The plot of the study reported here is astonishingly simple. We have constructed an Organizational Climate Description Questionnaire (OCDQ) that permits us to portray the "Organizational Climate" of an elementary school. The Organizational Climate can be construed as the organizational "personality" of a school; figuratively, "personality" is to the individual what "climate" is to the organization.

The OCDQ can be given in a group situation; it requires no more than thirty minutes for administration. Our method of scoring the faculty members' responses permits us to portray the "Organizational Climate" of an elementary school. The subtest scores which we use for describing the climate make good "factorial" sense. But more than this, they make practical sense and are consistent, too, with present theoretical knowledge about the nature of organizations.

The impetus for our research came from the common, though obvious, observation that schools vary considerably in their Organizational Climates. As any teacher or school executive moves from one school to another he inexorably is struck by the differences he encounters in Organizational Climates. He voices his reaction with such remarks as, "You don't have to be in a school very long before you feel the atmosphere of the place." The domain of variables to which these intuitive judgments refer is of exceptional practical importance for school executives. But until now this domain has not been mapped. We therefore have taken this as our task: to map the domain, to identify and describe its dimensions, and to measure them in a dependable way which will minimize those limitations that inher[e] in every instrument which must, in the final instance, rely upon subjective judgment.

In gathering material for the OCDQ items, one point struck us forcibly: that the essential determinant of a school's "effectiveness" as an organization is the principal's ability—or his lack of ability—to create a "climate" in which he, and other group members, can initiate and consummate acts of leadership. One of our guiding assumptions is that a "desirable" Organizational Climate is one in which it is possible for leadership acts to emerge easily. If an organization is to accomplish its tasks, leadership acts must be initiated. Such acts can be initiated either by the designated leader or by members of the faculty. In this view we have been supported by the central finding that pervades all research on leadership and group behavior: an "effective" group must provide satisfaction to group members by giving a sense of task-accomplishment, and by providing members with the social satisfaction that comes from being part of a group.
We started with a bank of approximately 1,000 items; by means of a content analysis and a series of cluster and factor analyses we pretested three preliminary forms of the OCDQ in local schools. Form IV, the final version of the OCDQ, contains 64 Likert-type items (printed on mark-sensing IBM cards). The respondent indicates to what extent the behavior described by each item characterizes his school. The five examples below illustrate the "flavor" of the items:

1. There is considerable laughter when teachers gather informally.
2. Teachers ramble when they talk in faculty meetings.
3. The principal sets an example by working hard himself.
4. Faculty meetings are organized according to a tight agenda.
5. The teachers accomplish their work with great vim, vigor, and pleasure.

Using the OCDQ (Form IV), we then analyzed the climate of 71 elementary schools chosen from six different regions of the United States. The analysis of these OCDQ items was based upon the description of these schools given by 1,151 respondents. The 64 OCDQ items have been assigned to eight subtests which we have delineated by factor-analytic methods. Four of these subtests pertain primarily to characteristics of the group as a whole, the other four to characteristics of the principal as a leader. The behavior tapped by each subtest is described below:

**OCQ Subtests**

**Teachers’ Behavior**

1. **Disengagement** indicates that the teachers do not work well together. They pull in different directions with respect to the task; they gripe and bicker among themselves.

2. **Hindrance** refers to the teachers' feeling that the principal burdens them with routine duties, committee demands, and other requirements which the teachers construe as unnecessary busy-work.

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

4. **Intimacy** refers to the teachers' enjoyment of friendly social relations with each other.

**Principal’s Behavior**

5. **Aloofness** refers to behavior by the principal which is characterized as formal and impersonal. He "goes by the book" and prefers to be guided by rules and policies rather than to deal with the teachers in an informal, face-to-face situation.
6. **Production Emphasis** refers to behavior by the principal which is characterized by close supervision of the staff. He is highly directive and task-oriented.

7. **Thrust** refers to behavior marked not by close supervision of the teacher, but by the principal’s attempt to motivate the teachers through the example which he personally sets. He does not ask the teachers to give of themselves anything more than he willingly gives of himself; his behavior, though starkly task-oriented, is nonetheless viewed favorably by the teachers.

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

**Profiles of Organizational Climates**

From the scores on these eight subtests we then constructed, for each school, a profile which depicts the school’s Organizational Climate. By comparing the profiles of different schools we can identify the distinguishing features of their respective Organizational Climates.

We factor analyzed the profiles for the 71 schools to determine whether the profiles themselves would constellate in a fashion that would allow us to differentiate “meaningful” types of Organizational Climates. They did. We were able to discriminate six Organizational Climates, and found that these could be ranked in respect to the school’s score on Esprit. The social interactions which characterize these six climates are summarized below:

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

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

3. The **Controlled Climate** is characterized best as impersonal and highly task-oriented. The group’s behavior is directed primarily toward task accomplishment, while relatively little attention is given to behavior oriented to social-needs satisfaction. Esprit is fairly high, but it reflects achievement at some expense to social-needs satisfaction. This climate lacks openness, or "authenticity" of behavior, because the group is disproportionately preoccupied with task achievement.
4. The Familiar Climate is highly personal, but undercontrolled. The members of this organization satisfy their social needs, but pay relatively little attention to social control in respect to task accomplishment. Accordingly, Esprit is not extremely high simply because the group members secure little satisfaction from task achievement. Hence, much of the behavior within this climate can be construed as "inauthentic."

