ORGANIZATIONAL CLIMATE AND CULTURE IN A PUBLIC SCHOOL SETTING: A REPLICATION

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TABLE OF CONTENTS

LIST OF TABLES

CHAPTER I

INTRODUCTION

Background

Organizational climate has been referred to as the atmosphere, tone, personality, or quality of life of a particular organization. Halpin (1966, p. 131) stated, ". . . personality is to the individual what Organizational Climate is to the organization."

The need to study and measure organizational climate is derived from the need to learn more about operations of organizations, utilizing this knowledge to improve the functioning of the organization.

> As the behavior of any biological or social system is a function of the interaction between the system and its environment this kind of work (conceptualization and measurement of perceived environment) would seem a crucial step if we are to improve our ability to predict the behavior of such systems (Payne and Pheysey, 1971, p. 77).

Owens (1970) urged that data from organizational climate assessment in school settings be utilized via feedback to both faculty and administration. Thus the obtained information would not be solely a measure of effectiveness, but more importantly useful in maintaining organizational health.

Linking school outcomes to organizational climate

has not always been succesful. Anderson (1982) agreed with researchers Brookover et al. (1979) and Wilson (1980) who argued that failure of early studies to find significant school effects was the result of poor models, inadequate measures, and too few or wrong variables.

Study of organizational climate began in the late 1950's and continues today. The following common properties were found to exist in a review of school climate research:

> (a) Schools do possess something called climate, unique to each organization . . . (b) such differences, while discernable, are elusive, complex, and difficult to describe and measure . . . (c) climate is influenced by, but not a proxy for, particular dimensions of the school such as student body characteristics . . . (d) climate affects many student outcomes, including cognitive and affective behavior . . . (Anderson, 1982, p. 370-371).

Anderson ended her review with the conclusion that there was now a need for more research directed toward improving models of school climate rather than identifying more variables.

Statement of the Problem

One of the theoretical models used to study organizational climate in schools is the needs-press model developed by Murray. The purpose of this study was to evaluate Stern's implementation of the needs-press model as a means of measuring and describing climate in school organizations.

More specifically, was the concept of culture, defined as the dynamic interaction of personality and environment

and operationalized by the Activities Index and the Organizational Climate Index, useful in describing and comparing climate in a particular school organization?

Objectives

Objective No. 1: Replicate a previous study by Steinhoff (1966) which sought to operationalize the needs-press model by isolating culture dimensions in an urban school system. The replication will be accomplished by factor analyzing data collected from an urban school system using the Activities Index and the Organizational Climate Index.

Objective No. 2: Compare the emergent factors to determine if they describe culture in a particular school system.

Objective No. 3: Compare the emergent factors to determine if they confirm Steinhoff's findings with respect to climate and culture factors.

Objective No. 4: Discuss the utility of both the needs-press model and its implementation.

Objective No. 5: Suggest future direction of the needs-press studies based on results of objectives two, three, and four.

Significance of the Study

Organizational climate is a viable issue in the study of educational administration. It has been associated, at

least conceptually, with health of the total organization (Owens, 1970), and student outcomes (Thomas, 1976).

The needs-press model is discussed in textbooks for educational administration, where it is represented as one means of measuring organizational climate in an educational setting.

> Of the many attempts to capture and quantify the elusive atmosphere of an organization, the needs-press framework is among the most interesting because of its roots in an important explanatory theory. This approach to the study of climate is the only one with potential for linking personality and environment systematically and explicitly to behavior (Silver, 1983, p. 220).

This study was designed to confirm or disconfirm the usefulness of the instruments developed to implement the needs-press model. If confirmed, the study would recommend that the needs-press studies be continued, using the model to predict outcomes and/or measure the health of a particular organization. If disconfirmed, the study would recommend that researchers interested in organizational climate and culture discontinue use of the needs-press model as presently defined.

Definition of Terms

The terms that follow are defined in the manner of their usage in this study.

Activities Index (AI): The AI is a multi-dimensional inventory designed to measure systematically needs variables stemming from an explicit personality theory corresponding to the taxonomy adapted from Murray by Stern (1970). There

are 30 needs scales represented in this instrument.

College Characteristics Index (CCI): The CCI is a multi-dimensional inventory designed to measure press variables in an organization, specifically with an academic setting. The 30 scale variables correspond to the taxonomy adapted from Murray by Stern (1970).

Culture: Culture is the dynamic interaction of individual personality needs and organizational environment which results in individual behavior in an organizational context. Operationally it refers to joint needs-press factors represented by components from both personality and environment (Steinhoff, 1965, p. 5).

Needs: Sometimes referred to as psychological needs or personality needs, they are defined by Stern (1970, p. 7) as ". . . a taxonomic classification of the characteristic spontaneous behaviors manifested by individuals in their life transactions."

Organizational Climate: Organizational climate refers to the characteristics of an organization as represented by perceived press of individuals within the organization.

Organizational Climate Index (OCI): The Organizational Climate Index is a multi-dimensional inventory designed to measure press variables. It was developed from the College Characteristics Index prototype for use in all levels of school settings as well as all formal administrative structures. The 30 scale variables correspond to the taxonomy adapted from Murray by Stern (1970).

Press: Sometimes referred to as environmental press, press is defined by Stern (1970, p. 8) as ". . . a taxonomic classification of characteristic behaviors manifested by aggregates of individuals in their mutual interpersonal transactions."

Limitations and Assumptions

This study was limited, as was the study by Steinhoff (1965), to one urban school system. The study was also limited, as was the Steinhoff study, to only two major groups within the school system, teachers and administrators. Pupils, support personnel, and other groups were not included in the collection of data.

The study was limited as only 10% of the teachers and administrators within the school system participated in the study. It was assumed however that the responding group was representative of the entire population of teachers and administrators within the school system.

The OCI, which is the more general form of the environmental indexes developed to measure press in the needs-press model, was used in this study as it was the instrument used in the Steinhoff study. It was assumed that it measured environment as well as the indexes developed specifically for educational settings.

The description of organizational climate found in this particular school system should not be generalized to other urban school systems. Because of the above limitations, the

isolation of specific climate and culture factors should not be generalized to all urban school systems. Final recommendations concerning the needs-press studies should be considered by all school systems wishing to utilize this model in describing climate and culture within their organization.

CHAPTER II

REVIEW OF THE LITERATURE

Introduction

Development of the theory and operationalization of the needs-press model is discussed in this chapter. George Stern was the psychologist who was credited with operationalizing the needs-press model. Stern reported this work in his book, People in Context published in 1970.

Much of the original work on the development of the instruments was accomplished by colleagues and students of Stern. Their work was published in various forms, usually dated earlier than 1970. One such example was the study by Steinhoff (1965) which factored the Organizational Climate Index and attempted to isolate culture dimensions with which to describe a school system. It was Steinhoff's work which this study attempted to replicate.

Unfortunately, the writings by Stern (1970) do not always match what was originally reported by his fellow researchers. Stern's writings are also difficult to follow and interpret. The researcher has attempted in the following review to sort out the various studies which led to the operationalization of the needs-press model. The reader is cautioned to follow carefully the sequence of

theory development, instrument development, and utilization of the instruments.

Development of Theory

Lewin, a social psychologist in Germany, studied forces which effect changes in social groups. In his work concerning psychological processes, Lewin (1935) hypothesized that the person and the environment were inseparably bound together. Building on this premise, he sought to answer the question of why a given person in a certain state and a certain environment exhibits a particular behavior.

Lewin contended that it was necessary to represent the person and the environment in common terms as parts of one situation. He stated this as a formula representing the behavior (event) as a function of the momentary total situation or behavior equals the function of person times environment ($B = f(PE)$).

Murray, a physician and psychologist, adapted Lewin's work in an attempt to construct a theory of personality. Stating that behavior was one of the more significant aspects of personality, Murray (1938) viewed behavior as the outcome of the relationship between the person and his environment.

The term person (P) in Lewin's formula becomes the concept of Need, defined by Murray (1938, p. 54) as ". . . a hypothetical process the occurrence of which is imagined in

order to account for certain objective and subjective facts." Environment (E) is restated by Murray (1938, p. 118) as Press which ". . . designates a directional tendency in an object or situation." This tendency is dependent on the perception of the individual. Therefore, according to Murray, behavior is the outcome of the relationship between needs and press.

Murray (1938) represented the concept of needs with 32 variables divided into three categories: Manifest Needs, Latent Needs, and Miscellaneous Internal Factors. Examples of the variables from the three categories respectively are Achievement, Aggression, and Ego Ideal. A questionnaire consisting of 600 items measuring the 32 variables was utilized.

Press was divided by Murray into two types: alpha press (judgments of disinterested trained observers) and beta press (perceptions of the subject). Beta press was considered to be the determinant of behavior by either promising to satify a need or threatening to frustrate a need.

Most of Murray's work with press focused on childhood events. He classified press of childhood into 20 areas with measurement of press accomplished mainly through psychoanalysis (Murray, 1938).

The needs-press model was later operationalized by another psychologist, Stern, who saw this model as lending itself to the study of the distribution and behavior of

personalities within social organizations. Stern (1970, p. 7) defines the concept of needs as ". . . a taxonomic classification of the characteristic spontaneous behaviors manifested by individuals in their life transactions." Press is defined by Stern (1970, p. 8) as ". . . a taxonomic classification of characteristic behaviors manifested by aggregates of individuals in their mutual interpersonal transactions." Needs are the tendencies which appear to give direction to an individual's behavior while press consists of characteristics of the environment as perceived by the individual.

Stern and associates developed an instrument for measuring the needs variables. According to Stern (1970, p. 13), this instrument was the first ". . . systematic representation of variables stemming from an explicit personality theory". Eight psychologists independently coded over a thousand items which appeared to represent manifestations of need processes. Originally called the Interest Index, it consisted of 41 need categories (scale variables) represented by 400 items. This was later shortened to 300 items measuring 30 needs variables.

Several environmental indexes were also developed by Stern and associates to measure press. The 30 scales representing needs variables were formulated in parallel terms representing 30 press variables. Thus the work of Murray was refined by Stern and associates resulting in 30 scale variables representing needs and press. These scales are

listed and defined below (Stern, 1970, p. 16).

1. Abasement-Assurance: Self-depreciation versus self-confidence.

2. Achievement: Striving for success through personal effort.

3. Adaptability-Defensiveness: Acceptance of criticism versus resistance to suggestion.

4. Affiliation: Group-centered social orientation.

5. Aggression-Blame Avoidance: Hostility versus its inhibition.

6. Change-Sameness: Flexibility versus routine.

7. Conjunctivity-Disjunctivity: Planfulness versus disorganization.

8. Counteraction: Restriving after failure.

9. Deference-Restiveness: Respect for authority versus rebelliousness.

10. Dominance-Tolerance: Ascendancy versus forbearance.

11. Ego Achievement: Striving for power through social action.

12. Emotionality-Placidity: Expressiveness versus stolidness.

13. Energy-Passivity: Effort versus inertia.

14. Exhibitionism-Inferiority Avoidance: Attention-seeking versus shyness.

15. Fantasied Achievement: Daydreams of extraordinary public recognition.

16. Harm Avoidance-Risktaking: Fearfulness versus thrill-seeking.

17. Humanities, Social Science: Interests in the humanities and the social sciences.

18. Impulsiveness-Deliberation: Impetuousness versus reflection.

19. Narcissism: Vanity.

20. Nurturance: Helping others.

21. Objectivity-Projectivity: Objective detachment versus superstition (Activities Index) or suspicion (Environment Indexes).

22. Order-Disorder: Compulsive organization of details versus carelessness.

23. Play-Work: Pleasure seeking versus purposefulness.

24. Practicalness-Impracticalness: Interest in practical activity versus indifference to tangible personal gain.

25. Reflectiveness: Introspective contemplation.

26. Science: Interests in the natural sciences.

27. Sensuality-Puritanism: Interest in sensory and aesthetic experiences versus austerity or self-denial.

28. Sexuality-Prudishness: Heterosexual interests versus asceticism.

29. Supplication-Autonomy: Dependency versus self-reliance.

30. Understanding: Intellectuality.

In summary, the needs-press model for explaining behavior was conceived by Murray who built on Lewin's dictum of B = f(PE) or behavior is a function of the person and his/her environment. This concept was operationalized by Stern as a means of studying behavior within organizations.

Development of Instruments

The Activities Index (AI) is the instrument developed by Stern and associates in the early 1950's to measure the 30 needs scale variables. Sometimes referred to as the Stern Activities Index, the AI is a refinement of an earlier

version called the Interest Index. Items on the AI were unanimously considered by eight psychologists to be representative of the scale variables in the needs taxonomy.

There are several instruments available to measure the press component of the needs-press model. These instruments are sometimes referred to as the Syracuse Indexes or the Environment Indexes.

The first of the Environment Indexes, the College Characteristics Index (CCI) was constructed in 1957 by Stern and associates. The AI served as its prototype. Each of the 30 variables represented as needs on the AI were represented in a parallel version on the CCI. The instrument was to measure specifically environment or press in a college setting (Stern, 1970).

In 1960 the High School Characteristic Index (HSCI) was developed and in 1961 the Evening College Characteristic Index (ECCI) became available. The Organizational Climate Index (OCI) was constructed in 1963 as the more general instrument for measuring press variables. It was designed to be applicable to all organizations including academic settings.

In addition to the aforementioned versions there is now available an Elementary and Secondary School Index (ESI) and a Classroom Environmental Index (CEI). Many of the indexes including the AI and OCI are available in a short form.

Reviews of the instruments developed to measure the needs-press model are varied. Concerning the AI, Layton

(Buros, 1972, p. 142) recommends that the instrument not be used because of ". . . the low reliabilities of the scales, their susceptability to response distortion, and lack of evidence of substantial validity." This conclusion was confirmed by Borich and Madden (1977) with the stipulation that its use be confined to research.

Another reviewer, Skager, (Buros, 1972) stated that the AI should not be evaluated alone but in terms of its joint use with one of the environmental indexes. Skager did not agree with the response distortion and validity criticisms. He did find fault with the norm establishing sample as not being representative of institutions of higher education in the United States. This same criticism was extended in Skager's review of the CCI.

Even though Skager criticized the sampling technique of the CCI, he concluded that it is an extensively researched instrument and does insure some degree of common understanding as to what is being measured. Layton did not concur. He stated that the instrument (CCI) should not be used, even for research, based on haphazard sampling and incorrect standardizing methods (Buros, 1972).

The length of the AI and the CCI in their original long forms has been critized. Stricker (1964, p. 86) noted that when students were asked ". . . to complete 600 items, many of which they found ambiguous, their general response was not to respond." As the CCI was the prototype for the OCI, it is assumed by this researcher that the above criticisms

of the CCI also pertain to the OCI.

The response format of the indexes (Like/Dislike, True/False) was discussed by Skager (Buros, 1972). He indicated that this format often forced respondents to make a choice between two extremes, neither of which may have been applicable.

In summary, the needs-press model was operationalized by Stern with the development of the Activities Index (measuring needs) and various environmental indexes (measuring press). These original instruments were criticized by some reviewers as being too long, involving haphazard sampling, showing response distortion, and utilizing a dichotomous response format.

Structure of Instruments

A basic assumption of the needs-press model must be that the two dimensions, needs and press, are independent. To measure correctly the personality component, there cannot be interference from the environment, and personality should not contribute to perceptions of the environment.

A study by McFee (1961) failed to find any significant correlation between scale scores of individuals on the AI and the parallel scale scores of individuals on the press measurement College Characteristic Index (CCI-prototype for the OCI). This independence was also demonstrated when factors from combined AI and CCI variables separated in two clear groups, one representing factors from the AI and one

representing factors from the CCI (Stern, 1970).

Activities Index Factor Structure

The first factor analyses on the AI were completed in 1960 by Saunders utilizing an iterative principal axis procedure rotating by normal varimax. The sample consisted of 1076 men and women from 23 different colleges. A few years later all of the data from the 1960 inquiry were refactored to an equamax solution resulting in an orthogonal approximation to simple structure which was considered a superior solution to the varimax.

Saunders (1969) reported 13 first-order factors in the AI as a result of the equamax procedure. In reporting Saunder's work, Stern indicated that the 13th factor might be a male-female dimension, was the least significant of the factors, and should be disregarded.

