A STUDY OF HIERARCHICAL POSITION AND NEED

SATISFACTION OF PROFESSIONAL

SCHOOL PERSONNEL

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PREFACE

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CHAPTER I

THE RESEARCH PROBLEM

Introduction

One of the observations to be made of modern society is the
increasing dependency on organizational life to achieve social, politi-
cal and economic goals. Organization seems to be the key to "getting
things done." When people organize to achieve common goals, a pattern
of organization based on the hierarchical arrangement of positions and
status usually forms. As the organization grows and becomes more formal
in structure, this hierarchy takes on increasing importance because get-
ting things done requires going through the chain of command for approval
for almost any action or activity not covered by company tradition,
policy or procedures. Argyris (1969) views organizational structure
as a major factor in placing healthy people "...in work situations which
coerce them to be dependent, subordinate, submissive, to use few of their
more than skin surface abilities" (p. 190).

Thompson (1969) takes a different view of organizational conflict.
He sees conflict as coming from the hierarchical structure of organiza-
tions; the superordinate-subordinate relationship and the assignment of
roles. As Thompson explains it, this conflict arises because each role
is subservient to the role above it in the hierarchical structure of the
organization. The superordinate-subordinate relationship gives a veto
power to the individual in the superordinate position. With this veto

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power, the superior can affirm organizationally directed proposals and,

in effect, control the organizational ambitions and careers of subordi-

nates. The superordinate position has organizationally given rights to

monopolize communication networks, to require deference of subordinates,

to select personnel, to make decisions and to initiate organizational

activity. One result of the superordinate position is the compromised

role of subordinates. Thompson states that:

> ...the good things, the satisfactions which the organization
> has to offer, are distributed according to hierarchical rank,
> hence status rank. These goods, in addition to money, include
> deference, power, interesting activities and associations,
> inside knowledge, conveniences and the like. Because these
> goods are distributed according to status rank, and access to
> any rank is controlled by hierarchical position, these posi-
> tions become great personal prizes as means to personal (as
> opposed to organizational) ends, and as such are the objects
> of a constant struggle (1969, p. 20).

Corwin (1969) looks at organizational conflict from the viewpoint

of the professionally trained educators. He sees organizational conflict

as coming from the differences in the principles of professional behavior

and the hierarchical structure of organizations. After investigating

the role orientations of teachers and the bureaucratic structure of

schools, he concluded that bureaucratic principals did not support

professional behavior (p. 214). While the organization stresses author-

ity and a chain of command, the professional seeks autonomy and looks

to his peer group for leadership. To the professional, authority is

vested in his competence to carry out his job function instead of hier-

archical position. The primary orientation of the professional employee

is to his clients and the norms of his peers rather than to the achieve-

ment of organizational goals.

Organizations are formed on the basis of a need to accomplish

specific goals. Delegation of authority is achieved through positions

and offices by means of the hierarchical structure. By so organizing, the organization seeks to rationalize the decision making process and guarantee predictable behavior on the part of its participants.

To coordinate the work activities of organizational participants, the practice of administration has been incorporated. Administration, from the organizational standpoint, is viewed as a process "...dealing essentially with the conduct of social behavior in a hierarchical setting" (Getzels, et al., p. 108). The various levels of the organization are coordinated by means of a hierarchical structure to produce a specified organizational outcome. It is the role of administration to coordinate the efforts of all organizational participants to achieve this desired outcome.

To achieve its goal, "the organization makes different requirements of individuals at different levels in the organization" (Argyris, p. 23). Top level management is charged with the responsibility of planning, policy making and decision making; mid-management is charged with responsibility for implementation and supervision of the management function; and the lower level employees are charged with the requirement of production.

A parallel can be seen between the bureaucratic structure of industry and the structure of the public schools. The school board develops policy and procedures; the administrative staff provides supervision and implementation of policies and procedures; and the instructional staff carries out the directives from the superintendent and the board of education, under the supervision of the administrative staff. This organizational pattern is in conflict with the norms of professional behavior.

Statement of the Problem

The present study will investigate the differences in need satis-
faction of five levels of certified school personnel categorized accord-
ing to hierarchical position. Specifically, the study will investigate
differences in need satisfaction of superintendents, assistant superin-
tendents, principals, supervisors and teachers. The specific question
to be answered is, does the hierarchical position have an influence on
the degree to which the need satisfactions of professional school
personnel are met. This investigation will also examine the differences
in need satisfaction of school personnel categorized by age, sex, total
years teaching experience, total years experience in present position
and school size.

Significance of the Study

This study is important if we are to understand the differences in
job satisfaction of certified school employees. Other researchers in
educational administration have investigated the bureaucratic structure
of schools and are now questionning the advisability of an organizational
pattern based on bureaucratic principles. There is increasing evidence
that traditional patterns of bureaucratic organization may, in fact,
be detrimental to the operational efficiency of professional educators.
Bogue (1969) speaks to this point. He says:

> We have also seen that contemporary hierarchical organiza-
> tional patterns tend to impede (1) the achievement of indi-
> vidual self-actualization, (2) the occurrence of change and
> innovation, (3) the effective use of specialists in decision-
> making, and (4) the development of an organic view of the
> organization. While it is easier to verbalize about these
> limitations than it is to suggest remedies, the administra-
> tor must confront the challenge of designing organizational
> patterns and relationships so that a greater array of human

abilities are called into play, of creating a sensitive
balance between control and independence so that change
and innovation are facilitated, of overcoming rigid
notions of relationships so that efficient use of special-
ists in decision making is achieved, and of developing an
organic perspective of organization so that the inter-
dependence of organizational components is seen (Bogue,
1969, p. 71).

The present study will provide valuable data for identifying environ-
mental areas where adaptation may result in developing a work situation
that provides more opportunities for the professional staff to increase
personal satisfaction within the school work environment. Although
increasing opportunities for personal need fulfillment may not have
a payoff in terms of increasing productive output or the quality of
work being performed, it should be accomplished as a function of good
administrative practice. The goal achievement of school organizations
should be compatible with the goal achievement of each individual
professional staff member to the extent possible.

Definition of Selected Terms

The following definitions of selected terms will serve to promote
a better understanding of the terms used in this study.

Need Satisfaction. Conceptually, need satisfaction is the congru-
ence between how one views his needs and the degree to which he perceives
the organizational environment meets these needs. The need satisfaction
concept is operationalized by the subject's response to individual items
in the "School Personnel Satisfaction Inventory." Need satisfaction is
a deficiency score determined by subtracting the respondent's rating of
the importance he perceives the school places on the content of the
questionnaire item from the importance he gives the content of the
questionnaire item.

Safety Needs. Conceptually, safety needs are those needs one has to feel safe and secure in his work environment. Safety needs are the lowest need level measured by the "School Personnel Satisfaction Inventory." The safety needs are operationalized as those general activities and conditions in the school organization structure and administrative policies that provide for safety and permanence in the work environment. The subject's response to instrument items referring to school policies, administrative support, physical facilities, group insurance programs, adequate materials and schedules of upcoming school events operationalize the safety needs construct.

Belongingness and Love Needs. Conceptually, belongingness and love needs are those needs for membership and participation in one's peer and social unit. The belongingness and love needs are the second level of needs measured by the "School Personnel Satisfaction Inventory." Operationally, belongingness and love needs are represented by instrument items that fall into the category of teacher social activities, teacher and administrator social activities, group feeling and unity, closeness and cooperation between teacher subgroups and the teacher-administrator subgroup, cooperation among the total group and the school as a close-knit social unit.

Esteem Needs. Conceptually, esteem needs are those needs for self-worth, achievement, recognition and acceptance by others. The esteem needs are the third level of needs in the needs hierarchy measured by the "School Personnel Satisfaction Inventory." Operationally, esteem needs are represented in the "School Personnel Satisfaction Inventory" by items relating to the recognition of quality work performance by the administration, the community and students.

Self-Actualization Needs. Conceptually, the self-actualization needs are those needs to become what we feel we can or should be; to actualize to our potentiality. The self-actualization needs are the fourth and highest level of needs measured by the "School Personnel Satisfaction Inventory." The self-actualization concept is operationalized by items that relate to freedom to explore and implement new methods of instruction, freedom to select course content and methods of presentation; a situation where acceptance and respect of the dignity of the individual, his true self and ideals, is the common practice.

Total Need Satisfaction. Conceptually, total need satisfaction is the congruence between how one views his needs and the extent to which the school environment meets these needs. Operationally, total need satisfaction is determined by adding the obtained scores of the four subtests of the "School Personnel Satisfaction Inventory." These subtests are: Safety Needs, Belongingness and Love Needs, Esteem Needs, and Self-Actualization Needs. A high score on the "School Personnel Satisfaction Inventory" represents a low degree of total need satisfaction and indicated that the respondent felt there was an important difference between how he viewed the instrument items and his perception of the importance of the instrument items to his school. A low score represents a high degree of satisfaction. Low scores indicate congruency between the importance the subject placed on the instrument items and his perception of the importance the school placed on the instrument items.

Hierarchical Position. Conceptually, hierarchical position refers to the individual's place in the organizational structure. The hierarchical position is assumed to be related to the individual's opportunity

for making his own decisions and of having at least limited power over organizational participants who are lower in the organizational structure. Operationally, hierarchical position will be determined by the position held within the school organization. Professional school staff members will be assigned to one of five levels of hierarchical positions. These levels are ordered according to the role function which the professional school personnel are certified to perform. Records from the Data Center, State Department of Education, were reviewed to categorize professional school personnel into one of five levels that exist in the hierarchical structure of public schools.

Superintendent Category. School personnel whose personnel card on file at the Data Center, State Department of Education, Oklahoma City, Oklahoma, revealed them to be certified, full-time school superintendents were assigned to the Superintendent Group. Superintendents who taught a class or classes as a part of their job function were not included in the study.

Assistant Superintendent Category. School personnel whose personnel card on file at the Data Center, State Department of Education, Oklahoma City, Oklahoma, revealed them to be certified, full-time assistant superintendents or administrative assistants were assigned to the Assistant Superintendent Category. Assistant superintendents and administrative assistants who taught as a part of their job function were not included in the study.

Supervisor Category. School personnel whose personnel card on file at the Data Center, State Department of Education, Oklahoma City, Oklahoma, revealed them to be full-time supervisors, consultants or coordinators were assigned to the Supervisor Category.

Supervisors, consultants and coordinators who taught part-time
were not included in the study.

<u>Principal Category</u>. School personnel whose personnel card on file
at the Data Center, State Department of Education, Oklahoma City,
Oklahoma, revealed them to be certified, full-time principals at
the elementary, junior high or high school level were assigned to
the Principal Category. Principals who taught part-time were not
included in the study.

<u>Teacher Category</u>. School personnel whose personnel card on file
at the Data Center, State Department of Education, Oklahoma City,
Oklahoma, revealed them to be certified, full-time teachers at
the elementary, junior high or high school elvel were assigned to
the Teacher Category.

Theoretical Background

Carl Rogers (1963, p. 4) states that "the individual has a direc-
tional tendency toward wholeness, toward actualization of his potential-
ities." To Rogers, life is an active process. The individual is always
striving to achieve his maximum potential regardless of the environment
in which he finds himself. Rogers says:

> Whether the stimulus arises from within or without, whether
> the environment is favorable or unfavorable, the behavior
> of an organism can be counted on to be in the direction of
> maintaining, enhancing and reproducing itself. This is the
> very nature of the process we call life (Ibid.).

These statements by Rogers closely follow Maslow's concepts of
motivation of human behavior. Maslow postulates that:

> ...gratification becomes as important a concept as depriva-
> tion in motivation theory, for it releases the organism from
> the domination of a relatively more psychological need per-
> mitting thereby the emergence of other more social goals (1954,
> p. 84).

Maslow proposes a prepotent motivational concept with respect to need satisfaction. This prepotency concept stresses that needs have a differential effect on motivation. The lower order needs dominate the human organism until they have been satiated. Higher order needs act as motivators only after the lower order needs have been satisfied. All need levels are active at one time. However, the dominant need for motivation is determined by the state of satisfaction of each succeeding need. Maslow's need structures are organized as a hierarchy of needs. The complete hierarchy of needs, from lowest to highest, is as follows:

1. Physiological needs

2. Safety needs

3. Belongingness and love needs

4. Esteem needs

5. Self-actualization needs.

Argyris looks at the structure of organizations and points out the conflict between the individual and the organization. He says, "There is a lack of congruency between the needs of healthy individuals aspiring for psychological success and the demands of the (initial) formal organization" (1960, p. 14).

Where the healthy individual seeks autonomy, self-fulfillment and an expressive outlet, the organization is most concerned with rationality and predictable behavior. The organization, seeking rational behavior from its participants develops hierarchical structures to coordinate the work activities of its members to guarantee predictable behavior. In so doing, the organization violates the tenets for the psychological growth (self-actualization) of its members. Argyris (1957, p. 66) succinctly illustrates this point.

> If the principles of formal organizations are used as
> ideally defined, employees will tend to work in an environ-
> ment where (1) they are provided minimal control over their
> work-a-day world, (2) they are expected to be passive, depen-
> dent, and subordinate, (3) they are expected to have a short-
> time perspective, (4) they are induced to perfect and value
> the frequent use of a few skin-surface shallow abilities,
> and (5) they are expected to produce under conditions leading
> to psychological failure. All these characteristics are
> incongruent to the ones healthy human beings are postulated
> to desire...

Additionally, Argyris (1957, p. 66) says:

> If the analysis is correct this inevitable incongruency
> increases as (1) the employees are of increasing maturity,
> (2) as the formal structure (based upon the above princi-
> ples) is made more clear-cut and logically tight for
> maximum formal organizational effectiveness, (3) as one
> goes down the line of command, and (4) as the jobs become
> more and more mechanized...

One of the primary objectives of administration is bringing together
the needs of the individual and the needs of the institution into a
congruent pattern of interaction. To accomplish this objective,
schools have adopted an organizational pattern based on a hierarchy
of authority. It is this hierarchical structure that may, in fact,
be working to reduce the effectiveness of the organization.

There is a common thread connecting the statement by Rogers con-
cerning the direction of individual growth, Maslow's theory of motiva-
tion based on a prepotent hierarchy, and Argyris' position with
reference to the inherent conflict between the healthy individual and
the organization. If man has a directional tendency toward actualiz-
ing his potentialities and he is motivated by a prepotent need struc-
ture, then we can expect that the lower one's position in the organi-
zational hierarchy the less opportunity one has for self-actualization.

With this theoretical base as a guide, this study will investigate
the differences in need satisfaction of certified personnel within the

public schools of Oklahoma. It is expected that significant differences in total need satisfaction among superintendents, assistant superintendents, principals, supervisors and teachers will be found. It is also expected that significant differences in need satisfaction will be found among groups when certified school personnel are categorized according to age, sex, total years teaching experience, total years experience in present position and school size.

Statement of the Hypotheses

The present study will focus on the hierarchy of position as a factor with respect to the extent to which professional school personnel self-actualize in the public school work environment. Additionally, the study will investigate the differences in need satisfaction of certified school personnel categorized by age, sex, total years teaching experience, years experience in present position and school size. Twelve hypotheses have been formulated to provide empirical data relative to the need satisfaction of certified school personnel.

Hypothesis 1. There are no significant differences in total need satisfaction of certified school personnel categorized according to hierarchical position categories.

Hypothesis 2. There are no significant differences in any of the four need satisfaction levels (Safety, Belongingness and Love, Esteem and Self-Actualization) among hierarchical position categories of certified school personnel.

Hypothesis 3. There are no significant differences in total need satisfaction of certified school personnel categorized according to age.

Hypothesis 4. There are no significant differences in any of the four need satisfaction levels (Safety, Belongingness and Love, Esteem and Self-Actualization) among age categories of certified school personnel.

Hypothesis 5. There are no significant differences in the total need satisfaction of certified school personnel categorized according to male and female categories.

Hypothesis 6. There are no significant differences in any of the four need satisfaction levels (Safety, Belongingness and Love, Esteem and Self-Actualization) among male and female categories of certified school personnel.

Hypothesis 7. There are no significant differences in total need satisfaction of certified school personnel categorized according to total years school experience.

Hypothesis 8. There are no significant differences in any of the four need satisfaction levels (Safety, Belongingness and Love, Esteem and Self-Actualization) among the total years school experience categories of certified school personnel.

Hypothesis 9. There are no significant differences in the total need satisfaction of certified school personnel categorized according to years of experience in present position.

Hypothesis 10. There are no significant differences in any of the four need satisfaction levels (Safety, Belongingness and Love, Esteem and Self-Actualization) among total years experience in present position categories of certified school personnel.

Hypothesis 11. There are no significant differences in total
need satisfaction of certified school personnel categorized according
to school size.

Hypothesis 12. There are no significant differences in any of the
four need satisfaction levels (Safety, Belongingness and Love, Esteem
and Self-Actualization) among school size categories of certified school
personnel.

Limitations of the Study

A major limitation of this study is the use of the "School Person-
nel Satisfaction Inventory" to measure the need satisfaction of school
administrators. This instrument was developed by revising the "Teacher
Need Satisfaction Inventory" which was validated on teacher groups. No
validity measures are available for the revised instrument for school
administrators. It was reasoned that the "School Personnel Satisfac-
tion Inventory" is valid for both teachers and administrators at all
hierarchical levels. Since teachers and administrators are relatively
homogeneous in their education and experience background and both work
in the same general educational environment, it is assumed that the
instrument is valid for both groups.

