograph is now out of print. However, an abridged and slightly modified version of it has been published as Chapter 4 in Halpin's book, Theory and Research in Administration (New York: Macmillan Co., 1966).

respective respondents in each school to yield a climate-profile for the school. Halpin and Croft then factor-analyzed the profiles of the 71 schools in the original sample. Through this process they identified six groups which they conceptualized along a rough continuum defined by "the Open Climate" at one end and "the Closed Climate" at the other.

Halpin and Croft found, through their research, that it was feasible to dimensionalize the behaviors that define the Organizational Climate of schools. Furthermore, the six climate types that were empirically identified made good sense, both practically and psychologically. While making no unrealistic claims for their research, they did feel that the eight dimensions and the six climates which were delineated would prove to be both "real" and useful (Halpin, 1966, pp. 193-194).

The concept of Organizational Climate that Halpin and Croft proposed is, indeed, useful. This particular conceptualization has generated a number of fruitful, testable hypotheses.[2] However, the instrument itself requires much additional research and refinement.

From the time when the OCDQ was first introduced in 1962, many attempts have been made to validate it, to determine its reliability, to factor-analyze it, to discredit it, or, in general, to manipulate the items that

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[2] The investigator has been associated with climate research studies in which climate was compared with personal characteristics of the teachers, personal characteristics of the principal, biographic and demographic variables for the staff and the principal, student achievement, organizational characteristics of the school, etc. An inspection of Dissertation Abstracts will reveal several hundred studies which raise research questions regarding climate. The hypotheses have been tested with different degrees of success.

compose the instrument, yet the instrument remains in its original form. Neither the conceptual framework for climate nor the OCDQ has been either "validated" or modified.[3]

Several factor-analytic studies were made of the OCDQ during the first few years after its introduction. Emma (1964), Gentry and Kenney (1965), Brown (1965), and others found little difference between obtained factor structures and those produced by the original analysis.

Although the OCDQ was constructed for use in elementary schools and the sample data were obtained from elementary schools, the instrument has been used, both in its original form and in modified form, in educational organizations of several types. Some researchers have used the scale in

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[3] The investigator has not presented a complete review of literature related to either the concept of Organizational Climate or the applications of the OCDQ. Readers who wish to pursue these topics in the literature are referred to Chapter 4 of Andrew W. Halpin. Theory and research in administration. New York, The Macmillan Company, 1966. Footnotes in the chapter are especially useful for understanding the conceptualization of climate.

Furthermore, at least two bibliographies of works which relate to applications of the OCDQ have been compiled and are available. T. W. Wiggins, now with the College of Education, University of Oklahoma, Norman, Oklahoma, compiled one bibliography in which he critiqued and summarized a number of studies. This study is reported in Dissertation Abstracts (Wiggins, T.W. Critique and summary of Organizational Climate Description Questionnaire research. Unpublished report, Claremont Graduate School, Dissertation Abstracts, February, 1969, 29A, 2504A.). Barrett, at Yale University, also has compiled an OCDQ bibliography. Readers who may be interested in this bibliography can contact D. Barrett, Psycho-Educational Clinic, Yale University, 295 Crown Street, New Haven, Connecticut, 06511.

secondary schools even though there is no conclusive evidence that the scale measures the eight climate-dimensions in these schools. Novotney (1966) administered the OCDQ in parochial schools and factor analyses of the data generally conform to the Halpin-Croft analysis. Van Straten (1966) modified the items to apply to a military educational setting. Likewise, the items have been modified to apply to nurses' training programs (WICHE, 1964). No conclusions can be made, however, regarding the general applicability of the Halpin-Croft conceptual model of climate to these organizations.

Several studies have questioned the validity of the OCDQ. Andrews (1965) attacked the conceptual model, attributing much of the model to "language gamesmanship." He found good stability of all the dimensions except Disengagement. Andrews' approach to the validity problem is questionable, however, because there is little reason to believe that other "standardized" measures are, in fact, measures of the same or similar traits. McFadden (1966) attacked the validity problem differently, using judges' ratings of the dimensions of climate as criteria for the validity of the OCDQ measures. He found little agreement between the ratings of the judges and the scores derived from the OCDQ.

During the past few years, the OCDQ has been administered hundreds of times, and the results have been related to various organizational variables. More and more, however, the results from analyses of the OCDQ data are uninterpretable, or at least questionable, especially when the data have been collected in urban areas. Kenney and Rentz (1970) conducted a factor-analytic study of OCDQ data from a large sample of

respondents from urban schools, and they could identify only four dimensions. The present investigator performed factor analyses of data from urban, unionized schools and was unable to replicate the original dimensions (Ames, et. al., 1972).

Generally, the early climate studies served to justify the original dimensions of climate, but some recent studies indicate that some items of the OCDQ are no longer useful indicators of the dimensions of climate,[4] and that the questionnaire should be revised.

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[4]Indicators of a construct usually are useful only within a given organization, a social system, a time frame, a location, etc. That is, an "item" may be a useful indicator of a trait at a given point in time or within a given social system, but after certain changes take place, the item is no longer a useful indicator of the trait. For example, during the early 1950's a question regarding ownership of a television set might have been a useful indicator of economic position; whereas, this certainly would not now discriminate among the economic groups. An item such as "teachers visit each other in their homes" probably would not be a useful indicator of within-school interpersonal relations if the teachers are commuting to the school from within a 50-mile or more range of the school as some teachers now do. A further example of the effect of "the times" on perceptions occured recently. A male photographer had taken a photograph of a beaming junior high school girl who had just removed a cake from the oven. The photographer saw this situation as an example of the enjoyment of task-accomplishment. A young, female teacher, however, declared that the photographer was a "male chauvinist" because he implied that the place for a woman was in the home.

Over a decade has passed since the items that compose the OCDQ were selected. During that time great changes have occurred both in the schools and in the larger social system in which the schools function. These changes may have caused some of the items no longer to be useful indicators of the dimensions of climate that were tapped originally by the instrument. This usefulness can be assured only by periodic reviews of the items that compose the questionnaire.

The purpose of the present study is not to revise the OCDQ; rather is it to determine the current usefulness of the items that compose the questionnaire for measuring dimensions of climate. Furthermore, the present research will modify the Halpin-Croft conceptual model of climate to the extent that the current statistical procedures and a current data sample reveal a need for modification.

Limitations of the Study

The present study is an intermediate step in a long-range research project that has as its ultimate objectives to modify the original Halpin-Croft conceptualization of climate and to revise the OCDQ so that it will provide dependable measures of the defined dimensions of climate. The present study will not produce "new" normative data for the OCDQ. Rather will it determine which items of the OCDQ are dependable indicators of the defined dimensions of climate and, hopefully, provide insights into the revisions that may be required if the OCDQ is to support a new conceptualization of climate.

The data for this study were collected during a three-year period from 1969 through 1971 and were compiled by the investigator from 15 separate research studies. Most of the Eastern United States was represented in the sample, but only one small sample was included from the Pacific Coast States, and no data were included from either the Western Mountain States or the Southwestern States.

Definition of Terms

The conceptual basis for the present study of Organizational Climate was presented by Halpin and Croft in the final report of their climate study. Their definitions of terms are used throughout this report. Whenever new terms are added to the original "language of climate," they are defined at that point in the text or in an appropriate footnote.

CHAPTER II

PROCEDURES

Design of the Study

This study was designed to determine the model of Organizational Climate which is supported at the present time by OCDQ data that were collected from within elementary schools. Furthermore, this study was designed to determine the weaknesses of the OCDQ for measuring the dimensions of the climate model that is identified during this study.

To achieve these goals the task was separated into three components:

1. To determine the factor structure of the OCDQ that is supported by the data.

2. To determine the measures of climate that represent the factors which are identified in component 1.

3. To identify the clusters (groups) of schools that can be used to describe the between-schools variations in Organizational Climate.

Factor analyses of the data were computed, and scores were computed for each respondent in accordance with the obtained factor structures. These scores were summarized for all the respondents within a school to yield a climate profile for each school. Taxonomic clustering procedures were applied to these profiles to determine initial groups of schools with profiles that were similar to each other, yet different from those of other groups. Multiple discriminant analyses were used to refine these groups and to complete the assignment of schools to the groups.

The Data

The present study is based upon a data sample which was assembled by the present investigator from several researchers who were located throughout the United States. This data sample is composed of responses to the OCDQ by 12,125 teachers and principals in over 1,000 schools. These schools are, for the most part, elementary schools; some, however, are departmentalized and contain grades through the junior high school level. The regions represented range from New York metropolitan areas to South Carolina Appalachian areas. For most of the states that are represented, there are data from large metropolitan areas, from cities, from suburbs, and from small towns.

The current data sample was selected from a larger set of data that contained approximately 25,000 respondents. Data were deleted because some geographic locations were too heavily represented, especially several urban areas. Other data were deleted because the description that was available to the present researcher was not sufficient to assure the kind and location of the schools in the set.

Again, as with the original Halpin-Croft data, the current sample is fortuitous. It was not selected because of any criteria for sampling. Several parts of the United States are not represented by these data, notably, the Western Mountain states, the Southwestern States, and the Pacific Coast States.

Factor Analytic Procedures

To answer the research questions that were raised in Chapter I, several factor analyses of the data (the intercorrelations among the items of the OCDQ) were performed. These factor analyses, as opposed

to the principle-components analyses performed by Halpin and Croft, comprise one of the major differences between the procedures of the current study and those of the original study.