The 12 first-order factors as interpreted by Stern are listed and defined below. Each definition is followed by the needs scales from which the factor was derived (Richman and Stern, 1975b, p. 7-10).

1. Self-Assertion

   Reflects a need for personal power and social or political recognition, the need to occupy a favorable or prominant position in a group, and to be highly regarded by others.
   (Ego-Achievement, Dominance, Exhibitionism, Fantasied Achievement)

2. Audacity-Timidity

   Reflects an elitist syndrome, a need for satisfaction through uncommon efforts. The emphasis is on skill and aggressiveness in both physical

activities and interpersonal relationships.
(Risktaking, Fantasied Achievement, Aggression, Science)

3. Intellectual Interests

The scales with the highest loading on this dimension are based on items involving various forms of intellectual activities, the arts as well as the sciences, the empirical as well as the abstract.
(Reflectiveness, Humanities-Social Science, Understanding, Science)

4. Motivation

Represents the need for achievement, but in a more conventional form, as a process divorced from any specific goal. It involves elements of competitiveness and perseverance as well as of intellectual aspirations. It relects a tendency to derive personal satisfaction from hard work and perseverance for their own sake.
(Achievement, Counteraction, Understanding, Energy)

5. Applied Interests

Suggests an interest in achieving success and satisfaction through conventional means. Interests are oriented toward the known and the applied. The items involve orderly and conventional applications of skills in business enterprise.
(Practicalness, Science, Order)

6. Orderliness

People with high interest in activities stressing personal organization and deliberation. Impulsive behavior is avoided and self-control is maintained through the use of ritual, routine, and detailed planning.
(Conjunctivity, Sameness, Order, Deliberation)

7. Submissiveness

This factor also implies a high level of control, but in this case involving social conformity and other-directedness.
(Adaptability, Abasement, Nurturance, Deference)

8. Closeness

This factor is closely related to Factor 7. However, the abasive and self-denying qualities are absent here. In their place is an acceptance of items that recognize one's needs for warmth and emotional supportiveness.
(Supplication, Sexuality, Nurturance, Deference)

9. Sensuousness

The items associated with this factor are concerned with activities of a sensual character. They suggest a measure of self-indulgence along with a delight in the gratifications to be obtained through the senses. This includes aesthetic experience and the appreciation of the fine arts.
(Sensuality, Narcissism, Sexuality)

10. Friendliness

Persons with high scores on this factor are interested in friendly, playful relationships with other people. They like simple and uncomplicated forms of amusement enjoyed in a group setting.
(Affiliation, Play)

11. Expressiveness-Constraint

Stresses emotional lability and freedom from self-imposed controls. Individuals with high Expressiveness scores appear to be outgoing, spontaneous, impulsive, and uninhibited.
(Emotionality, Impulsiveness, Exhibitionism, Sexuality)

12. Egoism-Diffidence

Reflects an extreme preoccupation with the self. The items are concerned with appearance and comfort, as well as with fantasies of extraordinary achievement and public recognition. Reality itself is being interpreted in egocentric terms, but this may not be so much a matter of autisitc distortion (whether daydreaming or hallucinating) as of the narcissistic egoism of the completely self-centered child.
(Narcissism, Fantasied Achievement, Projectivity)

The first-order matrix was factored using the centroid method, extracting eight factors. These centroid factors

were then rotated to an orthogonal simple structure resulting in four second-order dimensions.

The four second-order dimensions are listed and defined below. The first-order factors that contribute to each dimension are listed after the definition (Richman and Stern, 1975b, p. 11).

I. Achievement Orientation

> A high Area I score indicates strong ego strivings, concern for personal achievement and competitiveness. A low score would suggest indifference to personal achievement or ascendancy over others.
> (Self-Assertion, Audacity-Timidity, Intellectual Interests, Motivation, Applied Interests)

II. Dependency Needs

> This dimension shares Applied Interests with the preceding area, but carries the orderly aspects of those activities to a more explicitly compulsive level of personal organization. A high score in this area suggests a generally high level of dependent, submissive, socially controlled behavior. A low score represents the inverse of this, autonomy, ascendance, and nonconformity.
> (Applied Interests, Constraint-Expressiveness, Diffidence-Egoism, Orderliness, Submissiveness, Timidity-Audacity, Closeness)

III. Emotional Expression

> This area shares the Closeness factor with the preceding area, but the remaining five factors that comprise this dimension stress much higher levels of social participation and emotional spontaneity. Low scores on this area are socially isolated and emotionally constrained.
> (Closeness, Sensuousness, Friendliness, Expressiveness-Constraint, Egoism-Diffidence, Self-Assertion)

IV. Educability

> This fourth dimension overlaps both Areas I and II. It excludes the extreme self-assertive aspects of Achievement Orientation on the one hand and the physical and emotional sources of

> anxiety at the other extreme of the Dependency Needs area. Insofar as it combines elements of both intellectuality and submissiveness, this dimension is of intrinsic interest to the educator. Reflecting interests in academic activities coupled with orderliness and conformity, persons in this factor seem likely to be original or creative; they are, however, likely to accept direction readily and be educationally tractable. Low scores on this dimension are likely to be academic non-conformists, restive, resistant to supervision, and potentially original and/or creative.
> (Intellectual Interests, Motivation, Applied Interests, Orderliness, Submissiveness)

Stern (1970) indicated that the 12 first-order AI factors and the four dimensions were interrelated in a circular order. This was purported by Stern to be an example of a quasi-circumplex, a law of order postulated by Guttman for scales similar in complexity but differing in the kinds of abilities or attitudes they define. The circular order for the dimensions is criticized by Skager (Buros, 1972) as it makes the resulting profiles difficult to interpret.

Organizational Climate Index

Factor Structure

The factor analysis procedure applied to the OCI, as reported by Stern (1970), was the same which had been used previously for the AI, an iterative principal axis procedure with rotation to normal equamax solution. Steinhoff (1965) collected data from the Syracuse, New York, public school system. There were 941 respondents from 41 schools in this study.

Two different types of organizations were utilized in other studies: the Peace Corps training programs with a sample of 2500 from 65 programs and an industrial organization with a sample of 223 from three sites. Each analysis from these three studies produced six first-order factors, with the second-order factors revealing two dimensions. The first- and second-order factors from the three types of organizations were similar but not identical.

Earlier analysis of the CCI (prototype of the OCI) had produced 11 first-order factors and three dimensions from the second-order factoring. Stern (1970) explained this discrepancy in the number of first- and second-order factors:

> The simpler structure of the OCI samples data suggests a clearer psychological differentiation between them than the superficial academic-nonacademic distinction resorted to for the CCI (p. 68).

As stated earlier, the first-order factors from different types of organizations were not identical. The first-order factors isolated and reported by Steinhoff differ from those listed and defined in the manual in present use. Again six first-order factors are reported by both sources. As the only scoring mechanism available is from the six factors listed in the manual, those are the factors defined below. The definition of each factor is followed by a list of the scales from which the factor was derived (Richman and Stern, 1975a, p. 7-8).

1. Intellectual Climate

Schools with high scores on this factor have environments that are perceived as being conducive to scholarly interests in the humanities, arts, and sciences. Staff and physical plant are seen to be facilitative of these interests and the general work atmosphere is characterized by intellectual activities and pursuits.
(Ego Achievement, Exhibitionism, Fantasied Achievement, Humanities/Social Science, Nurturance, Reflectiveness, Science, Sensuality, Understanding)

2. Achievement Standards

Environments with high scores on this factor are perceived to stress high standards of personal achievement. Tasks are successfully completed and high levels of motivation and energy are maintained. Recognition is given for work of good quality and quantity and the staff is expected to achieve at the highest levels.
(Achievement, Counteraction, Ego Achivement, Emotionality, Energy)

3. Personal Dignity

Environments scoring high on this factor respect the integrity of the individual and provide a supportive climate that would closely approximate the needs of more dependent teachers. There is a sense of fair play and openness in the working environment.
(Assurance, Affiliation, Blame Avoidance, Conjunctivity, Tolerance, Objectivity, Supplication)

4. Organizational Effectiveness

Schools with high scores on this factor have work environments that encourage and facilitate the effective performance of tasks. Work programs are planned and well-organized, and people work together effectively to meet organizational objectives.
(Achievement, Adaptability, Blame Avoidance, Conjunctivity, Deference, Energy, Order, Practicalness)

5. Orderliness

High scores on this factor are indicative of a press for organizational structure and procedural

orderliness. Neatness counts and there are pressures to conform to a defined norm of personal appearance and institutional image. There are set procedures and teachers are expected to follow them.
(Sameness, Conjunctivity, Harm Avoidance, Deliberation, Narcissism, Order)

6. Impulse Control

High scores on this factor imply a great deal of constraint and organizational restrictiveness in the work environment. There is little opportunity for personal expression or for any form of impulsive behavior.
(Non-Affiliation, Inferiority Avoidance, Deliberation, Work, Prudishness)

The first-order matrix of the OCI from the school organization was factored using the centroid method, rotating to an orthogonal simple structure. Two dimensions were revealed with five of the first-order factors falling on one axis with the sixth first-order factor on the other axis. The first- and second-order factors were not related in a circular manner as with the AI first- and second-order factors.

The second-order factors or dimensions from the OCI study of school organizations are defined below. The first-order factors which contribute to the dimension are listed after the definition (Richman and Stern, 1975a, p. 9).

I. Development

Schools with high scores on Development press are characterized by organizational environments that are supportive of intellectual and interpersonal forms of activity. The environments are intellectually stimulating, supportive, set high standards for achievement, and do not inhibit personal expression.
(Intellectual Climate, Achievement Standards, Personal Dignity, Impulse Control)

II. Task Effectiveness

> High scores on Area II are indicative of an organizational environment that emphasizes high levels of orderliness and structure. The environment is work oriented, rather than people oriented.
> (Organizational Effectiveness, Orderliness)

Dimensions of Culture

It was hypothesized by Stern (1970) that needs-press relationships in organizations would be associated with either congruence or dissonance. Congruence was defined as the relationship of needs-press found characterizing flourishing groups while dissonance would be an unstable needs-press relationship characterizing non-flourishing groups. Congruence or dissonance was based on whether characteristics of the organization matched the personality of individuals within the organization.

There were technical problems in relating needs systematically to press.

> Qualitative inferences are possible . . . or a school means correlation matrix can be used to infer configurations of needs associated with any given press condition and vice versa but the measurement of dimensional congruence remained unsolved prior to the culture model analysis (Stern, 1970, p. 192).

The culture analysis was achieved by computing a correlation matrix of the 12 first-order factors from the AI with the six first-order factors from the OCI. This matrix was then factored utilizing a principal axis method, rotating to an orthogonal simple structure by equamax.

This procedure was reported by Steinhoff (1965).

Five factors were recognized. However one factor loaded only on the AI and one factor loaded only on the OCI. Therefore these two factors were thrown out and only the remaining three factors which had joint loadings were identified as "cultures." A similar study by Cohen (1966) using the AI and the CCI (prototype of OCI) at the college level, isolated five culture factors.

Steinhoff labeled the school cultures as Conventional, Work, and Play. Stern (1970) in reporting Steinhoff's worked labeled the three cultures Conventional, Teacher Expressiveness, and Teacher Warmth using different factor makeup and descriptions. In a subsequent study by Hamaty (1966), the three cultures were labeled Conventional, Work, and Impulse Expression.

The three cultures identified by Steinhoff (1965) are described as follows:

The Conventional culture is characteristic of buildings for the elementary grades, staffed by constrained teachers and paternalistic administrators. These schools are also characterized by the absence of achievement-oriented teachers.

The Work culture is characteristic of schools that are highly structured, work-oriented, employing friendly but deferent and conforming teachers.

The Play culture is characteristic of schools with a high degree of impulse expression and which employ teachers who have high needs in emotional expression.

The ability to describe organizations through cultures as representative of the needs-press interaction was perceived as an added dimension in the operationalization of the model. Stern (1970) stated:

> The separate within-school need and press parameters are informative in one way, the joint between-school parameters in another. Together they seem to provide complementary data of considerably greater depth than either of them alone (p. 244).

Utilization of Instruments

Although Stern believed that the culture factors would extend research utilizing the needs-press model, this did not happen. Immediately following the Steinhoff study, the first to isolate culture factors in a school organization, Hamaty (1966) investigated the influence of culture on selected pupil and teacher variables. Hamaty found that the effect of culture on behavior was limited.

If the concept of culture has any theoretical importance, it must be related to behavior within the organization, as the theory states behavior is a function of the person and the environment. What Hamaty did find was the possiblitity of meaningful differences between deviant and homogeneous schools. Hamaty defined deviant schools as those which were influenced heavily by either the AI or the OCI, whereas homogeneous schools were not.

Hamaty (1966) recommended that future research investigate the deviant/homogeneous concept and that Steinhoff's work with culture be replicated using a larger

sample.

> After examining the three cultures, it became apparent that high intercorrelations existed among them. This finding may account for many similarities found to be prevalent among the cultures and at the same time raises questions concerning the previous research done by Steinhoff with respect to the independence of the culture types (p. 102).

There were many studies published in the late 1960's and 1970's reportedly using the needs-press model. However the majority of these studies did not use both a measurement for needs as well as press. The typical study utilizes one of the instruments, usually one of the environmental indexes, and either describes climate in a single organization or compares climate across organizations. A few of the studies are concerned with outcomes as related to organizational climate.

Use of the instruments measuring needs and press has declined in recent years. The concept of culture as a useful measurement for behavior in organizations has not been continued in investigatory research.

Summary

Lewin described behavior as a function of the person and his or her behavior, B = f(PE). Murray built on Lewin's work, conceiving the needs-press model as a means of explaining behavior. The model was operationalized by Stern to study behavior within organizations.

The Activities Index (AI) was developed to measure needs; various environmental indexes, one of which is the

Organizational Climate Index (OCI), were developed to measure press. Some reviewers were critical of the instruments.

Twelve first-order and four second-order factors were isolated on the AI. Although factor makeup differs in the different reportings, there were consistently six first-order and two second-order factors isolated on the OCI. Composite factoring of the AI and OCI revealed three dimensions termed culture factors.

The culture factors were seen by Stern as the behavior component of the needs-press model. However a follow-up study by Hamaty found no relationship between the culture factors and certain pupil/teacher behaviors. Subsequent research utilizing the needs-press model has not included the culture or behavior component. To determine the potential power of the needs-press model it was essential for further research involving the culture dimension to be undertaken. This research is described in Chapter III.

CHAPTER III

METHOD AND PROCEDURES

Research Design

This research is a methodological study concerning specific instruments which were developed to measure the needs-press model, the Activities Index (AI) and the Organizational Climate Index (OCI). The AI was developed to measure the personality or needs and the OCI was developed to measure the environment or press. Of specific interest to this researcher was the interaction of the AI and the OCI which, according to the theory, should predict outcome.

The focus of this research was a study completed by Steinhoff in 1965 using data collected from the Syracuse, New York public school system. Although Stern is credited with the development of the instruments, other persons were involved in much of the original research. Steinhoff was attempting to isolate factors and dimensions from the newly developed OCI which would measure and describe environment in an organization. He also combined the measurements from the AI and the OCI in an attempt to isolate dimensions he termed cultures. These cultures were seen as the outcomes measurement in the needs-press model.

It seemed appropriate to the researcher to replicate as

closely as possible the work of Steinhoff. The purpose of this replication was to determine if the factors isolated by Steinhoff do indeed measure environment and to determine if the concept of culture as described by Steinhoff is the measurement of the needs-press model.

Specific objectives were developed to guide the research in this study. They are listed below.

Objective No. 1: Replicate a previous study by Steinhoff (1965) which sought to operationalize the needs-press model by isolating culture dimensions in an urban school system. The replication will be accomplished by factor analyzing data collected from an urban school system using the Activities Index and the Organizational Climate Index.

Objective No. 2: Compare the emergent factors to determine if they describe culture in a particular school system.

Objective No. 3: Compare the emergent factors to determine if they confirm Steinhoff's findings with respect to climate and culture factors.

Objective No. 4: Discuss the utility of both the needs-press model and its implementation.

Objective No. 5: Suggest future direction of the needs-press studies based on results of objectives two, three, and four.