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

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

To provide an example of the difference between two climates, in Figure 1 we have compared the most markedly different profiles: those for the Open and the Closed Climates.

We extracted three factors from the analysis of the profiles and then inferred from these three factors three corresponding parameters which we find useful in conceptualizing the patterns of social interaction (i.e., the Organizational Climates) that occur within elementary schools:

1. Authenticity: The "authenticity," or "openness" of the leaders' and the group members' behavior.

2. Satisfaction: The group members' attainment of conjoint satisfaction in respect to task accomplishment and social needs.

3. Leadership Initiation: The latitude within which the group members, as well as the leader, can initiate leadership acts.

As we worked through this research, we repeatedly found ourselves confronted with the problem of "authenticity" in behavior. The behavior within some climates seems "genuine" or "authentic"; it is marked by three-dimensionality in that the behavior of the members is "for real," and is not just a "thin" and superficial acting out of professional roles. Contrariwise, the members' behavior in other climates seems to be two-dimensional and "inauthentic." Investigators in other disciplines - sociology, psychology, psychiatry, psychoanalysis, and industrial relations - have discussed this concept of "authenticity" in behavior. But they also have noted how utterly refractory this concept is to specification by "operational definitions." We agree, for in this respect we have been no more successful than our predecessors. Yet, for heuristic purposes we have named one of the three profile-factors "Authenticity." But we have no illusions; we know that we need "to get a better fix" on this concept. We therefore have proposed several specific approaches for future research which may help us explicate the meaning of "authenticity."

One other concept has increased our insight into the differences among the six Organizational Climates; the concept of need-dominated attention versus focal attention. We hypothesize that the amount of need-dominated attention present in a group is inversely related to the openness of the climate - that need-dominated attention reduces "authenticity" in behavior.

The concept of openness versus closedness in Organizational Climates is directly related to similar concepts about the openness or closedness of the individual's personality. The mechanisms which produce neurotic responses in the human individual appear to operate much the same way within a group. Consequently, we believe that graduate training for school executives should include at least one course, or seminar, which
will provide these administrators with insight into the behaviors that are associated with different Organizational Climates. Such a course should not be confined to the social psychology of groups, or to orthodox material on management; it should include an introduction to those central concepts of psychoanalysis and clinical psychology which are as applicable to groups as they are to individual patients.

In sum, by means of this exploratory research on the Organizational Climate of schools we believe that we have made three contributions:

1. We have developed an instrument, the Organizational Climate Description Questionnaire, which can facilitate research on Organizational Climates, whether in schools or in other types of organizations.

2. We have devised a way of conceptualizing six major types of Organizational Climates and have identified three profile factors which can prove useful in subsequent research on leadership and organizational behavior.

3. We have noted the pivotal importance of the concept of "authenticity" in behavior and have suggested that future research on the OCDQ be conjoined with a set of parallel research projects on the problem of "authenticity."

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1. This article is based upon research performed pursuant to Contract No. SAE543(8639) with the U.S. Office of Education, Dept. of Health, Education, and Welfare.


Much of the literature dealing with morale, satisfaction, and related concepts is based upon the assumption that the social climate of an organization is in some way related to motivation, aspiration, and eventually, job proficiency. The climate of an organization, on the other hand, is often viewed as having its origin, in important part, in the community that the organization serves. Defining organizational climate as in the study by Halpin and Croft, we investigated two possibilities: (1) that organizational climate was a function of the socio-economic status of the school community, and (2) that the output of the school, as measured by standard achievement tests, was a function of the organizational climate as well as the socio-economic status of the school community.

Organizational climates may be defined as patterns of social interaction that characterize an organization. The main units of interaction in this concept of climates are individuals, the group as a group, and the leader. Eight dimensions of organizational behavior are utilized to describe these climates. Each of these dimensions is represented by a subtest in the Organizational Climate Description Questionnaire (OCDQ), an instrument used to measure climates. The notion of organizational climate has been compared to the concept of personality with reference to the individual.

In the analysis of the data of this study an important distinction has been made between the global concept of organizational climates and the elements (subtests) of climates considered separately. Climates were designated in the study by the profile patterns described by the eight subtests, of the OCDQ, but it was felt that important relationships might be overlooked if the subtest scores were not analyzed separately, as well. Thus we will refer to the "global concept" of organizational climates (the profiles described by the eight subtests) and to the "elements" of organizational climates (the subtests considered separately).