The factor-analytic method which was selected for the present study is the maximum-likelihood method which was first introduced by Lawley in 1940. While this method is relatively old now, it did not become practical until recently because the computational procedures are very complex. The computers that were available even during the early 1960's required considerable time to perform the analysis for even a small problem. In recent years, however, much work has gone into the development of computational algorithms that are more efficient than were the original computational procedures. These algorithms, along with the present large, high-speed computers, have made the maximum-likelihood method of factor analysis practical for application to relatively large problems.

Most factor-analytic methods are mathematical. That is, they begin with the data and proceed according to a set of prescribed steps until the unique solution is reached. These methods are applied to a sample correlation matrix, and interpretations are usually made in terms of the population from which the sample was drawn. The maximum-likelihood method, however, is statistical in nature. This method requires an hypothesis of a number of factors and, under this assumed number of factors, the method of maximum-likelihood is applied to the observed data to get estimators[5] of the universe factor loadings. Subsequent tests of significance can be applied to determine the adequacy of the hypothesis regarding the number of factors.

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[5] For a further discussion of estimators and the criteria for "good" estimators, see Harmon (1967, pp. 212-214).

While present-day computers make the maximum-likelihood method feasible, the statistical nature of the procedure causes a perplexing problem--the convergence to a "unique" factor solution. That is, this method iterates through a set of procedures until factor loadings are derived which, probabilistically speaking, are "most like" the factor loadings which could be derived from the universe from which the sample was drawn.

Probably the most important recent work on the maximum-likelihood solution is that of Jöreskog (1966). He has devised a very efficient computational method that converges rapidly, regardless of the values with which the process is started (Harman, 1967, p. 219). The method devised by Jöreskog and the computer program which he developed in accord with his method were applied to the data in the present climate study.

In order to interpret more easily an obtained factor structure, mathematical transformations of the factor loadings usually are made. These transformations, in an intuitive sense, rotate the axes which represent factors within the factor space. The rotations are performed according to some selected criterion for simple structure for the finalized factor structure.

Perhaps the most popular criterion currently in use for factor rotations is the varimax (Kaiser, 1958), which was designed to maximize the simplicity[6] of the factor matrix, i.e., to maximize the orthogonal

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[6] The simplicity of a factor is the variance of the squared factor-loadings. When the variance is at a maximum, the factor has the greatest interpretability, or simplicity, in the sense that its components tend toward either unity or zero. The criterion of maximum simplicity of a complete factor-matrix is defined as the maximization of the sum of the simplicities of the individual factors (Harman, 1967, pp. 304-305).

simple structure. Jöreskog included this varimax rotational criterion in his computer program. Thus, a final factor-matrix produced by the maximum-likelihood factor-analysis program is rotated orthogonally[7] to achieve a simple structure.

Halpin and Croft identified eight dimensions of climate that were based upon an eight-component analysis with the varimax criterion applied to the rotational procedure. Therefore, they had sssumed, perhaps implicitly, that the dimensions of climate which they identified were not correlated. The investigator has assumed that dimensions of climate are dependent; hence, they should be based upon a factor structure in which the factors are further rotated by oblique rotational procedures.

The maxplane technique (Eber, 1966), which maximizes the hyper-plane counts (in a sense, maximizes the oblique simple structure), was applied to each of the factor matrices which had been produced by Jöreskog's computer program. These matrices, now rotated obliquely, served as the basis for identifying the domains of climate which are tapped by the OCDQ. Further more, the matrix of intercorrelations among the obtained factors was analyzed by the same procedures which had been applied to the inter-item correlations. These analyses revealed the second-order dimensions of climate.

Measuring the Dimensions of Climate

For the purpose of computing raw scores for each dimension of

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[7]Orthogonal factors are assumed to be independent, or, in a mathematical sense, not correlated. Intuitively, the axes which define the factors are, pairwise, perpendicular to each other.

climate, Halpin and Croft simply summed the responses to the items that composed a subtest and then divided the sum by the number of items in the subtest. This procedure, which requires only simple computations and is commonly used, has several weaknesses with respect to both measurement and analysis. Each variable is assigned the same weight for computing the score, regardless of the "real" contribution of the variable to the measure of the dimension. Thus, a margin of error in estimating scores with this procedure should be expected. A more precise means for estimating factor scores takes into account the correlations among the variables (the 64 items of the OCDQ in the present case), the correlations among the factors, the factor pattern, and the response variables. This procedure, described by Harman (1967, p. 352) as the complete estimation method for factor measurement, was applied to the original OCDQ data by the present investigator. Specifically, this procedure is described by the formula:

$$\overline{F} = \phi A'R^{-1}Z$$

in which $\overline{F}$ is the resulting matrix of standardized scores, ϕ is the matrix of factor correlations, A' is the transpose of the factor-pattern matrix, R^{-1} is the inverse of the matrix of inter-item correlations, and Z is the standardized data (item response) matrix.

This procedure produced a set of scores for each of the respondents to the OCDQ. The scores were multiplied by 10 and added to 50 so that the resulting scores had a mean of 50 and a standard deviation of 10. These scores were then summarized for each school, and means were computed to produce a set of scores that could be considered as the climate profile for the school.

In order to interpret the profile of a school with some assurance that the profile was, indeed, a dependable measure of the climate of the school, some estimates of the reliability of both the factor scores and the profile were required. The original researchers computed correlations between the subtest scores for the even- and the odd-numbered teachers in the schools to provide estimates of reliability of each subtest (Halpin and Croft, 1963, p. 49). The present investigator has applied that procedure to the data but has also extended the procedure to provide an estimate of reliability of the climate profile.

The respondents to the OCDQ in each school were assigned randomly to one of two groups within that school. Group means were computed for each of the climate dimensions to produce two profiles for each of the schools. Intercorrelations among the subtests were computed, as was a canonical correlation between the two sets of profiles. The correlations between the subtests provide estimates of the reliability of each subtest, whereas the canonical correlation provides an estimate of the relibility of the climate profile.

Clustering the Schools

Halpin and Croft computed subtest scores for each respondent to the OCDQ after which they summed these scores for each school and computed subtest means to produce a profile for that school. Next, they performed a factor analysis of the matrix of intercorrelations among the profile scores in order to identify groups of schools that could serve to define types of climate. They identified six groups. From these groups they selected those schools which were the most representative of that group and computed subtest means for each of the selected groups. These

profiles of means (the prototypic profiles) allowed the original researchers to specify those behaviors which would be anticipated in organizations with a given climate type.

The investigator chose not to hypothesize the existence of a specific number of groups of schools among the schools that compose the data sample. Rather he chose to apply statistical clustering-procedures to the sets of school profiles in order to determine those groups of schools that were, indeed, different in respect to their climate profiles.

Taxonomic clustering-procedures (Cattell, Coulter, and Tsujioka, 1966) were applied to the profiles to provide initial estimates of the groups that are required to describe the climate of schools in the samples. The Taxonome--a computer program for identifying types--was used to identify these groups. This program bases all classifications upon the degree of similarity that is found among the profiles. The R_p coefficient of profile similarity is the statistic that is used in the analysis. This coefficient, as it is written into the computer program, requires that the scores which comprise the profile points are not correlated. This assumption is violated in the present analyses because the scores are, indeed, estimated from oblique factors. Hence, the taxonomic procedure serves only to provide initial estimates of the clusters.

Multiple discriminant-analyses, which do not require orthogonal variables, were applied to the initial group estimates in order to complete the classification of schools into groups. The computer program

BMD07M (Dixon, 1970) was used to compute these analyses. This program allows the user to input a set of groups that have been defined and a set of cases (in the study, schools) which have not been classified; the program will then indicate which of the groups each of the non-classified cases is "most like." By starting initially with the groups which were identified by the application of the taxonomic procedure and then iterating with the discriminant analysis, the climate groups were refined to those which were used to define the "prototypic" groups. One further analysis was required to assign "non-prototypic" schools to one of the climate groups.

CHAPTER III

ANALYSES OF THE DATA

The purpose of this chapter is to present the findings that were obtained from the analyses of the data. The presentation is organized with the sequence which was followed for application of the statistical procedures to the data.

Factor-Analyses of the Data

Halpin and Croft had defined eight dimensions of Organizational Climate and had supported those dimensions with a mathematical solution which was derived from their OCDQ data. Analyses of the current data sample, however, were exploratory in nature, and no specific number of factors had been hypothesized. Hence, the factor-analytic plan was to compute several solutions and then to inspect the solutions for mathematical appropriateness and intuitive appeal. By following this procedure a solution was selected which, in the opinion of the investigator, best described the domains of climate which are tapped at the present time by the OCDQ.

At the outset of the analyses, maximum-likelihood solutions, rotated to the varimax criterion, were computed for three factors through eight factors, inclusively. An initial inspection of these rotated factor-matrices revealed that the three- and four-factor solutions were too

complex to be useful for describing climate. They simply could not be "named." Attention, therefore, was directed toward the solutions with higher numbers of factors: particularly, the eight-factor solution. Preliminary inspections of the six-, seven-, and eight-factor solutions indicated that each of these solutions was potentially useful for describing climate. These solutions, therefore, were rotated further by the oblique rotational-procedure.