Pilot Study

A pilot study was conducted in a larger than average Kansas unified school district. The purpose of the pilot was to determine mechanical details in the distribution and use of the instruments and to use these data in trial statistical analyses. Results of the pilot are not included in this study.

Permission was granted by the superintendent and high school principal for the researcher to attend a faculty meeting in the high school. Copies of either the AI or the OCI were distributed randomly to all professional staff of the high school who attended this particular meeting. The staff was asked by the researcher to return the completed answer sheets within one week in a sealed envelope provided to the principal. At the conclusion of the week, the principal mailed the forms to the researcher. Sixteen AI and 17 OCI answer sheets were returned. This represented 33 of the 35 total professional staff.

One of the mechanical problems revealed by the pilot concerned the answer sheets. The directions on the instruments asked the respondent to blacken 1 or 2, whereas the answer sheets chosen by the researcher asked the respondent to blacken A or B. It was determined by the researcher that permission must be sought to change the directions on the instruments. This permission was granted by telephone conversation in January, 1985. Written confirmation of the earlier conversation was sent at a later

date (see Appendix D).

Population and Sample

The population of this study is the teaching and administrative staff of an urban school district in central United States. Enrollment in the district on September 15, 1984 was 44,512 pupils. Professional staff in this district numbered 2,927 on November 1, 1984. These personnel were located in eight high school, 17 junior high, and 74 elementary buildings.

It was determined by the researcher to attempt to obtain a respondent group of approximately 300 teachers and administrators--10% of the population. The group would include at least 150 respondents to the AI and at least 150 respondents to the OCI. Stern (1970) stated that it was not necessary to administer both needs and press instruments to the same group.

> Since the aggregate is usually sampled, it is not even essential that the same individuals be drawn as respondents to both the AI and the CCI . . . provided that each group can be considered to have been drawn from the same population (p. 205).

Support for the N of 300 was derived from Gorsuch (1983).

> Unfortunately, no one has yet worked out what a safe ratio of the number of subjects to variables is, probably because it varies depending upon the strength of the phenomena. A present suggested absolute minimum ratio is five individuals to every variable, but not less than 100 individuals for any analysis (p. 332).

As there are 12 variables measured on the AI and six

variables measured on the OCI, a respondent number of 300 (150 per instrument) seemed appropriate and satisfied the above criteria.

Multi-stage sampling was utilized (Kerlinger, 1973). First, a stratified random sample of 646 teachers and administrators was provided to the researcher (see Appendix D). District administrators postulated that over 600 staff would need to be contacted to ensure the 300 respondents needed. Information provided to the researcher by the district included name, address, gender, race, type of position held and building to which assigned.

Subsamples for the AI and the OCI were selected through a systematic sampling procedure (Kalton, 1983). The first person on the list was sent the AI, the next person was sent the OCI, and the next person was sent the AI. This procedure was continued through the entire list.

The total number of respondents was 331 personnel representing eight high school, 16 junior high, and 63 elementary school buildings. The respondent total included 171 responding to the AI and 160 responding to the OCI. Demographic characteristics of the respondent group are listed in Table I.

Instrumentation

Activities Index

The Activities Index (AI) is a self-administered objective inventory measuring personality needs. The

original long form contained 300 items measuring 30 need scales. There are in current use two short form versions which measure the 12 first-order factors.

TABLE I

DEMOGRAPHIC CHARACTERISTICS OF RESPONDENTS BY LEVEL

Characteristic	Elementary	Junior High	High School	Total
Gender				
Male	26	39	33	98
Female	139	56	34	229
Age				
Under 35	50	26	14	90
35-50	56	33	26	115
Over 50	35	22	16	73
Not reported	24	14	11	49
Race				
White	150	83	64	297
Other	15	12	3	30
Degree				
Bachelors	61	24	15	100
Masters or above	80	58	42	180
Not reported	24	13	10	47
Years Experience				
0-15	82	44	25	151
Over 15	59	38	30	127
Not reported	24	13	12	49
Type				
Teacher	155	87	61	303
Administrator	10	8	6	24
Total	165	95	67	*327

* Four respondents were not coded by level.

The short form, SAI-1158SF, with an administration time of 20 minutes, was used in this study. The 91 items are descriptive of routine activities and feelings to which the respondent is asked to indicate a "Like" or "Dislike."

Each item contributed one point when answered as keyed with a maximum possible score of ten for each factor. Certain items contributed to more than one factor score. The short form provided the same first- and second-order scores that are normally derived from the long form. The KR-20 formula reliability coefficients reported in the technical manuals (Richman and Stern, 1975b, p. 14) are listed in Table II.

TABLE II

RELIABILITY COEFFICIENTS FOR THE ACTIVITIES INDEX BY FACTOR AND AREA

Factors	Coefficients	Areas	Coefficients
1. Self Assertion	.63	I. Achievement Orientation	.83
2. Audacity-Timidity	.72		
3. Intellectual Interests	.80		
4. Motivation	.73	II. Dependency Needs	.82
5. Applied Interests	.80		
6. Orderliness	.76		
7. Submissiveness	.72	III. Emotional Expression	.79
8. Closeness	.71		
9. Sensuousness	.61		
10. Friendliness	.74	IV. Educability	.78
11. Expressiveness-Constraint	.71		
12. Egoism-Diffidence	.68		

Validity for the long form of the AI was discussed by Stern (1970). He provided evidence for equivalent validity, the agreement of a given appraisal with other appraisals, through a double-blind analysis. The attending psychiatrist noted parallels between the AI assessment and his own assessment of children under therapy.

A number of studies were cited by Stern (1970) as evidence of consequent validity or the ability of the AI to differentiate between predeterminded groups. The AI was criticized by both Layton (Buros, 1972) and Borich and Madden (1977) as lacking evidence of substantial validity.

Organizational Climate Index

The Organizational Climate Index (OCI) is a self-administered inventory measuring environmental press as perceived by the individual actor in the organization. It is a general instrument that can be used in a variety of work organizations. The original long form consisted of 300 items measuring 30 press scales. A short form was developed which measures six factors.

The short form, OCI-375SF, with an administration time of approximately 20 minutes, was used in this study. The respondent was asked to indicate "True" or "False" to 80 items which characterize the organization. Each item contributed one point when answered as keyed with a maximum possible score of ten for each factor. Certain items contributed to more than one factor score.

Reliabilities for the OCI-375SF in school organizations are listed in Table III. These reliability coefficients for each factor and area are based on the KR-20 formula and are those reported in the technical manuals (Richman and Stern, 1975a, p. 13).

TABLE III

RELIABILITY COEFFICIENTS FOR THE ORGANIZATIONAL CLIMATE INDEX BY FACTOR AND AREA

Factors	Coefficients	Areas	Coefficients
1. Intellectual Climate	.77	I. Development	.86
2. Achievement Standards	.77		
3. Personal Dignity	.81	II. Task Effectiveness	.76
4. Organizational Effectiveness	.77		
5. Orderliness	.70		
6. Impulse Control	.63		

Validity of the OCI was not discussed by Steinhoff or Stern. Borich and Madden (1977) stated that the similarity of the OCI factor solutions with the solutions to its prototype CCI offered some evidence of construct validity and criterion-related validity was indicated by the OCI's ability to differentiate between groups.

Data Collection

Administrators from the district to be studied requested that a mailout procedure be developed rather than administering the instruments at faculty meetings. The AI and OCI instruments were purchased from Research Evaluation Associates in Syracuse, New York. The answer sheets were purchased from the Social Sciences Laboratory at Wichita State University, Wichita, Kansas.

On February 4, 1985, the instruments and answer sheets were mailed to the 646 personnel. Included was a cover letter which explained the purpose of the study and requested additional demographic information--highest degree earned, number of years experience in education, and age category. A stamped, addressed return envelope was provided. Two hundred and thirty responses were returned to the researcher from this mailing.

On February 27, 1985, the nonrespondents were sent a second request. The instrument, answer sheet, and return envelope were again provided. A total of 331 usable responses were received from the two mailings. This number represented a 51.2% response rate from the original sample and 11.3% of the population. Of the 331 total, 171 were responses to the AI and 160 were responses to the OCI.

Treatment of Data

The 331 answer sheets were scanned and placed on user files by the Social Sciences Laboratory at Wichita State

University. All statistical analyses were produced on the mainframe computer at Wichita State University, an IBM 3080D. Programs from either the Statistical Package for the Social Sciences, version X (SPSSx) or the User Oriented Factor Analytic Package, version 3.6 (USOFAP) were used.

Descriptive statistics were secured for both the AI and OCI responses as well as the reported demographic data. Responses on each instrument were recoded. A response which indicated the keyed answer according to the technical manuals (Richman and Stern, 1975a and 1975b) was given a score of one. A response which did not match the key was given a score of zero.

Scores were computed for the 12 AI Factors, the four AI Areas, the six OCI Factors, and the two OCI Areas. These computations were based on procedures described in the technical manuals. Reliability coefficients using the KR-20 formula were computed. A one-way analysis of variance was calculated for each factor and area score on both the AI and the OCI by gender, level, highest degree attained, number of years of experience in education and age.

All of the above analyses were conducted in an attempt to replicate the Steinhoff study and to describe a school organization utilizing the needs-press model as presently defined. Methods for scoring the culture dimensions, the interaction of the AI and the OCI, have never been published for school organizations.

Responses to the OCI were factor analyzed to compare

with the findings of Steinhoff. Two tests on the correlation matrix were computed: Bartlett's chi square test for significance of residual variance and Cattell's scree test for determining the number of factors to extract.

Utilizing the USOFAP programs, an iterative principal axis solution was applied to the correlation matrix stipulating the number of factors to be extracted. From an orthogonal position by varimax, a promax oblique rotation was followed by a maxplane oblique rotation. Salient loadings were marked for later identification and discussion. To produce second-order factors the factor correlation matrix was factor analyzed in the same manner. To produce third-order factors the factor correlation matrix was factor analyzed from a varimax orthogonal position followed by a promax oblique rotation.

The promax and maxplane procedures were utilized in the above analyses following the recommendations of Gorsuch (1983). He also states, however, that if the simple structure is clear, any of the more popular procedures can be expected to lead to the same interpretations.

The final statistical analyses involved an attempt to extract culture factors similar to those identified by Steinhoff (1965). In the Steinhoff study the AI and OCI responses were combined by calculating the mean responses by school building for each of the 18 factors (12 AI and 6 OCI). These means were then factor analyzed to extract the culture factors. This method seemed inappropriate for the

present study as the research was concerned with the organizational unit as a whole. An additional limitation was that each individual responded to only one of the two instruments.

The combining of the data in the present research was accomplished by matching the AI and OCI responses. The matching involved combining an AI response data sheet with an OCI response data sheet based on certain demographic characteristics of the respondents.

The characteristics chosen for matching were those which had shown the most variance in the different one-way analyses of variance. These were level of teaching (elementary, junior high, or high school), gender (male or female), and highest degree earned (bachelors or masters and above). The response data were also matched by type (teacher or administrator). The result was 109 records representing combined AI and OCI data.

The scores representing the 12 AI factors and the six OCI factors were computed and combined creating 18 variables. These variables were correlated and factor analyzed utilizing the SPSSx program. A scree plot was requested and the iterative principal axis solution was applied with a varimax orthogonal and direct oblimin oblique rotation.

The SPSSx progam was utilized in these analyses because the USOFAP program was unable to compute factor scores and convert them to variables. Results of all statistical

procedures are discussed in Chapter IV.

Summary

The research was based on a replication of a previous study by Steinhoff (1965) and was a methodological design. Five objectives were written to guide the study.

The population of the study was the teaching and administrative staff from an urban school district in central United States. The final sample was 331 respondents with 171 responding to the AI and 160 responding to the OCI.

Response data were collected through a mailout procedure. Statistical treatment included one-way analysis of variance and factor analysis. Results of the statistical analyses are provided in Chapter IV.

CHAPTER IV

PRESENTATION AND ANALYSIS OF THE DATA

Introduction

This chapter will discuss the results of statistical analyses presented in Chapter III. The scoring of the AI and the OCI will be presented. Results of the one-way analyses of variance performed on both instruments will be discussed. Factoring of the OCI and the combined AI and OCI will be detailed. The chapter ends in a summary.

Scoring of the Instruments

The results of scoring of the Activities Index and the Organizational Climate Index according to the method given in the technical manuals (Richman and Stern, 1975a and 1975b) are presented in Tables IV and V. These scores represent the personality needs and environment perceptions of teaching and administrative staff of the district as measured by the two instruments. The norms were taken from the technical manuals.

Activities Index

The lower than the norm mean scores on Factors one through five suggests that the administrative and teaching

staff of the school district as a unit do not have a need for personal power nor a need for elitist characterization. It also appears that this group has less need for intellectual pursuits, competitiveness, and achieving success than other school groups.

TABLE IV

ACTIVITIES INDEX FACTOR AND AREA SCORES

Factors	Sample Mean	Standard Deviation	*Norms Male	Female
1. Self-Assertion	3.579	2.454	5.173	4.799
2. Audacity-Timidity	4.240	1.797	5.815	5.020
3. Intellectual Interests	3.971	3.024	5.291	5.454
4. Motivation	5.363	2.591	6.571	6.747
5. Applied Interests	4.877	2.686	6.110	5.648
6. Orderliness	5.146	2.254	3.811	3.768
7. Submissiveness	5.263	2.365	6.102	7.222
8. Closeness	5.649	2.443	5.051	7.038
9. Sensuousness	5.058	2.680	4.626	6.444
10. Friendliness	5.175	2.691	5.862	5.751
11. Expressiveness-Constraint	4.058	2.341	4.016	5.724
12. Egoism-Diffidence	4.491	2.542	5.681	5.860
Areas				
I. Achievement Orientation	22.029	9.379	28.961	27.669
II. Dependency Needs	63.725	8.770	35.563	37.072
III. Emotional Expression	28.012	10.588	30.409	35.614
IV. Educability	24.620	7.741	27.886	28.840

*(Richman and Stern, 1975b, p. 29)

The lower mean score on Factor 7 suggests a group that does not have a strong defensive system against internal controls. The mean score on Factor 12 also reflects the need for this group to be less concerned with extraordinary achievement and public recognition. The somewhat higher mean score on Factor 6 suggests a group that does not utilize a strong defensive system against organizational controls. The group would be more likely to avoid overt conflict and direct confrontation.

The low mean score in Area I on the AI suggests the school district administrative and teaching staff as a unit may be indifferent to personal achievement. The high mean score in Area II suggests that this same group may have a high level of dependent, submissive, socially controlled behavior. The relatively low mean scores in Area IV suggest needs of the school district staff for academic non-conformity, and a staff that is potentially original or creative.

Organizational Climate Index

The mean scores on the OCI for the administrative and teaching staff of the school district as a unit do not vary from the established norms. This could be interpreted that the unit perceived the organizational environment as one that is neither supportive nor nonsupportive of intellectual activity.

TABLE V

ORGANIZATIONAL CLIMATE INDEX
FACTOR AND AREA SCORES

Factors	Sample Mean	Standard Deviation	*Norms
1. Achievement Standards	4.662	2.578	5.4914
2. Intellectual Climate	6.671	2.564	6.4642
3. Practicalness	6.093	2.644	6.4554
4. Supportiveness	6.846	2.505	6.5140
5. Orderliness	5.303	2.196	5.3121
6. Impulse Control	6.045	2.302	5.4535
Areas			
I. Development	22.165	7.548	22.9575
II. Task Effectiveness	12.214	4.002	11.8268

*(Richman and Stern, 1975a, p. 27)

In the same way the unit may have perceived the organization as one that is in a middle area for being stimulating, setting high standards for achievement, and inhibiting personal expression. The mean scores also suggest that the environment is perceived as being neither overly work oriented nor people oriented.

Reliability Coefficients

Reliability coefficients were computed for each factor and area score on both the AI and the OCI sample data. The Kuder-Richardson Formula #20 was used in the calculations. Results are reported in Table VI and VII.