Perhaps it may be useful to call attention to the design bias which underlies this study, since all research efforts are contingent upon the validity of the assumptions implicit in the theoretical base. Essentially this study focuses upon the organization's efficiency as measured by the ratio between selected inputs and the organization's output. More specifically, the goal which the organization publicly proclaims - academic achievement - is used as the criterion of effectiveness.

Etzioni argues for the need of an entirely different perspective in determining the effectiveness of an organization. He maintains that a major shortcoming of the goals model for determining organizational effectiveness is that the organization has different goals from the ones it claims.
to have, particularly its publicly stated goals. The public goals are intended to enlist the support of the public to the organization, support which, in all probability, would not be forthcoming for its private goals. Yet, the private goals—organizational maintenance, service and custodial functions—are as essential to the continuing existence and effectiveness of the organization as are the public goals. In short, organizations are multifunctional. Effectiveness in the sense of Etzioni's systems model, is determined by the optimum distribution of an organization's resources among its various needs, and over-emphasis on the organization's public goals is considered dysfunctional.

Methodology

Schools within the area described as the Northeastern Illinois Metropolitan Area in the Suburban Factbook of 1960 and associated with municipalities of between 2,500 and 20,000 residents were divided into three strata based upon a rank derived from four socio-economic characteristics as reported in the Factbook. A random sample was then selected within each socio-economic stratum, proportional to the population of the stratum, so as to produce a total sample size of thirty schools.

In each school, data were collected with respect to the socio-economic status of the school's patrons, pupil achievement, levels, and organizational climate. Warner's Index of Status Characteristics was used to collect the socio-economic data. Pupil achievement data (based upon a sample of approximately thirty fifth-grade pupils in each school) were secured through use of the 1953 edition of the Stanford Achievement Test, and the Organizational Climate Description Questionnaire (OCDQ) was used to collect the "climate" data.

Findings

Analysis of variance was used to test the relationship between the socio-economic status of the community and the organizational climate of the school. Although neither open nor closed climates showed any tendency to be associated with the social class level of a community, when the global concept of organizational climate was broken down into its elements or subtests (Disengagement, Hindrance, Esprit, Intimacy, Allofness, Production Emphasis, Thrust and Consideration), certain characteristics of the principal's behavior were associated with the socio-economic status of the community. The Hindrance and Consideration subtests, which describe the principal's behavior, accounted for a majority of the variance in pupil achievement level. In other words, Hindrance and Consideration seem to be significantly associated with the social class of the community.

Analysis of covariance was used to test the relationship between organizational climate and pupil achievement level, with pupil achievement treated as the criterion measure, organizational climate as the independent variable and socio-economic status as the covariate. Although there was no statistically significant relationship between the degree of openness in a climate and pupil achievement level in this analysis, when organiza-
tional climate was broken down into its eight elements or subtests, we found significant relationships between two of the subtests and output. As in the first case, the measures which were associated with variation in output levels were measures of the principal's behavior (Production Emphasis and Consideration) and not of the group. In other words, when the effects of social class are controlled, Production Emphasis and Consideration seem to be significantly associated with pupil achievement.

Supplementary data gathered through the use of a questionnaire made it possible to explore several other relationships. A fifteen variable correlation matrix was constructed, relating to the eight OCDQ subtests as well as to some school and community characteristics. Eleven relationships were found significant at the five per cent level and four at the one per cent level. Three variables (operating expenditure per pupil, socio-economic status, and a transiency variable), suggestive of a common factor, were involved in eight of the ten highest coefficients of correlation. Two OCDQ subtests (Production Emphasis and Consideration) were included in the ten highest correlations. These two climate subtests, descriptive of the principal's behavior, demonstrate several meaningful associations.

Table I

<table>
<thead>
<tr>
<th>SELECTED VARIABLES FROM THE CORRELATION MATRIX</th>
<th></th>
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<tr>
<td>Socio-Economic Status-Production Emphasis ...</td>
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</thead>
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<td></td>
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<tr>
<td>b 1%</td>
<td></td>
</tr>
</tbody>
</table>

Conclusions

Although there was no relationship between the global concept of organizational climate and pupil achievement and social class, on the other, three of the elements of organizational climate (Hindrance, Production Emphasis and Consideration) were significantly related to these two criterion variables. It is worthy of note that two
of these three dimensions describe perceptions of the principal's behavior directly (Production Emphasis and Consideration) and one, indirectly (Hindrance).

Although it is clear, in this analysis, that social class of the community and certain dimensions of the principal's behavior are related, it is not clear how these relationships should be explained. We may speculate that the principal is more closely identified with the community values than is the organization as a whole. Some support for this viewpoint can be obtained in the literature. Parson's model suggests that the principal is probably more sensitive than teachers to community values because his role demands that he mediate between the organization and the larger community which legitimizes the organization. In addition, the community power structure may play a greater role in the selection of the principal than in the selection of teachers, so that the former choice is more likely to reflect community values. In selecting personnel, superintendents and boards are probably aware that principals are more visible to the community than are individual teachers.