Because the items were considered to be complex, the absolute value of the factor-loading for an item on a particular factor was not as critical for inclusion in that factor as it might have been if the items were considered with respect to only one factor. Therefore, for the initial assignment of items clusters, an item was included if the absolute value of its loading on the factor was greater than .15. For further interpretation, however, each item in an item group was considered both with respect to its mathematical contribution to the measure of the factor and for its intuitive appeal vis-a-vis the primary items in the item-cluster.

The above procedure for assigning items to clusters was first completed for the eight-factor solution. An inspection of the obtained item-clusters revealed six clusters which were very much like the original dimensions which had been identified by Halpin and Croft. There were no clusters, however, which resembled either the Aloofness or the Consideration dimensions as they had been identified from the original data.

The two "new" factors seemed, upon initial inspection, to be very much like others of the six original factors. Specifically, one factor

seemed to be composed of those items which were positively worded but should have been assigned to the Hindrance subtest. The other new factor seemed to be closely related to both Esprit and Intimacy. It was the opinion of the investigator at this point that the data simply were over-factored and that the two factors would collapse into the remaining factors if the number of factors was reduced.

The seven-factor solution was inspected to determine which items would "fit" into the seven clusters. Again, the criteria of mathematical contribution and intuitive appeal were applied to the items for final assignment to clusters. An inspection of the items which composed the clusters revealed that the seven factors were identical to seven of the factors in the eight-factor solution. The eighth factor simply had "washed out." The items which had been assigned to that cluster did not load on either the Esprit or the Intimacy factors as the investigator had anticipated.

Next, the same interpretational procedure was applied to the six-factor solution as had been applied to both the seven- and eight-factor solutions. This analysis revealed that the seventh factor now had "washed out." Again, as with the eighth factor, the items which composed the cluster simply did not contribute to the measure of the remaining six factors.

At that point the author decided that the items which composed the seventh and eighth clusters must be unique to the extent that the domains of climate tapped by these items differed from the remaining six domains. A further inspection of these item-clusters did, indeed, reveal some item-characteristics unique to those clusters. Specifically, the items

originally assumed to belong to the Intimacy dimension described a kind of interpersonal relationship which is not need-oriented. Rather is it a warm, "normal," object-oriented (as opposed to self-oriented), interpersonal relationship which is different from the dimensions of climate which were defined originally by Halpin and Croft.

Furthermore, the items which seemed to be related to Hindrance were, indeed, different from those which now tap the Hindrance domain. The "new" item cluster described facilitating behavior by the administrator in his provision for the instructional needs of the teachers, both with respect to supplies, equipment, etc., and to time allocations. Hindrance, on the other hand, refers to the teachers' feelings that the principal burdens them with routine duties, "busy work," etc. Hindrance is more than simply the bipolar component of facilitating behavior. Whereas the facilitating behavior described by the new cluster of items relates to the physical support of the teachers and to task-accomplishment, Hindrance relates to the absence of need-satisfaction and to production orientation.

In this eight-factor solution, the items which originally had defined Aloofness were scattered throughout the eight factors, and, for the most part, seemed to "fit" the item clusters to which they had been assigned. The items which had defined Consideration, however, were not useful contributors to the measurement of other domains, and some of these items were characterized by low factor-loadings on all eight factors. Because of the low items, a nine-factor solution was computed and further rotated with the oblique rotational procedure. After an inspection of this factor solution, (see Appendix 1) it was evident that some items which had

originally defined the Consideration dimension of climate had, indeed, emerged as the ninth factor of the solution.

This nine-factor solution, therefore, will serve as the basis for all further analyses of the current data. The items which define the nine dimensions of climate are reported in Appendix 2. A description of the dimensions which were identified by Halpin and Croft, as well as a description of the two newly-identified dimensions are reported below.

Descriptions of the Dimensions of Climate

Disengagement refers to the teachers' tendencies 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' behaviors in task-oriented situations.

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

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 jobs.

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.

Object Socialization[8] refers to the teachers' enjoyment of social relations with each other and with students. This dimension describes a situation in which focal attention is directed toward an objective--a relationship or a task-accomplishment--rather than towards need satisfaction.

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[8]Organizational Climate as described by Halpin and Croft is, to a great extent, a function of the interpersonal relationships among the faculty members of a school. These relationships may be motivated either by a need for task-accomplishment, or for social-need satisfactions.

The concept of Object Socialization, as it is used here to describe a dimension of climate, was developed from at least three sources--Kahler's discussion of collectives and communities (Erich Kahler. The tower and the abyss: An inquiry into the transformation of man. New York: The Viking Press, 1967.), Maslow's discussion of deficiency and growth motivation (Abraham H. Maslow. Toward a psychology of being. Princeton: D. Van Nostrand Company, 1962), and Schachtel's discussion of focal attention and the emergence of the object world (Ernest G.Schachtel. Metamorphosis. New York: Basic Books, Inc., 1959).

Schools, as they now exist, seem to fit the description of collectives presented by Kahler. He describes the influence of collectives on individuals as external, any internal effects on the individual are derivative. The standards and stereotypes of the collective intrude on the personality from without (Kahler, pp. 9-10). Maslow, on the other hand, says that the needs for safety, belongingness, love relations, and for respect can be satisfied only by other people, i.e., only from outside the person. This means considerable dependence upon the environment (Maslow, p. 31). According to Kahler, however, the environment cannot directly satisfy the social-needs of individuals if the environment is that of a collective.

In contrast to these views, Schachtel believes that thought, and thus behaviors, have two ancestors rather than one--namely, motivating needs and a distinctly human capacity for object interest (Schachtel, p. 268). This idea provides an alternative concept of motivation which is not need-centered; rather this motivation is interest-centered. Accordingly, it would be possible for teachers to enjoy the task-accomplishment because of interests even without need-satisfactions.

It is the opinion of the researcher that the items which compose the Object Socialization subtest reflect the degree to which the behaviors of the teachers are object-centered--the degree to which they can focus attention upon the task or upon other individuals rather than upon the self.

Logistical Support refers to the teachers' feelings that the principal is facilitating rather than hindering them. They perceive that the principal takes care of the logistics for teaching. If extra books are needed, the books are there; if technical assistance is needed, the service is provided; if extra time is needed for special duties, such time is allocated.

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.

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.

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.

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.

Except for Object socialization and Logistical Support, the descriptions which are listed above are the ones which were presented by Halpin and Croft in the report of their orginal climate study (1963, pp. 29-32). The Aloofness dimension was not identified from the current data sample, and, in the opinion of the investigator, is no longer measured by the present form of the OCDQ. The description of the dimension is included here because recommendations will be made later in this report regarding the construction of items which will be useful indicators of the Aloofness dimension.

Second-Order Factor-Analyses

Halpin and Croft went beyond the specific dimensions of climate to the more general second-order dimensions which they identified as Social Needs, Social Control, and Esprit. These second-order dimensions provide insights into behaviors of the individual, of the group, and of the leader; hence, they are useful for describing the climate of the organization (Halpin and Croft, 1963, p. 44).

The second-order factor-analyses of the current data were performed on the matrix of factor-correlations (see Table 1) which were computed by the computer program which performs the oblique rotations of the maximum-likelihood factor-solution. The results of the factor-analyses of these correlations should, of course, be different from the second-order factors revealed by Halpin and Croft because two new factors have been added, and one of the original factors is now deleted.

TABLE 1

CORRELATIONS BETWEEN THE NINE FACTORS
OF THE OCDQ: CURRENT DATA

OCDQ FACTOR	HIN	ESP	INT	OBJ	LOG	PRO	THR	CON
DIS	.42	-.36	.20	-.08	-.15	.17	-.34	-.03
HIN		-.24	.01	-.04	-.20	.21	-.24	-.27
ESP			.38	.59	.57	.08	.71	.59
INT				.62	.34	.08	.20	.46
OBJ					.38	.14	.37	.49
LOG						.11	.52	.40
PRO							.22	.33
THR								.70

Maximum-likelihood factor-analyses, rotated to the varimax criterion, were computed for two, three, and four factors. Each of these solutions was further rotated by oblique rotational procedures. Inspection of these factor-solutions revealed that only the three-factor solution (see Table 2) met the criteria of mathematical appropriateness of intuitive appeal.

One of these factors is characterized by high degrees of Thrust and Consideration, while Esprit, Logistical Support, and Production Emphasis are secondary characteristics of the dimension. These dimensions reflect leader behaviors which are task-oriented but not at the expense of need-satisfaction. This second-order dimension of climate was named Thrust.

The second factor is characterized above all else by a high degree of Disengagement. Hindrance and Production Emphasis are lesser contributors to this domain. A high score on this dimension would indicate that the teachers are "not with it." They do not enjoy either need-satisfaction or task-accomplishment. The leader, on the other hand, emphasizes the task, yet he burdens the teachers with "busy work" and routine duties. The group--both the teachers and the leader--are disengaged in every sense of the word. This dimension, therefore, was named Disengagement.

The third factor is characterized by high loadings on Intimacy and Object Socialization. Esprit is a relatively strong contributor to this domain while Logistical Support and Consideration are lesser, but important, contributors. This factor is similar to the Halpin and Croft dimension of Social Needs. The investigator also chose that name for this dimension. The pattern of factor-loadings for this dimension indicates that individual social-needs satisfaction--at least within a task-oriented organization--requires some degree of "belonging" to the group, as well as personal

TABLE 2

SECOND-ORDER FACTOR PATTERN MATRIX FOR NINE FACTORS
OF ORGANIZATIONAL CLIMATE: CURRENT DATA

OCDQ FACTOR	THRUST	DISENGAGE-MENT	SOCIAL NEEDS
DIS	.12	.92	-.06
HIN	-.01	.46	-.10
ESP	.45	-.29	.52
INT	.08	.20	.76
OBJ	.10	-.11	.79
LOG	.40	-.08	.36
PRO	.48	.45	-.04
THR	.95	.02	.09
CON	.76	.27	.34

consideration and facilitative support from the leader, in order to enhance the purely personal social interactions within the organization.