TABLE VI

RELIABILITY COEFFICIENTS FOR THE ACTIVITIES INDEX BY FACTOR AND AREA: DISTRICT SAMPLE

Factors	Coefficients	Areas	Coefficients
1. Self Assertion	.66	I. Achievement Orientation	.85
2. Audacity-Timidity	.62		
3. Intellectual Interests	.80		
4. Motivation	.68	II. Dependency Needs	.89
5. Applied Interests	.70		
6. Orderliness	.62		
7. Submissiveness	.66	III. Emotional Expression	.91
8. Closeness	.70		
9. Sensuousness	.70		
10. Friendliness	.70	IV. Educability	.89
11. Expressiveness-Constraint	.64		
12. Egoism-Diffidence	.67		

TABLE VII

RELIABILITY COEFFICIENTS FOR THE ORGANIZATIONAL CLIMATE INDEX BY FACTOR AND AREA: DISTRICT SAMPLE

Factors	Coefficients	Areas	Coefficients
1. Intellectual Climate	.68	I. Development	.89
2. Achievement Standards	.66		
3. Personal Dignity	.69	II. Task Effectiveness	.79
4. Organizational Effectiveness	.67		
5. Orderliness	.61		
6. Impulse Control	.63		

Analysis of Variance

A one-way analysis of variance was calculated for each of the area mean scores on both the AI and the OCI by level, gender, highest degree earned, number of years experience in education, and age. The independent variables were recoded to reflect the following levels: Level - elementary, junior high school, high school; Gender - male, female; Highest degree earned - bachelors, masters or above; Number of years experience in education - 0-15, over 15; Age - under 35, 35-50, over 50.

It was expected for the needs instrument (AI) to show some significant differences by gender as this was spoken to by Stern (1970). Steinhoff (1965) demonstrated that the press instrument (OCI) revealed significant differences by level on several of the factors. These differences were also expected in this research. Results of the different analyses of variance for each instrument which revealed statistically significant differences at the .05 alpha level are discussed in the following sections.

Activities Index

The means on Area I (Achievement Orientation) for Level were: elementary 19.28; junior high 23.18; and high school 26.44. Analysis of variance performed on these data indicated that there were significant differences among the means, F (2,165) = 8.656, p = 0.000. The means on Area I for Gender were: male 24.81 and female 20.62, F (1,168) =

7.913, p = 0.005. The means of Area I for Degree were: bachelors 19.07 and masters and above 24.00, F (1,148) = 10.699, p = 0.001.

The means of Area II (Dependency Needs) for Age were: under thirty-five 66.26; thirty-five to fifty 61.63; and over fifty 62.42. Analysis of variance performed on these data indicated that there were significant differences among the means, F (2,145) = 4.597, p = 0.012.

The means of Area III (Emotional Expression) for Gender were: male 25.78 and female 29.14. Analysis of variance performed on these data indicated that there were significant differences among the means, F (1,168) = 3.909, p = 0.050. The means of Area III for Degree were: bachelors 30.35 and masters and above 26.42, F (1,148) = 4.907, p = 0.028. The means of Area III for Years Experience were: 0-fifteen 30.38 and above fifteen 24.82, F (1,147) = 10.712, p = 0.001. The means of Area III for Age were: under thirty-five 35.23; thirty-five to fifty 26.60; and over fifty 23.88, F (2,145) = 8.550, p = 0.000.

The means of Area IV (Educability) for Level were: elementary 23.17; junior high 25.22; and high school 27.17. Analysis of variance performed on these data indicated that there were significant differences among the means, F (2,165) = 3.689, p = 0.027. The means of Area IV for Degree were: bachelors 23.08 and masters and above 25.69, F (1,148) = 4.062, p = 0.046.

The above analyses would indicate that the school

district personnel at the high school level have more concern for personal achievement and competitiveness whereas personnel at the elementary level have the lowest concern in this area. Males as a group and staff with masters degrees or above as a group are indicated as having more concern for achievement.

School personnel under the age of 35 show the need for more dependent, submissive, and socially controlled behavior. In the Area of Emotional Expression four groups have significantly higher needs for social participation and emotional spontaneity. These are females; personnel with bachelors degrees; persons with fifteen or less years of experience in education; and personnel who are under 35 years of age.

In the Area of Educability, personnel at the high school level seem to be more likely to be original, accept direction readily and be educationally tractable. Personnel at the elementary level seem to be more likely to be academic non-conformists, restive, resistant to supervision, and potentially original and/or creative. Personnel with a masters degree or higher are significantly different in this Area and are more likely to be original, accept direction and be educationally tractable.

Organizational Climate Index

The means for Area I (Development) by Degree were: bachelors 23.52 and masters and above 19.71. Analysis of

variance performed on these data indicated that there were significant differences among the means, F (1,131) = 5.184, p = 0.024.

The above results would indicate that personnel in the school district with bachelors degrees perceive the environment differently, as having high standards for intellectual achievement while still maintaining support for individual growth. There were no significant differences for any of the groups on Area II (Task Effectiveness).

Factor Analysis

Organizational Climate Index

First-Order Factors. Pearson's product-moment correlations were calculated among the 80 item responses to the OCI. A Bartlett's chi-square for significance of variance within the correlation matrix and Cattell's scree test were computed.

Bartlett's chi-square with 3160 degrees of freedom equaled 6161.419 with a significance of $p < .0001$. This result indicated that there was significant variance in the factor matrix and that it was correct to continue with the factor extraction.

The plot of eigenvalues, or Cattell's scree test (Appendix A), revealed a possibility of extracting nine to 15 factors. There were 23 factors with an eigenvalue of 1.00 or higher. It was determined by the researcher to extract 13 factors based on intrepretation of the scree test.

The factor matrix was rotated to the varimax orthogonal solution. A promax oblique rotation, followed by a maxplane oblique rotation, resulted in a 70.6% hyperplane width at the .10 level. Loadings of the 13 extracted factors from the factor pattern are listed in Appendix B. The factor correlation matrix is also included in Appendix B.

Gorsuch (1983) states that a salient loading should be determined from the sample size. For a sample of 100, only elements greater than .4 should be interpreted; for a sample of 175, elements as low as .3 would be interpretable. With a sample of 160, it was determined by the researcher to consider a loading greater than .350 to be salient.

Naming and interpretation of factors should be based on previous literature in the area (Gorsuch, 1983) and concerned with anything that might have caused the observed correlations. "However, a factor is only one operational representative of the construct implicit in the factor's label--and it might not be the best one (p. 212)."

With the above in mind the researcher attempted to name the 13 factors based on knowledge of the needs-press model and the instruments developed to measure the model. An interpretation is also given with the caution that this interpretation may not be the best causal explanation. Items with salient loadings are summarized for each factor.

Factor 1: Administrative Effectiveness

This factor seems to represent how effective and efficient the organization is perceived especially in

regard to the administration. Another dimension represented by this factor is the concern of staff as to whether everyone within the organization is treated alike.

Item 71.	-.656	A recognized group of leaders receive privileges
Item 33.	.605	Work assignments are laid out well in advance for planning schedule
Item 5.	.578	Administrative objectives are clear
Item 41.	.576	Everyone gets treated alike
Item 49.	.562	Administrators expend a lot of energy
Item 38.	.539	Good work is recognized around here
Item 23.	.517	Activities are planned carefully
Item 40.	.453	Administrators are efficient
Item 22.	-.429	Administrators are joked about or critized
Item 67.	.412	Everyone has same opportunity to make good
Item 43.	-.371	People do things on the spur of the moment
Item 21.	-.389	Personality and pull are important in getting ahead
Item 14.	.359	Ability to plan ahead is valued

Factor 2: Personal Dignity

This factor appears to represent perception of actors within the organization in regard to acceptance of their personal habits and grooming.

Item 65.	-.835	Looking and acting 'right' is expected
Item 26.	-.795	Manners and good impressions are important
Item 51.	-.612	Appropriate dress is generally followed
Item 35.	-.603	Individuals not well groomed are likely to be called down
Item 9.	-.453	Open-mindedness is a stressed value
Item 17.	-.405	Untidy reports are returned unaccepted
Item 75.	-.354	People are carefully dressed and neatly groomed

Factor 3: Intellectual Climate

This factor appears to represent perception of the organization as being conducive to scholarly interests and intellectual activities and pursuits.

Item 64.	.539	People read material involving history, economics, and political science
Item 31.	.507	People enjoy talking about poetry, philosophy, religion
Item 45.	-.498	Few are challenged by deep thinking
Item 78.	.486	There is much interest in philosophy and goals of science
Item 62.	.374	There are many long, serious, intellectual discussions

Factor 4: Play

This factor appears to represent perception of the importance of informal social nature of individuals within the organization.

Item 73.	-.599	Parties are colorful and lively
Item 20.	-.537	Most people here love to dance
Item 18.	-.505	People go to parties and social activities
Item 55.	-.405	People spend a great deal of time together socially
Item 13.	-.403	People spend time discussing complex problems
Item 10.	-.375	Social events get much support and enthusiasm
Item 16.	-.354	People are expected to have social grace and polish

Factor 5: Self Expression

This factor appears to represent perception of the actor's ability to express their feelings openly. This also included acceptance of those individual feelings by peers and group cohesiveness.

Item 24.	-.824	People speak up openly and freely
Item 59.	-.752	People feel free to express themselves impulsively
Item 3.	-.669	There is a sense of team membership
Item 2.	-.630	People express their feelings openly and enthusiastically
Item 4.	-.566	There is a lot of group spirit
Item 43.	-.429	People do things on spur of the moment
Item 11.	-.414	Friends of the opposite sex show their affections openly
Item 36.	-.406	Service to community is a responsibility

Factor 6: Group Membership

This factor seems to represent for the most part perceptions of group feelings, membership, and energy.

Item 4.	.648	There is a lot of group spirit
Item 3.	.511	There is a sense of team membership
Item 57.	-.407	Discussions about improvement of society are common
Item 7.	.395	People put much energy into everything

Factor 7: Activity Support

This factor has several different aspects. Although interpretation is difficult, it does appear that there is a common strain of participation in charitable functions as well as perception of organizational planning.

Item 27.	.817	Activities of charities and social agencies are supported
Item 60.	.623	People here expect to help with fund drives and charities
Item 14.	.517	Ability to plan ahead is valued
Item 56.	.499	Everything is planned to the minute with no time wasted
Item 68.	.412	Communication is carried through formal channels

Factor 8: Organizational Effectiveness

This factor appears to represent perception of the organization in regard to efficiency, energy, planning, sytematic orderliness, and appreciation of achievement.

Item 46.	-.619	People set high standards of achievement for themselves
Item 1.	-.553	Programs are organized and progress systematically week to week
Item 54.	-.551	The work atmosphere emphasizes efficiency and usefulness
Item 7.	-.547	People put a great deal of energy into everything
Item 29.	-.505	Neatness is the rule rather than exception
Item 72.	-.491	People feel they must work hard because of the nature of the work
Item 14.	-.488	Ability to plan ahead is valued

Item 47.	-.478	New ideas are always being tried out
Item 30.	.430	Male/female relationships sometimes become quite serious
Item 58.	-.404	Unusual or exciting plans are encouraged
Item 40.	-.403	Administrators are efficient in dispatching business
Item 48.	.394	People tend to take the easy way out when things get tough

Factor 9: Supportiveness

This factor appears to represent perception of whether individuals respect and support each other, mainly in matters concerning the organization.

Item 80.	-.677	People here are quick to help each other out
Item 77.	-.581	There is interest in analysis of value systems, the relativity of societies, ethics
Item 32.	-.568	Everyone is helped to get acquainted
Item 12.	-.562	People find others eager to help them get started
Item 76.	-.560	Lend a helping hand is motto
Item 74.	.507	Programs are quickly changed to meet new conditions
Item 78.	-.495	There is interest in philosophy and goals of science
Item 69.	-.481	Most activities present a real personal challenge
Item 52.	.461	There always seems to be a lot of little quarrels going on
Item 57.	-.457	Discussions about improving society are common
Item 25.	-.415	People are expected to have ideas and do something about them
Item 56.	.387	Everything is planned to the minute, no times is wasted
Item 43.	.372	People frequently do things on the spur of the moment
Item 14.	.371	The ability to plan ahead is highly valued
Item 2.	-.361	People express feelings openly and enthusiastically
Item 53.	-.361	It is easy to get a group together for games, cokes, movies, etc.

Factor 10: Organizational Commitment

This factor appears to represent perception of individual commitment to work. It also includes an aspect

of orderliness.

Item 6.	-.639	When people disagree with administrative decisions they work to change them
Item 42.	-.531	People often get very absorbed in work
Item 62.	-.396	People often have long, serious intellectual discussions
Item 29.	.370	Neatness is the rule, rather than exception

Factor 11: Social Form

This factor appears to represent perception of organizational expectations as to social mores, community responsibilities and other interpersonal qualities.

Item 68.	.614	Communication is always through formal channels
Item 16.	.547	People are expected to have social grace and polish
Item 34.	-.510	People thrive on difficulty; the rougher things get, the harder they work
Item 28.	.491	Criticism is taken personally
Item 22.	.441	Administrative staff are often joked about and criticized
Item 36.	.417	Community service is a major responsibility
Item 44.	-.401	Social forms and manners are not important
Item 47.	-.359	New ideas are always being tried out

Factor 12: Group Support

This factor appears to represent perception of support by individuals within the organization for each other. The subtle difference between this factor and Factor 9 (Supportiveness) is that Factor 9 seems to be concerned with support for individuals regarding organizational business while Factor 12 seems to be concerned with support for individuals in personal matters.

Item 80.	.407	People here are quick to help each other
Item 66.	.358	People are moved by distress of others
Item 21.	.353	Personality and pull are more important than competence in getting ahead

Factor 13: Social Activities

This factor appears to represent perception of the importance of social activities within the organization.

Item 15.	.618	Many social activities are spontaneous
Item 43.	.575	People do things on the spur of the moment
Item 55.	.505	People spend a great deal of time together socially
Item 23.	-.414	Most activities are planned carefully
Item 69.	-.356	Activities present a real challenge

Second-Order Factors. It was determined to extract three second-order factors from the factor correlation matrix of the original 13 factors. This determination was based on the Cattell's scree test (Appendix A). As in the first-order factor analysis, the varimax orthogonal rotation was performed followed by the two oblique rotations, promax and maxplane. This resulted in a 48.7% hyperplane width at the .10 level. Salient loadings were considered to be those equal to or greater than .340. Some loadings greater than 1.0 were expected due to greater correlation among the variables.

The loadings taken from the factor pattern and the factor correlation matrix are located in Appendix B. The three extracted factors were named, again utilizing previous literature. These three factors (called Areas in keeping with the literature) and salient loadings are discussed in the following section.

Area I: Organizational Climate

This area appears to be a dimension which represents perception of the organization via several different

avenues. These would include perception of individual and group support, individual commitment, effectiveness of the organization, and social expectations.

Factor 12	-.977	Group Support
Factor 11	-.875	Social Form
Factor 9	.549	Supportiveness
Factor 10	-.345	Organizational Commitment
Factor 8	-.340	Organizational Effectiveness

Area II: Personal and Group Expression

This area appears to represent a dimension that reflects perception of individual expression and group expression through cohesiveness and support of activities.

Factor 5	1.129	Self Expression
Factor 6	.787	Group Membership
Factor 7	.517	Activity Support
Factor 13	.415	Social Activities

Area III: Development

This area appears to represent a dimension which reflects perception of organizational encouragement for intellectual, supportive, and social development.

Factor 3	-1.095	Intellectual Climate
Factor 9	-.950	Supportiveness
Factor 11	-.590	Social Form

Third-Order Factor. A factor correlation matrix was derived from the three second-order factors. Cattell's scree test (Appendix A) suggested the possiblity of extracting one third-order factor. A varimax orthogonal rotation was followed by only one oblique rotation, promax. The result was a 66.7% hyperplane width at the .10 level. The factor pattern and factor correlation matrix for the

third-order extraction is located in Appendix B.

The result of the third-order factoring was the creation of a dimension with only one salient loading: Organizational Climate (.817). This dimension is interpreted by the researcher to represent organizational climate or environment as perceived atmosphere, tone, personality, or quality of life within the organization.

Activities Index Interacting With Organizational Climate Index

In an attempt to replicate the isolation of dimensions termed cultures from the interaction of the AI and OCI, responses from the two instruments were combined by matching response data by type, level, gender, and degree. There were 109 cases with 171 variables (91 from the AI and 80 from the OCI).