On the other hand, this relationship may be explained in terms of the more direct effect of varying financial support levels associated with the social class level of the community. The more affluent communities evidently do tend to support their schools on a higher level, as evidenced by the correlation of -0.546 between social class and operating expenditure per pupil (Table I). Inadequate professional and clerical staffing will probably be reflected in a greater delegation of administrative detail to the teaching staff and a larger burden of custodial duties for the teacher. This would account for the negative association between social class and Hindrance (Hindrance refers to the teacher's feeling that the principal burdens him with routine duties and interferes with his work).

The association between social class and Consideration may be explained in a similar way, since higher support levels in schools will tend to be reflected in higher levels of professionalism on the staff. Principal behavior described by the Consideration subtest and the qualities of professionalism are closely related.

Although the global concept of organizational climate shows no significant relationship to pupil achievement level, the dimensions of Production Emphasis and Consideration, considered independently of the climate structure, do show a significant association. The relationship, although not powerful, tends to reinforce a belief in the significance of the leadership role in organizational goal attainment.

Implications

Since most of the variance in the socio-economic class variable was seen to be associated with dimensions of the principal's behavior rather than with the group behavior characteristics, it appears that there may be a possible source of conflict within schools with respect to the organization's tasks as perceived by teachers and principals. In addition, the biographic and personality characteristics of teachers may turn out to be
more important predictors of the group dimension of organizational climate than is the social class of the community; this relationship would suggest the possibility of controlling organizational climate through the selection of teachers.

It also seems that financial support levels, associated with the social class variable, may have a salutary effect upon aspects of the school climate.

The relationship between two of the dimensions of leader behavior and attainment of the organization's goals supports the theory of leadership which conceives of two basic goals for the leader - group maintenance and group achievement. Although these two leadership functions tell us little about the kinds of administrator behavior involved, the Production Emphasis and Consideration subtests are considerably more explicit. Items in these subtests reflect real situations occurring everyday in schools and provide some insights into the kinds of behavior that may be associated with the two leadership functions of group maintenance and group achievement.

The consistently negative results in regard to the relationship between the global concept of organizational climate and pupil achievement level suggest that this relationship may be considerably more complex than assumed here. In this study, the open climate is defined operationally as one in which organizational members derive high levels of satisfaction both from their interpersonal relations with fellow workers and from accomplishment of organizational tasks. Consequently the study hypothesized, in essence, a relationship between satisfaction and output.

Brayfield and Crockett have warned against treating worker satisfaction as a global concept. As a result of their studies in industry they have pointed out that most workers function in a number of social systems within and outside of the job situation, viewing job performance as a means to an end rather than an end in itself. Productivity on the job is seldom a means to satisfying relationships in all of these social systems. For instance, increased productivity is seldom an avenue to status with fellow workers or with the union. Therefore, job satisfaction need not imply a strong motivation to improved job performance. On the other hand improved job performance may be seen by some workers as an avenue to higher pay, promotions, and consequently an enhanced social status. Such differences in orientation toward various social systems between individual workers and between work groups could result in the equal likelihood of positive, negative or no relationship between satisfaction and output.

It is clear, from this analysis, that the recent development of certain conceptual and operational tools has opened an important domain of the school for further investigation. Certain elements of organizational climates are seen as being related to important variables in the school situation. It is also possible that administrators have been provided, in the UCDQ, with an evaluative criterion which goes beyond the more obvious,
outward characteristics of schools and provides some guide to organizational improvement. It is believed that analysis of the climates of educational systems is essential to the hope of providing a better basis for intelligent choices in education.

1. Andrew W. Halpin and Don B. Croft, "The Organizational Climate of Schools," Administrator's Notebook, Vol. XI (March, 1963), and their Organizational Climate of Schools (Chicago: Midwest Administration Center, University of Chicago, 1963).


3. Halpin and Croft, op. cit.


A. Introduction

In recent years social scientists have set forth a number of formulations designed to advance our understanding of school administration (5, 6). One of the most significant of these approaches was the contribution of Halpin and Croft (7), who devised an instrument for describing the organizational climate of elementary schools. In essence, the climate of a school was determined by the teachers' perception of eight dimensions of organizational activity. Four (Disengagement, Hindrance, Esprit, and Intimacy) referred to social interactions within the faculty group; the remaining four (Aloofness, Production Emphasis, Thrust, and Consideration) related to the leader's behavior. The patterning of the dimensions yielded six profiles of organizational climates, ranging on a continuum from open to closed: in sequence, the climates were open, autonomous, controlled, familiar, paternal, and closed.