This position is supported by Graham (1969). He found in his study
of job attitude components across organizational levels, a correspon-
dence of response patterns at all levels in his study of insurance
agents, managers and supervisors. Regardless of job level, the
employees identified a similar pattern of job attitudes. Graham (1969,
p. 39) concluded that "...comparable measures can be found for employees
who are likely to view the job domain from different perspectives."

A second limitation of this study is the generalizability of the results. No attempt was made to proportionally represent all hierarchical levels within the school organization through a strict stratification procedure. It was reasoned that the use of random procedures in the selection of the sample participants for each organizational level was sufficient to insure a representative sample.

A third limitation of this study is the use of a causal comparative research design. Van Dalen (1962, p. 222) says that, "when researchers cannot manipulate the independent variable and establish the controls that are required...they may conduct a causal-comparative study." This design allows the researcher to look at what happened and seek causes, but because of the lack of control of the independent variable, he can never be certain of his results. Therefore, although organizational structure is treated as the independent variable and need satisfaction as the dependent variable, no cause and effect relationship may be assumed.

Assumptions

Before reviewing the assumptions of the study, the reader should be apprised of the researcher's philosophical veiw of organizational structure. Organizational structure is viewed as having a neutral quality; it is neither good nor bad per se. The "goodness" or "badness" of organizational structure is determined by the sum total of the organizational environment. Within the structure of all organizations lies the potential to simultaneously fulfill individual needs and achieve organizational objectives. The quality of administration will determine the extent to which a good balance between individual needs and organizational expectations are maintained.

The validity of the findings of this study are subject to the accurateness of the following assumptions.

1. It was assumed that the population sample, composed of professional level school personnel, would have their physiological needs satisfied; therefore, this need level would not serve as a motivator when measuring the satisfaction of a professional group. In view of this assumption, physiological needs were not included as a subscale of the "School Personnel Satisfaction Inventory."

2. It was assumed that the teachers' and administrators' responses to the "School Personnel Satisfaction Inventory" were representative of their true perceptions of each statement's importance to them on both the Importance to Me Scale and the Importance to My School Scale of the "School Personnel Satisfaction Inventory."

3. It was assumed that the educational environment in the sampled schools is representative of the educational environment in the total school population of Oklahoma. With this assumption in mind, no proportional stratification of the population by hierarchical position was attempted. Random procedures were used to select the participants who were already working at a given level.

Chapter Summary

Chapter one has presented an overview of three sources of conflict within hierarchical organizations. Thompson sees conflict as coming from the superordinate-subordinate relationship within hierarchical

organizations while Corwin views organizational conflict as stemming from differences in the principles of organization and the norms of professional behavior. A third view of organizational conflict is seen by Argyris as coming from strict adherence to the principles of organization and the needs of "healthy" employees.

Maslow's motivational theory has been presented in skeletal form. This theory is based on a hierarchy of needs which have a prepotency that requires the lower order needs be satisfied before higher order needs motivate the organism. Twelve hypotheses were formulated to examine differences in need satisfaction of certified school personnel categorized by hierarchical position, age, sex, total years school experience, years experience in present position and school size.

Additionally, the statement of the problem, significance of the problem, definitions of selected terms and limitations of the study have been presented. Chapter two will contain a review of the literature with emphasis on organizational theory and administration, factors of satisfaction, need-hierarchy studies of satisfaction and the school environment and job satisfaction.

CHAPTER II

REVIEW OF RELATED LITERATURE

Introduction

There has, in recent years, been a great deal of interest and concern relating to job satisfaction, morale and need satisfaction studies of industrial workers, supervisors and managers. Much of this interest focused on the relationships among various single and multiple factors in the work environment which contribute to employee satisfaction and thus increase production. Real concern for the satisfaction of employees other than as a means to increased production is relatively new. Fournet (1966, p. 165) notes that "concern for worker's" attitudes as exhibited today in the vast amount of literature on job satisfaction, is a relatively recent development."

A major problem in researching job satisfaction and need satisfaction has been the lack of theoretical constructs from which testable theoretical hypotheses could be developed. Vroom (1964, p. 4) states that "terms like morale, consideration, participation, fatigue and vocational interests are seldom given adequate or consistent conceptual definitions." The concept of morale is given different meanings by different investigators. Comparison of results from study to study is difficult because of the many different populations that have been researched and the wide variety of methodological procedures used to

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conduct the investigations (Athanasiou, 1969, Fournet, et al., 1966 and Vroom, 1964).

Kimmel (1969, p. 22) summarized the problem of lack of theoretical constructs and comparable research results. He states that:

Job attitudes, their determinants and consequences are complex, and as yet relatively unanalyzed phenomena. Few workers have the clear-cut goals of the social critic or the single (or double) motivational systems of the industrial psychologist. It is unlikely that worker attitudes will be predicted by a general theory dealing with abilities, background, or motivation in any more accurate manner than worker performance has been predicted on the basis of reported job satisfaction.

Organizational Theory and Satisfaction

The study of job satisfaction is traced to the research of Roethlisberger and Dickson and their Hawthorne studies (Fournet, 1966). Roethlisberger and Dickson were concerned with the psychological state of mind of workers and the motivational properties of social interaction on the job. From these studies several new approaches to management practices were conceived. It was theorized that more humane practices and enlightened management principles would increase production more than would adherance to the scientific management philosophy.

Management practices in the scientific management era of Fayol and Ulick emphasized time and motion studies, organization of production units and close supervision of the worker. The worker was viewed as lazy, untrustworthy and motivated by monetary reward. This attitude was accompanied by organizational structures that reflected this assumption.

Frederick Taylor (1911), an early writer of scientific principals of management, popularized the view of efficiency as a measure of

managerial success. Managerial success was measured in terms of reducing costs and increasing unit output. To increase output work tasks were simplified, broken into small components, departmentalized and placed under close, continuous supervision. Workers were rewarded for increased output and following directions and orders.

Adherence to Taylor's principles of scientific management resulted in spectacular increases in production output. A side effect of scientific management was the necessity for a close supervisory system to insure that all workers were performing up to production standards in the most efficient way. Close supervision required a network of overlapping positions which had authority over workers in job positions below them. The hierarchical structure of an organization became more important as a vehicle for accomplishing organizational goals.

One of the leading organizational theorists of the early twentieth century was Max Weber. Weber and his organizational concepts were adhered to by many of the structural theorists. He (Weber) believed that management could control the activities of production and achieve operational efficiency through the structural components of a hierarchy of organization. The structural components of Weber's bureaucratic organizational model are reported by Blau (1956) as: (1) specialization, (2) hierarchy of authority, (3) explicit rules and regulations, (4) impersonality and (5) career opportunities. The purpose of the bureaucratic organization is:

> ...to create social conditions which constrain each member
> of the organization to act in ways that, whether they appear
> rational or otherwise from his individual standpoint, further
> the rational pursuit of organizational objectives (Blau,
> 1956, p. 32).

Weber's bureaucratic organizational structure has received a great deal of criticism from contemporary organizational theorists. This criticism focuses on whether the model is truly applicable or is a model of the ideal or "pure type." Blau (1956) takes the position that Weber's model is an ideal or pure type. He feels the model can be implemented in certain types of organizations; however, it is not all inclusive. Litwak (1969, p. 82) contrasts Weber's bureaucratic model with the more contemporary human relations organizational model. He says, "Weber's model is most efficient when the organization deals primarily with uniform events and with occupations stressing traditional areas of knowledge rather than social skills" (1969, p. 82). Diverse organizations dealing with non-uniform events need a different organizational model; one that according to Litwak stresses:

> ...horizontal patterns of authority, minimal specialization, mixture of decisions on policy and on administration, little prior limitation of duty and privileges to a given office, personal rather than impersonal relations, and a minimum of general rules. This form of organization generally characterizes the "human relations" model described as ideal by many contemporary industrial psychologists.

McGregor (1969) proposes that the emphasis of management has been on the wrong track because of its philosophy of the nature of man. McGregor believes that "...man is a wanting animal" and as such is motivated by his needs which are organized in a hierarchy of needs. Mankind's needs are consistent and have a prepotency that demands that lower level needs be satisfied before higher level needs come to bear on the individual.

Based on the assumption of a hierarchy of needs, McGregor proposes a new theory of managing people--Theory Y. According to the tenets of this theory:

(1) Management is responsible for organizing the elements
of productive enterprise—money, materials, equipment,
people—in the interest of economic ends.

(2) People are not by nature passive or resistant to organi-
zational needs. They have become so as a result of
experience in organizations.

(3) The motivation, the potential for development, the capa-
city for assuming responsibility, the readiness to direct
behavior toward organizational goals are all present in
people. Management does not put them there. It is a
responsibility of management to make it possible for
people to recognize and develop these human character-
istics for themselves.

(4) The essential task of management is to arrange organiza-
tional conditions and methods of operation so that people
can achieve their own goals best by directing their own
efforts toward organizational objectives (1969, p. 154).

Argyris (1957) takes a similar view of bureaucratic organizations.

His position is based on his assumptions of human growth in a direction

toward self-actualization for the healthy adult. The formal organiza-

tion imposes restrictions on the opportunities for self-actualization

of its employees. These restrictions are in the form of more mechani-

zation of jobs, tighter organization controls and a chain of command.

The lower one is in the organizational hierarchy, the less opportunity

he has to make decisions, use his abilities and to self-actualize his

potentialities.

Factors of Satisfaction

Numerous studies have reported data relevant to the situational

and personality determinants of job satisfaction. These studies usually

consist of correlating a factor or group of factors with a predetermined

criterion of satisfaction such as absenteeism, turnover, wages, promo-

tional opportunities or personality variables such as age, sex, or

intelligence.

Many of these studies report conflicting results. Robinson (1969)
notes that one of the major problems in determining job satisfaction,
in terms of broad universal factors, is the divergence of sociological
factors which come to bear but which cannot be controlled. Occupational
status, work values, education and cultural differences can be differ-
entiating factors when attempting to isolate the single or multiple
facets of satisfaction. Vroom (1964, p. 173), after a comprehensive
review of the literature related to situational and personality factors
related to job satisfaction, says:

> Job satisfaction must be assumed to be the result of the
> operation of both situational and personality variables.
> It is only through simultaneous study of these two sets
> of factors that the complex nature of their interaction
> can be revealed.

Herzberg's Two Factor Theory

Herzberg (1966) developed a two factor theory based on the assump-
tion that man is an animal and, as such, seeks to avoid pain and to
grow psychologically. Herzberg's theory is based on the premise that
certain factors contribute to job satisfaction while other factors con-
tribute to job dissatisfaction. The factors are mutually exclusive
and are composed of both psychological and situational aspects of the
work environment.

The satisfying factors are achievement, recognition, the work
itself, responsibility and advancement. The dissatisfiers are company
policy and administration, supervision, salary, interpersonal relations
and working conditions. Satisfaction factors are designated as moti-
vators while dissatisfaction factors are designated as hygiene factors.
Other researchers (Wolf, 1970, Dunnette et al., 1967, and Hulin and

Smith, 1967) refer to the motivation factors as intrinsic or content factors and the hygiene factors as extrinsic or context factors.

According to Herzberg's Two Factor Theory, the absence of satisfiers in the work environment does not necessarily mean that a worker is dissatisfied. Conversely, the absence of dissatisfiers does not necessarily imply satisfaction. Satisfaction and dissatisfaction are bipolar rather than ranging on a continuum from satisfied to dissatisfied.

The two factor theory is in opposition to the more traditional motivational theory that views job satisfaction as ranging on a continuum from dissatisfied to satisfied. Traditional motivational theory emphasizes that if the presence of a variable in the work environment leads to satisfaction, its absence will lead to job dissatisfaction.

Herzberg's study revealed that the factors that lead to worker satisfaction were different from the factors that lead to dissatisfaction. From these findings he concluded that hygiene factors reduce dissatisfaction but do not add to satisfaction while the motivator factors add to satisfaction but their absence does not contribute substantially to dissatisfaction. Herzberg (1959, p. 111) states:

> One of the basic habits of scientific thinking is to conceive of variables as operating on a continuum. According to this, a factor that influences job attitudes should influence them in such a way that the positive or negative impact of the same factor should lead to a corresponding increase or decrease in morale. Perhaps some of the confusion as to what workers want from their jobs stems from the habit of thinking that influencing job attitudes operate along such a continuum.

Herzberg's theory has generated a great deal of controversy and prompted a number of research activities. Friedlander and Walton (1964) attempted to replicate Herzberg's findings by interviewing scientists and engineers in various occupational specialities with reference to

reasons for remaining in an organization. The intrinsic factors were cited as the most important reasons for staying in an organization while the extrinsic factors contributed to leaving the organization. Myers (1964), Schwartz, Jensaitis, and Stark (1963), and Herzberg (1966) have confirmed the two factor theory using the interview critical incidents procedure. This procedure requires an unstructured interview in which the interviewee was asked to identify periods of time when his feelings about his job were much higher or lower than usual. After discussing these periods of high and low feelings related to the interviewee's job, the researcher interpreted the data by means of content analysis. An posteriori content analysis approach with the categories of analysis extracted from the material itself was used.

Herzberg's theory has come under attack as a result of Burke's (1966) review of the research relevant to the Herzberg theory. From this review, Burke formalized three general conclusions about the nature of motivators and hygienes. These conclusions are:

1. In many cases, factors causing job satisfaction (motivators) are different from, and not merely opposite to, factors causing job dissatisfaction (hygienes).

2. A given factor can cause job satisfaction in one sample and job dissatisfaction in another sample, and vice versa. It appears that job or occupational level, age of respondents, sex of respondents and perhaps a time dimension variable partially determine whether a given factor will be a source of satisfaction or dissatisfaction on the job.

3. In some cases a given factor was found to cause job satisfaction and job dissatisfaction in the same sample (1966, p. 18).

As a result of the findings of his study of the independence and unidimensional aspects of the hygiene and motivator factors, Burke concluded that the motivator and hygiene factors were neither independent

nor unidimensional. The unidimensionality of motivator and hygiene factors was rejected on the basis of mirror-image preference orders among a set of observed preference orders in a sample of college students.

Generally, studies utilizing data gathering techniques other than the critical incident method have not been supportive of the two factor theory. Dunnette, et al., (1967), using a rating scale to have workers rate job factors, found that both the content and context factors could serve as satisfiers and dissatisfiers, thus supporting traditional motivational theory. Hulin and Smith (1968) added additional evidence to refute the two factor theory when they found, in a correlational study, that content elements in the work environment acted as both satisfiers and dissatisfiers.

Gruenfield (1962) studied industrial supervisors in three different occupational levels by having them rate 18 job characteristics in order of their desirability. The general findings of this study supported the two factor theory. However, in analyzing his data, Gruenfield noted a difference in the ratings of different factors depending on the occupational level of the rater. Subjects in higher occupational levels gave higher ratings to the motivation factors while lower level occupations gave higher ratings to the hygiene factors. Response bias in ratings of content and context factors of the work environment that are a result of differences in occupational levels of the subjects was also reported by Centers and Burgental (1966). The studies by Gruenfield and Centers and Burgental point out that a major source of variation in the measurement of job satisfaction is due to occupational differences.

Occupational Status and Job Satisfaction

There is increasing evidence that occupational status is a major factor in determining attitudes toward work. Converse and Robinson (Robinson, 1969) investigated the ratings of various aspects of jobs by workers in different occupational levels. The job factors being rated were pay, job security, kind of people, freedom to plan and chance to learn. "Lowest ratings on practically all components clustered heavily in the blue-collar and lower white-collar classes" (Robinson, 1969, p. 51). Blue-collar and lower white-collar occupational classes generally had the same priorities as the managerial and professional level occupations but attached more importance to pay and job security as factors of satisfaction in their work environment.

Gurin, Veroff, and Feld (1960) investigated satisfaction among employed males in eight occupational classes. Their data revealed that the professional-technical occupations reported 42 percent as being very satisfied while only 13 percent of the unskilled and 27 percent of the semi-skilled reported that they were very satisfied in their jobs.

Kornhauser (1962) investigated the relationship between mental health, education and job level in a factory setting. He concluded that "...mental health is poorer among factory workers as we move from more skilled, responsible, varied types of work to jobs lower in these respects" (p. 46). The lower the occupational level, the lower was the mental health of factory workers. Mental health was affected by everything in the job environment that caused the worker to have negative self-feelings, anxieties and tensions that obstruct effective behavior.

Blai (1964) researched the major components of job satisfaction across occupational levels. He sampled 470 individuals in professional,

managerial-official, clerical, service, and trades-manual occupations.
The subjects were required to select from a listing of 14 need areas
designed to complement the Maslow need hierarchy. Seven need areas
emerged from the subjects' listings. These needs were: self-
actualization, interesting duties, advancement, job security, independ-
ence, esteem and congeniality.

Professional employees selections clustered around the needs for
self-actualization (70%), interesting duties (70%), and advancement
(39%). Managerial level employees followed the same pattern as the
professional level employees but with a slightly lower percentage:
self-actualization (58%), interesting duties (54%), and advancement
(33%). Patterns of needs by occupational level were clearly delineated.
Professional management employees chose self-actualization, interesting
duties and advancement as the most important factors for determining
their satisfaction. Clerical job holders typically selected interest-
ing work, job security and self-actualization needs. Service occupa-
tions selected factors related to job security, independence and
interesting duties. Trades and manual occupations selected items
related to job security, esteem and congeniality.

Blai concluded that the prepotency need hierarchy of Maslow's
motivational theory was as predicted. This was evidenced by the less
prepotent needs of self-actualization, advancement and interesting
duties being selected more often by each succeeding job level. The
more prepotent needs for congeniality, esteem, independence and job
security were selected more often in the lower socio-economic groups
of trade and service occupations.