These 171 variables were recoded and scored according to the technical manuals (Richman and Stern, 1975a and 1975b). The result was 18 variables reflecting the 12 AI factor scores and the six OCI factor scores.

A correlation matrix was calculated for the 18 variables. Bartletts's test of sphericity was calculated at 1119.0534, with a significance of $p < .0000$, indicating a significant amount of variance in the correlation matrix. It was determined from Cattell's scree plot to extract three factors from the matrix. A varimax orthogonal rotation was

followed by a direct oblimin oblique rotation.

The loadings from the factor pattern and the factor correlation matrix are located in Appendix B. Salient loadings were considered to be .400 or greater in keeping with the recommendations of Gorsuch (1983) for 100 cases. The result was two factors reflecting only AI factors and one factor reflecting the entire six OCI factors.

Culture I: Emotional Expression

This dimension closely resembles Area III of the AI. This culture would represent social participation and emotional expression.

AI Factor 9.	.93298	Sensuousness
AI Factor 11.	.88521	Expressiveness-Constraint
AI Factor 8.	.80221	Closeness
AI Factor 12.	.62874	Egoism-Diffidence

Culture II: Organizational Climate

This dimension reflects the entirety of the OCI factors. It would reflect organizational climate as perceived by the respondents.

OCI Factor 4.	.89617	Organizational Effectiveness
OCI Factor 2.	.88184	Achievement Standards
OCI Factor 3.	.84999	Personal Dignity
OCI Factor 6.	-.64046	Impulse Control
OCI Factor 1.	.63398	Intellectual Climate
OCI Factor 5.	.43544	Orderliness

Culture III: Achievement Orientation

This dimension is virtually the same as Area I of the AI. It reflects ego strivings, need for personal achievement, and competitiveness.

AI Factor 3.	.96355	Intellectual Interests
AI Factor 2.	.77560	Audacity-Timidity
AI Factor 5.	.66181	Applied Interests
AI Factor 4.	.63629	Motivation

An additional factor analysis requesting extraction of five factors was performed. Although the scree test did not indicate five factors, it was done in an attempt to isolate a dimension that represented factors from both the AI and the OCI. Steinhoff (1965) had extracted five culture dimensions, but threw out two because one consisted of loadings entirely from the AI and one consisted of loadings from the OCI.

Results of the five factor solution were primarily the same as the three factor solution. One dimension reflected the entirety of the OCI factors while the AI factors loaded on the remaining four.

Summary

This chapter detailed the results of the statistical analyses. The school district organization was described as a result of the AI and OCI scoring. Those groups showing a statistically significant difference in scores were discussed. The AI showed differences in several groups by several characteristics. The OCI showed only one difference.

The factor analyses performed on the OCI extracted 13 first-order factors, three second-order factors, and one third-order factor. The combined factors of the AI and OCI

as currently scored were factor analyzed. Three factors were extracted from the 18 combined factors. Each of these dimensions reflected either the AI or the OCI. There was no dimension or culture which reflected salient loadings from both instruments.

CHAPTER V

SUMMARY, DISCUSSION, AND RECOMMENDATIONS

Introduction

The measurement of organizational climate is a viable issue in the study of educational administration. One of the theoretical models used to study and measure climate is the needs-press model developed by Murray (1938) and operationalized by Stern (1970). This research was designed to answer the problem: Is the operationalization as presently defined consistent with the needs-press model and useful in describing and comparing climate in educational settings? More specifically, are the Activities Index (AI) and the Organizational Climate Index (OCI) measuring personality and environment consistant with the needs-press model and useful in describing and comparing climate and culture in educational settings?

Summary

Theory

The needs-press model was conceived by Murray (1938) who built on Lewin's (1935) dictum, B = f(PE) or behavior is the function of personality times environment. In Murray's

work, the term needs represented personality and the term press represented environment.

Stern and associates operationalized the model by developing the Activities Index (AI) to measure 30 scale variables representing needs. These 30 scales were then posited in parallel terms to represent press or environment. Several indexes were developed to measure press. The Organizational Climate Index (OCI) is the more general form of the press indexes.

The original forms of the all the indexes consisted of 300 items with each scale being measured by ten items. Using factor analysis, 12 first-order and four second-order factors were isolated for the AI. A short form of this instrument was developed with 91 items which measures the 12 first-order factors and four second-order factors labeled areas.

Much of the early work on the development of the various instrument was completed by associates of Stern. One particular study by Steinhoff (1965) researched the OCI. Six first-order factors and two higher-order factors were isolated on the OCI. A short form was developed for this instrument with 80 items which measured the six first-order factors and two second-order factors labeled areas.

The Steinhoff study also attempted to correlate the AI and the OCI factors through factor analysis, thus creating culture dimensions which were to represent the outcome or behavior component of the needs-press model.

At the present time there is no measurement for culture dimensions in school settings, and research utilizing the indexes typically measure only needs or press exclusively.

Design and Method

This research was a methodological study concerning the needs-press model and specific instruments which were developed to measure the model, the AI and the OCI. The focus of the research was a study by Steinhoff (1965) which isolated first- and second-order factors on the OCI and combined AI and OCI data to isolate culture dimensions. Specific objectives were stated to guide the research.

The population of the present study was an urban school district in central United States. The sample consisted of 20% of the administrative and teaching staff of this school district. Total number of respondents was 331, with 171 responding to the AI, and 160 responding to the OCI.

Responses to each instrument were recoded and scored according to methods presented in the technical manuals (Richman and Stern, 1975a and 1975b). Reliability coefficients were computed. A one-way analysis of variance was calculated for each factor and area score on both the AI and OCI by gender, level, highest degree earned, number of years experience in education, and age.

Responses to the OCI were factor analyzed, isolating first-, second-, and third-order factors. Responses to the AI and OCI were combined by matching an AI response with an

OCI response of the same type, gender, level, and highest degree earned. The result was 109 cases.

The AI plus OCI data from the 109 matches were computed to create scores on the first-order factors from each instrument. These 18 factors were factor analyzed.

Findings

Results of the scoring of the AI indicated the staff of this particular school district as a unit may be indifferent to personal achievement, have a high level of dependent, submissive, socially controlled behavior, and have need for academic non-conformity. Results of the scoring of the OCI indicated this unit did not vary from reported norms. Thus the staff may have perceived the organizational environment as neither supportive nor non-supportive of intellectual activity, and one that is neither overly work oriented nor people oriented.

Results from the different one-way analyses of variance performed on the AI indicated a statistically significant difference in needs at .05 for certain groups in the following areas:

Area I (Achievement Orientation): Level; Gender; Highest degree earned.

Area II (Dependency Needs): Age.

Area III (Emotional Expression): Gender; Highest degree earned; Number years experience in education; age.

Area IV (Educability): Level; Highest degree earned.

Results of the different one-way analyses of variance performed on the OCI indicated a statistically significant difference in perception of the organizational environment at .05 in the two areas by the following characteristics:

Area I (Control): Highest degree earned.

Area II (Task Effectiveness): None.

Factor analysis performed on the OCI isolated 13 first-order factors. The factors were named after listing the items which had loadings of .350 or greater. The 13 factors are listed below:

1. Administrative Effectiveness
2. Personal Dignity
3. Intellectual Climate
4. Play
5. Self Expression
6. Group Membership
7. Activity Support
8. Organizational Effectiveness
9. Supportiveness
10. Organizational Commitment
11. Social Form
12. Group Support
13. Social Activities

Three second-order factors were extracted from the factor correlation matrix. Those items which loaded at .340 or greater were considered salient and used to name the dimensions labeled as areas in keeping with the literature. They are listed below:

I. Organizational Climate
II. Personal and Group Expression
III. Development

A third-order factor was extracted with only one salient loading. This dimension was labeled Organizational Climate.

The AI and OCI response data were combined and factor analyzed. Three factors were isolated; those items with loadings of .400 or greater were considered to be salient.

Two of these dimensions, labeled culture in keeping with the literature, had loadings only from the AI. The third dimension had salient loadings which represented the entire six factors from the OCI. Names given these cultures were:

I. Emotional Expression
II. Organizational Climate
III. Achievement Orientation

Conclusions and Discussion

The operationalization of the needs-press model has been credited to Stern. Much of the original research in the development of the various instruments was completed by associates of Stern and was reported in various other documents. A compilation of the research of Stern and associates to publication date was reported in People in Context (Stern, 1970).

To study adequately all of the needs-press instruments would be a mammoth task. Therefore the focus of this research was on the OCI, which was the more general form of the environmental instruments.

The original research on the OCI was reported in a study by Steinhoff (1965). In this study Steinhoff attempted to isolate factors on the OCI. The same study attempted to isolate dimensions referred to as cultures from combined AI and OCI data which would reflect the outcome component of the needs-press model.

The present study calculated different one-way analyses of variance for each area score on both the AI and OCI by

various demographic variables. This statistical procedure was done for the purpose of determining if the two instruments discriminated between groups as expected.

There were statistically significant differences for various groups on all of the AI areas. Results of the OCI analyses of variance did not reveal these differences. The OCI did not discriminate between groups in the urban school district in this study.

The present study did not confirm the findings of Steinhoff (1965) in regard to number of first-order and higher-order factors to be extracted from the OCI response data. Steinhoff reported six first-order and two second-order factors from the long form of the OCI which measured 30 press scale variables. The response data from the short form of the OCI used in the present study did not factor even reasonably close to the six first-order factors it was purported to measure. There were 13 first-order, three second-order, and one third-order factors extracted in the present study.

The present study did not confirm the findings of Steinhoff (1965) in regard to the factor analysis of combined AI and OCI data. Steinhoff reported isolation of five factors but discarded two of these as one contained loadings only from the AI and one contained loadings only from the OCI. The remaining three factors, labeled as culture dimensions, were reported to have joint loadings from the AI and the OCI.

The present study extracted three factors from the combined AI and OCI response data. Two of these factors contained loadings only from the AI. The remaining factor represented the entirety of the OCI first-order factors.

There are several possible explanations for the discrepancy in number of factors isolated in the present study and the Steinhoff study. The original factoring on the OCI was completed in 1965. Techniques in factor analysis have improved over the 20 year span between studies. The process is more sophisticated and more easily completed with computer packages now available.

A major error in the work by Steinhoff (1965) was the reporting of higher-order factoring from an orthogonal position. This type of error is discussed by Gorsuch (1983).

> The author has seen factor-analytic studies that reported a higher-order analysis from the orthogonal, varimax factors. The investigators seem to have done the impossible by extracting factors from an identity matrix (p. 370).

Other criticisms by Gorsuch (1983) of inappropiate factor analytic techniques appear in the work by Steinhoff (1965). These inappropriate techniques were the assumption that factors from one particular research are the factors and the failure to report what was actually done in sufficient detail so that the analysis could be approximated in another study.

The general usage of the instruments, both the AI and the OCI, for research in a school system was a complicated

procedure. Computation of scores was difficult. The technical manuals (Richman and Stern, 1975a and 1975b) gave little guidance in interpretation of the mean scores as they related to personality and environmental measurement. There was no method given for measuring the culture dimensions.

Recommendations for Further Study

This study has revealed several problems which exist with the operationalization of the needs-press model. One problem is the possibility of inacurate factoring of the original form of the OCI. The short form of the OCI was based on this factoring.

If the factoring was inaccurate, the OCI short form may not be measuring adequately organizational climate in school organizations. More research needs to be done to determine the adequacy of the OCI short form.

A measurement for the culture dimensions does not presently exist. It appears that the previous research in this area was utilizing an additive model rather than an interaction model. Measurement of the interaction of the AI and OCI is vital to the needs-press model. Without this interaction, the two instruments are measuring needs and press separately with no outcome component.

This study has confirmed earlier studies which determined that the AI and the OCI are unrelated. With refinement of the OCI it may be possible to develop an interaction model which could be related to outcome. Much

research needs to be done in this area.

Information was presented in this study regarding an urban school district as a result of utilizing the AI and OCI instruments. Although the study was of methodological design concerning the needs-press model, the results may raise issues which need to be addressed by the district. This information could be compared with results of other organizational climate research in the district.

Anderson (1982) stated that the phenomenon of climate does exist in school organizations. She also suggested that research today should be directed toward improving existing models of school climate rather than identifying more variables.

The needs-press model is in need of improvement in many areas. It is the recommendation of this researcher that more studies and research be directed toward this improvement.

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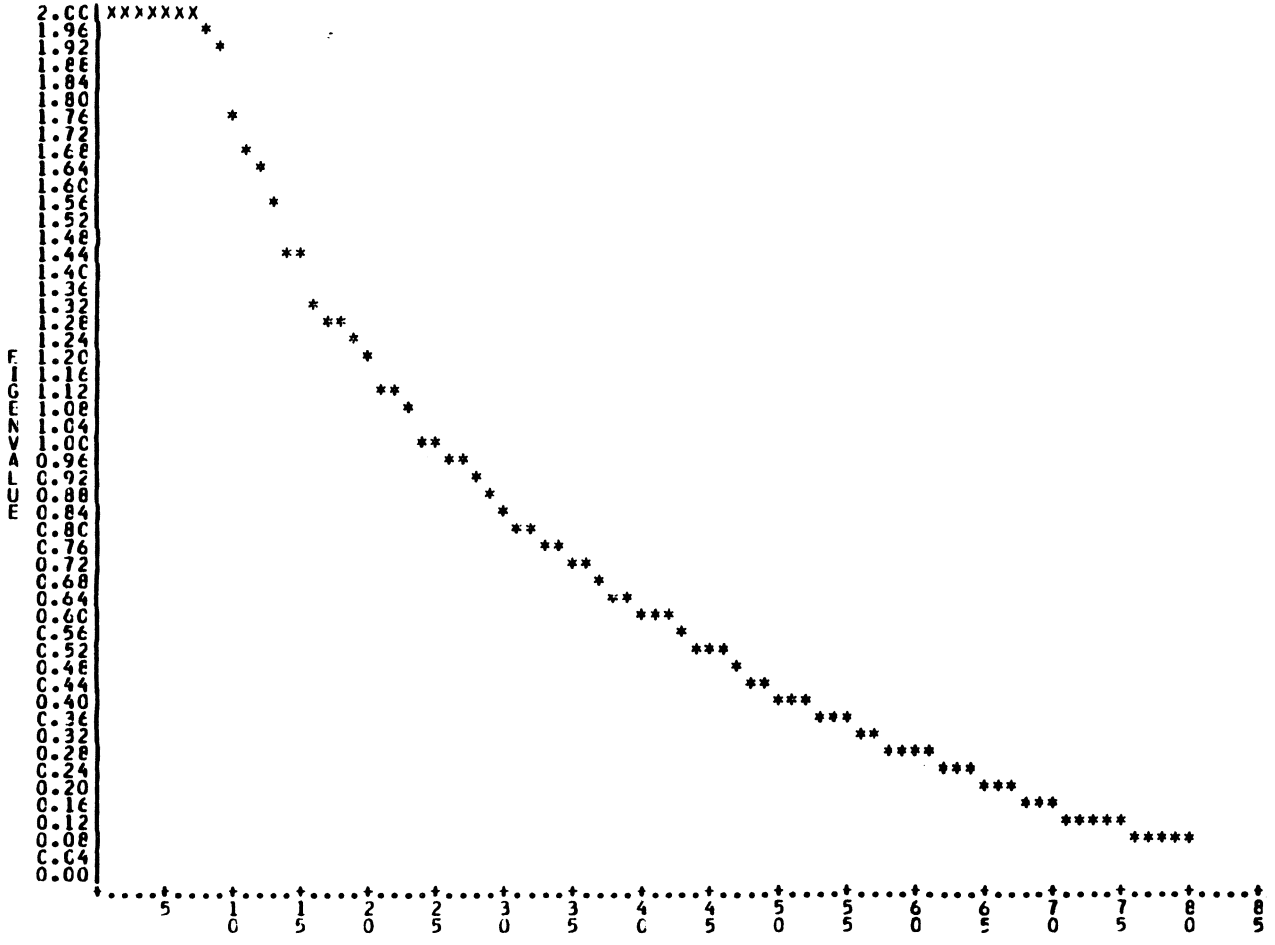
APPENDIX A