As the identification of the organizational climate of the elementary school is dependent upon the faculty's perception of interaction within the organization, it would be expected that the values, needs, and expectations of the individual teacher and the particular characteristics of the organization would play a substantial part in influencing the impressions formed. Evidence was provided by Gentry and Kenney (4) when they reported that the organizational climate of the elementary schools in a predominately segregated, urban school system showed that Negro teachers were much more inclined to view the climate of their schools as closed than were their white counterparts. Hiscox (11) and Brown (I) reported that principals tended to view their schools in a more favorable light than did the school faculty. The effects of school size on teacher perception of organizational climate were examined by Flagg (3). He concluded that as school size increases, the climate of the school tended to become increasingly closed. On the other hand, Heller (10) found that teacher perception of the organizational climate of schools was not affected by membership in informal groups within the larger organization.

For purposes of this study, an attempt was made to determine if the personality characteristics of teachers influenced their perception of the organizational climate of the schools in which they were employed. To achieve this purpose, two questions were posed: (a) Is there a statistically significant difference on any of 16 primary personality factors between elementary school teachers who perceive an "open" organizational climate and teachers who perceive a "closed" organizational climate when they are
employed in an elementary school having either an "open or closed" climate? 
(b) Is there a difference between teachers who perceive an "open" organizan-
tional climate and teachers who perceive a "closed" organizational climate 
on two, second-order factors of the Sixteen Personality Factor Questionnaire 
(I6 PF): viz., anxiety and introversion-extraversion?

B. Method

I. Sample

From an urban population of 1145 female elementary school 
teachers, two groups were identified. These were (a) 26 teachers (grades 
I-6) who perceived the organizational climate of their school as "open" 
and who were teaching in a school classified as "open" by the faculty of 
that school, and (b) 35 teachers (grades I-6) who perceived the organiza-
tional climate of their school as "closed" and who were teaching in a 
school classified as "closed" by the faculty of that school.

2. Procedure

The Organizational Climate Description Questionnaire, OCDQ (7) 
and the Sixteen Personality Factor Questionnaire, Form A (2) were adminis-
tered to the elementary school teachers in the population at their 
respective schools during the 1965-1966 academic year. To insure anonymity 
of participants, no names were required on either of the data instruments. 
The data permitted identification of (a) an organizational climate 
designation for each school, (b) the type of organizational climate 
perceived by each teacher, and (c) a personality profile for each teacher.

As the study involved only teachers in schools with open and 
closed climates, schools having these climate designations were identified. 
In order to refine the climate designation further, all of these schools 
that had a climate similarity score of .46 or above on the OCDQ were 
discarded. This process, in essence, left only those schools that had 
organizational climates perceived by their faculties as falling on the 
extremes of the climate continuum. These climates were defined as follows:

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

I. The climate similarity score indicates the type of climate present in a 
school. A low score indicates that the climate of a school is very 
similar to prototypic profiles developed by the originators of the OCDQ, 
who suggested a cut-off score of 45 in a letter to one of the authors.
2. The closed climate is characterized by a high degree of apathy on the part of all members of the organization. The organization is not "moving"; esprit is low because the group members secure neither social needs satisfaction nor the satisfaction that comes from task achievement. The members' behavior can be construed as "inauthentic"; indeed, the organization seems to be stagnant (8, pp. 2-3).

The sample was completed by selecting those teachers in the open and closed schools who perceived a climate identical to that of the school in which they worked. Again, as with the schools, all teachers having climate similarity scores of 46 or more were discarded. Thus, the final sample contained teachers who were definite in their perception of the climate of their particular school.

C. Results

The responses on the OCDQ by all of the 1145 teachers originally involved in the study were subject to factor analysis for the purpose of comparing the factor loadings at the subtest level with those of the sample in the original Halpin and Croft study (7). The unrotated factor matrix yielded three eigen-values in excess of unity. A principal component factor analysis using a varimax rotation was employed. The proportion of total factor-variance accounted for was slightly greater than that reported by the originators of the OCDQ analyzing similar samples: i.e., of the magnitude .63 as opposed to .62. The three second-order factors (Social Needs, Esprit, and Social Control) varied slightly from the factor values reported by Halpin and Croft, with Esprit accounting for the greatest percentage of factor variance in both studies followed by a reversal of the position of Social Needs and Social Control.

In the second step of the analysis, the raw scores of the subjects in the open and closed groups were subject to a test of the Standard Error of Difference on each of the 16 first-order personality measures.

When comparisons were made on each of the 16 personality factors, a difference significant at the .001 level was found on Factor E (Dominance or Ascendance vs. Submission) with the "open" group being the more submissive, while a difference significant at the .05 level was identified between the two groups on Factor Q3 (High Self-Sentiment Formation vs. Poor Self-Sentiment Formation) with the "open" group evidencing more self-sentiment than did the "closed" group. A third significant difference was found to exist between the two groups on Factor Q4 (High Ergic Tension vs. Low Ergic Tension) with the "closed" group being higher on ergic tension than were the Ss in the "open" group.