The factor-analyses which are reported in this chapter were selected because of the intuitive appeal of the factors for describing the dimensions of the Organizational Climate of schools. This is not to say that these current factor-solutions are ideal. Indeed, there are several obvious weaknesses with respect to the subtests of the OCDQ that will need to be corrected later when the questionnaire is revised. (These weaknesses will be discussed in detail in the final chapter of this report.)

Reliability Estimates for the Dimensions of Climate

At the present time there is no way to validate the dimensions of climate with respect to other organizational characteristics. It is possible, however, to determine the dependability of the subtests of the OCDQ and, indeed, of the climate profile.

Halpin and Croft computed correlations between subtest scores for even- and odd-numbered teachers in the schools to provide estimates of reliability of the subtests (Halpin and Croft, 1963, p. 49). The investigator has extended this procedure to provide an estimate of the reliability of the climate profile.

A procedure for computing reliability estimates was described in a previous chapter. This procedure was applied to the current sample of data, and the obtained reliability-estimates for the nine subtests and the climate profile are reported in Table 3. The canonical correlation (.90) indicates that the climate profile is a dependable indicator of the domain which is tapped at the present time by OCDQ. The Production Emphasis

TABLE 3

RELIABILITY ESTIMATES FOR THE DIMENSIONS OF CLIMATE AND FOR THE CLIMATE PROFILE: CURRENT DATA (200 SCHOOLS)

DIS	HIN	ESP	INT	OBJ	LOG	PRO	THR	COH
.71	.64	.79	.67	.73	.73	.55	.75	.66

CANONICAL CORRELATION	CHI SQUARE	DF	P LESS THAN
.90	1073.2	81	.0001

subtest, however, is associated with a relatively low (.55) reliability estimate. Again, an inspection of the factor-loadings for that dimension reveals loadings which are low (The highest loadings are in the low 40's); consequently, the reliability-estimate for that factor is not surprising.

The Clusters of Schools in the Current Sample

In order to describe variations in Organizational Climate, it is useful to define variations in the climate profile which are meaningful and then to translate these profile variations into descriptions of the anticipated behaviors of individuals within an organization which has a profile. One way to complete this description is to identify groups of schools which are similar, with respect to the behaviors of teachers and of the principal, and which can comprise "prototypic" groups; then climate can be defined with respect to those groups. Halpin and Croft chose this method for "typing" schools with respect to climate.

They identified six groups of schools. From these groups they selected those schools which were the most representative of each group and then computed subtest means for the selected groups. These profiles of means (the prototypic profiles) allowed the original researchers to specify those behaviors that would be anticipated in organizations with a given climate type.

The current sample of OCDQ data is composed of responses from teachers in over 1,000 schools. The computer program which was used to provide initial estimates of the clusters is restricted to 100 profiles or less. In order to use this program a sub-sample consisting of data from 100 schools was selected by random procedures from the total sample of data.

There was no reason to hypothesize the existence of the six climate groups which had been identified from the Halpin-Croft data, because the current school profiles contained scores on two dimensions which were not included in the Halpin-Croft data-profiles. Furthermore, the Aloofness scores were not a part of the current data-profiles. Therefore, the clustering procedures were considered to be exploratory in nature, and no specific outcomes were anticipated before the analyses were performed.

The Taxonomic clustering-procedure was applied to the 100 profiles of the schools in the sub-sample. Eight groups of schools which were independent of the other groups (i.e., there were no schools which were members of more than one of these groups) emerged from this analysis. These groups, ranging in size from three schools to seven schools, were entered into a multiple discriminant-analysis to determine whether they were, indeed, different with respect to the climate-profiles. Furthermore, this analysis could reveal any other schools within the sub-sample which can be assigned to the "prototypic" climate groups. An iterative process of computing a discriminant-analysis, adding schools to clusters or removing schools from clusters, and then computing another discriminant-analysis, was followed to determine the groups of schools which could represent the variations in climate among the schools in the sub-sample.

This series of analyses revealed eight clusters which seemed to represent the range of variations in the climate profiles of the schools. One of these clusters, which contained only three schools, seemed to be an outlier with respect to the remaining seven clusters. The schools

which composed this cluster were the only three schools, in the eight clusters, in which the teachers were members of labor unions. The final discriminant-analysis indicated which group each of the remaining schools was most like. Of the schools not previously assigned to one of the eight groups, there were three schools in which the teachers were members of labor unions. The analysis indicated that these three schools were more like those three in the "labor-organized" cluster than were they like any other schools. Thus, the only six schools in the sub-sample in which the teachers were members of labor unions had emerged as a group which was very much different from the remaining seven groups. So great was this difference that when the eight groups were plotted on a single graph, the labor-organized schools were in one corner, and the remaining seven clusters were grouped tightly into the opposite corner.

In order to determine whether the clusters which had been identified from the sub-sample of data were useful for explaining climate variations among the remaining schools in the total sample, a second sub-sample, comprised of 100 schools, was selected. The climate profiles of these schools were entered into the discriminant-analysis program, along with the profiles in the eight prototypic groups, in order to determine whether each of the 100 schools could be assigned to one of the eight groups. They could, indeed. Of the 100 school profiles in the group-validation sub-sample, only two were not characteristic of the groups to which they were assigned. Both of these school profiles contained at least one subtest score that could be considered an outlier. Means were computed for the climate groups in both the initial sub-sample of data and the group-validation sub-sample of data.

An inspection of these means profiles revealed no interpretable differences between the two sets of data.

There were two schools in the group-validation sub-sample in which the teachers were members of labor unions. Only those two schools were assigned by the discriminant-analysis to the labor-organized group from the initial sub-sample. Hence, all the labor-organized schools in both sub-samples had grouped into a single cluster which was an outlier with respect to the other seven clusters. The data from these schools were removed from the sub-samples for purposes of further analyses and interpretations of the remaining seven groups.

A discriminant-analysis was performed on the data from the schools which composed the seven remaining clusters. The plot of the first two canonical variables (see Figure 1) reveals the distribution of the schools which compose the seven "prototypic" groups. This plot should provide some insight into the relative positions of the climate groups and, again, should indicate the error of treating the climate groups as if they represented points on a unidimensional continuum.

The climate profiles of the schools which compose the clusters were summarized to yield (for each group) a profile which was composed of sub-test means for each of the dimensions of climate. These profiles (see Table 4) are the basis for the difinitions of the "types" of climate and serve as the profiles which are prototypic of the climate types. In order to simplify the interpretation of these prototypic profiles, the profiles were "normalized." This procedure provided a set of scores which emphasized the variations among the profiles (see Table 5), and a simple inspection of the profiles revealed the characteristic dimensions of each profile.

TABLE 4

PROFILES[a] FOR THE EIGHT CLIMATE GROUPS: CURRENT DATA

GROUP	DIS	HIN	ESP	INT	OBJ	LOG	PRO	THR	CON
OPEN	42	43	59	49	51	55	50	59	56
AUTON	46	50	55	54	54	54	48	54	52
CONTR	45	51	53	45	46	52	51	56	52
MODAL	47	48	51	50	50	49	44	49	48
DISEN	57	52	45	50	48	49	48	47	48
DISAF	48	52	46	43	43	46	51	49	46
CLOSED	54	51	37	42	40	41	47	42	43
LABOR	64	48	41	60	52	40	59	36	56

[a]These profiles are based solely on those schools in the sample which were used to define groups.

TABLE 5

NORMALIZED PROFILES[a] FOR THE EIGHT CLIMATE GROUPS: CURRENT DATA

GROUP	DIS	HIN	ESP	INT	OBJ	LOG	PRO	THR	CON
OPEN	-2.8	-2.7	4.4	-0.3	0.3	2.0	0.1	4.5	3.1
AUTON	-1.3	0.1	2.4	1.3	1.7	1.6	-0.9	2.1	0.9
CONTR	-1.6	0.5	1.4	-1.6	-1.6	0.8	0.7	2.8	1.0
MODAL	-1.1	-0.7	0.5	-0.2	-0.2	-0.3	-2.8	-0.5	-1.1
DISEN	2.4	0.8	-2.5	0.0	-0.7	-0.3	-1.2	-1.6	-0.9
DISAF	-0.7	0.7	1.8	-2.4	-2.8	-1.5	0.7	-0.7	-1.8
CLOSED	1.5	0.2	-6.1	-2.7	-3.9	-3.4	-1.6	-3.9	-3.6
LABOR[b]									

[a]These profiles are based solely on those schools in the sample which were used to define the groups. The profiles are normalized to emphasize variations on the subtest means.

[b]This profile was not normalized because of the extreme deviations from the mean of the scores that compose the profiles.