SCREE PLOTS

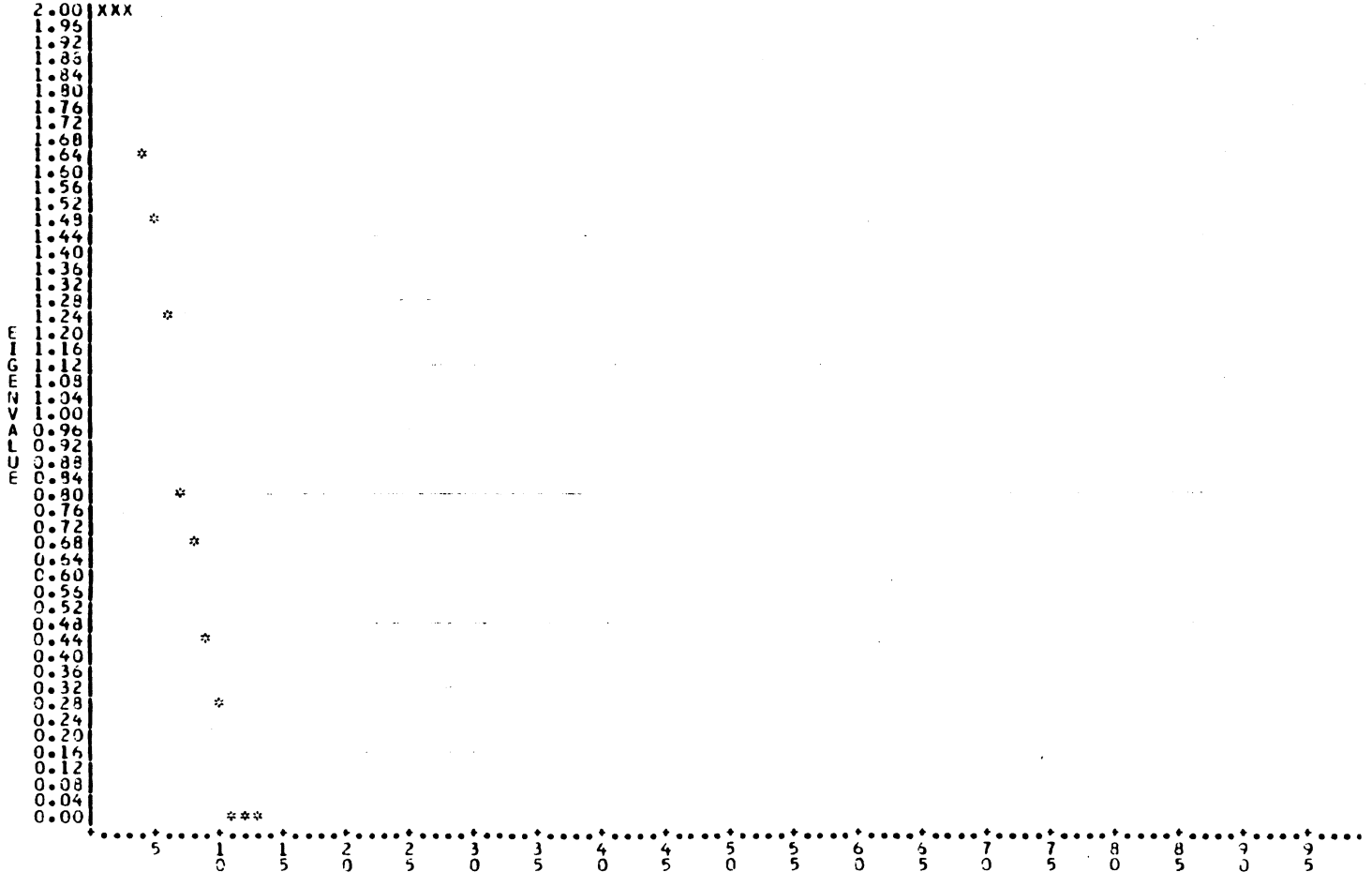
ORGANIZATIONAL CLIMATE INDEX

FIRST-ORDER FACTORING



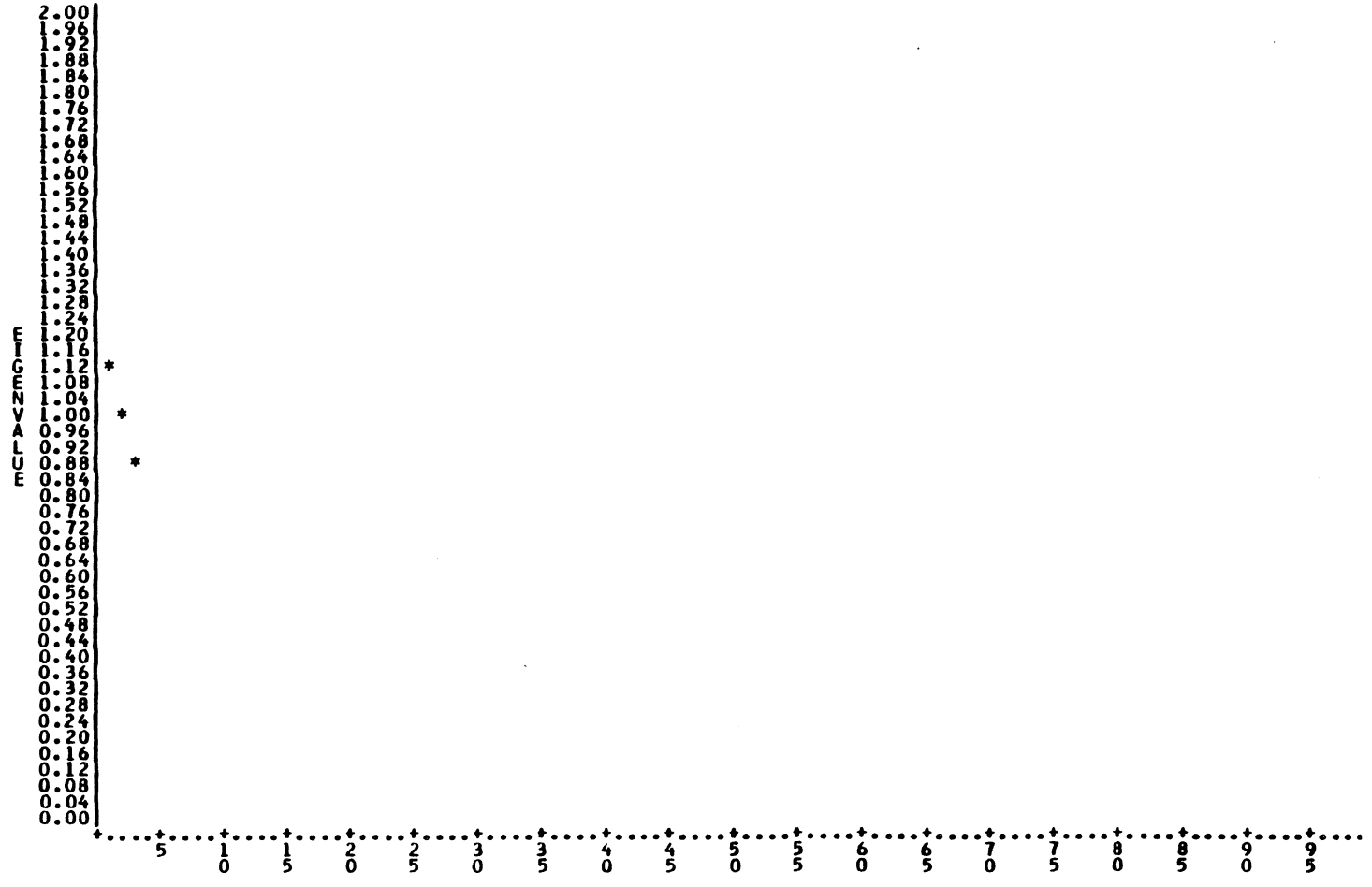
ORGANIZATIONAL CLIMATE INDEX

SECOND-ORDER FACTORING



ORGANIZATIONAL CLIMATE INDEX

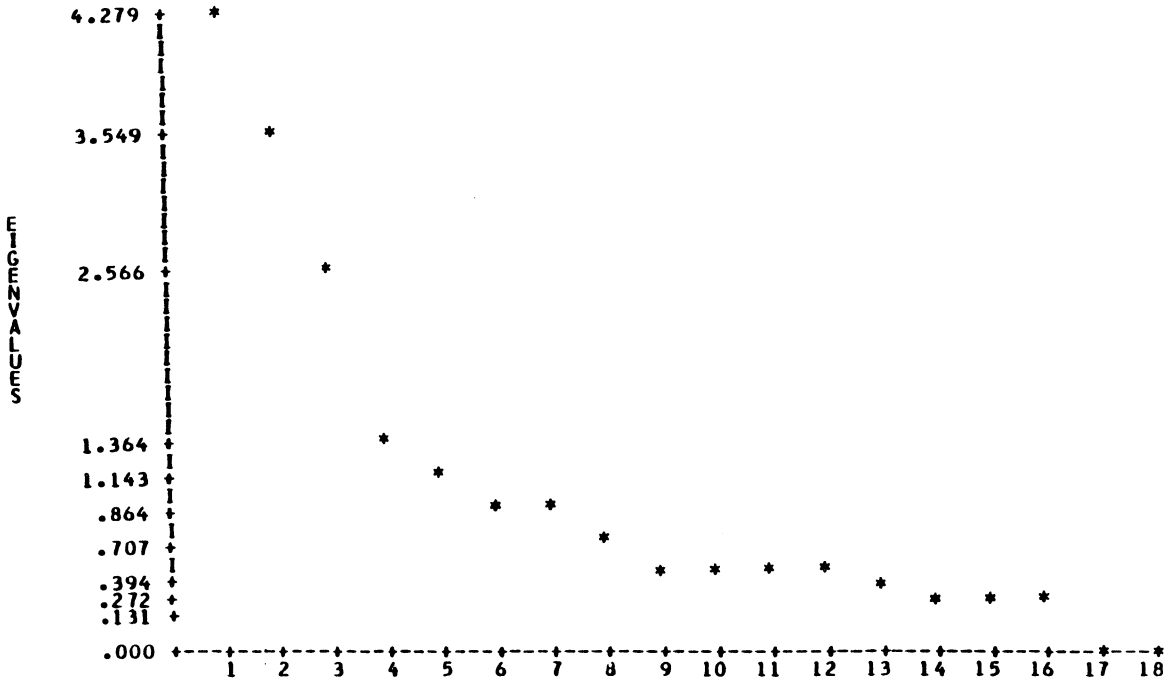
THIRD-ORDER FACTORING



COMBINED ACTIVITIES INDEX

AND

ORGANIZATIONAL CLIMATE INDEX



APPENDIX B

FACTOR PATTERNS AND FACTOR CORRELATION MATRICES

ORGANIZATIONAL CLIMATE INDEX

FIRST-ORDER FACTORING

EXTRACTION OF THIRTEEN FACTORS

V(FP) (FACTOR PATTERN)

	1	2	3	4	5	6	7	8	9	10	11	12	13
V1	0.195	-0.057	0.182	-0.037	0.123	-0.043	-0.312	-0.553	-0.172	-0.141	0.138	0.102	0.069
V2	0.090	0.022	0.195	0.179	-0.630	-0.086	-0.121	0.216	-0.361	-0.095	0.230	0.113	-0.237
V3	0.035	0.082	-0.073	-0.102	-0.669	0.511	0.142	-0.150	0.153	0.051	0.088	0.191	0.015
V4	0.032	0.116	-0.097	-0.060	-0.566	0.648	0.095	-0.230	0.032	0.116	-0.037	0.146	0.055
V5	0.578	0.079	-0.104	-0.118	-0.122	0.023	-0.158	-0.086	-0.085	-0.115	0.182	0.057	-0.224
V6	0.128	-0.127	-0.039	0.083	-0.233	-0.188	0.034	0.093	0.212	-0.639	0.004	-0.228	-0.221
V7	-0.103	-0.096	0.291	0.101	-0.004	0.395	-0.156	-0.547	0.030	0.069	-0.113	0.036	0.124
V8	0.284	-0.090	0.225	-0.013	-0.061	0.190	0.319	0.126	0.154	-0.143	0.294	0.074	-0.063
V9	0.350	-0.453	-0.057	0.117	-0.218	0.050	-0.152	0.075	0.106	-0.283	-0.132	-0.111	0.016
V10	0.104	-0.329	-0.123	-0.375	-0.007	0.282	0.090	0.273	0.010	-0.201	-0.086	0.055	-0.007
V11	-0.213	0.081	-0.304	-0.060	-0.414	0.177	-0.017	0.142	-0.098	-0.121	-0.102	-0.074	0.314
V12	0.260	-0.009	0.017	-0.001	0.172	-0.072	-0.047	-0.145	-0.562	0.012	0.060	-0.031	0.106
V13	-0.182	-0.135	0.077	-0.403	-0.043	0.061	-0.150	-0.060	-0.030	-0.290	0.009	-0.080	-0.072
V14	0.359	0.068	0.283	-0.059	0.029	-0.087	0.517	-0.488	0.371	0.090	0.127	-0.060	-0.104
V15	-0.069	0.136	0.054	-0.152	-0.049	0.022	-0.116	-0.106	-0.126	-0.030	-0.089	-0.042	0.618
V16	0.118	-0.315	0.097	-0.354	-0.187	-0.066	-0.149	0.068	0.060	-0.131	0.547	-0.102	-0.154
V17	0.294	-0.405	0.085	-0.009	0.305	-0.202	-0.150	-0.266	0.127	-0.118	0.113	-0.091	-0.025
V18	-0.129	0.009	0.072	-0.505	-0.098	0.102	0.102	-0.098	0.185	0.047	-0.020	-0.080	0.294
V19	0.013	-0.331	-0.070	-0.003	-0.116	-0.248	0.021	0.058	-0.018	-0.295	-0.120	-0.228	0.089
V20	0.232	-0.023	-0.119	-0.537	0.057	-0.084	-0.040	-0.136	0.179	0.042	0.053	0.105	0.094
V21	-0.389	-0.098	0.132	0.000	0.092	-0.189	-0.071	0.069	0.120	0.121	0.122	0.353	0.035
V22	-0.429	-0.099	-0.346	-0.094	-0.254	0.084	-0.130	0.020	0.124	-0.348	0.441	-0.101	0.349

FIRST-ORDER FACTORING (cont.)

EXTRACTION OF THIRTEEN FACTORS

	1	2	3	4	5	6	7	8	9	10	11	12	13
V23	0.517	0.002	0.087	-0.219	0.215	-0.135	-0.218	-0.259	-0.166	0.024	-0.010	0.195	-0.414
V24	0.070	-0.044	0.049	0.114	-0.824	0.046	-0.124	0.022	-0.010	-0.010	-0.011	0.027	-0.112
V25	0.148	0.086	0.078	0.053	-0.137	-0.112	-0.279	-0.327	-0.415	-0.135	0.071	-0.145	-0.083
V26	0.115	-0.795	0.124	-0.065	0.070	-0.146	-0.158	0.235	-0.072	0.107	0.092	0.080	-0.101
V27	0.110	0.089	0.061	0.063	0.103	-0.045	0.817	0.256	0.130	-0.106	-0.004	-0.004	-0.078
V28	-0.038	-0.018	-0.028	-0.303	-0.037	-0.041	-0.051	0.069	0.316	0.022	0.491	-0.077	0.096
V29	-0.067	-0.145	0.088	-0.119	-0.023	0.070	-0.147	-0.505	-0.124	0.370	-0.074	0.012	-0.117
V30	-0.072	-0.089	-0.082	0.008	-0.059	-0.173	-0.129	0.430	-0.128	0.125	-0.200	0.184	0.096
V31	-0.006	-0.024	0.507	-0.158	0.066	-0.104	0.284	0.082	0.021	-0.026	0.054	-0.012	0.076
V32	0.205	-0.098	-0.295	0.013	-0.017	0.205	0.087	0.060	-0.568	0.042	-0.046	0.021	0.020
V33	0.605	-0.162	0.031	-0.035	0.121	-0.213	0.015	0.117	-0.293	0.001	0.138	0.056	-0.329
V34	-0.071	0.002	-0.101	-0.122	0.074	-0.112	-0.059	0.001	-0.061	-0.308	-0.510	-0.006	-0.030
V35	0.046	-0.603	-0.012	-0.074	-0.039	-0.092	-0.042	-0.019	0.272	-0.110	0.230	-0.189	0.085
V36	-0.107	-0.058	-0.261	-0.042	-0.406	-0.173	0.159	-0.126	-0.122	-0.142	0.417	0.026	0.108
V37	-0.019	0.136	-0.232	0.084	0.272	-0.220	-0.025	0.076	-0.108	0.120	-0.120	0.109	0.074
V38	0.539	-0.098	0.051	0.191	-0.114	-0.020	0.157	0.145	-0.162	-0.041	-0.045	0.070	-0.274
V39	0.059	-0.242	-0.246	0.097	-0.044	0.063	-0.147	-0.171	0.050	-0.214	-0.008	0.080	-0.241
V40	0.453	-0.017	0.048	-0.046	0.037	-0.110	-0.097	-0.403	-0.068	0.305	-0.192	0.077	-0.061
V41	0.576	-0.126	0.082	-0.170	0.081	0.104	0.091	0.139	0.088	-0.015	-0.139	-0.107	-0.242
V42	-0.034	-0.100	-0.291	0.010	0.043	0.038	-0.240	-0.163	0.028	-0.531	-0.108	-0.294	0.100
V43	-0.371	-0.121	-0.267	0.090	-0.429	-0.019	-0.090	-0.093	0.372	-0.099	-0.290	-0.052	0.575
V44	-0.121	0.344	-0.165	0.284	0.035	-0.002	-0.195	0.141	-0.118	-0.128	-0.401	-0.005	0.121

FIRST-ORDER FACTORING (cont.)