The third step consisted of subjecting the 16 first-order personality factors of the teachers in the open and closed groups to a principal component solution and an orthogonal rotation of the factor matrix for the purpose of identifying the higher-order factor structure. The cumulative proportion of variance accounted for by the principal components and respective weights of the 16 personality factors were reflected in the rotated matrix.
Eber identifies the specification equation for the second-order anxiety factor as being comprised of a constant plus the primary Factors C, H, L: O, Q3, and Q4, and for the second-order factor of Intraversion-Extraversion as being composed of a constant plus Factors A, E, F, H, and Q2. As may be seen from the rotated factor matrices (see Table I), in the open climate perception, all six factors are accounted for and reflect moderately high weights. The Intraversion-Extraversion factor accounts for four of the five factors, again with proportionately high weights with only the H factor being omitted as it was felt that its weight of .26784 was not sufficiently high to warrant inclusion. In the open perception of the organization it should be noted that the two second-order factors account for .4728 per cent of the common factor variance.

Table I
PRINCIPAL SECOND-ORDER FACTORS ON 16 PF DATA

<table>
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<th>Variable</th>
<th>Anxiety</th>
<th>Intraversion-Extraversion</th>
<th>Anxiety</th>
<th>Intraversion-Extraversion</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>-.24511</td>
<td>.69841</td>
<td>.81247</td>
<td>.11353</td>
</tr>
<tr>
<td>B</td>
<td>.53935</td>
<td>-.01861</td>
<td>-.03438</td>
<td>-.06215</td>
</tr>
<tr>
<td>C</td>
<td>.47243</td>
<td>-.00750</td>
<td>.24435</td>
<td>.56640</td>
</tr>
<tr>
<td>E</td>
<td>-.18203</td>
<td>.65841</td>
<td>.54992</td>
<td>.52484</td>
</tr>
<tr>
<td>F</td>
<td>.22283</td>
<td>.84098</td>
<td>.84016</td>
<td>-.19950</td>
</tr>
<tr>
<td>G</td>
<td>.20508</td>
<td>-.26893</td>
<td>-.51060</td>
<td>.45679</td>
</tr>
<tr>
<td>H</td>
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<td>.26784</td>
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<td>I</td>
<td>-.21859</td>
<td>-.15646</td>
<td>.23935</td>
<td>-.18951</td>
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<tr>
<td>L</td>
<td>-.64585</td>
<td>.18281</td>
<td>.06803</td>
<td>.45649</td>
</tr>
<tr>
<td>M</td>
<td>-.02288</td>
<td>.00586</td>
<td>.01867</td>
<td>-.06145</td>
</tr>
<tr>
<td>N</td>
<td>.22883</td>
<td>-.17554</td>
<td>-.30537</td>
<td>.39825</td>
</tr>
<tr>
<td>O</td>
<td>-.86505</td>
<td>.12406</td>
<td>.00165</td>
<td>-.97235</td>
</tr>
<tr>
<td>Q1</td>
<td>.08461</td>
<td>.10357</td>
<td>.01233</td>
<td>.04960</td>
</tr>
<tr>
<td>Q2</td>
<td>.11103</td>
<td>-.79751</td>
<td>.82480</td>
<td>-.17596</td>
</tr>
<tr>
<td>Q3</td>
<td>.68843</td>
<td>-.00135</td>
<td>-.45483</td>
<td>.55845</td>
</tr>
<tr>
<td>Q4</td>
<td>-.88030</td>
<td>-.04691</td>
<td>.00633</td>
<td>-.65998</td>
</tr>
</tbody>
</table>

Factor weights 3.3727 2.4596 3.3795 3.0332
% common factor variance .2734 .1994a .2744 .2464b

\( a \Sigma = .4728 \)
\( b \Sigma = .5208 \)

The closed perception of the organizational climate shows that the two second-order factors reverse their position from that identified in the open situation, with Intraversion-Extraversion becoming the greatest

2. Personal communication, Atlanta, Georgia, 1966.
contributor in terms of the percentage of common factor variance. In this factoring, all five of the personality factors which comprise the second order factor of Introversion-Extraversion are present with their weights being, generally, quite high. The anxiety factor as reflected in the closed climate situation identifies five of the six personality factors as sufficiently high for inclusion. The two second-order factors in the closed situation account for .5208 of the common factor variance.

For purposes of this paper, only the two principal second-order factors are presented and discussed. For purposes of clarity, however, it should be noted that six eigenvalues greater than unity were obtained in each treatment from the correlation coefficients. It should be noted that in the "open" treatment, 77 per cent of the cumulative proportion of total variance was accounted for by these six second-order factors and that in the "closed" treatment 76 per cent of the cumulative proportion of total variance was accounted for by the six second-order factors identified in this factor analytic treatment.

Finally, to assess the degree of factor similarity between factor structures under "open" and "closed" treatments, a test of congruence (9) was computed for the two sets of second-order factors. The relationships between factors are as shown in Table 2.