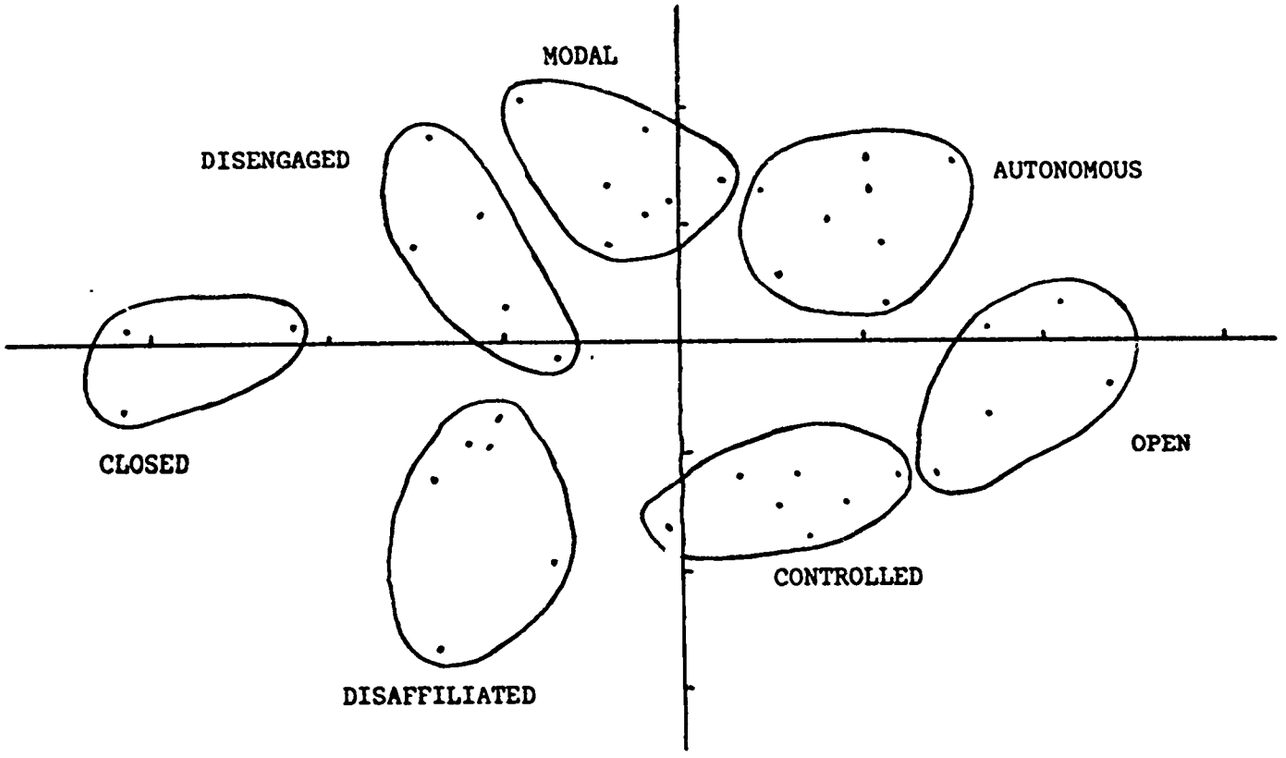

FIG. 1 Two-Dimensional Projections of the Climate Profiles That Were Used to Define the Climate Groups: Current Data.

Each of the seven prototypic profiles was inspected to determine the characteristics of the climate type in order to compare the obtained types with those which the analyses of the original Halpin-Croft data had revealed. Furthermore, the profiles were inspected in order to determine names for those types which were not like the Halpin-Croft climate types. These inspections revealed four climate-profiles which were similar to those which had been described by Halpin and Croft. The characteristics of the Open Climate, the Autonomous Climate, the Controlled Climate, and the Closed Climate were evident in profiles obtained from the current data. There are differences, of course, because some of the subtests are different from those which were used by Halpin and Croft to define the climate types.

Descriptions of the types of climate which were observed from the current data are presented below. Although some of the names are the same as those defined and described by Halpin and Croft, there are some differences between the descriptions which are presented here and the Halpin-Croft descriptions.

Descriptions of the Climate Types

The Open Climate

The Open Climate depicts a situation in which the members enjoy extremely high Esprit. The teachers work well together without bickering and griping (low Disengagement). They are not burdened by mountains of busy work or by routine reports; the principal's policies facilitate the teachers' accomplishment of their tasks (low Hindrance). On the whole, the group members enjoy friendly relationships with each other, but they apparently feel no need for a high degree of Intimacy or of Object Socialization. The teachers do know the other members of the faculty

and do visit each other both at school and in the homes, but these relationships are no more friendly nor frequent than are the non-school-staff personal associations of the teachers. The teachers obtain considerable job satisfaction and are sufficiently motivated to overcome difficulties and frustrations. They possess the incentive to work things out and to keep the organization "moving." Furthermore, the teachers are proud to be associated with their school.

The behavior of the principal represents an appropriate integration between his own personality and the role he is required to play as principal. To this extent his behavior can be viewed as "genuine."[9] Not only does he set an example by working hard himself (high Thrust) but also, depending upon the situation, can he either criticize the actions of teachers or, on the other hand, go out of his way to help a teacher (high Consideration). He possesses the personal flexibility to be "genuine," whether he is required to control and direct the activities of others or to show compassion in satisfying the social needs of individual teachers. Rules and regulations are adhered to, and through them he provides subtle direction and control for teachers. He does not have to emphasize production, nor does he need to monitor the teachers' activities closely, because the teachers do, indeed, produce easily and freely. Nor does he do all the work himself; he has

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[9]For a discussion of the concept of "Genuineness," see Andrew W. Halpin and Don B. Croft, The organizational climate of schools, The University of Chicago, Midwest Administration Center, 1963, p. 61, footnote 12, and the further discussion of the concept of "Authenticity" that is present in that same monograph. That discussion is expanded in Andrew W. Halpin, Theory and research in administration, New York: The Macmillan Company, 1966, pp. 203-224.

the ability to let appropriate leadership acts emerge from the teachers (moderate Production Emphasis). He has insured that the teachers can direct their attention to task-accomplishment because he has provided for the "mechanics" of teaching (high Logistical Support). Withal, he is in full control of the situation, and he clearly provides leadership for the staff.

The Autonomous Climate

The distinguishing feature of this Organizational Climate is the amount of freedom that the principal gives to teachers to provide their own structures for interaction, as well as to find ways within the group for satisfying their social needs. As one might surmise, the scores lean slightly more toward social-need satisfactions than toward task-achievement (relatively high scores on Esprit, Intimacy, and Object Socialization).

When the teachers are together in a task-oriented situation, they are relatively "engaged"; they achieve their goals easily and quickly (low Disengagement). There are few pressure groups, but whatever stratification does exist among the group members does not prevent the group as a whole from working well together. The essential point is that the teachers do work well together and do accomplish the tasks of the organization.

The teachers are not burdened by administrative paper work. Although there is a moderate amount that is required of the teachers, they do not gripe about the reports that they are required to submit. The principal has set up procedures and regulations to facilitate the teachers' tasks. A teacher does not have to run to the principal

for supplies, books, projectors, etc.; adequate controls have been established to relieve the principal, as well as the teachers, of these details (moderate Hindrance and high Logistical Support). The morale of the teachers is high but not as high as in the Open Climate. The high morale probably stems largely from the social-needs satisfaction which the teachers feel. (Esprit would probably be higher if greater task-accomplishment also occurred within the organization).

The principal's leadership style favors the establishment of procedures and regulations which provide guidelines that the teachers can follow; he does not personally check to see that things are getting done. He does not force people to produce. Instead, he appears satisfied to let the teachers work at their own speed; he seldom monitors their activities (moderate Production Emphasis). On the whole, he is considerate, and he attempts to satisfy the social needs of the teachers somewhat moreso than do most principals (moderately above-average Consideration).

The principal provides Thrust for the organization by setting an example and by working hard himself. Furthermore, he assures that the tools that are necessary for task-achievement are readily available to the teachers (high Logistical Support). He has the personal flexibility both to maintain control and to look out for the personal welfare of the teachers. He is genuine and flexible, but the range of administrative behavior, as compared to that of the principal in the Open Climate, is more restricted.

The Controlled Climate

The Controlled Climate is marked by a press for task-achievement, perhaps at the expense of social-need satisfactions. Everyone "works

hard," and there may be little time for friendly relations with others. The climate is over-weighted toward task-achievement and away from social-need satisfactions. Nevertheless, since morale is high (high Esprit) and because the principal emphasizes task-achievement (high Thrust) as well as production (moderately high Production Emphasis), this climate can be classified as more "Open" than "Closed."

The teachers are "engaged" in the task. They do not bicker, gripe, or differ with the principal's objectives. They are there to get the job done, and they expect to be told personally just how to do it (low Disengagement). There is some paper work, routine reports, busy work and general Hindrance which get in the way of the teachers' task-accomplishments. On the other hand, the principal does provide to the teachers support services which enable them to accomplish their tasks (moderately high Logistical Support). Teachers have little time to establish very friendly social relations with each other, and there is little feeling of camaraderie (low Intimacy and low Object Socialization). Teachers often work by themselves and are impersonal with each other. Esprit, however, is slightly above average. This might imply that the job-satisfaction found in this climate results primarily from task-accomplishment, not from social-need satisfactions.

The principal in this climate is trying to "move" the organization by working hard (high Thrust) and by providing support services to the teachers (moderately high Logistical Support). Furthermore, he is aware of the teachers' social needs and tries to provide support for those needs (above average Consideration).