In a related study of different levels of managers and their need deficiencies, Porter (1962) reported that total need deficiencies increased with each succeeding lower level of management. Porter did not find significant differences for the physiological and safety needs of managers classified according to organizational position. However, significant differences were found for esteem needs, autonomy needs and self-actualization needs.

Data from the studies by Converse and Robinson (1969), Guren, Vernoff and Feld (1960), Kornhauser (1962), Blai (1964), and Porter (1962), give evidence of the importance of occupational status as a factor in determining job satisfaction. Occupants of higher status jobs were generally more satisfied than occupants of lower status jobs. The more prepotent needs for job security and esteem were stressed by lower level job holders while higher level job holders emphasized the less prepotent needs of self-actualization, interesting duties and autonomy. All the previously named studies in this paragraph give evidence that job satisfaction may be related to need-satisfaction, based on Maslow's motivational theory.

Need-Hierarchy Studies

Prior to 1959, there were few studies in the literature relating to need satisfaction as a measure of job satisfaction. Up to this point in time, job satisfaction research was primarily concerned with the work environment and research comparing job satisfaction across occupational levels.

Research activities related to job satisfaction began to shift emphasis in the late 1950's and early 1960's and examine the

relationship of job satisfaction within the structural components of organizations. Studies related to the higher status occupations and the upper levels of management began to appear. This change in direction of research activities reflects the increasing interest in the human relations movement in management and the acceptance of Maslow's motivational theory of human growth and development.

Two studies that lend support for studying managerial level personnel were reported by Rosen and Weaver (1960) and Rosen (1961). Rosen and Weaver investigated the motivational commonalities that existed for the different levels of management. They wanted to determine if managers across organizational levels had similar wants and needs and if the importance they attached to various job conditions was similar. They administered a structured questionnaire to 155 men in four levels of management. The questionnaire contained 24 items designed to determine commonalities for the management levels for relations with supervisors, company policies and practices, peer relationships and opportunities for self-expression.

From their data, they concluded that a high degree of commonality existed regarding conditions of work across managerial levels. Satisfaction was related to environmental factors which permitted management to perform their duties effectively. Commonalities occurred in spite of differences in job status and role differentiation. Rosen and Weaver concluded that "one can talk about management as a meaningful cohesive class sharing common motivations if job performance roles are defined rather than organizational effectiveness" (1960, p. 391).

Rosen (1961) using his original sample data, studied how various levels of management described their work environment and the conditions

they considered important. He concluded that "the higher one goes in the hierarchy the greater are the rewards of the environment" (Rosen, 1960, p. 158). Porter (1961) investigated the relationship between the need deficiencies and organizational position of supervisors and middle managers. Porter noted significant differences in need deficiencies for security, esteem and autonomy needs. The lower level supervisors had significantly higher need deficiencies for these need levels than did middle managers. Differences in need deficiencies for the social and self-actualization needs were not significant but were in the predicted direction of increasing with each succeedingly lower management level in the organizational hierarchy.

Porter (1962) in a much larger study investigated the need deficiencies of five levels of management. The sample includes all levels of management, from first level supervisors to company presidents, in various sizes of companies throughout the United States. The results of this study indicated that need deficiencies increased at each succeeding lower level of management. Similar findings have been reported by Haire, Ghiselli, and Porter (1963), Johnson and Marcum (1968), Mitchell (1970), and Ivancevich (1969).

Brown (1972) using the Porter need deficiency instrument, researched the relationship of hierarchical position and job satisfaction of school administrators in California. He found a similar relationship to that defined by the Porter studies; however, the relationship was not a "staircase" relationship. Principals and directors had similar patterns of satisfaction and received similar satisfaction from their positions. Assistant superintendents and superintendents were similar in their pattern of satisfaction and were significantly higher in total need

satisfaction than principles and directors. Brown concluded that "a significant relationship exists between need satisfaction and job level" (p. 19).

School Environment and Satisfaction

Trusty and Sergiovanni (1966), using a modified "Need Satisfaction Inventory" developed by Porter, investigated the need satisfaction of school teachers and administrators in a selected school system. To complete their study, they administered their inventory to all the teachers and administrators. They compared administrators', high school teachers', junior high teachers' and elementary teachers' need deficiency scores by age, sex, experience and role orientation.

Data from their study showed significant differences in need satisfaction for professional role orientation. Junior high and senior high teachers were significantly more dissatisfied than elementary teachers and administrators. They found significant differences for the higher order needs of esteem, autonomy and self-actualization of the four groups under study. Administrators were generally more satisfied than teachers in all need areas except self-actualization needs. Elementary teachers were more satisfied than junior high and senior high teachers. The self-esteem need satisfaction they received from their school position was the largest source of dissatisfaction among teachers.

Women teachers were generally more satisfied than men teachers. Lower need deficiencies were observed for women teachers than for men teachers for all need levels except security needs. Significant differences by age group were reported. Younger respondents (age 20-24) were more concerned with esteem needs while older teachers (age 45 and over)

emphasized esteem, autonomy and self-actualization needs. The group of respondents between 25 and 34 reported the largest deficiencies for all items in the categories of esteem, autonomy and self-actualization.

Some doubt has been cast on Trusty and Sergiovanni's findings. Haller (1967) has criticized the study on the grounds that the sample size and methodology make the findings subject to question. He contends that the conditions found by Trusty and Sergiovanni cannot be generalized beyond the sample population. Haller was also critical of their statistical methods and their hypotheses, supposedly derived from Maslow's motivational theory.

Trusty and Sergiovanni's findings, with relation to job satisfaction of educators, are comparable to the NEA (1969) satisfaction study and Chase's (1951) study of the factors of satisfaction in teaching. These studies were concerned with the personal and situational factors related to teacher satisfaction. Satisfaction of administrators was not included in either of these two studies.

The NEA study found that "teachers, as a group, have most job satisfaction traits in common with other workers." Satisfaction with salary was found to improve with the age of the respondent. Contrary to Trusty and Sergiovanni's findings, older teachers were more satisfied than younger teachers. Married women teachers were more satisfied than men teachers. Single women teachers were the most unhappy of all teachers in terms of their attitude toward the school, job and work load. Elementary teachers were more satisfied than junior high and senior high teachers. Age, sex, and teaching level were found to have strong influence on teacher satisfaction.

Chase (1951) identified personal and situational differences contributing to teacher satisfaction. He found similar satisfaction levels based on sex, role orientation and years of teaching experience. Additionally, Chase found that teachers who were rated as superior by their superintendents were more enthusiastic than those teachers rated below average.

Chase identified eleven situational factors which related to teacher satisfaction. These factors, by rank order, are:

1. Dynamic and stimulating leadership by building principal

2. Dynamic and stimulating leadership by superintendent of schools

3. Regular and active participation in preparation of salary schedules

4. Regular and active participation in making policy for grouping, promotion, and control of pupils

5. Regular and active participation in curriculum making

6. Clearly defined and attainable aims and goals

7. Good work of teachers is freely recognized

8. Stimulating and helpful supervision

9. Teaching load is light

10. Amount of supervision is about right

11. Salary is comparatively good (p. 128, Table II).

Findings from Trusty and Sergiovanni's study of teachers and administrators, Brown's study of school administrators, Chase's study of situational factors related to teacher satisfaction and the general findings from Porter's studies indicate that there are some conflicting results and only partially answered questions related to the hierarchial position and need satisfaction of professional school

employees. Porter's study found that need satisfaction of managers increased as he examined each succeeding level of management. Brown did not find such a progressive relationship for school administrators. Instead, there were two distinct groups, principals and directors, and assistant superintendents and superintendents, that differed significantly in need satisfaction. The relationship of decreasing need deficiencies as he examined each succeedingly higher level of management was apparent, but was not significant for all four levels of school management under study.

Trusty and Sergiovanni examined the relationship of age, sex, job experience and role orientation of teachers and administrators. Significant differences were found for experience and need satisfaction. These findings were similar to the general findings of Chase's study and the NEA study of situational factors related to job satisfaction of teachers. There were differences in the three studies with reference to experience as a factor related to teacher satisfaction. Additionally, Chase identified eleven situational factors related to teacher satisfaction.

Summary

Chapter two has presented a review of the literature related to job satisfaction and need satisfaction of employees and of the factors that have been related to job satisfaction. A brief overview of organizational theory and job satisfaction, traditional satisfaction theory, Herzberg's two-factor theory and reviews of need-hierarchy studies and studies of the school environment and satisfaction of school employees have been presented.

More recent studies of job satisfaction have focused on the motivational theory of Maslow that emphasizes need satisfaction as a measure of job satisfaction. This investigative approach has been successful in examining job satisfaction among white collar workers, clerical workers, managers and professionally trained employees. Both the traditional theory and a need satisfaction theory have been operationa-alized to investigate job satisfaction among teachers and school administrators.

Satisfaction studies of school teachers and administrators have been conducted by numerous researchers, often with conflicting results. The findings of these studies appear to be confounded by such variables as role orientation, age, sex, total years school experience, years experience in present position and school size. Chapter three will continue with a presentation of the methods and procedures used to complete the study.

CHAPTER III

METHOD AND PROCEDURE

Introduction

This chapter will describe the research design used to develop the
study and gather the data for testing the hypotheses. Specifically, the
chapter will describe the sample, the instrument used to measure the
dependent variable, its development and administrative procedures. A
description of the scoring procedures employed to obtain the data for
an analysis of the hypotheses and a description of the statistical
treatment of the data will conclude the chapter.

Sampling Procedure

To test the hypotheses presented in Chapter I, a sample of certified
public school employees was asked to respond to the "School Personnel
Satisfaction Inventory." The sample consisted of 504 professional
level school employees in five levels of hierarchical positions, whose
personnel data card was on file in the State Department of Education.

The records in the data center of the State Department of Education
include the name, county, school district, school and position of all
certified public school employees. From these records, a random sample
by position (professional role), was selected. The computerized random
sampling procedure incorporated a table of random numbers which was used
to select the specified number of participants from each of the five

hierarchical levels included in the study. To select the superintendents used in the study, a search of all available records for superintendents was made. Those superintendents whose personnel record number corresponded to the numbers from the table of random numbers were selected for the study. This procedure was used to select the subjects in the remaining four organizational categories; assistant superintendents and administrative assistants, principals, supervisors and teachers.

The total sample included 240 administrators and 264 teachers. The administrators included sixty subjects in each of the four following hierarchical positions: superintendents, assistant superintendents and administrative assistants, principals and supervisors. The assistant superintendent and administrative assistant group was stratified to give an equal percentage representation to both assistant superintendents and administrative assistants in the population subgroups. The number of assistant superintendents and administrative assistants selected for the sample population was in proportion to their representation in the total population. The principal group was stratified to obtain equal percentage representation of elementary, junior high and high school principals. Of this stratifying technique, Van Dalen (1966, p. 299) says:

> Proportional sampling enables one to achieve even greater
> representativeness in the sample. This technique requires
> selection of units at random from each stratum in proportion
> to the actual size of the group in the population. Hence,
> if 10 percent of the voting population are collge gradu-
> ates, 10 percent of the sample population is taken from
> this stratum.

The teacher sample included a stratified sample of full-time kindergarten, elementary, junior high, high school and vocational teachers.

The population characteristic used to stratify the teacher sample was the number of teachers in each of the population subgroups. To further insure the best representativeness possible, the number of teachers selected from each strata was in proportion to the actual size of the stratum in the teacher population.

The same random selection procedure used in selecting the administrator group was used to select the teachers to be included in the sample. The teacher sample represented one percent of the total number of full-time kindergarten, elementary, junior high, high school and vocational teachers.

Several classifications of professional level school employees were not included in the sample. Though records were available for county superintendents and assistant superintendents, these positions were excluded because their dual role made it impossible for them to be uniquely classified as either a teacher or in one of the four administrative positions. Counselors, nurses, census and attendance supervisors, television teachers, psychologists and visiting teachers were also excluded because they do not generally perform a work role that can be considered as either a full-time teaching role or as an administrative role.

Instrumentation

The instrument that was administered to the sample population to determine the need satisfaction of professional school personnel was the "School Personnel Satisfaction Inventory." This instrument was developed by revising the "Teacher Need Satisfaction Inventory" constructed by Thomas (1971).

Thomas' inventory was designed to measure need satisfaction follow-
ing Maslow's (1954) hierarchy of needs construct. The inventory con-
tains 36 statements which measure need satisfaction for safety needs,
belongingness and love needs, esteem needs and self-actualization needs.
A total need satisfaction score is determined by adding the scores of
each of the four subscales.

The "Teacher Need Satisfaction Inventory" is a self-administered
questionnaire that requires approximately eighteen minutes to complete.
Thomas determined that the instrument was valid for discriminating
between satisfied and dissatisfied teachers at the .01 level. Reliabil-
ity for the instrument was determined by the "split-half" method and
was 0.92.

Satisfaction scores for each need level are determined by having
the subjects arrange the statements, in order of importance, on two
scales: the Importance to Me Scale and the Importance to My School
Scale. Each scale has a scaled continuum that ranges from "more"
important with a scaled value of 100 to "less" important with a scaled
value of 0. To place a statement on a continuum, the subject is
instructed to draw a short, horizontal line across the vertical con-
tinuum at the point which he feels represents the importance of the
statement. This procedure is continued until all items for each need
level are arranged in order of importance on the Importance to Me Scale
and the Importance to My School Scale.

Each statement is scored by measuring the distance from the zero
point on the continuum to the line drawn and numbered for each question.
The distance from the zero point to the point of intersection on the
continuum for each item was measured by use of a clear plastic ruler.

This distance was multiplied by a value of 1/16 inch is equal to one score point. If the measured distance for statement number one on the Importance to Me Scale was one and one-sixteenth inch, the statement would receive a tentative value of seventeen points. Each respondent was required to rank each statement on both the Importance to Me Scale and the Importance to My School Scale. Scoring procedures for the statements were the same for both scales. Statement scores on the Importance to My School Scale were subtracted from the statement scores on the Importance to Me Scale. The subtracted value was the score for that statement. It is possible for a statement to receive a negative score if the statement is given a higher rating on the Importance to My School Scale than on the Importance to Me Scale.

Negative numerical values for a questionnaire item are disregarded in determining the need satisfaction score of the respondent. Thomas (1971) conceptualized need satisfaction as the congruence of goal object strength and goal object satisfaction. A zero or negative value for any questionnaire item indicated that the respondent felt his needs were being met; therefore, the item did not serve as a motivator. Need deficiency scores were calculated to determine the extent of unfulfilled expectations. A high score was representative of unfulfilled needs and a dissatisfied teacher while a low score was representative of fulfillment of expectations and a satisfied teacher.

The "Teacher Need Satisfaction Inventory" provides a measure to determine a score for total need satisfaction and a need satisfaction score on four subtests: safety needs, belongingness and love needs, esteem needs and self-actualization needs. Total need satisfaction is determined by adding the difference scores for all thirty-six

questionnaire items. The subtest score for safety needs is determined by adding the difference scores for questionnaire items one through twelve. The subtest score for belongingness and love needs is determined by adding the difference scores for items thirteen through twenty-two. The subtest score for esteem needs is determined by adding the difference scores for questionnaire items twenty-three through thirty. The subtest score for self-actualization needs is determined by adding the difference scores for questionnaire items thirty-one through thirty-six.

The "Teacher Need Satisfaction Inventory" was revised by the investigator to make it more applicable to all levels of certified school pesonnel and to simplify administration and scoring procedures. To make the instrument usable for all levels of school personnel, the wording of 24 of the 36 items was revised. This revision consisted of changing the word "teacher" to "professional staff." The context of the questionnaire statements was not changed.

To make the instrument more readily self-administerable, the method of responding to each questionnaire item was changed from the use of two continuums, to the use of a seven point scale for the Importance to Me Scale and for the Importance to My School Scale. This change was not viewed as damaging to the validity or reliability of the instrument as the context of the questionnaire statements were not changed.

The original inventory had a possible score for each item ranging from 0 to 100. It has been shown by experimental research that this fine a screen for discrimination is not required and does not necessarily improve the obtained data. Miller (1956, p. 90) says:

There is a clear and definite limit to the accuracy with
which we can identify absolutely the magnitude of a uni-
dimensional span of absolute judgment, and I maintain that
for unidimensional judgments this span is usually somewhere
in the neighborhood of seven.

With the revised instrument, "School Personnel Satisfaction Inven-

tory," the subjects are instructed to respond to each questionnaire

item by circling a number (0 through 7) that best describes the impor-

tance of that statement to them on the Importance to Me Scale. They

are also instructed to circle the number (0 through 7) that best

describes their perception of the importance of the item to their school

on the Importance to My School Scale. Each item is scored by subtract-

ing the circled value on the Importance to My School Scale from the

circled value on the Importance to Me Scale.

This difference score is an indirect measure of the need deficien-

cies of the subjects. Indirect measures of satisfaction have been

found to be the most reliable measures of satisfaction (Special Task

Force to the Secretary of Health, Education and Welfare, 1973, p. 15).

In Thomas' (1971) terminology, the need deficiency score is the incon-

gruence between goal object strength and goal object satisfaction.

The "School Personnel Satisfaction Inventory" was pilot tested with

a group of public school teachers and administrators who were attending

Oklahoma State University during the summer of 1972. The purpose of

the pilot test was to determine if the revised instrument was a reliable

measure of need satisfaction.

The pilot group was composed of sixteen teachers and fourteen

administrators. All members of the pilot study group were required to

complete the questionnaire with only the written directions provided

with the questionnaire. This requirement placed each participant in

the position of responding to each item with only the written directions
to guide him.