EXTRACTION OF THIRTEEN FACTORS

	1	2	3	4	5	6	7	8	9	10	11	12	13
V45	0.021	0.033	-0.458	0.049	0.185	-0.084	0.061	0.088	0.052	0.169	-0.106	-0.169	-0.030
V46	0.028	0.038	0.257	0.062	-0.117	0.094	0.034	-0.619	0.122	-0.146	-0.002	-0.094	0.053
V47	-0.120	-0.119	-0.078	-0.113	-0.118	0.014	0.006	-0.478	0.180	-0.099	-0.359	-0.028	0.173
V48	-0.101	-0.076	-0.015	0.063	-0.059	0.080	-0.034	0.394	-0.232	0.211	0.275	0.018	0.198
V49	0.562	0.136	0.052	0.064	-0.047	0.026	0.210	-0.238	0.076	0.069	-0.139	0.058	-0.199
V50	0.122	-0.043	0.112	-0.122	-0.219	0.016	0.157	-0.023	-0.131	0.020	0.033	-0.122	-0.023
V51	-0.004	-0.712	-0.060	0.187	0.082	0.270	-0.096	-0.094	0.023	-0.116	-0.094	-0.106	0.119
V52	-0.251	-0.129	-0.154	-0.084	-0.139	-0.191	0.053	0.041	0.461	-0.180	0.071	0.079	0.264
V53	0.071	0.152	0.064	-0.244	0.136	-0.107	-0.132	0.012	-0.361	-0.171	-0.129	-0.027	0.306
V54	0.077	-0.222	-0.004	-0.068	-0.043	0.100	0.004	-0.551	0.137	-0.048	-0.038	-0.072	-0.135
V55	0.086	0.281	0.014	-0.405	-0.138	-0.083	0.072	-0.155	-0.034	0.051	0.092	0.158	0.507
V56	-0.012	0.027	0.093	-0.118	0.238	0.099	0.499	-0.237	0.387	-0.104	-0.016	-0.085	-0.084
V57	0.077	-0.138	0.291	-0.023	0.126	-0.407	-0.152	-0.024	-0.457	-0.123	-0.084	0.052	0.065
V58	-0.071	0.049	0.090	-0.011	-0.327	0.043	0.090	-0.404	-0.054	0.085	-0.204	0.047	0.064
V59	-0.069	0.108	-0.027	0.078	-0.752	0.084	-0.057	-0.081	-0.012	-0.069	-0.050	0.119	0.112
V60	0.072	0.105	0.065	-0.057	-0.120	-0.101	0.623	0.091	0.004	0.038	0.231	0.094	-0.102
V61	-0.043	-0.332	-0.099	-0.092	-0.012	0.000	0.067	-0.329	0.149	0.093	0.064	0.108	-0.004
V62	-0.109	0.084	0.374	-0.268	0.101	-0.032	0.173	0.119	-0.024	-0.396	0.048	0.047	-0.028
V63	0.339	0.125	-0.007	0.074	-0.132	-0.048	0.005	-0.130	-0.004	0.043	-0.309	0.337	-0.228
V64	0.109	0.133	0.539	0.060	-0.118	-0.204	0.133	0.031	-0.340	0.175	-0.030	-0.059	-0.038
V65	-0.105	-0.835	-0.043	0.060	-0.039	0.030	-0.270	0.068	-0.065	-0.105	0.064	0.079	0.024
V66	-0.016	-0.185	-0.143	-0.044	-0.036	0.096	0.163	0.142	-0.153	-0.147	-0.035	0.358	0.109

FIRST-ORDER FACTORING (cont.)

EXTRACTION OF THIRTEEN FACTORS

	1	2	3	4	5	6	7	8	9	10	11	12	13
V67	0.412	-0.082	-0.044	0.262	-0.331	0.027	-0.011	-0.072	-0.053	0.032	-0.054	-0.202	-0.090
V68	0.338	-0.054	0.103	-0.107	0.034	-0.059	0.412	0.148	0.107	-0.052	0.614	0.016	-0.313
V69	-0.002	0.016	-0.058	0.007	-0.085	-0.066	-0.046	0.052	-0.481	-0.128	0.089	-0.107	-0.356
V70	-0.100	-0.095	-0.256	0.161	0.211	-0.022	0.105	-0.116	-0.164	-0.138	0.008	0.022	-0.038
V71	-0.656	0.051	-0.013	0.061	-0.077	-0.069	0.137	0.148	0.000	0.110	-0.063	0.308	0.112
V72	-0.011	-0.085	-0.027	0.004	0.092	-0.023	-0.036	-0.491	-0.128	-0.267	-0.112	-0.100	-0.087
V73	-0.008	-0.079	-0.181	-0.599	-0.033	0.039	-0.159	-0.054	-0.123	-0.134	-0.043	0.025	0.171
V74	0.026	-0.125	-0.233	-0.322	-0.266	0.086	0.212	-0.274	0.507	-0.347	0.122	-0.021	0.055
V75	-0.052	-0.354	0.039	-0.202	0.072	0.304	-0.101	-0.196	-0.186	0.058	0.243	-0.039	-0.080
V76	0.026	-0.127	-0.124	-0.070	-0.097	0.095	-0.131	-0.129	-0.560	0.021	-0.115	0.185	0.124
V77	-0.115	-0.073	0.105	0.059	-0.283	-0.005	-0.044	0.104	-0.581	-0.088	0.095	0.042	0.069
V78	-0.069	0.294	0.486	0.009	-0.065	0.041	0.116	-0.089	-0.495	0.311	0.125	0.215	0.056
V79	0.077	0.133	0.093	0.013	-0.113	-0.116	0.154	0.162	-0.086	-0.062	0.036	0.349	0.203
V80	0.093	-0.024	-0.076	-0.042	0.017	0.026	-0.294	-0.160	-0.677	0.119	-0.212	0.407	-0.019
	1	2	3	4	5	6	7	8	9	10	11	12	13

ORGANIZATIONAL CLIMATE INDEX

FIRST-ORDER FACTOR CORRELATION MATRIX

R(F) (FACTOR CORRELATIONS)

	1	2	3	4	5	6	7	8	9	10	11	12	13
1	1.000	-0.095	0.010	-0.055	-0.363	0.109	0.088	-0.170	-0.207	-0.222	-0.328	0.149	0.225
2	-0.095	1.000	-0.109	0.181	0.305	0.018	-0.507	0.555	0.473	0.108	0.124	-0.030	0.170
3	0.010	-0.109	1.000	-0.212	-0.320	0.181	0.060	-0.093	-0.207	-0.453	-0.359	-0.051	-0.079
4	-0.055	0.181	-0.212	1.000	0.358	-0.009	-0.345	0.132	0.460	0.149	0.468	0.121	0.130
5	-0.363	0.305	-0.320	0.358	1.000	0.144	-0.353	0.334	0.503	0.293	0.525	0.074	0.144
6	0.109	0.018	0.181	-0.009	0.144	1.000	-0.070	0.065	-0.025	-0.192	-0.028	-0.001	-0.124
7	0.088	-0.507	0.060	-0.345	-0.353	-0.070	1.000	-0.497	-0.715	-0.317	-0.366	-0.051	-0.089
8	-0.170	0.555	-0.093	0.132	0.334	0.065	-0.497	1.000	0.542	0.391	0.148	-0.036	0.335
9	-0.207	0.473	-0.207	0.460	0.503	-0.025	-0.715	0.542	1.000	0.449	0.390	0.158	0.148
10	-0.222	0.108	-0.453	0.149	0.293	-0.192	-0.317	0.391	0.449	1.000	0.305	-0.236	0.122
11	-0.328	0.124	-0.359	0.468	0.525	-0.028	-0.366	0.148	0.390	0.305	1.000	-0.008	0.179
12	0.149	-0.030	-0.051	0.121	0.074	-0.001	-0.051	-0.036	0.158	-0.236	-0.008	1.000	0.027
13	0.225	0.170	-0.079	0.130	0.144	-0.124	-0.089	0.335	0.148	0.122	0.179	0.027	1.000
	1	2	3	4	5	6	7	8	9	10	11	12	13

ORGANIZATIONAL CLIMATE INDEX

SECOND-ORDER FACTORING

V(FP) (FACTOR PATTERN)

	1	2	3
V1	-0.005	-0.200	-0.007
V2	0.072	0.205	0.215
V3	-0.043	0.102	-1.095
V4	-0.234	-0.081	0.111
V5	-0.269	1.129	0.050
V6	0.032	0.787	0.004
V7	0.104	0.517	-0.089
V8	-0.340	0.044	-0.091
V9	0.549	-0.224	-0.950
V10	-0.345	0.052	-0.059
V11	-0.875	0.005	-0.590
V12	-0.977	0.073	0.054
V13	-0.096	0.415	-0.165
	1	2	3

ORGANIZATIONAL CLIMATE INDEX

SECOND-ORDER FACTOR CORRELATION MATRIX

R(F) (FACTOR CORRELATIONS)

	1	2	3
1	1.000	0.268	0.140
2	0.268	1.000	-0.034
3	0.140	-0.034	1.000
	1	2	3

ORGANIZATIONAL CLIMATE INDEX

THIRD-ORDER FACTORING

V(FP) (FACTOR PATTERN)

	1
V1	0.000
V2	-0.000
V3	0.815
	1

COMBINED ACTIVITIES INDEX

AND ORGANIZATIONAL CLIMATE INDEX

PATTERN MATRIX:

	FACTOR 1	FACTOR 2	FACTOR 3
FA1	.31039	.07583	.31921
FA2	.04607	-.02017	.77560
FA3	-.11163	.02178	.96355
FA4	-.25569	-.08239	.63629
FA5	-.12925	.12620	.66181
FA6	.23509	.00285	-.04094
FA7	.23029	-.17909	.13088
FA8	.80221	-.10913	-.16379
FA9	.93298	.03810	-.10141
FA10	.39976	.15375	-.13090
FA11	.88521	.00528	-.04647
FA12	.62874	.11339	.06864
FO1	.07073	.63398	.15584
FO2	.04174	.88184	.06970
FO3	-.03571	.84999	-.14735
FO4	.00010	.89617	-.04461
FO5	.01012	.43544	.18319
FO6	-.05446	-.64046	.09665

COMBINED ACTIVITIES INDEX

AND ORGANIZATIONAL CLIMATE INDEX

FACTOR CORRELATION MATRIX:

	FACTOR 1	FACTOR 2	FACTOR 3
FACTOR 1	1.00000		
FACTOR 2	.09608	1.00000	
FACTOR 3	-.05798	.00610	1.00000

APPENDIX C

INSTRUMENTS

STERN ACTIVITIES INDEX

FORM 1158 – SHORT FORM

George G. Stern, Syracuse University

This booklet contains a number of brief statements describing many different kinds of activities. You will like some of these things. They will seem more pleasant than unpleasant to you, perhaps even highly enjoyable. There will be others that you will dislike, finding them more unpleasant than pleasant. The activities listed in this booklet have been obtained from a great many different persons. People differ in the kinds of things they enjoy, like to do, or find pleasant to experience. You are to decide which of these you like and which you dislike.

DIRECTIONS

On the special answer sheet provided, blacken space A for items that describe your LIKES, blacken space B for items that describe your DISLIKES.

A — if the item describes an activity or event that you would like, enjoy, or find more pleasant than unpleasant.

B — if the item describes an activity or event that you would dislike, reject, or find more unpleasant than pleasant.

Be sure to fill in the whole answer space with a heavy black mark, using any #2-1/2 or softer pencil. Do not use ball point or ink.

YOU MUST ANSWER EVERY ITEM.

Work rapidly, going through the entire list of statements as quickly as you can. Occasionally compare item numbers from the booklet with the answer sheet space to see that they correspond. Please do not make any stray marks on the answer sheet or in this booklet. Erase all errors and stray marks completely.

Legend: A – **if the item describes an activity or event that you would like, enjoy, or find more pleasant than unpleasant.**

B – **if the item describes an activity or event that you would dislike, reject, or find more unpleasant than pleasant.**

1. Setting difficult goals for myself.
2. Imagining what I would do if I could live my life over again.
3. Talking about how it feels to be in love.
4. Belonging to a close family group that expects me to bring my problems to them.
5. Going to a park or beach with a crowd.
6. Returning to a task which I have previously failed.
7. Being an important political figure in a time of crisis.
8. Wearing clothes that will attract a lot of attention.
9. Keeping my bureau drawers, desks, etc., in perfect order.
10. Learning how to repair such things as a radio, sewing machine, or car.
11. Studying wind conditions and changes in atmospheric pressure in order to better understand and predict the weather.
12. Setting higher standards for myself than anyone else would, and working hard to achieve them.
13. Admitting when I'm in the wrong.
14. Leading an active social life.
15. Pausing to look at myself in a mirror each time I pass one.
16. Helping to collect money for poor people.
17. Talking about who is in love with whom.
18. Spending my time thinking about and discussing complex problems.
19. Organizing groups to vote in a certain way in elections.
20. Thinking about what I could do that would make me famous.
21. Daydreaming about what I would do if I could live my life any way I wanted.
22. Comforting someone who is feeling low.
23. Arranging my clothes neatly before going to bed.
24. Learning how to make such things as furniture or clothing myself.
25. Doing experiments in physics, chemistry or biology in order to test a theory.
26. Seeing love stories in the movies.
27. Being corrected when I'm doing something the wrong way.
28. Belonging to a social club.
29. Doing something that will create a stir.
30. Thinking about winning recognition and acclaim as a brilliant military figure.
31. Standing on the roof of a tall building.
32. Having lots of time to take care of my hair, hands, face, clothing, etc.
33. Finishing some work even though it means missing a party or dance.
34. Working with mechanical appliances, household equipment, tools, electrical apparatus, etc.
35. Studying the stars and planets and learning to identify them.
36. Being a philosopher, scientist, or professor.
37. Working on tasks so difficult I can hardly do them.
38. Going to parties where I'm expected to mix with the whole crowd.
39. Leading a well-ordered life with regular hours and an established routine.
40. Planning ahead so that I know every step of a project before I get to it.
41. Avoiding something at which I have once failed.
42. Being an official or leader.
43. Being the only couple on the dance floor when everyone is watching.
44. Imagining situations in which I am a great hero.
45. Catching a reflection of myself in a mirror or window.
46. Making my bed and putting things away every day before I leave the house.
47. Going to a party or dance with a lively crowd.
48. Going to scientific exhibits.

Legend: A – if the item describes an activity or event that you would like, enjoy, or find more pleasant than unpleasant.