In short, this climate is characterized by task-oriented behaviors by the teachers and leadership activities by the principal that are attempts to "move" the organization for task-accomplishment.

The Modal Climate[10]

This "average" climate is characterized by both social-need satisfactions and task-accomplishment. Both the teachers and the principal are "for real." They have their problems, of course, but they are "engaged." Disengagement is low (1.5), and morale is high (high Esprit; 2.8). The teachers socialize together, both at school and in their own homes, but not to the exclusion of other personal relationships (average Intimacy; 2.2 and average Object Socialization; 2.3).

The principal in this climate works hard to "move" the organization and to set an example for the teachers (high Thrust; 2.8), and at the same time, he usually is considerate of the social needs of the teachers (Consideration; 2.2). Furthermore, he facilitates task-accomplishment by assuring that teachers have the supplies and services that are needed for teaching (Logistical Support; 2.6).

In this climate, task-accomplishment takes place without undue emphasis upon the task (Production Emphasis; 1.8). The principal and the teachers receive pleasure from both need-achievement and task-accomplishment. In this setting, there should be no need to emphasize the task.

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[10]This name is not useful to describe a climate type except that it does refer to a normative group--a group that can serve as a reference. The climate-profile for this group is, indeed, composed of scores that represent the average of all groups (except for Production Emphasis, which is low). The description of this climate type, therefore, is based upon the OCDQ response scale rather than upon any comparison with other groups.

This climate seems to be restricted both by the amount of resources that are available to the school and by other extra-organizational constraints. Paper-work and administrative reports do sometimes burden the teachers, and sometimes supplies, equipment, and technical support are not available when they are needed; however, because these constraints clearly originate from outside the organization, they are "accepted" by the teachers.[11] This organization is "moving," and the teachers and principal enjoy their affiliation with the school and with each other.

The Disengaged Climate

This climate is characterized by low task-accomplishment. The teachers are not "engaged" (high Disengagement). They do, however, enjoy some social-need satisfactions (average Intimacy and average Object Socialization) but not group-need satisfactions (low Esprit). The teachers identify with factions within the faculty, and there is bickering and disagreement among these groups, yet the teachers do obtain social-need satisfactions from membership in the groups.

The teachers in this climate sometimes are burdened by reports and "busy work" (high Hindrance), and they receive little relief from the principal. The principal emphasizes the task (moderately high Production Emphasis), but he does not set an example by working hard

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[11] It should be pointed out here that constraints can originate from within a school, from outside the school but within the school system, or from outside the school system. We do not know the relative influences of the locus of these constraints upon the attitudes of the teachers. Neither do we know precisely what will happen to the attitudes of teachers within a school if the external constraints either continue for long periods of time or increase in intensity.

himself (low Thrust). Furthermore, he makes no special effort to facilitate task-accomplishment (average Logistical Support), nor is he considerate of the social needs of the teachers (moderately low Consideration).

This climate type is characteristic of schools in which teachers form social or philosophical "cliques" which are not transcended by a strong, integrating leader. This climate may also be characteristic of departmentalized schools (either elementary or secondary) in which differences among the departments have not been resolved by the principal.

The Disaffiliated Climate

This climate is characterized by low social-need satisfactions (low Intimacy and low Object Socialization). The teachers in this climate are "engaged" (average Disengagement), but this task-orientation does not provide social-need satisfactions for the group (low Esprit). Rather are the teachers burdened with the "busy work," administrative reports, etc., (moderately high Hindrance) that are required by the principal who continues to emphasize production (average Production Emphasis).

The principal in this climate is not "genuine." While he emphasizes task achievement, he does not consider the social needs of the teachers (low Consideration), nor does he facilitate the job of teaching. He does not provide the support-services that are required for the teaching task (low Logistical Support).

Teachers in this climate are engaged in the "job" of teaching, but they do not enjoy either social-need satisfactions or task-accomplishment from the organization. The school is "there," and they

are a part of it, but there is little or no feeling of "belonging" to, or affiliation with, either the school itself or the other members of the staff.

The Closed Climate

The Closed Climate marks a situation in which the group members obtain little satisfaction in respect to either task-achievement or social needs. In short, the principal is ineffective in directing the activities of the teachers, and, at the same time, he is not inclined to look out for their personal welfare. The climate is the most closed and the least "genuine" climate that was identified.[12]

The teachers are disengaged and do not work well together; consequently, group achievement is minimal (high Disengagement, very low Esprit, Intimacy, and Object Socialization). To secure some sense of achievement, the major outlet for the teachers is to complete a variety of reports and attend to "housekeeping" duties. The principal does not facilitate the task-accomplishment of the teachers (moderately high Hindrance and extremely low Logistical Support).

The principal is aloof and impersonal in directing the activities of the teachers (if indeed, he does direct the activities). Any leadership activity by the principal is production-oriented, but even this is relatively low (below-average Production Emphasis). The principal possesses little Thrust, and he does not motivate the teachers by setting a good personal example. He is not concerned with

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[12] The Labor-organized group is not considered in this statement because further research is needed to determine whether the responses to the OCDQ by the teachers in those schools reflect the behaviors of the personnel or simply reflect statements in the labor contract.

the social needs of teachers; in fact, he can be depicted as inconsiderate (very low Consideration). He does not provide adequate leadership for the group. For this reason the teachers view him as not "genuine"; indeed, they may regard him as a "phony."

This climate is characterized by a high degree of apathy on the part of all members of the organization.

The Labor-Organized Group[13]

This group is characterized, above all other things, by a high degree of Disengagement. The teachers are split into factions, and there is bickering and griping among the groups, yet the teachers receive a high degree of social-need satisfactions from membership in these groups (very high Intimacy and high Object Socialization). There is very little task-accomplishment, even though the teachers are not burdened by paper-work, reports, etc., (below average Hindrance). They are not "moved" to pursue the tasks of the organization. The attempts by the principal to direct the activities in the school are primarily production-oriented (high Production Emphasis), yet he does not facilitate task-achievement (very low Logistical Support). The principal does not lead the group by working hard himself in order to set an example for the teachers (very low Thrust); rather does he do personal favors for teachers and help them with personal problems (high Consideration).

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[13]This description is not presented as a description of climate "type"; rather is it presented to describe a set of observed data. Research is needed to determine whether there are characteristics of all labor-organized schools that will allow the schools to be "lumped" into a single group for climate-classification purposes.

In short, the group is characterized by high individual-social-need satisfactions at the expense of the group needs (very low Esprit). The principal goes through the motions of moving the group in a very business-like way (perhaps he is limited by his contract to this leadership style), but he does not facilitate the task-achievement. To compensate for the Production Emphasis, the principal tries to consider the social needs of the teachers.

CHAPTER IV

DISCUSSION AND RECOMMENDATIONS

Introduction

The present study was designed to "set the stage" for a climate-research project in which the researchers will refine the original Halpin-Croft conceptualization of climate and will make the revisions of the OCDQ which are required before a user of the instrument can be assured that it will provide dependable measures of the dimensions of climate.[14] Specifically, the purpose of this study was to determine the extent to which the OCDQ is currently useful for supporting a conceptualization of the Organizational Climate of schools.

This chapter of the report is organized into two parts which are designed primarily for two separate audiences. First, there is a general discussion of the research findings and the implications of those findings for researchers who plan to use the OCDQ in its present form. Next, there is a set of recommendations which are disigned specifically to be useful to those researchers who plan the future climate studies which are mentioned above.

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[14]Plans for research are being made to extend the Halpin-Croft conceptualization of climate and to revise the OCDQ. This research will be performed by Andrew W. Halpin, Don B. Croft, and the present investigator. No time-frame for the completion of the research has yet been determined.

Discussion of the Research Findings

The factor-analyses of the current data revealed nine dimensions which were tapped by the OCDQ. Two of these dimensions were not identified by Halpin and Croft. These two dimensions should be useful for describing climate, because one relates to the facilitating behavior of the principal, and the other relates to interpersonal relationships within the school which are not need-oriented. Neither of these domains of behavior had been tapped specifically by the original eight-climate subtests.

The Aloofness dimension, however, could not be identified from the current data. Therefore, it is the opinion of the investigator that the OCDQ in its present form will measure, with different degrees of dependability, all the dimensions which were identified by Halpin and Croft except Aloofness. Furthermore, the OCDQ will provide measures of Logistical Support and Object Socialization--the additional dimensions which were revealed by the analyses of the current data.

Some of the climate-groups which were revealed by the analyses of the current data are different from those which were identified by Halpin and Croft. These different results had been anticipated by the investigator. It is his opinion that the number of different climate-groups which can be identified is, to some extent, a function of the number of variables which are used to define the groups and the amount

of variance of those variables among the schools in the sample. If the number of variables increases or the amount of variance increases, the number of groups will increase accordingly.

Brown (1965), in his study of climate in the Twin Cities, identified eight groups of schools that exhibited meaningful variations on the climate-profiles. Furthermore, eight groups of schools were revealed by the analyses of the current data. Four of these groups were similar in profile characteristics to four of the types which had been defined originally by Halpin and Croft. These types--Open, Autonomous, Controlled, and Closed--represented the two extremes of the climate groups, and the two others had been described by Halpin and Croft as "tending more toward the Open Climate than toward the Closed Climate."