<table>
<thead>
<tr>
<th>Second-order factors</th>
<th>Anxiety (open climate, rotated factor matrix)</th>
<th>Intraversion-Extraversion (open climate, rotated factor matrix)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anxiety (closed climate, rotated factor matrix)</td>
<td>+.77</td>
<td>-.06</td>
</tr>
<tr>
<td>Intraversion-Extraversion (closed climate, rotated factor matrix)</td>
<td>-.15</td>
<td>+.95</td>
</tr>
</tbody>
</table>

D. Discussion

There appear to be three major implications in the analyses and results of this study. The Halpin-Croft "OCDQ seems to be a competent and reliable instrument for measuring psychosocial variables in educational structures. Since the results from analyzing a single large urban population were almost identical to those derived from a highly heterogeneous sample drawn from several states (7), much confidence is established in using the OCDQ for identifying the organizational climate of a public
The second major conclusion points to the personality differences of teachers who perceived the climate of their school as "open" or "closed." It was found that those teachers, who perceived the climate of the school as "open" and were, themselves, working in a school that was rated as "open", were comparatively kind-hearted, mild, and maintained high self-sentiment formation, with little ergic tension. The personality behavior of these teachers in the "open" climate appeared to be nonthreatened and very controlled, showing little need to dominate or be hard, stern, and assertive. This is about what anyone would expect from "open"-minded teachers who were working in an energetic, lively school which was moving toward the social needs of the teachers and students.

On the other hand, teachers who rated their schools as "closed," and who were, themselves, apathetic toward the school's organizational situation, were inclined to be markedly more dominant and stern than teachers who rated their schools as open, showing very low self-sentiment formation with a relatively high degree of ergic tension. There are definitely two different personality types described in the "open" and "closed" groups. Although correlations do not express causality, it seems to be a worthwhile objective for future research to investigate the possibility that those teachers who perceive the "closed" climate actually stifle and make stagnant the educational spirit of the school, while the "open" type of perceiver is more determining of the social needs of the group and provides the leadership for an ongoing, vital school program and spirit.

A third major finding in this study was the clearly definable and significant difference of both groups of teachers along other major dimensions of personality behavior. Six factors emerged from a higher-order factorizing of the original, first-order personality traits from data obtained on the I6 PF. For both groups, two of these factors, anxiety and introversion-extraversion, contributed about 50 per cent to the common factor variance and are the main foci of the present discussion.

In "open" organizational climates, general anxiety seemed to contribute significantly more to the behavioral responses of the teachers than did either introversion or extraversion. The anxiety that is described in the second-order factor structure should not be conceived as necessarily being detrimental and indicative of poor mental hygiene. Anxiety belongs in learning situations and can foster achievement, competition, and a strong drive to promote the common good of society. The "open" teachers, then, seemed to be a group that worked hard toward common and personal goals. In brief, the group could be described as energetic, ambitious, and involved in school activities. The "closed" teacher members were more inclined than "open" teachers to be characterized by an outgoing, demonstrable type of response or by being withdrawn and isolated in their
teacher roles. The "closed" group would be the more schizothymic, displaying a defensive, deferring behavior. Perhaps they could be described as "generating a lot of activity," but more from personal gain than the common good of the school. The reversal of the factor structure of the personality variables of the two groups is another index of the differential of the "closed" and "open" teachers. Although the anxiety and introversion-extraversion factors were identifiable among all the teachers in both groups, there were discriminable qualities to these factors.

E. Summary

From an urban population of 1145 elementary school teachers, personality behavior of teachers who perceived their schools to be "closed" was compared with the characteristics of teachers who rated their schools as "open" climates. Two second-order factors of anxiety and introversion-extraversion contributed more than 50 per cent to the common factor variance of each group, but a reversal of the factor structure of the two groups provided indices of the differences between teachers in "open" and "closed" climates.

References


College of Education
The University of Georgia
Athens, Georgia 30601
Climate is to the organization as personality is to the individual. As there are individual differences among students in the classroom which teachers are expected to discern and meet, and among teachers, calling for varying supervisory practices, so there are differences among units of school organization. These are differences in "organizational climate".

A.W. Halpin and D.B. Croft developed the Organizational Climate Description Questionnaire (OCDQ) from both theoretical and statistical considerations in an attempt to quantify the dimensions of such climates. The sub-tests of this instrument describe the behavior of both the group and its leader in terms of eight categories:

1. **Disengagement** - the extent to which the group works as a group.

2. **Hindrance** - the extent to which routines burden the group.

3. **Esprit** - the extent to which social needs of members are satisfied by the group.

4. **Intimacy** - the extent to which group members enjoy friendly social relations with each other.

5. **Aloofness** - the degree to which the behavior of the formal leader is impersonal.

6. **Production Emphasis** - the extent to which the leader is task-oriented.

7. **Thrust** - the degree to which the leader sets the example.

8. **Consideration** - the extent to which the leader treats group members with warmth.