From the results of administering the "School Personnel Satisfaction
Inventory" to the pilot group, a reliability measure was calculated.
The "split-half" method, using a Spearman rho correlation coefficient
for the odd and even numbered questions was determined to be 0.83. The
Spearman-Brown formula (Guilford, 1965) was used to correct for the
reduced number of items inherent with the "split-half" method which
resulted in a corrected realiability coefficient of 0.91. Data related
to this measure of reliability are summarized in Table I.

TABLE I

SPLIT-HALF RELIABILITY OF SCHOOL
PERSONNEL SATISFACTION INVENTORY

N	Uncorrected Spearman rho	Corrected Spearman-Brown
30	0.83	0.91

Scoring Procedures

The "School Personnel Satisfaction Inventory" was developed with
particular emphasis given to ease of scoring. The subjects in the
study were instructed to read each item and respond to the importance
of each statement by circling a value of from 0 (low) through 7 (high)
for each statement on the Importance to Me Scale and the Importance to

My School Scale. The score for each statement is the difference between the circled values on the Importance to Me Scale minus the circled value on the Importance to My School Scale. Negative values are disregarded as they show that the subject is receiving at least as much satisfaction as he expects; therefore, he has no need deficiency for that particular response item. Operationally, he is satisfied.

To obtain a total need satisfaction score, the subject's response for each statement was summed for each of the four need levels examined by instrument statements. These need levels are: safety needs, belongingness and love needs, esteem needs and self-actualization needs.

Administration of the Instrument

Upon completing the selection of the sample for the study, a packet of materials, including the instrument, a letter of explanation and a return, self-addressed envelope was mailed to each subject. The subjects were asked to respond to the questionnaire and return the completed instrument in the stamped, preaddressed, return envelope.

This method of administering the questionnaire had several advantages. First, a much broader cross section of educators could be contacted by this method. Second, the respondent received the instrument in his home or at his school address and could complete the questionnaire with a certain amount of confidence that his response would remain anonymous. Anonymity of the respondent was assured in the cover letter. It was felt that anonymity of response would result in a more positive orientation toward the study and result in more accurate responses to the questionnaire. Third, this type of administration

provided an opportunity for responding to the instrument statement without any threat from local school personnel.

The most obvious disadvantage with this type of administration was the lack of control that could be obtained to insure that all subjects would respond to the questionnaire. Although it was emphasized that responding to the questionnaire was important to better understand the differences in need satisfaction of school personnel, 40.5 percent of the subjects did not respond. A second disadvantage was the use of standard instructions for completing the questionnaire. Eighteen subjects returned questionnaires that were not properly completed and, therefore, were not usable.

One month after the date of distributing the questionnaires, 59.5 percent had been returned. At this point it was decided by the investigator to sample a percentage of the non-respondents rather than follow up on each non-respondent. This decision was made because of the poor results, for the amount of time and expense involved, that typically result from follow-up of mailed questionnaires. Worthen and Brzezinki (1973, p. 117), after studying methods and techniques for improving responses to mailed questionnaires state that "unfortunately, there is no conclusive evidence that any technique employed will be effective."

A random sample of twenty-four non-respondents was selected to determine if there were biases in the respondent group. This sample was composed of three superintendents, three assistant superintendents, three principals, three supervisors and twelve teachers. Each non-respondent was personally contacted by telephone to enlist his or her support in completing the study. Those non-respondents who had lost

or discarded their questionnaire were mailed an additional packet of materials.

A statistical procedure utilizing a Mann-Whitney U statistical technique was used to determine if the non-respondent group differed significantly from the respondent group on total need satisfaction as measured by the "School Personnel Satisfaction Inventory." The Mann-Whitney U technique is appropriate for determining if two independent groups have been drawn from the same population (Siegel, 1956, p. 116).

On the basis of these calculations, it was determined that the two samples differed significantly at the .04 level on total need satisfaction mean group ranks. The non-respondent group had a significantly lower mean rank for total satisfaction than did the respondent group.

In order to locate the source of bias in the respondent sample, a Mann-Whitney U statistical technique was used to determine which, if any, of the mean ranks of the respondent and non-respondent groups differed significantly for each of the four subscales on the "School Personnel Satisfaction Inventory." The mean rank of the non-respondent group was significantly lower than the mean rank of the respondent group on two subscales: esteem needs and belongingness and love needs. No significant differences were determined for the safety needs subscale and the self-actualizing needs subscale. A summary of equivalence checks between the respondent and non-respondent groups is shown in Table II.

A Chi-Square analysis of the distribution of the respondent and non-respondent groups on six demographic variables was calculated to determine if the groups differed significantly. The demographic variables analyzed were: organizational position, age, sex, total years

TABLE II

A SUMMARY OF EQUIVALENCE CHECKS BETWEEN
RESPONDENT AND NON-RESPONDENT GROUPS

Group	N	U	Z	P
Total Needs:				
Respondent	282			
		2561	-1.978	.048
Non-Respondent	24			
Self-Actualization Needs:				
Respondent	282			
		2978	-0.978	.337
Non-Respondent	24			
Esteem Needs:				
Respondent	282			
		2533	-2.050	.040
Non-Respondent	24			
Belongingness and Love Needs:				
Respondent	282			
		2546	-2.017	.043
Non-Respondent	24			
Safety Needs:				
Respondent	282			
		2736	-1.557	.119
Non-Respondent	24			

teaching experience, total years experience in present position and school size. No significant differences were found between the respondent group and the non-respondent group for any of the demographic variables examined. A summary of the calculated Chi-Square values for each of the six demographic variables is shown in Table III.

Statistical Treatment of the Data

The Kruskal-Wallis One-Way Analysis of Variance statistical technique with a Mann-Whitney U follow-up was used to treat the data as arranged for testing the hypotheses. All data was analyzed using a computer library program from the Computer Center, Oklahoma State University.

According to Siegel (1956, p. 185) the Kruskal-Wallis One-Way Analysis of Variance is appropriate:

> ...for determining if differences among samples signify genuine population differences or whether they represent merely chance variations such as are to be expected among several random samples from the same population.

The assumptions underlying the use of the Kruskal-Wallis technique require that the variables under study have a continuous distribution and at least an ordinal level of measurement. A continuously distributed variable is defined by Haber (1967, p. 16) as a variable that has an unlimited number of intermediate values, the approximate value of which ranges from minus one-half unit of measure to plus one-half unit of measure. Numerical values are regarded as being continuously distributed.

An ordinal level of measurement expresses an ordered relationship between two or more classes or groups (ibid., p. 13). Ordinal measures indicate position rather than how much difference there is between

TABLE III

CHI-SQUARE ANALYSIS OF DEMOGRAPHIC CHARACTERISTICS
OF RESPONDENT AND NON-RESPONDENT
SAMPLE GROUPS

| Factor and Sample | Cell Classification | | Result |
	Respondent	Non-Respondent	
Organizational Positions:			
Superintendent and Assistant Superintendents	75	6	x^2 = .042
Principals and Supervisors	77	6	df = 2
Teachers	130	12	p <.98
Age:			
20-30 Years	101	12	x^2 = 3.04
31-50 Years	116	10	df = 2
51 Years and Above	65	2	p <.30
Sex:			
Male	169	16	x^2 = .195
Female	113	8	df = 1
			p <.70
Total Years Teaching Experience:			
0-3 Years	72	9	x^2 = 2.16
4-11 Years	72	5	df = 2
12 Years or More	138	10	p <.70
Total Years Experience in Present Position:			
0-7 Years	224	18	x^2 = .271
8 Years or More	58	6	df = 1
			p <.70
School Size:			
0-1000 Students	85	13	x^2 = 5.27
1001-5000 Students	87	4	df = 2
Over 5000 Students	110	7	p < .10

groups. The present study focuses on independent variables such as organizational position, age, sex, and years teaching experience. Variables of this type are ordinal in this study because they represent categories that give positional relationships rather than numerical relationships.

The Mann-Whitney U test is appropriate for testing for significant differences between groups when the level of measure is at least ordinal. Of this statistical technique, Siegel (1956) says:

> This is one of the most powerful of the nonparametric tests, and it is a most useful alternative to the parametric t test when the researcher wishes to avoid the t test's assumptions, or when the measurement in the research is weaker than interval scaling.

To test the hypotheses, the Kruskal-Wallis statistical technique was used to determine if the sample groups came from the same population. The Mann-Whitney U statistical test was used as a follow-up to compare each group with all other groups in the sample on total need satisfaction and each of the subscales of the "School Personnel Satisfaction Inventory": safety needs, belongingness and love needs, esteem needs and self-actualization needs.

Summary

Chapter III has presented an overview of the sampling procedures, instrument development, scoring procedures, administration procedures, and statistical treatment for testing the hypotheses. A total of 504 Oklahoma educators was randomly selected for the study. Of this group, 59.5 percent responded to the "School Personnel Satisfaction Inventory."

A bias check of non-respondents revealed that the respondent sample was biased. Non-respondents had a significantly lower mean rank on

Total Need Satisfaction and two of the four subscales: esteem needs and belongingness and love needs. Analysis of the demographic characteristics of the respondent and non-respondent groups revealed no significant differences for organizational position, age, sex, total years teaching experience, total years experience in present position and school size characteristics.

The statistical techniques used to test the hypotheses were the Kruskal-Wallis One-Way Analysis of Variance, to determine if the sample group differed significantly from the population, and a Mann-Whitney U statistical test to identify differences between groups on Total Need Satisfaction and the four subscales of the "School Personnel Satisfaction Inventory." Chapter IV will continue by focusing upon the findings of this study.

CHAPTER IV

PRESENTATION AND ANALYSIS OF THE DATA

Introduction

Before reviewing the findings as they relate to the hypotheses, it seems appropriate to remind the reader of the meaning of high and low scores for need satisfaction as measured by the "School Personnel Satisfaction Inventory." A high score is indicative of low need satisfaction while a low score is indicative of high need satisfaction. High mean category ranks represent low group satisfaction whereas, low category mean ranks represent high group satisfaction.

Adhering to common practice, the writer indirectly accepted the alternate form of the hypothesis whenever such inferences were supported at the .05 level of significance.

Tests of the Hypotheses

Twelve hypotheses were tested for significant differences among groups by applying the Kruskal-Wallace One-Way Analysis of Variance statistical technique to the obtained data. A Mann-Whitney U statistical technique was applied as a follow-up examination of between category differences for the need levels measured by the "School Personnel Satisfaction Inventory."

Significance levels were established at the .05 level; however, more significant levels were reported where justified. All analysis of

the data was performed by use of computer library programs at Oklahoma

State University.

Hypothesis One

There are no significant differences in the total need satisfaction
of certified school personnel categorized according to hierarchical
position categories.

An analysis of differences among hierarchical position categories

of certified school personnel for total need satisfaction resulted in an

H value of 66.87 which is significant at the .001 level. Therefore, the

null hypothesis was rejected and it was concluded that significant differ-

ences for total need satisfaction exist among hierarchical position

categories of certified school personnel.

Reference to Table IV reveals that the highest mean rank for certi-

fied school personnel categorized by hierarchical position for total

need satisfaction was reported for the teacher category. The rank order

of hierarchical position categories' mean ranks, from highest to lowest,

was as follows: teacher category (176.10), supervisor category (161.71),

assistant superintendent category (109.39), superintendent category

(99.94) and the principal category (74.21).

Hypothesis Two

There are no significant differences in any of the four need satis-
faction levels (Safety, Belongingness and Love, Esteem and Self-
Actualization) among hierarchical position categories of certified
school personnel.

There were significant differences at the .001 level of confidence

among hierarchical position categories for all need levels. Therefore,

the null hypothesis was rejected. Data analysis resulted in the follow-

ing H values: safety needs, 60.96; belongingness and love needs, 43.64;

TABLE IV

COMPOSITE OF KRUSKAL-WALLIS ONE-WAY ANALYSIS OF VARIANCE MEAN RANK
BETWEEN GROUPS FOR HIERARCHICAL POSITION CATEGORIES FOR TOTAL
NEED SATISFACTION AND FOUR SUBSCALES OF THE SCHOOL
PERSONNEL SATISFACTION INVENTORY

Organization Position	Need Levels				Total Satisfaction
	Safety	Belongingness	Esteem	Self-Actualizing	
Superintendent	105.31	107.71	97.04	109.31	99.94
Assistant Superintendent	105.31	121.13	114.57	121.77	109.39
Principal	81.67	83.25	83.13	82.07	74.21
Supervisor	149.47	168.50	164.76	153.75	161.71
Teacher	177.46	165.69	171.70	169.84	176.10

Safety Needs $H = 60.96$ df $= 4$ $p < .001$
Belongingness Needs $H = 43.64$ df $= 4$ $p < .001$
Esteem Needs $H = 55.31$ df $= 4$ $p < .001$
Self-Actualizing Needs $H = 44.70$ df $= 4$ $p < .001$
Total Need Satisfaction $H = 66.87$ df $= 4$ $p < .001$

esteem needs, 55.31; and self-actualization needs, 44.70. A composite of the mean ranks for each hierarchical position category for safety needs, belongingness and love needs, esteem needs, self-actualization needs and total need satisfaction is presented in Table IV.

Data reported in Table IV indicate that the highest mean rank for the superintendent and assistant superintendent categories was for self-actualization needs. The principal category had consistant mean rankings for all need levels ranging from 81.67 for safety needs through 83.25 for belongingness and love needs. Highest mean rank for the supervisor category was for belongingness and love needs while the teacher category's highest mean rank was for safety needs.

Twenty-seven of the 40 category-to-category comparisons by hierarchical position for safety needs, belongingness and love needs, esteem needs and self-actualization needs resulted in Z scores equal to or exceeding 1.96. A Z score of 1.96 is significant at the .05 level of confidence. A composite of all category-to-category comparisons for each hierarchical position and for each of the four need levels is reported in Table V.

Differences between the category mean ranks were tested for significance. Significant differences were found between the superintendents category and the teacher and supervisor categories for all need levels. There were significant differences between the assistant superintendent category and the teacher category for all need levels. The assistant superintendent category and the supervisor category differed for all need levels except self-actualization needs. The assistant superintendent category and principal category differed significantly for all need levels except safety needs. The principal category differed

TABLE V

MANN-WHITNEY U FOLLOW-UP ANALYSIS OF KRUSKAL-
WALLIS DATA, Z SCORE CONVERSION[1] FOR
HIERARCHICAL POSITION CATEGORIES

Need Level and Group	Comparison Groups			
	Ass't Supt.	Principal	Supervisor	Teacher
Safety Needs				
Superintendent	.10	1.39	2.51*	4.54**
Assistant Superintendent		1.61	2.57*	5.02**
Principal			4.01**	6.05**
Supervisor				2.15*
Belongingness and Love Needs				
Superintendent	.84	1.37	3.18**	3.67**
Assistant Superintendent		2.39*	2.90**	3.09**
Principal			4.52**	5.35**
Supervisor				.09
Esteem Needs				
Superintendent	.98	.86	3.44**	4.81**
Assistant Superintendent		1.99*	2.77**	4.02**
Principal			4.25**	5.81**
Supervisor				.39
Self-Actualization Needs				
Superintendent	.81	1.92	2.23*	4.00**
Assistant Superintendent		2.44*	1.69	3.46**
Principal			3.65**	5.67**
Supervisor				.95
Total Need Satisfaction				
Superintendent	.70	1.70	3.30**	4.87**
Assistant Superintendent		2.23*	2.94**	4.72**
Principal			4.56**	6.57**
Supervisor				.98

* $p < .05$
** $p < .01$

[1]All Z scores are reported as absolute values.

significantly from the teacher and supervisor categories for all need levels and with the assistant superintendent category for all need levels except safety needs. The supervisor category differed significantly with the teacher category on safety needs.

Reference to Figure 1 on page 59 reveals an informative graph of the mean rankings by hierarchical position for each need level. This graph indicates that there are basically three hierarchical position categories within the school hierarchical structure with reference to need satisfactions. The categories are: principals, superintendents and assistant superintendents, and teachers and supervisors. The boundary lines between these categories are not clearly distinguished.

When examined closely, it can be seen that the principal category was not significantly different from the superintendent category nor was the superintendent category significantly different from the assistant superintendent category. However, the assistant superintendent category was significantly different from the principal category except for safety needs. Within the teacher-supervisor group, there was a significant difference between mean ranks for safety needs.

Hypothesis Three

> There are no significant differences in the total need satisfaction of certified school personnel categorized according to age.