During the past few years, the relative number of schools which have been classified as "Closed" in regard to climate has increased. Furthermore, the relative number of schools which have climate-profiles that are different from all of the Halpin-Croft prototypic profiles is increasing.[15] An inspection of the climate-profiles of those schools which cannot be assigned to a climate group usually reveals more characteristics of "relatively closed" schools than of "relatively open" schools. Hence, the identification of "new" climate types that tend

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[15] The investigator provides scoring services for users of the OCDQ. Most samples of data which he has processed during the past two or three years have contained several schools which could not be assigned to one of the six climate types which were defined by Halpin and Croft. Furthermore, more schools in these samples have been classified into the Closed Climate group than into the other five groups.

more toward closedness than toward openness was not surprising to the investigator. These new types should allow users of the OCDQ to discriminate among those schools which display characteristics of closedness but which in the past would not have been assigned to a climate group.

Furthermore, in school systems where teachers are affiliated with labor unions, the administrator-behavior dimensions of climate may no longer be useful to define the climate of the schools. In many of these schools the administrator-teacher relationships are a matter of contractual requirements rather than a function of administrator-teacher interpersonal behaviors. It has been the experience of the present investigator that teachers in labor-organized schools tend to respond to the items according to the contractual role of the administrator rather than to his leadership characteristics. These data, then, possess no value for describing the climate of those schools.

Recommendations Regarding the Use of the Original Form of the OCDQ

The investigator does not recommend the OCDQ in its present form for serious research in the climate domain. The Questionnaire will be used, however, and the recommendations which follow are made for those people who wish to take into account the research constraints which were revealed by the original climate study and again by the present study. The following recommendations are considered to be the minimum requirements to insure dependable results of research in the climate domain when the present form of the OCDQ is the basis for the data:

1. The Halpin-Croft data do not contain enough variance to be useful for normative purposes. Schools today vary significantly

(from the schools in the original sample) on all domains of climate. The current sample of data is a fortuitous one; withal, the data do represent a greater range of schools than did the original sample. Furthermore, the current data were collected within the past three-year period. If the OCDQ is used, the current sample of data should be used for normative purposes (for an external reference), rather than the Halpin-Croft sample.

2. The nine dimensions of climate which the current data revealed should be the variables in climate-research studies rather than the original eight dimensions.

3. The factor-loadings of many items in the subtests are quite low. Furthermore, some subtests do not contain enough items either to insure that the domain is well defined or to insure that the measure of the domain is dependable. A researcher in the climate domain should consider these two points to determine whether obtained relationships are meaningful.

4. The reliability estimates for some of the dimensions are relatively low. The climate profile, however, is quite stable. Hence, the profile should be the basis for treatment of data.

5. Some of the original 64 items should be deleted from the questionnaire, and others should be rewritten when the OCDQ is revised. These items do not contribute, systematically, to the measure of the domains, but they should remain in the questionnaire at the present time. The regression-estimate scoring procedure ignores these items, for the most part, in the computation of a score. (The weights associated with these items have a value that is near zero. Hence, the product of the

weight and the item-response is near zero and adds little to the subtest score).

6. The climate groups (types) are useful to describe variations among schools on organizational climate. This measure (the climate type) is too gross, however, to be very useful for data analyses. For purposes of statistical analyses of data, either the climate-profiles or the separate climate-subtests should be used. Many researchers who have used the OCDQ have directed their research activities toward the identification of variations in other variables that could be attributed to the type of Organizational Climate. More specifically, these studies have tried to relate other variables to the degree of openness or closedness that was associated with the educational organization. This research activity would be more legitimate if the types were more "pure." They are not, however.

7. Further research on Organizational Climate should transcend the archaic methodology that is most often applied to the data. The procedures that are more likely to produce dependable and meaningful results are those which apply multivariate statistical procedures to the scores on the dimensions of climate. Correlational studies will require either canonical correlational-analyses or multiple correlational-analyses, or both, in order to identify the relationships that exist between the Organizational Climate and other variables. Likewise, comparisons to be made among schools that are classified according to some independent variable can best be achieved by blocking on the independent variable and then computing either multivariate-analyses

of variance or multiple discriminant-analyses on the set of climate subtests.

Recommendations Regarding the Revising of the OCDQ

The present study was designed to provide a basis for research efforts to revise the original Halpin-Croft conceptualization of climate and to revise the OCDQ. This basis, however, is limited to two domains--statistical procedures and the present form of the OCDQ. The following research must be performed in order to provide insights into the procedures which are required to revise the conceptual Model of climate and, accordingly, the OCDQ:

1. A complete review and critique of the literature related to the Organizational Climate of schools must be performed. The emphasis of this study should be directed toward the literature related to the OCDQ and the Halpin-Croft conceptualization of climate. The study must be extended, however, to include literature related to other conceptualizations of climate, such as the work of Owens and Stienhoff and the application of their Organizational Climate Index (see Stienhoff, 1965).

The primary objectives of this study should be to identify the indicators of change or extension needed in either the Halpin-Croft conceptual model of dlimate or the OCDQ, indicators which are mentioned in the literature.

2. The questionnaires which are used at the present time to measure Organizational Climate, interpersonal relations within the organization, leadership style, leader behaviors, or other domains which relate to the climate of an organization, should be identified.

A content-analysis of the items which compose these questionnaires should be performed. Next, a toxonomy of the content should be determined, and the items of each questionnaire should be classified according to the taxonomy and then summarized for each questionnaire.

The objectives of this study would be to relate the domains of the questionnaires with respect to the content (in order to relate the conceptual bases for the questionnaires) and, in turn, to compare the research findings from the analyses of data from these questionnaires.

3. A sample of labor contracts between the teachers' unions and the school system should be collected and a content analysis performed of the points of the contract. A taxonomy of the content of the points should be determined. Each element of the taxonomy should be examined to determine the impact of this contract point on the interpersonal relationships and administrator styles within the school.

The objective of this study would be to determine the effects of the labor contracts on the Organizational Climate and, in turn, the measurement of Organizational Climate.

4. One of the steps that will be required to revise the OCDQ, and perhaps the conceptual model of climate, will be to identify those aspects of educational organizations that seem to relate to the dimensions of climate. Once these characteristics are identified, a review of the climate model will be necessary. This review should determine whether the defined dimensions of climate are so exhaustive that they include all the traits that are identified. If not, then the number of dimensions must be increased, and these new dimensions must be defined and integrated into the climate model.

5. Typing of schools will remain an uncertain issue in climate research until an exhaustive set of types is defined and verified by dependable research activity. These types can be identified hypothetically. In this case, the researchers would hypothesize a set of prototypic profiles that include all meaningful variations in the profiles. A sample of schools that is representative of the range of climates that is hypothesized would be selected and data collected from within those schools. In order to verify the types, there must be some schools that are assigned to each type. Furthermore, the climate of each school in the sample must be described by at least one of the types.

Number 5 above must be performed after the conceptual model of climate is defined and after the questionnaire for measuring the dimensions of the model is constructed. This research will be needed to extend the conceptualization to include the descriptions of the differences between schools in Organizational Climate.

The following recommendations relate specifically to modifications of the OCDQ which were revealed by the present analyses:

1. The following items should be deleted; they do not contribute to the measure of a subtest, and the item-content is only vaguely related to the obtained dimensions of climate:

Teachers prepare administrative reports by themselves.

Teachers leave the grounds during the school day.

Extra duties for teachers are posted conspicuously.

2. The following items should be revised, either to be more specific or to be more directly related to the dimension for which each item is written:

> Sufficient time is given to prepare administrative reports.
> In faculty meetings, there is a feeling of "let's get things done."
> Teachers are contacted by the principal each day.
> The rules set by the principal are never questioned.
> School secretarial service is available for teachers' use.
> Teachers work together preparing administrative reports.
> Teachers are informed of the results of a supervisor's visit.

3. The aloofness dimension is not measured by the present form of the OCDQ. The concept, however, seems to be useful for describing behaviors of administrators which are related to variations in climate. This subtest should be constructed in accordance with the definition which was formulated by Halpin and Croft. At least ten items should be constructed to comprise a subtest to measure this domain.

4. Sample-free test-calibration procedures should be used to process the data for the revisions of the OCDQ. The Rasch method (Rasch, 1960; Wright, 1969) of test calibration has shown a remarkable degree of success with achievement-type data. Recently, a computer program has been developed that will perform these analyses on scaled data (such as the OCDQ) responses. This procedure can be used to determine mathematically whether an item should be included in a subtest and can be used to compute normative data for the test. Because this procedure is sample-free, the selection of the data sample for purposes of revision will not be as critical as it would be with conventional correlational-analyses (which have been used in this study).

5. One of the greatest problems that has confronted researchers in the climate domain is the extremely low variances in the subtest scores of the OCDQ. The original scoring procedures have hidden this fact from many researchers, and they have interpreted their results as if large amounts of variance were present. For example, within a sample of schools the difference between the highest raw-score school-mean on a subtest and the lowest mean on that same subtest may be no more than two- or three-tenths of a point on the four-point scale. Yet the standardized scores may indicate variations as great as one or two standard deviations. The subtests of the OCDQ must be revised in such a way that the variance in respect to the response scale is increased.