B – if the item describes an activity or event that you would dislike, reject, or find more unpleasant than pleasant.

49. Reading novels and magazine stories about love.
50. Accepting criticism without talking back.
51. Keeping to a regular schedule, even if this sometimes means working when I don't really feel like it.

52. Organizing a protest meeting.
53. Speaking before a large group.
54. Imagining how it would feel to be rich and famous.

55. Playing rough games in which someone might get hurt.
56. Finding out how different languages have developed, changed, and influenced one another.
57. Taking care of youngsters.

58. Fixing light sockets, making curtains, painting things, etc., around the house.
59. Collecting data and attempting to arrive at general laws about the physical universe.
60. Choosing difficult tasks in preference to easy ones.

61. Apologizing when I've done something wrong.
62. Going to the park or beach only at times when no one else is likely to be there.
63. Eating my meals at the same hour each day.

64. Doing things according to my mood, without following any plan.
65. Being the center of attention at a party.
66. Skiing on steep slopes, climbing high mountains, or exploring narrow underground caves.

67. Imagining the kind of life I would have if I were born at a different time in a different place.
68. Keeping my room in perfect order.
69. Being with people who are always joking, laughing, and out for a good time.

70. Reading scientific theories about the origin of the earth and other planets.
71. Listening to my friends talk about their love-life.
72. Receiving advice from the family.

73. Having my mistakes pointed out to me.
74. Going on a vacation to a place where there are lots of people.
75. Seeing sad or melodramatic movies.

76. Pretending I am a famous movie star.
77. Making my handwriting decorative or unusual.
78. Taking care of someone who is ill.

79. Having a special place for everything and seeing that each thing is in its place.
80. Learning how to raise attractive and healthy plants, flowers, vegetables, etc.
81. Reading about how mathematics is used in developing scientific theories, such as explanations of how the planets move around the sun.

82. Having people talk to me about some personal problem of mine.
83. Following through in the development of a theory, even though it has no practical applications.
84. Picking out some hard task for myself and doing it.

85. Inviting a lot of people home for a snack or party.
86. Influencing or controlling the actions of others.
87. Converting or changing the views of others.

88. Trying out different ways of writing my name, to make it look unusual.
89. Providing companionship and personal care for a very old, helpless person.
90. Reading about the love affairs of movie stars and other famous people.

91. Working out solutions to complicated problems, even though the answers may have no apparent, immediate usefulness.

ORGANIZATIONAL CLIMATE INDEX

SHORT FORM
OCI - 375 SF

George G. Stern, Carl R. Steinhoff, and Joel Richman

There are 80 statements in this booklet. They are statements which describe the environment in which people work. The statements refer to daily activities, to rules and regulations and policies, to typical interests and projects, to features of the physical environment, etc. The statements may or may not be characteristic of your situation because organizations differ from one another in many ways. You are to decide which statements are characteristic of your institution and which are not. Your answers should tell us what you believe the institution is like rather than what you might personally prefer. You won't *know* the answer to many of these statements, because there may not be any really definite information on which to base your answer. *Your responses will simply mean that in your opinion the statement is probably true or probably false about your organization.*

Do not omit any item.

DIRECTIONS

On the special answer sheet provided blacken space A for statements you think are TRUE, blacken space B for statements you think are FALSE.

A – when you think the statement is generally TRUE or characteristic of the organization, is something which occurs or might occur, is the way people tend to feel or act.

B – when you think the statement is generally FALSE or not characteristic of the organization, is something which is not likely to occur, is not the way people typically feel or act.

Be sure to fill in the whole answer space with a heavy black mark, using any No. 2 or softer pencil. Do not use ball point or ink.

YOU MUST ANSWER EVERY ITEM.

Work rapidly, going through the entire list of statements as quickly as you can. Occasionally compare item numbers from the booklet with the answer sheet space to see that they correspond. Please do not make any stray marks on the answer sheet or in this booklet Erase all errors and stray marks completely.

Legend: A — **True.** Generally true or characteristic of the organization, is something which occurs or might occur, is the way people tend to feel or act.

B — **False.** Generally false or not characteristic of the organization, is something which is not likely to occur, is not the way people typically feel or act.

1. Work programs are well organized and progress systematically from week to week.
2. People here express their feelings openly and enthusiastically.
3. Everyone here has a strong sense of being a member of the team.
4. There is a lot of group spirit.
5. Administrative policy, goals, and objectives are carefully explained to everyone.
6. When people here disagree with an administrative decision, they work to get it changed.
7. People here put a great deal of energy into everything they do.
8. Improving one's knowledge of important works of art, music, and drama is encouraged here.
9. One of the values most stressed here is open-mindedness.
10. Social events get a lot of enthusiasm and support.
11. People who have friends of the opposite sex show their affections openly.
12. People find others eager to help them get started.
13. People here spend a great deal of time thinking about and discussing complex problems.
14. The ability to plan ahead is highly valued here.
15. Many social activities are unplanned and spontaneous.
16. People are expected to have a great deal of social grace and polish.
17. Untidy reports or ones that depart from a specified style are almost certain to be returned unaccepted.
18. Most people here go to lots of parties and other social activities.
19. There are many facilities and opportunities for individual creative activity.
20. Most people here love to dance.
21. Personality and pull are more important than competence in getting ahead around here.
22. The administrative staff are often joked about or criticized.
23. Most activities here are planned carefully.
24. People here speak up openly and freely.
25. People here are not only expected to have ideas but to do something about them.
26. Good manners and making a good impression are important here.
27. The activities of charities and social agencies are strongly supported.
28. Criticism is taken as a personal affront in this organization.
29. Neatness in this place is the rule rather than the exception.
30. Male-female relationships sometimes become quite serious.
31. Many people here enjoy talking about poetry, philosophy or religion.
32. Everyone is helped to get acquainted.
33. All work assignments are laid out well in advance, so that people can plan their own schedules accordingly.
34. People here thrive on difficulty – the tougher things get, the harder everyone works.
35. Individuals who are not properly groomed are likely to have this called to their attention.
36. Service to the community is regarded as a major responsiblity of the institution.
37. People here are not really concerned with deep philosophical or ethical matters.
38. Good work is really recognized around here.
39. Work is checked to see if it is done properly and on time.
40. Administrators are practical and efficient in the way they dispatch their business.

Legend: A — **True.** Generally true or characteristic of the organization, is something which occurs or might occur, is the way people tend to feel or act.

B — **False.** Generally false or not characteristic of the organization, is something which is not likely to occur, is not the way people typically feel or act.

41. There are no favorites in this place; everyone gets treated alike.
42. People here can get so absorbed in their work they often lose all sense of time or personal comfort.
43. People frequently do things on the spur of the moment.
44. Proper social forms and manners are not particularly important here.
45. Few people here are challenged by deep thinking.
46. People set high standards of achievement for themselves here.
47. New ideas are always being tried out here.
48. People here tend to take the easy way out when things get tough.
49. Administrators put a lot of energy and enthusiasm into directing this program.
50. People here talk about their future imaginatively and with enthusiasm.
51. There is a general idea of appropriate dress which everyone follows.
52. There always seem to be a lot of little quarrels going on here.
53. It's easy to get a group together for games, cokes, movies, etc.
54. The work atmosphere emphasizes efficiency and usefulness.
55. People spend a great deal of time together socially.
56. There is not wasted time here; everything has been planned right to the minute.
57. Discussions about improving society are common here.
58. Unusual or exciting plans are encouraged here.
59. People here feel free to express themselves impulsively.
60. People here expect to help out with fund drives, CARE, Red Cross, etc.
61. There is a specific place for everything and everyone here.
62. People here often get involved in long, serious intellectual discussions.
63. The administrative staff will go out of its way to help you with your work.
64. Many people here read magazines and books involving history, economics or political science.
65. Looking and acting "right" is expected.
66. The people here are easily moved by the misfortunes or distress of others.
67. Everyone has the same opportunity to make good.
68. Communications within the organization is always carried on through formal channels.
69. Most activities here present a real personal challenge.
70. People ask permission before deviating from common policies or practices.
71. There is a recognized group of leaders who receive special privileges.
72. People here feel they must really work hard because of the important nature of their work.
73. Parties are colorful and lively here.
74. Programs here are quickly changed to meet new conditions.
75. People are always carefully dressed and neatly groomed.
76. "Lend a helping hand" could very well be the motto of this place.
77. There is considerable interest in the analysis of value systems and the relativity of societies and ethics.
78. There is a lot of interest in the philosophy and goals of science here.
79. Frank discussions about sex are not uncommon among people here.
80. People here are usually quick to help each other out.

APPENDIX D

CORRESPONDENCE

Oklahoma State University

DEPARTMENT OF EDUCATIONAL ADMINISTRATION
AND HIGHER EDUCATION

STILLWATER, OKLAHOMA 74078
309 GUNDERSEN HALL
(405) 624-7244

February 1, 1985

Dear Educator:

Measuring organizational climate or the personality of a school has been recognized as a means of measuring the health of an organization. I have been approved by the Research Council of USD 259 to study instruments which were developed to measure organizational climate.

You were selected in a random sample of USD 259 professional staff. In order for the results to truly reflect climate as measured by these instruments, it is important for each questionnaire to be completed and returned.

You may be assured of complete confidentiality. The questionnaire has an identification number for mailing purposes only. No indiviual will be identified in any manner in the study.

You have received The Activities Index which measures needs as part of the Needs-Press theory. Please respond to the questionnaire using the answer sheet provided. No personal information is needed on the answer sheet, however I would appreciate completion of information requested below. Return this letter and the answer sheet in the enclosed stamped envelope.

Thank you for your assistance.

Sincerely,

Carolyn S. May
Doctoral Candidate

Kenneth St. Clair
Professor

PLEASE COMPLETE AND RETURN WITH ANSWER SHEET:

Highest degree attained _____

No. yrs. experience in education _____

Age category (check one)
under 35 _____
35-50 _____
over 50 _____

RETURN BY FEBRUARY 16 TO AVOID EXTRA POSTAGE

Oklahoma State University

DEPARTMENT OF EDUCATIONAL ADMINISTRATION
AND HIGHER EDUCATION

STILLWATER, OKLAHOMA 74078
309 GUNDERSEN HALL
(405) 624-7244

February 1, 1985

Dear Educator:

Measuring organizational climate or the personality of a school has been recognized as a means of measuring the health of an organization. I have been approved by the Research Council of USD 259 to study instruments which were developed to measure organizational climate.

You were selected in a random sample of USD 259 professional staff. In order for the results to truly reflect climate as measured by these instruments, it is important for each questionnaire to be completed and returned.

You may be assured of complete confidentiality. The questionnaire has an identification number for mailing purposes only. No indiviual will be identified in any manner in the study.

You have received The Organizational Climate Index which measures environment as part of the Needs-Press theory. Please respond to the questionnaire using the answer sheet provided. No personal information is needed on the answer sheet, however I would appreciate completion of information requested below. Return this letter and the answer sheet in the enclosed stamped envelope.

Thank you for your assistance.

Sincerely,

Carolyn S. May
Doctoral Candidate

Kenneth St. Clair
Professor

PLEASE COMPLETE AND RETURN WITH ANSWER SHEET:

Highest degree attained _____

No. yrs. experience in education _____

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35-50 _____
over 50 _____

RETURN BY FEBRUARY 16 TO AVOID EXTRA POSTAGE

Oklahoma State University

DEPARTMENT OF EDUCATIONAL ADMINISTRATION
AND HIGHER EDUCATION

STILLWATER, OKLAHOMA 74078
309 GUNDERSEN HALL
(405) 624-7244

February 26, 1985

Dear Educator:

About three weeks ago I sent you a questionnaire which is needed for a study of instruments measuring organizational climate. As of today I have not received your response.

I am writing to you again because of the significance each response has to the usefulness of this study. Your name was selected from a random sample of all professional staff in USD 259. It is essential that each person in the sample complete and return their respective questionnaire.

In the event that your questionnaire has been misplaced, a replacement is enclosed. No personal information is needed on the answer sheet. Please return the answer sheet and this letter in the enclosed stamped envelope. Confidentiality is assured.

Your cooperation is greatly appreciated.

Sincerely,

Carolyn S. May
Doctoral Candidate

Kenneth St. Clair
Professor

PLEASE COMPLETE AND RETURN WITH ANSWER SHEET

Highest degree attained _____

No. yrs. experience in education _____

Age category (check one)
under 35 _____
35-50 _____
over 50 _____

WICHITA PUBLIC SCHOOLS
Educational Services Building
640 North Emporia
WICHITA, KANSAS 67214

November 29, 1984

Division of Research, Planning, and Development Services
(316) 268-7882

Ms. Carolyn S. May
620 North Woodchuck
Wichita, KS 67212

Dear Carolyn,

I am pleased to confirm the Research Council's approval of your proposed study on "Organizational Climate and Culture in a Public School Setting: A Replication." Your population sample will be 300 randomly selected teachers and administrators at each level (elementary, junior high, and senior high) who will be mailed two questionnaires for their completion and return to you.

When you are ready to proceed with you study, please contact Carroll Liechti, Director of Administrative Research, 640 North Emporia (phone 268-7884), for assistance in randomly selecting your population sample. When you have completed your dissertation, please forward a copy to me at 640 North Emporia (67214). It does not have to be a bound copy. Your dissertation will be kept on file and will be available to interested school and community people on a check out basis.

I am happy the Council could be of assistance to you. If we can be of help to you in future research endeavors, please let me hear from you.

Sincerely,

A. W. Dirks, Chairperson
Research Council

enc. (1)
cc: Carroll Liechti

EVALUATION RESEARCH ASSOCIATES
Educational and Management Consultants
Program Development and Evaluation
Psychological Assessments
Telephone (315) 422-0064

COPY LICENSE
MAY 22, 1985

This document gives permission for Carolyn May to change the directions on the Activities Index and Organizational Climate Index for use in her doctoral dissertation.

Joel Richman, Ph.D.

Joel Richman, Ph.D.

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The Regency Tower
770 James Street, Suite 202
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P.O. Box 6503 Teall Station
Syracuse, New York 13217

WICHITA PUBLIC SCHOOLS
Educational Services Building
640 North Emporia
WICHITA, KANSAS 67214

July 26, 1985

Division of Research, Planning, and Development Services
(316) 268-7882

TO: Ms. Carolyn S. May

FROM: Carroll D. Liechti, Director Administrative Research

SUBJECT: Sample Procedure

The procedure used to obtain the sample for your study was as follows:

1. I requested the sample run from Ron Rowden in our Data Processing Center.

2. Specifications for the sample were:
   a. Use the current personnel data base and sort the file to the current budget account codes 410, 411, 412, and 414. (410-Principals, 411-Assistant Principals, 412-Associate Principals, and 414-Regular Classroom Teachers.)
   b. Using a random select program, select a 25 percent sample from the listing of the building administrators and regular classroom teachers sorted above.
   c. Based on personnel position counts for all funds, there are approximately 2,600 people filling those positions. A 25 percent sample should yield a group of about 650 people.
   d. The purpose of the sample group being that large was to assure a 300 respondent group.

Hopefully, this is adequate in explaining the sampling procedure. Should further questions arise, please let me know.

VITA

Carolyn Stowey May

Candidate for the Degree of

Doctor of Education

Thesis: ORGANIZATIONAL CLIMATE AND CULTURE IN A PUBLIC SCHOOL SETTING: A REPLICATION

Major Field: Educational Administration

Biographical:

Personal Data: Born in Oklahoma City, Oklahoma, December 1, 1939, the daughter of Susie Smith May and Arley O. May; mother of Robert John Marley and Susan Marley Laake.

Education: Graduated from Hennessey High School, Hennessey, Oklahoma, in May, 1957; received Bachelor of Arts in Education degree from Wichita State University in December, 1971; received Master of Education degree from Wichita State University in May, 1978; received Specialist in Education degree from Wichita State University in May, 1980; completed requirements for the Doctor of Education degree at Oklahoma State University in December, 1985.

Professional Experience: Elementary teacher, St. Thomas Aquinas School, Wichita, Kansas, January, 1972 to May, 1975; Research Assistant, USD 259, Wichita, Kansas, January, 1976 to April, 1980; Research Assistant, Department of Nursing, Wichita State University, April, 1980 to present.