An analysis of differences among age categories of certified school personnel for total need satisfaction resulted in an H value of 41.76 which is significant at the .001 level. Therefore, the null hypothesis was rejected and it was concluded that significant differences for total need satisfaction exists among age categories of certified school personnel.
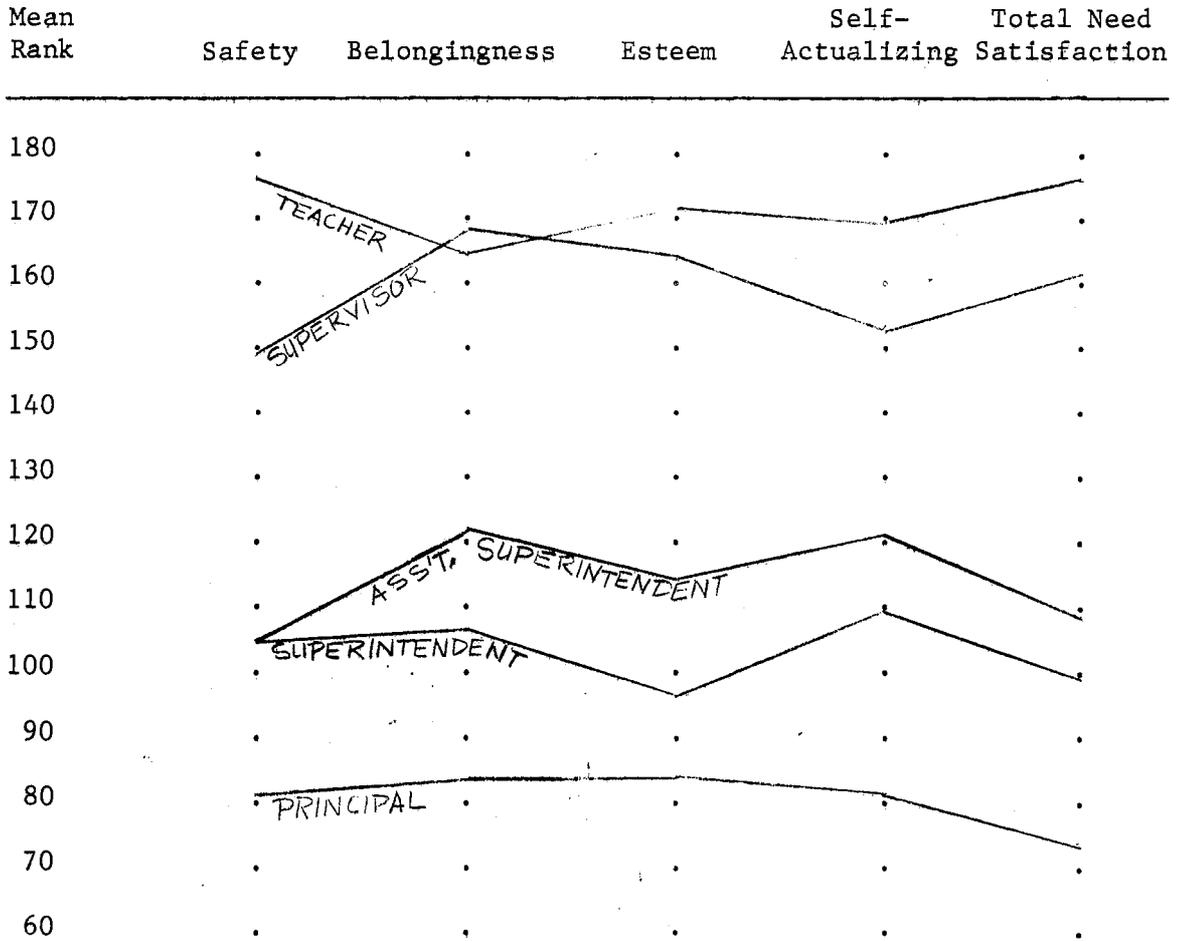
Figure 1. Graphic Illustration of Composite Mann-Whitney U Follow-Up
of Kruskal-Wallis One-Way Analysis of Variance Between
Groups for Total Need Satisfaction and Subscales: Safety,
Belongingness, Esteem, and Self-Actualization Needs for
Hierarchical Position Categories

Reference to Table VI reveals that the highest mean rank for certified school personnel categorized by age for total need satisfaction was reported for the 20-30 age category. The rank order of the age categories' mean ranks, from highest to lowest, was as follows: 20-30 (178.32), 31-40 (139.12), 41-50 (124.23), 51-60 (113.79) and 61 years and above (68.91).

Hypothesis Four

There are no significant differences in any of the four need satisfaction levels (Safety, Belongingness and Love, Esteem and Self-Actualization) among age group categories of certified school personnel.

There were significant differences, at the .001 level of confidence, among age categories of certified school pesonnel for all need levels. Therefore, the null hypothesis was rejected. Data analysis resulted in the following H values: safety needs, 41.94; belongingness and love needs, 19.45; esteem needs, 30.70; and self-actualization needs, 33.57. A composite of the mean ranks for each age category for safety needs, belongingness and love needs, esteem needs, self-actualization needs and total need satisfaction is presented in Table VI.

Data reported in Table VI indicate that the highest mean rank for the 20-30 age category was for safety needs. The 31-40 age category's highest mean rank was for belongingness and love needs. The 41-50 age category's highest mean rank was for esteem needs. The 51-60 and the 61 and above categories' highest mean rank was for belongingness and love needs.

Twenty-five of the 40 category-to-category comparisons by age groups for safety needs, belongingness and love needs, esteem needs and self-actualization needs resulted in Z scores equal to or exceeding 1.96.

TABLE VI

COMPOSITE OF KRUSKAL-WALLIS ONE-WAY ANALYSIS OF VARIANCE MEAN RANK
BETWEEN GROUPS FOR AGE CATEGORIES FOR TOTAL NEED SATISFACTION
AND FOUR SUBSCALES OF THE SCHOOL PERSONNEL
SATISFACTION INVENTORY

| Age | Need Levels | | | | Total Satisfaction |
	Safety	Belongingness	Esteem	Self-Actualizing	
20-30 Years	178.50	164.47	172.84	174.87	178.32
31-40 Years	142.84	146.88	133.10	138.09	139.12
41-50 Years	122.42	127.06	131.86	127.85	124.23
51-60 Years	110.57	124.06	120.34	113.63	113.79
61 Years and Above	72.00	87.72	74.19	80.56	68.91

Safety Needs $H = 42.94$ $df = 4$ $p < .001$
Belongingness Needs $H = 19.45$ $df = 4$ $p < .001$
Esteem Needs $H = 30.70$ $df = 4$ $p < .001$
Self-Actualization Needs $H = 33.57$ $df = 4$ $p < .001$
Total Need Satisfaction $H = 41.76$ $df = 4$ $p < .001$

A Z score of 1.96 is significant at the .05 level of confidence. A composite of all category-to-category comparisons for each age group and for each of the four need levels is presented in Table VII.

Differences between the category mean ranks were tested for significance. Significant differences were found between the 20-30 age category and the 41-50 age category, 51-60 age category and the 61 and above age category for all need levels. The 20-30 age category differed significantly from the 31-40 age category for all need levels except belongingness and love needs. Significant differences were found between all need levels when comparing the 31-40 age category and the 61 and above age category. Group comparisons between the 31-40 age category and the 51-60 age category resulted in a significant difference for safety needs. The 41-50 age category differed significantly with the 61 and above age category for all need levels except belongingness and love needs, whereas the 61 and above age category differed significantly from the 51-60 age category for esteem needs and self-actualization needs.

Reviewing Figure 2 on page 64 reveals a graph of the mean rankings by age categories for each need level. This graph indicates that there are basically three age categories within the school environment with reference to total need satisfaction. These age categories are: 20-30, 31-60 and 61 and above. The lines between these age categories are not clearly defined for all need levels. There is an over-lap between the 61 and above age category and the 31-60 age category with reference to safety needs and belongingness and love needs. Within the 31-60 age category there is a significant difference between the 31-40 age category and the 51-60 age category for safety needs. The 20-30 age

TABLE VII

MANN-WHITNEY U FOLLOW-UP ANALYSIS OF KRUSKAL-
WALLIS DATA, Z SCORE CONVERSION[1] FOR
AGE CATEGORIES

Need Level and Group	Comparison Groups			
	31-40 Years	41-50 Years	51-60 Years	61 Years & Above
Safety Needs				
20-30 Years	2.61**	4.36**	4.76**	4.60**
31-40 Years		1.35	2.00*	3.10**
41-50 Years			.85	2.39*
51-60 Years				1.79
Belongingness and Love Needs				
20-30 Years	1.26	2.89**	2.81**	3.49**
31-40 Years		1.39	1.35	2.41*
41-50 Years			.37	1.72
51-60 Years				1.69
Esteem Needs				
20-30 Years	2.96**	3.06**	3.68**	4.52**
31-40 Years		.12	.85	2.58**
41-50 Years			.73	2.44**
51-60 Years				1.98*
Self-Actualization Needs				
20-30 Years	2.96**	3.06**	3.68**	4.52**
31-40 Years		.12	.85	2.58**
41-50 Years			.73	2.44*
51-60 Years				1.98*
Total Need Deficiency				
20-30 Years	2.91**	4.15**	4.52**	4.79**
31-40 Years		1.01	1.59	3.11**
41-50 Years			.74	2.50*
51-60 Years				2.04*

* $p < .05$
** $p < .01$

[1]All Z scores are reported as absolute values.
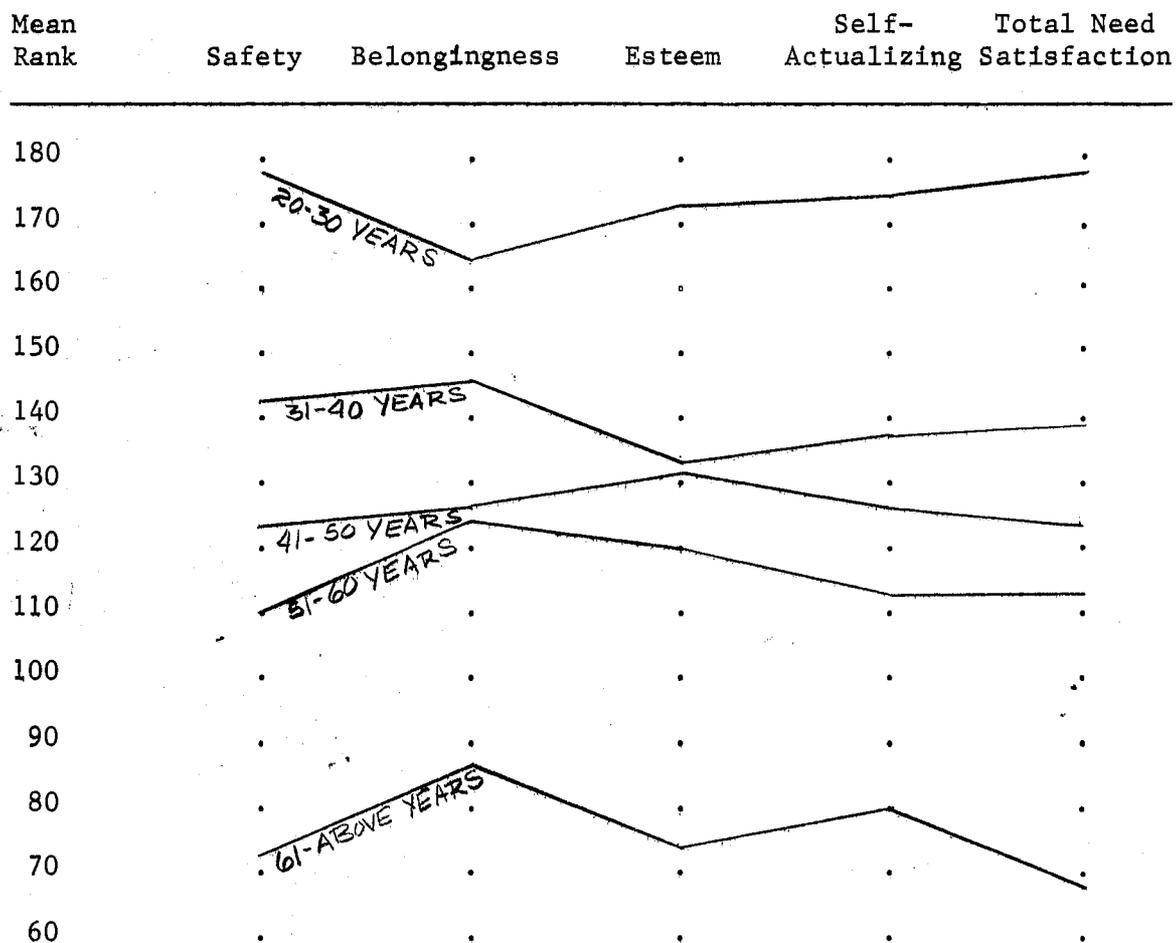
Figure 2. Graphic Illustration of Composite Mann-Whitney U Follow-Up
of Kruskal-Wallis One-May Analysis of Variance Between
Groups for Total Need Satisfaction and Subscales: Safety,
Belongingness, Esteem, and Self-Actualization Needs for
Age Categories

category merges with the 31-60 age category for belongingness and love
needs.

Hypothesis Five

There are no significant differences in the total need satisfaction
of certified school personnel categorized according to male and
female categories.

Analysis of differences between male and female categories of certi-

fied school personnel for total need satisfaction resulted in an H value

of 30.63 which is significant at the .001 level. Therefore, the null

hypothesis was rejected and it was concluded that significant differences

for total need satisfaction exist between the male and female categories

of certified school personnel.

Reference to Table VIII indicates that the highest group mean rank

for certified school personnel, categorized as male or female, for total

need satisfaction was reported by the female category whose mean rank

was 174.36. The male category's mean rank for total need satisfaction

was 119.53.

Hypothesis Six

There are no significant differences in any of the four need satis-
faction levels (Safety, Belongingness and Love, Esteem and Self-
Actualization) between male and female categories of certified
school personnel.

There were significant differences, at the .001 level of confidence,

between male and female categories of certified school personnel for all

need levels. Therefore, the null hypothesis was rejected. Data analysis

resulted in the following H values: safety needs, 22.35; belongingness

and love needs, 19.14; esteem needs, 29.18; and self-actualization needs,

22.11. A composite of the mean ranks for the male and female categories

TABLE VIII

COMPOSITE OF KRUSKAL–WALLIS ONE–WAY ANALYSIS OF VARIANCE MEAN RANK
BETWEEN MALE AND FEMALE GROUP CATEGORIES FOR TOTAL NEED
SATISFACTION AND FOUR SUBSCALES OF THE SCHOOL
PERSONNEL SATISFACTION INVENTORY

| Sex | Need Levels | | | | Total Satisfaction |
	Safety	Belongingness	Esteem	Self-Actualizing	
Male	122.75	124.16	120.10	122.88	119.53
Female	169.55	167.44	173.50	169.35	174.36

Safety Needs H = 22.35   df = 1   p < .001
Belongingness Needs H = 19.14   df = 1   p < .001
Esteem Needs H = 29.18   df = 1   p < .001
Self-Actualization Needs H = 22.11   df = 1   p < .001
Total Need Satisfaction H = 30.63   df = 1   p < .001

for safety needs, belongingness and love needs, esteem needs, self-actualization needs and total need satisfaction is presented in Table VIII.

Data in Table VIII reveal that the highest mean rank for the male category was for belongingness and love needs (124.16). The highest mean rank for the female category was for esteem needs (173.50).

Each of the five category-to-category comparisons between the male and female categories for safety needs, belongingness and love needs, esteem needs and self-actualization needs resulted in Z scores equal to or exceeding 1.96. A Z score of 1.96 is significant at the .05 level. A composite of all category-to-category comparisons for the male and female categories for each of the four need levels is reported in Table IX.

Differences between the category mean ranks were tested for significance. Significant differences were found between the male and female categories for all need levels. A graph of the male and female category mean ranks for each need level is presented in Figure 3 on page 69.

Scanning the graph in Figure 3, one may observe that the male and female categories are distinct groups with reference to need satisfaction. There was a significant difference between the male and female categories of certified school personnel for all need levels.

Hypothesis Seven

There are no significant differences in the total need satisfaction of certified school personnel categorized according to total years school experience.

TABLE IX

MANN-WHITNEY U FOLLOW-UP ANALYSIS OF KRUSKAL-
WALLIS DATA, Z SCORE CONVERSION[1] FOR
MALE AND FEMALE CATEGORIES

Need Level and Group	Comparison Group
	Male
Safety Needs	
Male	4.73**
Belongingness and Love Needs	
Male	4.38**
Esteem Needs	
Male	5.40**
Self-Actualization Needs	
Male	4.70**
Total Need Satisfaction	
Male	5.53**

**p <.01

[1]All Z scores are reported as absolute values.

Mean
Rank   Safety   Belongingness   Esteem   Self-   Total Need
                                                      Actualizing Satisfaction

180   .   .   .   .   .

170   .   .
              FEMALE

160   .   .   .   .   .

150   .   .   .   .   .

140   .   .   .   .   .

130   .   .   .   .   .

120   MALE   .

110   .   .   .   .   .

100   .   .   .   .   .

 90   .   .   .   .   .

 80   .   .   .   .   .

 70   .   .   .   .   .