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APPENDIX A

FACTOR PATTERN MATRIX[a] FOR THE 64 ITEMS OF THE OCDQ: CURRENT DATA (N = 12,125)

ITEM	DIS	HIN	ESP	INT	OBJ	LOG	PRO	THR	CON
01	06	03	-12	-06	63	00	04	02	-07
02	38	-06	-15	-07	02	-02	11	-17	13
03	07	02	13	-11	39	12	05	00	-13
04	03	03	06	-10	11	44	-01	18	-13
05	01	-05	-17	10	66	04	07	-08	-01
06	45	-02	-19	-16	19	06	11	-04	00
07	00	03	04	-12	03	66	-06	-10	11
08	08	-27	03	00	06	31	03	27	-18
09	-12	-01	-10	45	10	10	00	-12	12
10	40	-03	-13	03	12	-01	06	11	-11
11	-13	03	25	12	-07	07	09	06	08
12	-08	66	-13	09	02	04	-02	07	-08
13	-03	-01	-30	61	09	06	-03	03	02
14	39	02	-16	13	05	-01	-07	09	04
15	00	-05	07	-04	-04	70	-01	-12	07
16	-01	50	01	04	-05	08	-09	-01	04
17	05	-09	-15	54	12	02	-06	11	-11
18	57	-02	06	13	-07	-06	-08	13	-14
19	-30	08	10	41	-16	09	08	-09	07
20	12	45	04	-04	09	06	01	01	-08
21	-07	02	06	55	03	01	-05	12	-12
22	68	-03	07	05	07	-09	-04	12	-16
23	-05	-03	15	02	-11	29	02	09	-05

ITEM	DIS	HIN	ESP	INT	OBJ	LOG	PRO	THR	CON
24	00	64	-13	07	-05	00	-10	11	-04
25	-09	26	07	13	-19	02	08	-18	12
26	62	00	12	09	-12	-07	02	-10	01
27	-07	07	84	02	01	-08	02	-12	04
28	10	09	17	-14	-06	01	-20	65	24
29	09	09	-12	-09	09	-07	-08	12	73
30	23	00	01	-14	-19	05	22	-40	28
31	01	-01	76	-05	10	-02	09	-01	-13
32	03	08	11	-10	-03	04	-07	80	-08
33	10	06	-09	07	00	-03	-04	-02	66
34	10	-01	14	-06	-14	-02	22	-55	40
35	-01	-06	70	06	-01	-03	-03	19	-17
36	06	01	12	-04	-10	01	02	52	15
37	08	-05	-12	-07	05	-05	12	16	42
38	41	-03	-26	02	16	06	09	35	-38
39	00	04	07	14	-20	-09	32	-32	12
40	-06	00	25	13	-29	-06	18	02	28
41	-02	02	04	-02	-08	11	07	71	-17
42	12	02	-02	-06	03	-04	14	44	16
43	-03	09	03	06	-14	-03	40	-17	11
44	19	-06	-12	13	13	10	05	05	-14
45	19	-17	-10	01	27	12	04	32	-17
46	05	-02	-06	22	-09	-06	45	06	-07
47	13	01	07	32	-06	-10	21	15	-48

ITEM	DIS	HIN	ESP	INT	OBJ	LOG	PRO	THR	CON
48	06	-06	-09	18	-09	-01	12	66	-07
49	08	-07	-11	06	13	-05	06	45	08
50	-09	03	-03	21	-08	06	21	03	03
51	04	-01	03	09	-06	-05	21	-10	06
52	04	-05	-04	04	00	-05	-02	60	18
53	10	-21	07	05	-02	15	15	06	05
54	-09	02	-03	12	-05	06	39	17	-19
55	02	-08	-03	-03	-04	-04	13	39	-02
56	09	-11	05	-01	16	-07	20	11	04
57	-07	02	-07	07	03	03	44	12	-17
58	-03	11	-11	27	-13	-01	25	14	-43
59	05	-01	11	08	-05	-01	18	57	-16
60	10	11	-38	12	09	-03	20	-11	-06
61	06	-06	05	-12	08	-06	41	01	16
62	-01	-05	03	-07	-05	04	-01	42	23
63	-02	-05	02	-04	02	11	20	11	14
64	-02	02	33	-11	-04	-06	38	17	04

[a]The decimal points have been omitted.

APPENDIX B

ITEMS THAT DEFINE THE NINE DIMENSIONS
OF ORGANIZATIONAL CLIMATE: CURRENT DATA

FACTOR LOADING		ITEM
		DISENGAGEMENT
.38	2.	The mannerisms of teachers at this school are annoying.
.45	6.	There is a minority group of teachers who always oppose the majority.
.40	10.	Teachers exert group pressure on non-conforming faculty members.
.39	14.	Teachers seek special favors from the principal.
.57	18.	Teachers interrupt other faculty members who are talking in staff meetings.
-.30	19.	Most of the teachers here accept the faults of their colleagues.
.68	22.	Teachers ask nonsensical questions in faculty meetings.
.62	26.	Teachers ramble when they talk in faculty meetings.
.23	30.	Teachers at this school stay by themselves.
.41	38.	Teachers socialize together in small select groups.
		HINDRANCE
-.27	8.	Sufficient time is given to prepare administrative reports.
.66	12.	Administrative paper work is burdensome at this school.
.50	16.	Student progress reports require too much work.
.45	20.	Teachers have too many committee requirements.
.64	24.	Routine duties interfere with the job of teaching.

FACTOR LOADING		ITEM
		ESPRIT
-.19	6.	There is a minority group of teachers who always oppose the majority.
.25	11.	In faculty meetings, there is a feeling of "let's get things done."
-.30	13.	Teachers talk about their personal life to other faculty members.
-.16	14.	Teachers seek special favors from the principal.
.84	27.	Teachers at this school show much school spirit.
.76	31.	The teachers accomplish their work with great vim, vigor, and pleasure.
.70	35.	The morale of teachers is high.
-.26	38.	Teachers socialize together in small select groups.
.25	40.	Teachers are contacted by the principal each day.
-.38	60.	Teachers talk about leaving the school system.
.33	64.	The principal insures that teachers work to their full capacity.
		INTIMACY
-.16	6.	There is a minority group of teachers who always oppose the majority.
.45	9.	Teachers know the family background of other faculty members.
.61	13.	Teachers talk about their personal life to other faculty members.
.54	17.	Teachers have fun socializing together during school time.
.41	19.	Most of the teachers here accept the faults of their colleagues.

FACTOR LOADING		ITEM
.55	2[illegible].	There is considerable laughter when teachers gather informally.
.32	47.	The principal talks a great deal.
.27	58.	Faculty meetings are mainly principal-report meetings.
		OBJECT SOCIALIZATION
.63	1.	Teachers' closest friends are other faculty members at this school.
.39	3.	Teachers spend time after school with students who have individual problems.
.66	5.	Teachers invite other faculty to visit them at home.
-.19	30.	Teachers at this school stay by themselves.
-.20	39.	The principal makes all class scheduling decisions.
-.29	40.	Teachers are contacted by the principal each day.
.27	45.	Teachers help select which courses will be taught.
		LOGISTICAL SUPPORT
.44	4.	Instructions for the operation of teaching aids are available.
.66	7.	Extra books are available for classroom use.
.31	8.	Sufficient time is given to prepare administrative reports.
.70	15.	School supplies are readily available for use in class work.
.29	23.	Custodial service is available when needed.

FACTOR LOADING		ITEM
		PRODUCTION EMPHASIS
-.20	28.	The principal goes out of his way to help teachers.
.32	39.	The principal makes all class scheduling decisions.
.40	43.	The principal schedules the work for the teachers.
.45	46.	The principal corrects teachers' mistakes.
.21	47.	The principal talks a great deal.
.39	54.	The principal runs the faculty meeting like a business conference.
.44	57.	Faculty meetings are organized according to a tight agenda.
.25	58.	Faculty meetings are mainly principal report meetings.
.41	61.	The principal checks the subject-matter ability of teachers.
.38	64.	The principal insures that teachers work to their full capacity.
		THRUST
.27	8.	Sufficient time is given to prepare administrative reports.
.65	28.	The principal goes out of his way to help teachers.
-.40	30.	Teachers at this school stay by themselves.
.80	32.	The principal sets an example by working hard himself.
-.55	34.	Teachers eat lunch by themselves in their own classrooms.
.52	36.	The principal uses constructive criticism.
.35	38.	Teachers socialize together in small select groups.
-.32	39.	The principal makes all class-scheduling decisions.

FACTOR LOADING		ITEM
.71	41.	The principal is well prepared when he speaks at school functions.
.44	42.	The principal helps staff members settle minor differences.
-.17	43.	The principal schedules the work for the teachers.
.32	45.	Teachers help select which courses will be taught.
.66	48.	The principal explains his reasons for criticism to teachers.
.45	49.	The principal tries to get better salaries for teachers.
.60	52.	The principal looks out for the personal welfare of teachers.
.39	55.	The principal is in the building before teachers arrive.
.57	59.	The principal tells teachers of new ideas he has run across.
.42	62.	The principal is easy to understand.
		CONSIDERATION
.73	29.	The principal helps teachers solve personal problems.
.66	33.	The principal does personal favors for teachers.
.40	34.	Teachers eat lunch by themselves in their own classrooms.
.42	37.	The principal stays after school to help teachers finish their work.
-.38	38.	Teachers socialize together in small select groups.
.28	40.	Teachers are contacted by the principal each day.
-.48	47.	The principal talks a great deal.

FACTOR LOADING		ITEM
-.19	54.	The principal runs the faculty meeting like a business conference.
-.17	57.	Faculty meetings are run according to a tight agenda.
-.43	58.	Faculty meetings are mainly principal-report meetings.