Of these eight categories, the first four deal with the group behavior, the second four with the behavior of the leader. The categories are not mutually exclusive; correlations range from +0.60 (esprit - thrust) to -0.36 (disengagement - esprit).

In the Halpin and Croft study, following the standardization of scores and factor analysis, it was found that six clusters of profiles were discernible and that these could be ranked along a continuum from "open" to "closed" climates. The six prototypic areas are shown in Table I. Distribution of High, Medium and Low Scores for Climates.

In the largest project report to date, 146 Alberta schools participated in a study in February 1964, using the OCDQ under the joint
auspices of the Council on School Administration of The Alberta Teachers' Association and the Department of Educational Administration of the University of Alberta.

**Table I**

**DISTRIBUTION OF HIGH, MEDIUM AND LOW SCORES FOR CLIMATES**

<table>
<thead>
<tr>
<th>Climates</th>
<th>Group's Characteristics</th>
<th>Leader's Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Dis</td>
<td>Hin</td>
</tr>
<tr>
<td>I. Open</td>
<td>L*</td>
<td>L</td>
</tr>
<tr>
<td>2. Autonomous</td>
<td>L</td>
<td>L</td>
</tr>
<tr>
<td>3. Controlled</td>
<td>L</td>
<td>H</td>
</tr>
<tr>
<td>4. Familiar</td>
<td>H</td>
<td>L</td>
</tr>
<tr>
<td>5. Paternal</td>
<td>H</td>
<td>M</td>
</tr>
<tr>
<td>6. Closed</td>
<td>H</td>
<td>M</td>
</tr>
</tbody>
</table>

*L= in the lowest third; M=middle third; H=highest

Results of the questionnaires and other instruments formed the basis of two CSA conferences, the "Climate Clinics" at Calgary and Edmonton in mid-March, where participants appraised their own school profiles in relation to the broader setting.

Analysis of the returns from over eleven hundred teachers in 146 Alberta schools indicated the distribution of climates found in Table II.

**Table II: DISTRIBUTION OF CLIMATES**

<table>
<thead>
<tr>
<th>Climates</th>
<th>Elem.</th>
<th>Secondary</th>
<th>Combined</th>
<th>Total</th>
<th>Halpin-Croft Study</th>
</tr>
</thead>
<tbody>
<tr>
<td>I-6</td>
<td>31%</td>
<td>22%</td>
<td>20%</td>
<td>24%</td>
<td>24%</td>
</tr>
<tr>
<td>I-8</td>
<td>10</td>
<td>0</td>
<td>12</td>
<td>8%</td>
<td>13%</td>
</tr>
<tr>
<td>7-9</td>
<td>27</td>
<td>19</td>
<td>7</td>
<td>18%</td>
<td>17%</td>
</tr>
<tr>
<td>7-12</td>
<td>10</td>
<td>15</td>
<td>11</td>
<td>12%</td>
<td>8%</td>
</tr>
<tr>
<td>9-12</td>
<td>10</td>
<td>15</td>
<td>7</td>
<td>11%</td>
<td>17%</td>
</tr>
<tr>
<td>10-12</td>
<td>12</td>
<td>29</td>
<td>43</td>
<td>27%</td>
<td>21%</td>
</tr>
</tbody>
</table>

| Total    | 100%  | 100%      | 100%     | 100%  | 100%              |
| N=49     | N=41  | N=56      | N=146    | N=71  |

*Halpin & Croft Study*
Distribution of Climates, which presents, for comparison, the distribution revealed in the original Halpin-Croft study. It should be noted that the Alberta results are broken down from elementary schools, secondary schools, and schools having a combination of levels, whereas the Halpin-Croft study from which the UCDQ and the profiles of Table I were drawn used elementary schools only. In Table II, "N" refers to number of schools.

A portion of the Alberta study investigated relationships between the climates and criteria of teacher satisfaction, school effectiveness and principal effectiveness. Table III, Climates and Criteria, summarizes these findings. There is no comparable data for the Halpin-Croft study. Note: in Table III a low median score indicates a high level of the dimension. Differences between open and closed Climates on all three criteria were statistically significant.

<table>
<thead>
<tr>
<th>Climate</th>
<th>Median Teacher Satisfaction</th>
<th>Median School Effectiveness</th>
<th>Median Principal Effectiveness</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Open</td>
<td>2.3</td>
<td>2.7</td>
<td>2.3</td>
</tr>
<tr>
<td>2. Autonomous</td>
<td>2.6</td>
<td>2.8</td>
<td>2.4</td>
</tr>
<tr>
<td>3. Controlled</td>
<td>2.7</td>
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<td>2.6</td>
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<tr>
<td>4. Familiar</td>
<td>2.7</td>
<td>2.9</td>
<td>2.6</td>
</tr>
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<td>5. Paternal</td>
<td>2.7</td>
<td>3.0</td>
<td>2.7</td>
</tr>
<tr>
<td>6. Closed</td>
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<td>3.2</td>
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