 60   .   .   .   .   .
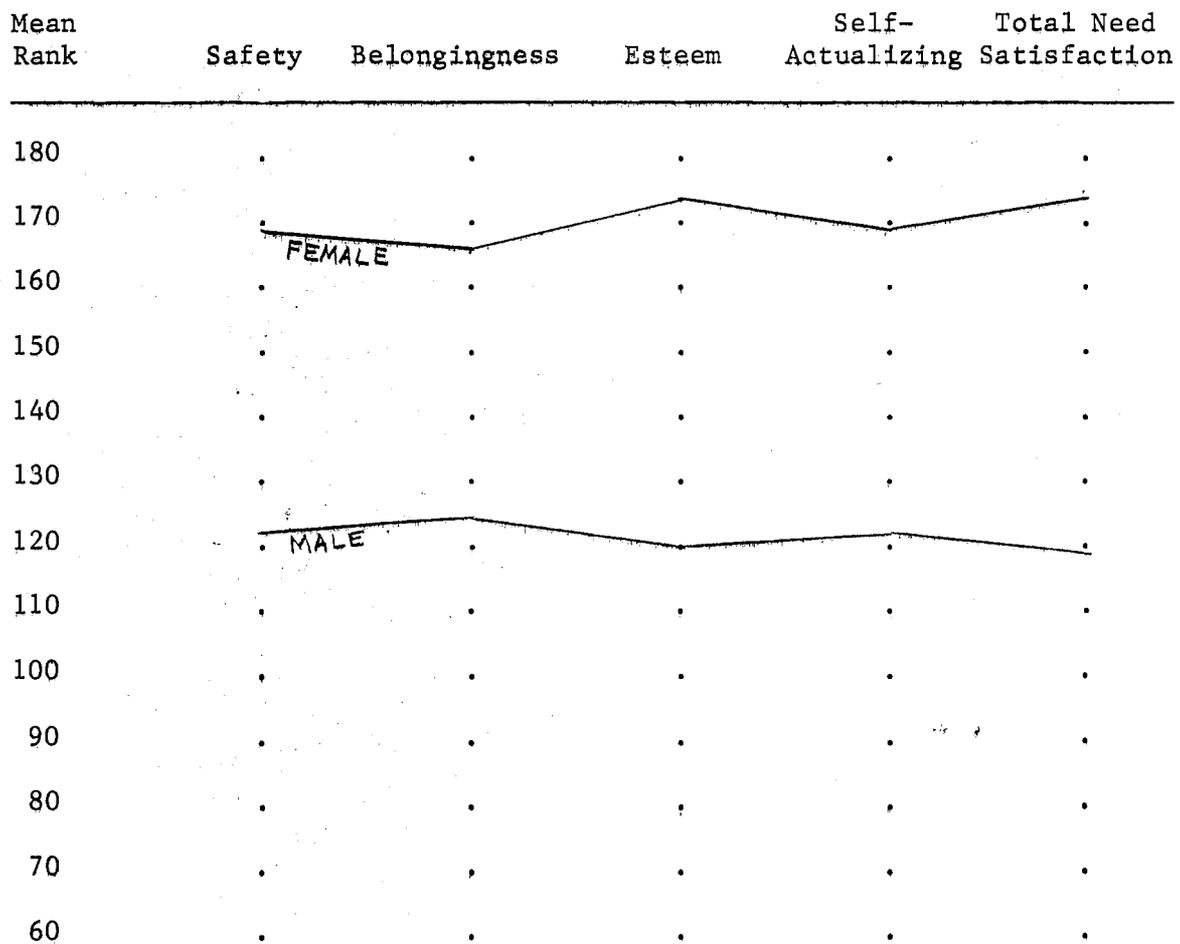
Figure 3. Graphic Illustration of Composite Mann-Whitney U Follow-Up
           of Kruskal-Wallis One-Way Analysis of Variance Between
           Groups for Total Need Satisfaction and Subscales: Safety,
           Belongingness, Esteem, and Self-Actualization Needs for
           Male and Female Categories

Analysis of differences among total years school experience cate-
gories of certified school personnel resulted in an $\underline{H}$ value of 42.89
which is significant at the .001 level. Therefore, the null hypothesis
was rejected and it was concluded that significant differences for total
need satisfaction exist among total years school experience categories
of certified school personnel.

Reference to Table X indicates that the highest mean rank for certi-
fied school personnel categorized by total years school experience for
total need satisfaction was reported for the 0-3 years total school
experience category. The rank order of the total years school experi-
ence categories mean ranks, from highest to lowest, was as follows:
0-3 years (179.10), 4-7 years (170.10), 12 years and above (113.57) and
8-11 years (94.30).

Hypothesis Eight

> There are no significant differences in any of the four need satis-
> faction levels (Safety, Belongingness and Love, Esteem and Self-
> Actualization) among the total years school experience categories
> of certified school personnel.

There were significant differences, at the .001 level of confidence,
among total years school experience categories of certified school per-
sonnel for all need levels. Therefore, the null hypothesis was rejected.
Data analysis resulted in the following $\underline{H}$ values: safety needs, 47.21;
belongingness and love needs, 20.56; esteem needs, 33.28; and self-
actualization needs, 30.10. A composite of the mean ranks for each
total years school experience category for safety needs, belongingness
and love needs, esteem needs, self-actualization needs and total need
satisfaction is reported in Table X.

TABLE X

COMPOSITE OF KRUSKAL-WALLIS ONE-WAY ANALYSIS OF VARIANCE MEAN RANK BETWEEN
GROUPS FOR TOTAL YEARS SCHOOL EXPERIENCE CATEGORIES FOR TOTAL NEED
SATISFACTION AND FOUR SUBSCALES OF THE SCHOOL
PERSONNEL SATISFACTION INVENTORY

| Total Years Teaching Experience | Need Levels | | | | Total Satisfaction |
	Safety	Belongingness	Esteem	Self-Actualizing	
0-3 Years	184.00	164.10	176.42	173.94	179.10
4-7 Years	166.97	164.67	163.84	164.42	170.10
8-11 Years	93.17	99.00	99.50	114.21	94.30
12 Years or More	112.46	123.33	117.22	116.99	113.57

Safety Needs $H = 47.21$ $df = 3$ $p < .001$
Belongingness Needs $H = 20.56$ $df = 3$ $p < .001$
Esteem Needs $H = 33.28$ $df = 3$ $p < .001$
Self-Actualization Needs $H = 30.10$ $df = 3$ $p < .001$
Total Need Satisfaction $H = 42.89$ $df = 3$ $p < .001$

Data reported in Table X indicate that the highest mean rank for the 0-3 years school experience category and the 4-7 years school experience category was for safety needs. Highest mean rank for the 8-11 years school experience category was for self-actualization needs while the 12 years or more school experience category's highest mean rank was for belongingness and love needs.

Sixteen of the 24 category-to-category comparisons by total years school experience categories for safety needs, belongingness and love needs, esteem needs and self-actualization needs resulted in Z scores equal to or exceeding 1.96. A Z score of 1.96 is significant at the .05 level of confidence. A composite of all category-to-category comparisons for each total years school experience category and for each of the four need levels is presented in Table XI.

Differences between the mean ranks were tested for significance. Significant differences were found between the 0-3 years total school experience category and both the 8-11 years total school experience category and the 12 years and above category for all need levels.

A review of Figure 4 on page 74 reveals a graph of the mean rankings, by total years school experience categories, for each need level. The data in the graph indicate that there are two population groups in the school environment, with reference to need satisfaction, when certified school personnel are categorized according to total years school experience. These groups are: 0-7 years total school experience and 8 years and above. The boundaries between these two groups were clearly delineated. There were significant differences between the two groups for all need levels.

TABLE XI

MANN-WHITNEY U FOLLOW-UP ANALYSIS OF KRUSKAL-
WALLIS DATA, Z SCORE CONVERSION[1] FOR
TOTAL YEARS SCHOOL EXPERIENCE
CATEGORIES

Need Level and Group	Comparison Groups		
	4-7 Years	8-11 Years	12 Years & Over
Safety Needs			
0-3 Years	1.30	3.28**	6.04**
4-7 Years		2.79**	4.40**
8-11 Years			.97
Belongingness and Love Needs			
0-3 Years	.12	2.44*	3.51**
4-7 Years		2.44*	3.26**
8-11 Years			1.10
Esteem Needs			
0-3 Years	.97	2.96**	4.97**
4-7 Years		2.50*	3.76**
8-11 Years			.75
Self-Actualization Needs			
0-3 Years	.82	2.32*	4.74**
4-7 Years		2.04*	3.85**
8-11 Years			.08
Total Need Satisfaction			
0-3 Years	.70	3.31**	5.49**
4-7 Years		2.89**	4.52**
8-11 Years			.81

$*p < .05$
$**p < .01$

[1]All Z scores are reported as absolute values.

Mean Rank	Safety	Belongingness	Esteem	Self-Actualizing	Total Need Satisfaction
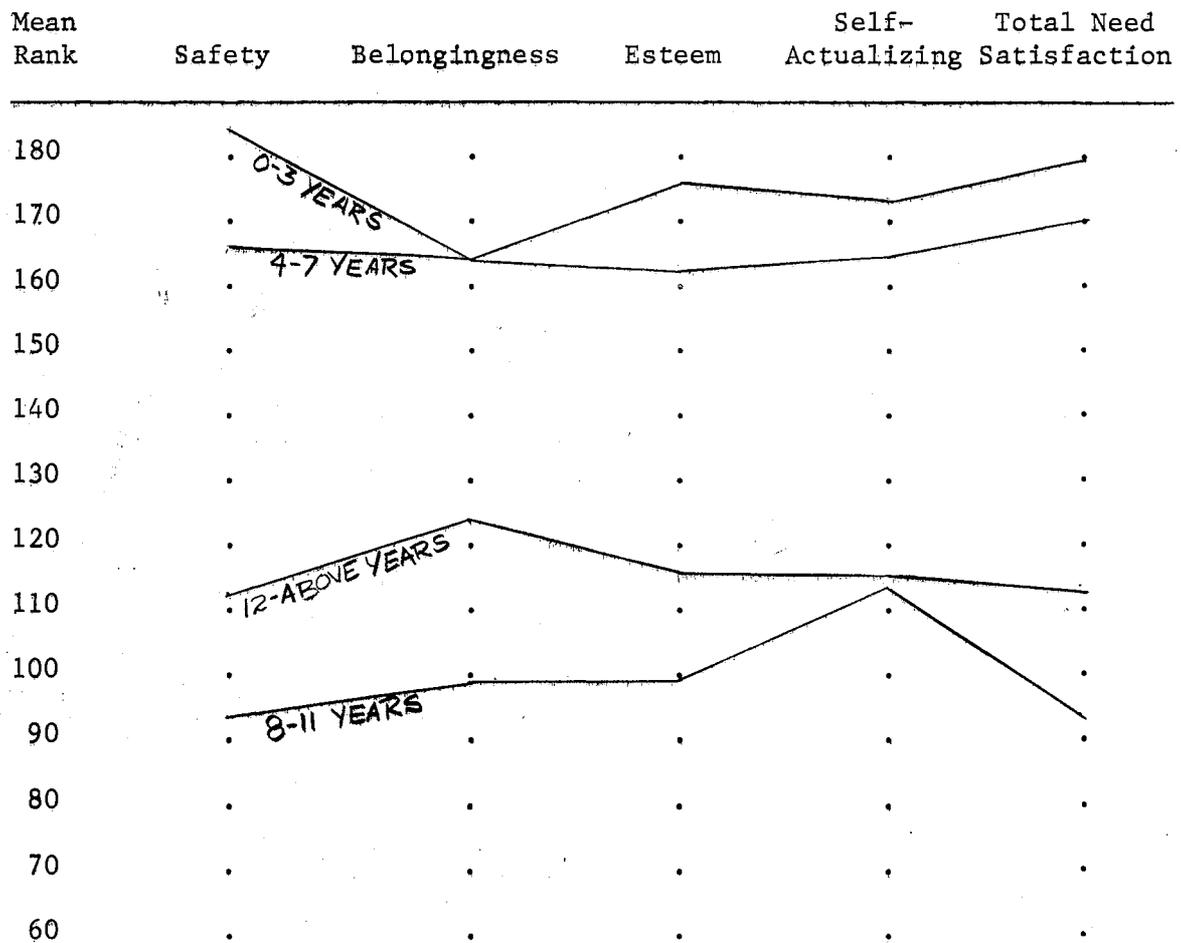
Figure 4. Graphic Illustration of Composite Mann-Whitney U Follow-Up of Kruskal-Wallis One-Way Analysis of Variance Between Groups for Total Need Satisfaction and Subscales: Safety, Belongingness, Esteem, and Self-Actualization Needs for Total Years School Experience Categories

Hypothesis Nine

There are no significant differences in the total need satisfaction of certified school personnel categorized according to years of experience in present position.

Analysis of differences among years of experience in present position categories of certified school personnel for total need satisfaction resulted in an $\underline{H}$ value of 14.68 which is significant at the .001 level of confidence. Therefore, the null hypothesis was rejected and it was concluded that significant differences for total need satisfaction are present among years of experience in present position categories of certified school personnel.

Reference to Table XII indicates that the highest mean rank for certified school personnel, categorized by years of experience in present poistion for total need satisfaction, was reported by the 0-3 years experience in present position category. The rank order of the years experience in present position categories, from highest to lowest, was as follows: 0-3 years (157.48), 4-7 years (136.67), 12 years or more (112.06) and 8-11 years (106.26).

Hypothesis Ten

There are no significant differences in any of the four need satisfaction levels (Safety, Belongingness and Love, Esteem and Self-Actualization) among years experience in present position categories of certified school personnel.

There were significant differences, at or beyond the .05 level of confidence, among years experience in present position categories of certified school personnel for all need levels. Therefore, the null hypothesis was rejected. Data analysis resulted in the following $\underline{H}$ values: safety needs, 17.02; belongingness and love needs, 9.25; esteem

TABLE XII

COMPOSITE OF KRUSKAL-WALLIS ONE-WAY ANALYSIS OF VARIANCE MEAN RANK
BETWEEN GROUPS FOR YEARS IN PRESENT POSITION CATEGORIES FOR
TOTAL NEED SATISFACTION AND FOUR SUBSCALES OF THE
SCHOOL PERSONNEL SATISFACTION INVENTORY

| Years in Present Position | Need Levels | | | | Total Satisfaction |
	Safety	Belongingness	Esteem	Self-Actualizing	
0-3 Years	157.96	153.28	155.28	154.98	157.48
4-7 Years	138.42	138.43	135.53	134.71	136.67
8-11 Years	102.64	104.78	117.70	117.36	106.26
12 or More Years	108.36	126.68	115.67	119.27	112.06

Safety Needs H = 17.02 df = 3 p < .001
Belongingness Needs H = 9.25 df = 3 p < .05
Esteem Needs H = 9.96 df = 3 p < .02
Self-Actualizing Needs H = 9.12 df = 3 p < .05
Total Need Satisfaction H = 14.68 df = 3 p < .01

needs, 9.96; and self-actualization needs, 9.12. A composite of the mean ranks for each years experience in present position category for safety needs, belongingness and love needs, esteem needs, self-actualization needs and total need satisfaction is presented in Table XII.

Data reported in Table XII indicate that the highest mean rank for the 0-3 years in present position category was for safety needs. The highest mean rank for the 4-7 years experience in present position category was for belongingness and love needs. The 8-11 year experience category's highest mean rank was for esteem needs while the 12 or more years experience in present position category's highest mean rank was for belongingness and love needs.

Eight of the 24 category-to-category comparisons by years experience in present position categories for safety needs, belongingness and love needs, esteem needs and self-actualization needs, resulted in Z scores equal to or exceeding 1.96. A Z score of 1.96 is significant at the .05 level of confidence. A composite of all category-to-category comparisons for each years experience in present position category and for each of the four need levels is presented in Table XIII.

Differences between the mean ranks were tested for significance. Significant differences were found between the 0-3 years category and the 12 years and above category for all need levels except belongingness and love needs. The 0-3 years category differed significantly from the 8-11 year category for all need levels. The 4-7 years category differed significantly with the 8-11 years category for safety needs.

Reviewing Figure 5 on page 79 it can be seen that there are two identifiable groups within the school environment when certified school personnel are categorized according to years experience in present

TABLE XIII

MANN-WHITNEY U FOLLOW-UP ANALYSIS OF KRUSKAL-
WALLIS DATA, Z SCORE CONVERSION[1] FOR YEARS
IN PRESENT POSITION CATEGORY

Need Level and Group	Comparison Groups		
	4-7 Years	8-11 Years	12 Years & Over
Safety Needs			
0-3 Years	1.77	2.94**	3.23**
4-7 Years		2.00*	1.84
8-11 Years			.73
Belongingness and Love Needs			
0-3 Years	1.36	2.62**	1.71
4-7 Years		1.90	.76
8-11 Years			1.24
Esteem Needs			
0-3 Years	1.77	2.10*	2.50*
4-7 Years		.98	1.22
8-11 Years			.06
Self-Actualization Needs			
0-3 Years	1.85	2.03*	2.26*
4-7 Years		.92	1.07
8-11 Years			.46
Total Need Satisfaction			
0-3 Years	1.90	2.73**	2.93**
4-7 Years		1.70	1.55
8-11 Years			.69

*p < .05
**p < .01

[1]All Z scores are reported as absolute values.
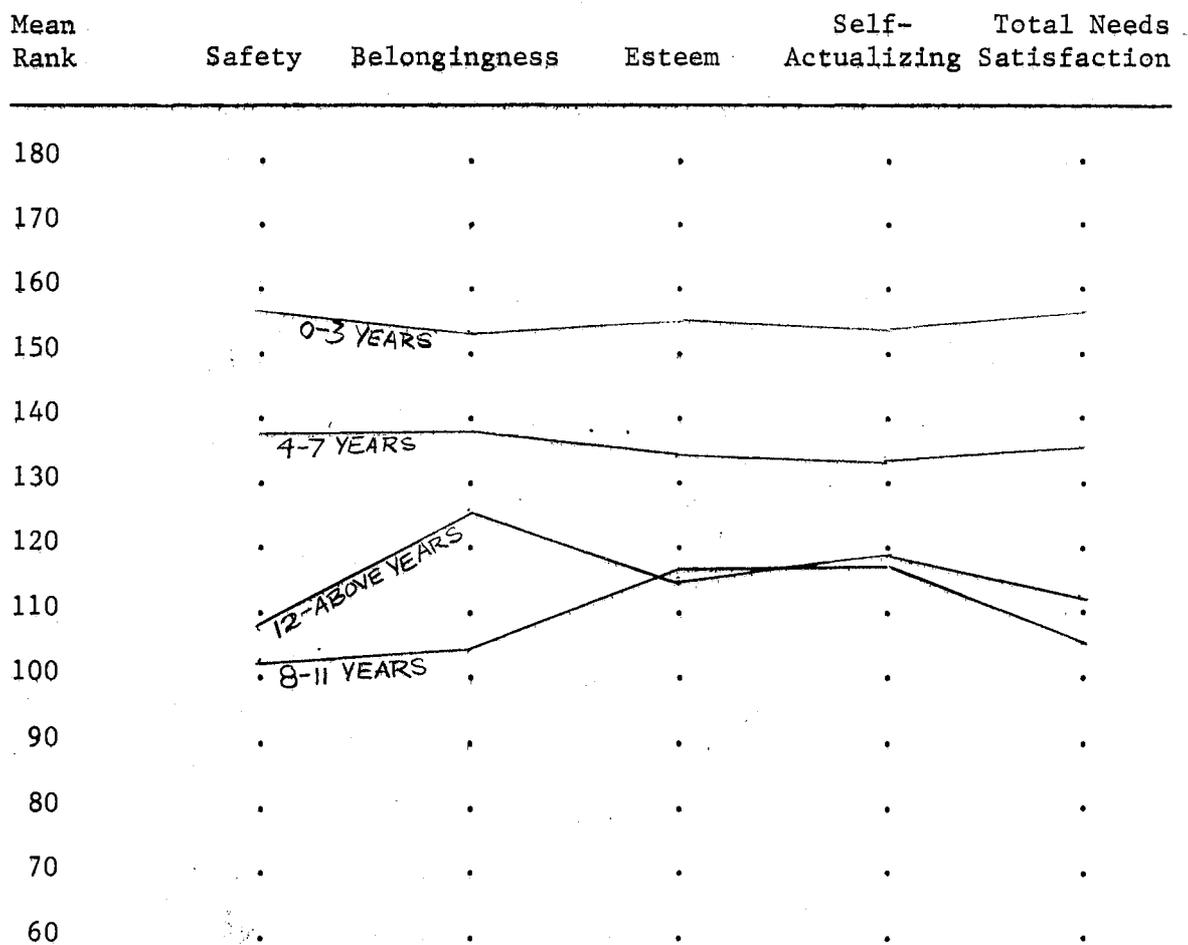
Figure 5. Graphic Illustration of Composite Mann-Whitney U Follow-Up
of Kruskal-Wallis One-Way Analysis of Variance Between
Groups for Total Need Satisfaction and Subscales: Safety,
Belongingness, Esteem, and Self-Actualization Needs for
Years in Present Position Categories

position with reference to need satisfaction. These categories were:
0-3 years experience in present position and 8-11 years experience in
present position. The 4-7 years category is significantly different
from the 8-11 years category for safety needs, but is not different
from the 12 years and above category nor the 0-3 years category for
safety needs. For all other need levels significant differences were
found between the 0-3 years experience in present position category
and the 8-11 years category of experience in present postion.

Hypothesis Eleven

There are no significant differences in the total need satisfaction
of certified school personnel categorized according to school size.

An analysis of difference among school size categories of certified
school personnel for total need satisfaction resulted in an $\underline{H}$ value of
4.97 which was not significant. The null hypothesis was accepted and
it was concluded that no significant differences for total need satis-
faction exist among school size categories of certified school personnel.

Data in Table XIV reveal that the highest mean rank for certified
school personnel categorized by school system size for total need
satisfaction was reported for the 0-1000 school system category. The
rank order of school system size categories' mean ranks, from highest to
lowest, was as follows: 0-1000 (157.89), 1001-3000 (135.91), 5000 or
more (134.48) and 3001-5000 (132.06).

Hypothesis Twelve

There are no significant differences in any of the four need satis-
faction levels (Safety, Belongingness and Love, Esteem, and Self-
Actualization) among school size categories of certified school
personnel.

TABLE XIV

COMPOSITE OF KRUSKAL-WALLIS ONE-WAY ANALYSIS OF VARIANCE MEAN RANK
BETWEEN GROUPS FOR SCHOOL SIZE CATEGORIES FOR TOTAL NEED
SATISFACTION AND FOUR SUBSCALES OF THE SCHOOL
PERSONNEL SATISFACTION INVENTORY

School Size	Need Levels				Total Satisfaction
	Safety	Belongingness	Esteem	Self Actualizing	
0-1000 Students	162.18	152.71	148.50	160.71	157.89
1001-3000 Students	137.11	136.93	135.94	136.07	135.91
3001-5000 Students	129.57	138.79	138.36	138.76	132.06
5000 Students or More	131.39	135.86	139.72	130.10	134.48

Safety Needs H = 8.07 df = 3 p < .05
Belongingness Needs H = 2.34 df = 3 p < .50
Esteem Needs H = .98 df = 3 p < .90
Self-Actualization Needs H = 7.18 df = 3 p < .10
Total Need Satisfaction H = 4.97 df = 3 p < .20

There was a significant difference, at the .05 level of confidence, among school size categories of certified school personnel for safety needs. Therefore, the null hypothesis was rejected. Data analysis resulted in the following $\underline{H}$ values: safety needs, 8.07; belongingness and love needs, 2.34; esteem needs, 0.98 and self-actualization needs, 7.18. A composite of the mean ranks for each school size category for safety needs, belongingness and love needs, esteem needs, self-actualization needs and total need satisfaction is reported in Table XIV.

Data reported in Table XIV indicate that the highest mean rank for the 0-1000 and the 1001-3000 school system size categories was for safety needs. The 3001-5000 school system size category's highest mean rank was for belongingness and love needs while the 5000 or more school system size category's highest mean rank was for esteem needs.

Three of the 20 category-to-category comparisons by school system size categories for safety needs, belongingness and love needs, esteem needs and self-actualization needs resulted in $\underline{Z}$ scores equal to or exceeding 1.96. A $\underline{Z}$ score of 1.96 is significant at the .05 level of confidence. A composite of all category-to-category comparisons for each school system size category and each need level is reported in Table XV.

Differences between the mean ranks were tested for significance. Significant differences were found for safety needs when comparing the the 0-1000 school system size category with the 3001-5000 category and the 5000 and above school system size category for safety needs. There was also a significant difference when comparing the 0-1000 school category with the 5000 and above category for self-actualization needs.

TABLE XV

MANN-WHITNEY U FOLLOW-UP ANALYSIS OF KRUSKAL-
WALLIS DATA, Z SCORE CONVERSION[1] FOR
SCHOOL SIZE CATEGORIES

Need Level and Group	Comparison Groups		
	1001-3000 Students	3001-5000 Students	Above 5000 Students
Safety Needs			
0-1000 Students	1.79	2.03*	2.57*
1001-3000 Students		.51	.42
3001-5000 Students			.03
Belongingness and Love Needs			
0-1000 Students	1.21	.79	1.40
1001-3000 Students		.10	.17
3001-5000 Students			.14
Esteem Needs			
0-1000 Students	.77	.78	.74
1001-3000 Students		.25	.31
3001-5000 Students			.02
Self-Actualization Needs			
0-1000 Students	1.74	1.45	2.55*
1001-3000 Students		1.19	.47
3001-5000 Students			.62
Total Need Satisfaction			
0-1000 Students	1.56	1.64	1.94
1001-3000 Students		.29	.10
3001-5000 Students			.06

*$p < .05$

[1]All Z scores are reported as absolute values.

Mean Rank	Safety	Belongingness	Esteem	Self-Actualizing	Total Need Satisfaction
180	.	.	.	.	.
170	.	.	.	.	.
160	.	.	.	.	.
150	.	.	.	.	.
140	.	.	.	.	.
130	.	.	.	.	.
120	.	.	.	.	.
110	.	.	.	.	.
100	.	.	.	.	.
90	.	.	.	.	.
80	.	.	.	.	.
70	.	.	.	.	.
60	.	.	.	.	.

Lines labeled: 0-1000, 1001-3000, 3001-5000, 5000-ABOVE
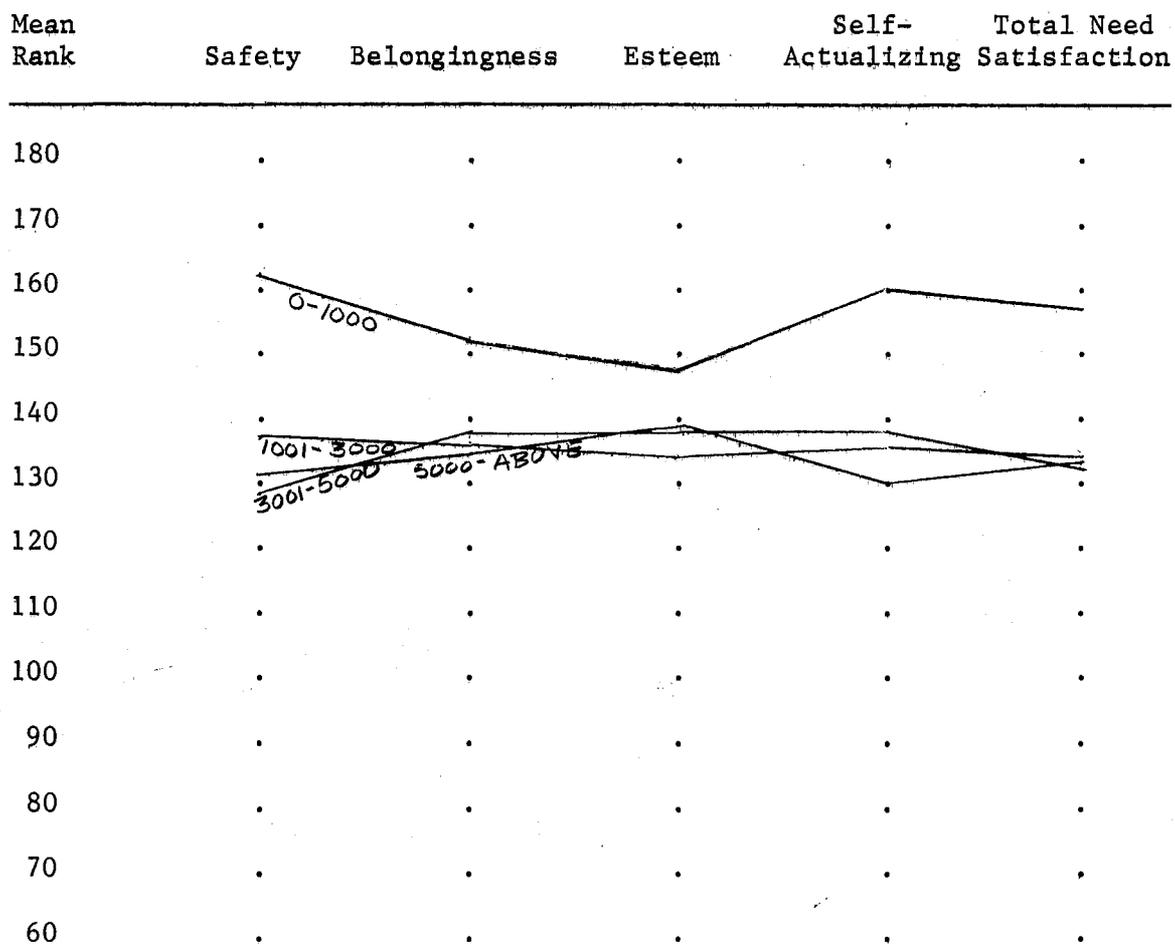
Figure 6. Graphic Illustration of Composite Mann-Whitney U Follow-Up of Kruskal-Wallis One-Way Analysis of Variance Between Groups for Total Need Satisfaction and Subscales: Safety, Belongingness, Esteem, and Self-Actualization Needs for School Size Categories

Reviewing Figure 6 on page 84 it can be seen that there is one identifiable category within the school environment when certified school personnel are categorized according to school size for need satisfaction. There are significant differences for safety needs and self-actualization needs when comparing the 0-1000 size category with the 5000 and above category and when comparing the 0-1000 school category with the 3001-5000 school category for safety needs.

Summary

Chapter four has presented the findings of the study. All hypotheses except hypothesis eleven were rejected at the .05 level of confidence. Significant differences were found among hierarchical position categories for total need satisfaction and for each of the subscales of the "School Personnel Satisfaction Inventory." There were three identifiable groups within the hierarchical position categories in terms of need satisfaction.

Significant differences were found among age categories of the sample population for total need satisfaction and for each of the subscales of the "School Personnel Satisfaction Inventory." There were three identifiable age population groups within the sample population.

Significant differences were found for all need levels measured by the "School Personnel Satisfaction Inventory" when comparing the male and female categories of the sample population. The female category's mean rank was significantly higher than the male category's mean rank for all need levels and for total need satisfaction.

Significant differences in total need satisfaction and for each of the subscales of the "School Personnel Satisfaction Inventory" were

found among the categories of the sample population categorized by total

years teaching experience. Based on the comparisons of total years

teaching experience categories, two populations were identifiable within

the sample population with reference to total need satisfaction and

the four need levels measured by the "School Personnel Satisfaction

Inventory."

Comparisons of the mean ranks of categories of school personnel

categorized by total years experience in present position resulted in

significant differences among categories for total need satisfaction and

for each of the need levels measured by the "School Personnel Satisfac-

tion Inventory." Two total experience categories were identifiable in

the sample population.

Examination of the sample population, categorized into school system

size categories, resulted in no significant difference in total need

satisfaction among categories. Significant differences among school

system size categories were found between the 0-1000 school category

and the 5000 above school category for safety needs and for self-

actualization needs. In terms of total need satisfaction, there was one

school system size category in the sample population. For safety needs

and self-actualization needs, there were two school size categories.

Chapter five will continue with a summary, conclusions, and

recommendations of the present study.

CHAPTER V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

The purpose of the present study was to investigate the differences in need satisfaction of five levels of certified school personnel categorized according to hierarchical position. The study also examined the differences in need satisfaction of certified school personnel categorized by age, sex, total years teaching experience, years experience in present position and school size.

A random sample of 504 educators in five hierarchical positions in Oklahoma public schools was selected. The sample included: 60 superintendents, 60 assistant superintendents and administrative assistants, 60 principals, 60 superviors and 264 teachers. A copy of "School Personnel Satisfaction Inventory" was mailed to each of the sample subjects, along with directions for completing the instrument and a self-addressed, stamped envelope.

Fifty-nine percent of the sample returned the questionnaire within a one-month period. A random sample of 24 non-respondents to the original "mailout" was contacted by phone to enlist their support in completing the questionnaire to conduct equivalence checks between respondent and non-respondent groups.

A Mann-Whitney $\underline{U}$ test was applied to the data from the respondent and non-respondent groups and it was determined that the groups differed

significantly for total need satisfaction, esteem needs, and belonging-
ness and love needs.

A Chi-Square analysis of six characteristics of the respondent and
non-respondent groups was completed to further determine their equiva-
lence. No significant differences between the respondent and non-
respondent groups were found for hierarchical position, age, sex, total
years school experience, total years experience in present position and
school size.

To test the hypotheses, the sample subjects were categorized accord-
ing to hierarchical position, age, sex, total years teaching experience,
years experience in present position and school size. The Kruskal-
Wallace One-Way Analysis of Variance, with a Mann-Whitney $\underline{U}$ follow-up,
was applied to the data to determine the acceptability of the hypotheses.
Two tailed tests of significance, at the .05 level, were used throughout
the study. The findings are summarized as follows:

1. There was a significant difference among hierarchical position
    categories of certified school personnel for total need satis-
    faction. The principal category was the most satisfied
    followed by the superintendent group, assistant superintendent
    group, supervisor group, and teacher group.

2. There were significant differences among hierarchical position
    categories of certified school personnel for safety needs,
    belongingness and love needs, esteem needs and self-actualiza-
    tion needs. With reference to need satisfaction, three hier-
    archical position categories emerged from the sample population.
    These categories were: teachers and supervisors, assistant
    superintendents and superintendents and principals.

3. There were significant differences among age categories of certified school personnel for total need satisfaction. As age increased, total need satisfaction increased.

4. There were significant differences among age categories of certified school personnel for safety needs, belongingness and love needs, esteem needs and self-actualization needs. Each succeedingly older age category was more satisfied for all need levels. With reference to need satisfaction, three age categories emerged from the sample population. These categories were: 20-30 years, 31-60 and 61 and above.

5. There was a significant difference between the male and female categories of certified school personnel for total need satisfaction. The female group was more dissatisfied than the male group.

6. There were significant differences among male and female categories of certified school personnel for safety needs, belongingness and love needs, esteem needs and self-actualization needs. The female category was more dissatisfied for all need levels than was the male category.

7. There was a significant difference among the total years school experience categories of certified school personnel for total need satisfaction. The most satisfied total years experience category was the 8-11 year category while the least satisfied was the 0-3 year category.

8. There were significant differences among total years experience categories of certified school personnel for safety needs, esteem needs, belongingness and love needs, esteem needs and

self-actualization needs. Satisfaction for each need level increased with each succeedingly more experienced category of certified school personnel except for the 12 years or more experience category. With reference to need satisfaction, two total experience categories emerged from the sample population. These categories were: 0-7 years experience and 8 years and above.

9. There was a significant difference among years experience in present position categories of certified school personnel for total need satisfaction. The most dissatisfied category was the 0-3 years experience category while the most satisfied was the 8-11 year category.

10. There were significant differences among years in present position categories of school personnel for safety needs, belongingness and love needs, esteem needs and self-actualization needs. With reference to need satisfactions, two categories emerged from the sample population. These categories were 0-3 years and 8 years and above. The 4-7 years category was not significantly different from the 0-3 years category or the 12 years and above category for any need levels.

11. There was no significant difference among school size categories of certified school personnel for total need satisfaction. There was some tendency for professional staff in smaller school systems to be more dissatisfied than professional staff in larger school systems.

12. There was a significant difference among school size categories of certified school personnel for safety needs. No significant

differences were found for belongingness and love needs, esteem needs and self-actualization needs. One school size category emerged for belongingness and love needs, esteem needs and self-actualization needs.

Recommendations

As a result of the present study the following recommendations are made:

1. Additional research should be initiated to further establish reliability and validity of the "School Personnel Satisfaction Inventory." Although the reliability reported for the inventory was established and considered acceptable, it must be recognized that the reliability coefficient was established with a small group of teachers and administrators. The validity of the instrument in measuring need satisfaction of school administrators has not yet been established. The instrument was developed by revision of selected items in "The Teacher Need Satisfaction Inventory," which had acceptable construct validity based on teacher groups. The validity of the instrument, to measure need satisfaction of administrators, should be investigated further to determine the quality of the instrument. Factor analysis techniques, using the obtained data from the present study, might be enlightening.

2. It is recommended that the present study be replicated. Non-equivalence of response by respondent and non-respondent groups seriously limits the generalizability of the results of the present study. The source of bias should be identified through a more controlled study. The obtained results may be clouded by

dissatisfied school personnel more readily responding to the instrument as a means of "venting" their dissatisfaction, while satisfied school personnel feel no obligation to complete the instrument.

3. The present study was somewhat broad and exploratory in design in that it attempted to determine differences in need satisfaction across hierarchical levels. Additional study is needed within each hierarchical level to determine the relationship of environmental, personal and organizational characteristics to need satisfaction.

4. It is recommended that research be initiated to identify more factors within the school environment that are related to the various need levels of the "School Personnel Satisfaction Inventory." Additionally, the four subscales should be equated in terms of total possible score for more meaningful comparisons of need satisfaction between need levels.

5. Research is needed to determine if differences in need satisfaction within specific levels of school personnel are identifiable. Comparison of responses to the "School Personnel Satisfaction Inventory" of elementary teachers, middle-school teachers, junior high teachers, and high school teachers would provide valuable data related to need satisfaction of school personnel.

6. It is recommended that the need satisfaction of school personnel in different types of school settings be investigated. The need satisfaction of administrators and teachers in private schools, business schools and vocational schools should be

assessed to determine if there are significant differences in
need satisfaction among these groups of certified school per-
sonnel and if the concept of need satisfaction is applicable to
all types of school settings.

7. Research relating to the relationship of organizational charac-
teristics and need satisfaction should be initiated. Need
satisfaction may be related to such organizational character-
istics as leadership styles, pupil control ideology, militancy
of the staff or climate of the school.

8. It is recommended that the "School Personnel Satisfaction Inven-
tory" be adapted for examining the need satisfaction of popu-
lations outside the school environment. It should be determined
if the instrument is a useful tool for measuring need satisfac-
tion of professionally trained personnel in other occupational
areas such as health occupations, university and college pro-
fessors, municipal and state level governmental administrative
employees, social workers and administrative personnel in
business and industry.

Conclusions and Implications

The design of the present study prohibits the establishment of
cause and effect relationships in the findings of the research study.
Therefore, cause and effect should not be implied. The reader is cau-
tioned that he should be aware of this limitation when reviewing the
conclusions and implications of the study. The following conclusions
were derived from the study.

1. The hierarchy of needs concept, as operationally defined,
   appears to be an appropriate indicator of job satisfacation
   for certified school personnel.

2. Individual need satisfaction tends to increase with hierarchical
   position, age, years of school experience and years experience
   in present position. It may be that needs which tend to
   motivate change over time from the lower order needs for safety
   and security to the higher order needs for esteem and self-
   actualization.

3. With respect to need satisfaction, three hierarchical position
   populations were identified within the school environment.
   Ranging from more satisfied to less satisfied, those popula-
   tions were principals, assistant superintendents, and super-
   intendents, and teachers and supervisors.

4. Administrators consistently perceived themselves as more satis-
   fied for all need levels than did teachers and supervisors.

Once again, the findings of the study appear to give evidence that
the hierarchy of needs concept is an appropriate measure of job satis-
faction for certified school personnel. The total need satisfaction
score and the scores for the subscales of the "School Personnel Satis-
faction Inventory" provide usable measures of the degree to which the
expectations of school employees are being met within the school
environment.

The more practical implications of the findings of the study are
in the area of personnel policy development and administration. First,
to the school boards and administrators who are concerned with the
morale of their staffs, the need satisfaction concept provides a method

by which employee morale can be assessed. Such measurement can provide the framework for determining possible strengths and weaknesses in present environmental conditions that contribute to employee morale. Second, personnel policies that contribute to the safety and security needs of the professional staff will not be as effective with the principals and superintendent and assistant superintendent-level personnel as with the teacher and supervisory personnel. Conversely, policies that provide more opportunities for esteem and self-actualization will be more effective with the principals, assistant superintendents and superintendents and less effective with the teachers and supervisors. Policies that would provide for belongingness and love needs appear to be the most appropriate for improving employee morale at all levels. There is support for opening up the opportunities for advancement within a given system. More avenues for advancement of lower level employees should be effective in increasing morale at the lower end of the organizational hierarchy.

There are implications for management with reference to negotiating with teacher and administrative groups over the conditions of work. Salary and fringe benefit inducements will be more productive with the supervisor and teacher level personnel while participative management and decision making would be more productive with the principals, superintendents and assistant superintendents.

The conclusions of the study have strong implications with reference to teacher evaluation and supervision. It would appear that more direct evaluation by the supervisor would be more effective than evaluation by the school administration. It is speculated that teachers would more readily accept the evaluation of a supervisor and, in turn, the work

activities of the supervisor would be enlarged to provide growth opportunities in terms of decision making and active participation within the organizational structure.

The implications of the study have meaning for the present organizational structure of public schools. Present organizational structures do not provide sufficient opportunities for professional growth and individual self-actualization. This is especially true with reference to certified teachers and supervisors. More opportunities for vertical advancement of teachers and supervisors should be provided within the hierarchical structure of public schools. A separate hierarchy, as suggested by Trusty and Sergiovanni (1966), based on professional training and teaching skills, is needed for those teachers and supervisors who do not wish to follow the conventional path to promotion by leaving the classroom and going into school administration.

Though more definitive answers may await greater depth of research, the present study has at least opened a door into the realm of linking bureaucratic structure to the individual needs of organizational participants. Further fruitful inquiry should be accomplished, but the usefulness of these concepts are apparent in thinking about organizations. If people are to live and be productive in the organizational setting, attention must be drawn to these matters while both theory and practice must be advanced.

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APPENDIX A

COVER LETTER MAILED TO SUBJECTS

810 S. Orchard Lane
Stillwater, Oklahoma 74074
February 23, 1973

Dear

As a part of research under way in educational administration at Okla-
homa State University, we are studying the differences in organizational
position and need satisfaction of professional school employees in
Oklahoma. To complete the study a random sample of professional educa-
tors including teachers, principals, supervisors, coordinators, assistant
superintendents, administrative assistants, and superintendents have
been chosen from the personnel records at the Data Center, State Depart-
ment of Education, Oklahoma City, Oklahoma. Your name is included in
this statewide sample.

I would like to request that you complete the enclosed questionnaire
and return it to me in the stamped, return envelope provided for your
convenience. To complete the questionnaire will require twenty minutes
or less of your time.

Let me assure you that all responses which you make to the questionnaire
will remain confidential. Neither you nor your school will be identi-
fied during this study or in the written results; therefore, please
feel free to express your perceptions of the statements that comprise
this questionnaire.

Thank you very much for giving your time to this study. Your question-
naire responses are sincerely appreciated and will contribute to a
better understanding of the differences in need satisfaction of profes-
sional school personnel as a function of organizational position.

Sincerely,

Larry Catherwood

Enclosure

LC/XHB-01/17

APPENDIX B

SCHOOL PERSONNEL SATISFACTION INVENTORY

Department of Education
Research Project

Dr. Kenneth St. Clair
Project Coordinator

BIOGRAPHICAL DATA: (circle the characteristics below which best
describe you or your school)

Age: 20-30
            31-40
            41-50
            51-60
            Over 60

Sex: Male
            Female

Total years experience as an educator:
            0-3 Yrs.
            4-7 Yrs.
            8-11 Yrs.
            12 Yrs. and above

Present position:
            Elementary teacher
            Junior high teacher
            High school teacher
            Elementary principal
            Junior high principal
            High school principal
            Supervisor or coordinator
            Assistant superintendent
            Administrative assistant
            Superintendent
            Other job title (Specify)

Total years experience in present position:
            0-3 Yrs.
            4-7 Yrs.
            8-11 Yrs.
            12 Yrs. and above

Approximate number of students in school system:

            0-1000
            1001-3000
            3001-5000
            Above 5000

SCHOOL PERSONNEL SATISFACTION INVENTORY

Purpose: This questionnaire is designed to measure certain factors of the school which are considered important in satisfying the personal needs of professional personnel.

Directions:

1.   Your task, as a respondent to this questionnaire, is that of rating given statements on two scales. These scales are designed to reflect your view of the importance of the given statements, ranging them from a low value of one, to a high value of seven.

2.   Each of the given statements will be placed on two scales: the "Importance to Me" scale, and the "Importance to My School" scale.

    A.   The "Importance to Me" scale represents the importance of each statement as it pertains to you personally. How important is the statement to you?

    B.   The "Importance to My School" scale represents the importance of each statement as you see your school placing value upon it. For example, if the statement reads, "To have clear school policies," and you see your school's policies as being vague, you should indicate that this factor is not valued to a great extent by your school. Thus, it should be rated toward the low end (one) of the scale. The exact rating is your decision, but remember that if you view the school as not placing importance on the item, you should rate it low; or, if you view the school as valuing that item, you rate it higher with seven being the highest possible rating. (Note: Here you must arrange the statements on the scale AS YOU SEE THE SITUATION TO BE, NOT AS YOU FEEL IT SHOULD BE.)

EXAMPLE:

	STATEMENTS	SCALES	
		Importance To Me	Importance To My School
		Low ⟶ High	Low ⟶ High
1.	Larger Salaries	1 2 3 4 5 6 ⑦	① 2 3 4 5 6 7
2.	Shorter Work Week	1 2 3 ④ 5 6 7	1 2 3 4 ⑤ 6 7
3.	More Fringe Benefits	1 2 ③ 4 5 6 7	1 2 ③ 4 5 6 7

The example above indicates that larger salaries (1.) are very important to me, but my school's salary schedule (1.) is far from optimum in my view. To me, a shorter work week (2.) is fairly important; to my school it (2.) is more important. The importance of fringe benefits is the same (3.) (3.); that is, the school providing just enough fringe benefits to satisfy me.

STATEMENTS		SCALES	
		Importance To Me	Importance To My School
		Low ➤ High	Low ➤ High
1.	To have clearly stated and enforced school policy which provides protection for professional personnel from irate parents.	1 2 3 4 5 6 7	1 2 3 4 5 6 7
2.	To have enough materials to satisfactorily accomplish my job responsibilities.	1 2 3 4 5 6 7	1 2 3 4 5 6 7
3.	To have a clearly stated and enforced school policy concerning student conduct.	1 2 3 4 5 6 7	1 2 3 4 5 6 7
4.	To have a definite and stable schedule of upcoming activities, classes, and events for the school term.	1 2 3 4 5 6 7	1 2 3 4 5 6 7
5.	To have school participation in health and liability insurance programs for professional staff members.	1 2 3 4 5 6 7	1 2 3 4 5 6 7
6.	To have a clearly stated school policy with respect to my responsibilities and duties.	1 2 3 4 5 6 7	1 2 3 4 5 6 7
7.	To know, well in advance, where and what my responsibilities will be.	1 2 3 4 5 6 7	1 2 3 4 5 6 7
8.	To have clear administrative guidelines on how the professional staff should conduct themselves.	1 2 3 4 5 6 7	1 2 3 4 5 6 7
9.	To have contracts issued well in advance of the beginning of the school year.	1 2 3 4 5 6 7	1 2 3 4 5 6 7
10.	To have strong administrative backing for the professional staff in all areas of their work.	1 2 3 4 5 6 7	1 2 3 4 5 6 7
11.	To have physical facilities which are safe in terms of fire, storms, accidents, etc.	1 2 3 4 5 6 7	1 2 3 4 5 6 7
12.	To have consistent administrative backing of professional level employees with respect to student disciplinary matters.	1 2 3 4 5 6 7	1 2 3 4 5 6 7

STATEMENTS	SCALES	
	Importance To Me	Importance To My School
	Low——►High	Low——►High
13. To have social activities where the professional staff can relax and really get to know each other.	1 2 3 4 5 6 7	1 2 3 4 5 6 7
14. To have a close, personal, and working relationship with other professionals within my area of specialization.	1 2 3 4 5 6 7	1 2 3 4 5 6 7
15. To have social activities which include both teachers and the administrative staff.	1 2 3 4 5 6 7	1 2 3 4 5 6 7
16. To have the feeling that students and professional staff are a cooperative group working together for the benefit of themselves and others.	1 2 3 4 5 6 7	1 2 3 4 5 6 7
17. To have the feeling of being a necessary part of the entire school program.	1 2 3 4 5 6 7	1 2 3 4 5 6 7
18. To feel a close bond with my fellow professionals.	1 2 3 4 5 6 7	1 2 3 4 5 6 7
19. To have a helpful situation where the professional staff can work together and share ideas.	1 2 3 4 5 6 7	1 2 3 4 5 6 7
20. To feel a close bond with the school administrator.	1 2 3 4 5 6 7	1 2 3 4 5 6 7
21. To feel welcome in my supervisor's office.	1 2 3 4 5 6 7	1 2 3 4 5 6 7
22. To have faculty unity; that is, a close knit group feeling.	1 2 3 4 5 6 7	1 2 3 4 5 6 7

	STATEMENTS	SCALES	
		Importance To Me	Importance To My School
		Low ⟶ High	Low ⟶ High
23.	To have quality work recognized by the school's administration.	1 2 3 4 5 6 7	1 2 3 4 5 6 7
24.	To be told by my superior that I am doing a good job and contributing to the school effort.	1 2 3 4 5 6 7	1 2 3 4 5 6 7
25.	To be recognized as a competent professional by students and my peers.	1 2 3 4 5 6 7	1 2 3 4 5 6 7
26.	To be viewed as a professional by those who are outside the school system.	1 2 3 4 5 6 7	1 2 3 4 5 6 7
27.	To have an administration which DOES NOT have a paternal attitude toward its professional employees.	1 2 3 4 5 6 7	1 2 3 4 5 6 7
28.	To have a means by which professional personnel can display their professional competencies.	1 2 3 4 5 6 7	1 2 3 4 5 6 7
29.	To have an administration which makes the professional personnel feel they are a meaningful part of the decision-making process of the school.	1 2 3 4 5 6 7	1 2 3 4 5 6 7
30.	To have an administration which views professionals as such rather than simply a work force.	1 2 3 4 5 6 7	1 2 3 4 5 6 7

STATEMENTS	SCALES	
	Importance To Me	Importance To My School
	Low———►High	Low———►High
31. To have an excellent in-service training program and a professional library for the staff.	1 2 3 4 5 6 7	1 2 3 4 5 6 7
32. To be allowed to try new approaches in conducting my professional duties.	1 2 3 4 5 6 7	1 2 3 4 5 6 7
33. To have freedom in the conduct of my professional duties.	1 2 3 4 5 6 7	1 2 3 4 5 6 7
34. To pursue my own goals for my position duties with only minimum guidelines from the administration.	1 2 3 4 5 6 7	1 2 3 4 5 6 7
35. To be in a situation where "respect for the dignity of the individual" is the common practice.	1 2 3 4 5 6 7	1 2 3 4 5 6 7
36. To be accepted for my true self and ideals.	1 2 3 4 5 6 7	1 2 3 4 5 6 7

VITA

Larry King Catherwood

Candidate for the Degree of

Doctor of Education

Thesis: A STUDY OF HIERARCHICAL POSITION AND NEED SATISFACTION OF
      PROFESSIONAL SCHOOL PERSONNEL

Major Field: Educational Administration

Biographical:

   Personal Data: Born in Anthony, Kansas, December 26, 1935, the
      son of Mr. and Mrs. Carl Catherwood.

   Education: Graduated from Claremore High School, Claremore, Okla-
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      Junior College, Wichita State University, Northwestern
      State College during the period 1954 to 1962; received the
      Bachelor of Arts degree from Northwestern State College in
      1962 with a major in Social Studies; attended Northwestern
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      degree from Oklahoma State University in 1965, with a major
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      State College at Pittsburg; completed requirements for the
      Doctor of Education degree at Oklahoma State University in
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   Professional Experience: United States Army, 1958 through 1960;
      classroom teacher and athletic coach, Pond Creek, Oklahoma,
      1962-1963, and Carmen, Oklahoma, 1963-1964; NDEA Institute
      in Guidance and Counseling, Oklahoma State University, 1964-
      1965; guidance counselor, Parsons Public Schools, Parsons,
      Kansas, 1965-1968; assistant principal, Stillwater Junior
      High School, Stillwater, Oklahoma, 1968-1969; assistant
      principal, C. E. Donart High School, Stillwater, Oklahoma,
      1969-1971; graduate research assistant, Oklahoma State Uni-
      versity, with the State Department of Vocational and Techni-
      cal Education, Stillwater, Oklahoma, 1971-1973.