

PERCEIVED NEED SATISFACTION AND
TEACHER PERMANENCE

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PREFACE

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CHAPTER I

THE RESEARCH PROBLEM

Introduction

The relationship between man and his environment is a most complex, intricate, and crucial phenomenon. It is complex due to the many-faceted nature of man's personality, intricate in that a delicate balance between man and environment must be maintained, and crucial since the outcome of such a relationship will, in large part, determine the state of man and the state of man's environment. To view such a relationship and its possible outcomes first requires a view of the participants themselves.

By his inherent nature, man is both a rational and irrational being (Junell, 1970). His rational nature might be characterized by such terms as logic, stability, reason, structure, and direction. On the other hand, his irrational nature might be characterized by the opposite of these rational terms, that is, by illogic, instability, unreasonableness, non-structure, and non-direction. In addition, it might be said that man reflects the characteristics of his nature through both rational and irrational behavior which, if one accepts a learning theorist's view of personality, can be viewed in part as a response to perceived environmental stimuli. Perception is unique to each individual and, according to Griffiths (1960, p. 145),

. . . is that part of the process of living by which each one of us, from his own particular point of view, creates for himself the world within which he has his life's experiences and through which he strives to gain his satisfactions.

Thus, man, if he is to express his total nature, must be capable of behaving, in view of his perceptions, both rationally and irrationally.

Our society, in its highly industrialized stage of development, is to a great extent rational in nature. This is evidenced by a general "can do" attitude which implies that there is some rational means to any end state. Our society is also characterized by goal oriented institutions which, to varying degrees, reflect the rational elements of a bureaucracy. Schools within such a society are no exception. They too are characterized by such bureaucratic elements as a division of labor, a definition of staff roles as offices, a hierarchic ordering of offices, and operation according to rules of procedure (Bidwell, 1965).

Merton (1969, p. 49) implies incompatibility between rational and irrational elements within a system as he indicates the chief merit of bureaucracy to be,

. . . its technical efficiency, with a premium placed on precision, speed, expert control, continuity, discretion, and optimal returns on input. The structure is one which approaches the complete elimination of personalized relationships and nonrational considerations. . . .

What happens then, when man is placed in an environment which emphasizes rational behavior and limits or prohibits irrational behavior? What happens when the environment prohibits the full expression of man's nature? Does this situation affect man to such an extent that it elicits frustration, dissatisfaction, disgust, or alienation? How does man react when he finds himself in such a rationally oriented environment?

These questions are extremely complex and, at present, are largely unanswered. A very general answer may, however, have been alluded to by Stern (1969, p. 727) who, in reporting a study of the effects of intra-institutional environments at a large university states, "An environment must be suited to the species; if it isn't the organisms either die, or go elsewhere."

The present study will focus on one aspect of the complex questions posed above: to test perceived need satisfaction as a possible factor with respect to teacher permanence. The orientation of this study is such that it does not prostitute the idiosyncratic nature of the perceived need satisfaction variable. Rather, it retains this aspect through development of an instrument with inherent characteristics such that the instrument becomes separate and distinct for every respondent.

Statement of the Problem

The present study will explore the perceived need satisfaction of public school teachers as a possible factor with respect to teachers' willingness to persist within a particular high school.

The basic question to be answered is, "Does perceived need satisfaction comprise a possible factor with respect to teacher permanence?"

Significance of the Study

Although several studies have been conducted within the area of need satisfaction, the present study differs from others in this area in terms of the technique employed. The uniqueness of the present approach lies mainly in development of instrumentation for determining perceived need satisfaction. Of primary importance during this

developmental period was the consideration that individuals are unique organisms, each with its own weighted hierarchy of wants and desires. In view of the above consideration, the only appropriate scaling technique to employ appeared to be one resulting in data of an idiosyncratic nature, that is, a technique which produces an instrument with inherent characteristics such that the instrument elicits data which is weighted, separately and distinctly, for every individual respondent. This technique is discussed extensively in Chapter 3. Development of such a technique represents one contribution of the study.

In addition, the present research will lay groundwork pointing to environmental areas where adaptation may result in a situation more conducive toward an individual's personal satisfaction.

Definition of Selected Terms

The following are definitions of selected terms which will serve to promote a better perspective and understanding of the study:

Goal object - objects of either a cognitive or affective nature which will elicit first, goal object strength; that is, a perceived strength of desire of the object by an individual, and second, goal object satisfaction; that is an individual's perception of the degree of presence of the goal object within the work environment.

Goal object strength - operationally, a score assigned by an individual to a goal object by placing the goal object on a 100 point scaled continuum representing the perceived importance of the goal object to the individual. This continuum is entitled "Importance To Me."

Goal object satisfaction - operationally, a score assigned by an individual to a goal object by placing the goal object on a 100 point scaled continuum representing the perceived importance of the goal object to the school in which the individual is teaching. Goal object satisfaction represents the individual teacher's perception of the value or importance assigned to the goal object by the school. Value or importance is evidenced by the degree of presence of the particular goal object within the school environment.

Sums of positive algebraic differences ($\Sigma+D$) - operationally, the $\Sigma+D$ value is computed for each need level through three computational steps. First, goal object strength and goal object satisfaction scores for each item are objectively determined. Second, the goal object satisfaction score is subtracted from the goal object strength score. Items with negative difference scores are regarded as having "zero" motivational value and thus, are assigned a score of zero. Items with positive difference scores are regarded as having motivational value. Thus, numerical scores of items with positive differences are retained. Third, positive difference scores are summed for each of the need levels. The third step operationalizes the $\Sigma+D$ concept.

Perceived need satisfaction - in the present study, perceived need satisfaction is defined as being the degree of congruence between an individual's perceived strength of desire for an object and his perception of the presence of the same object within the work environment. Operationally,

perceived need satisfaction is indicated by differentially weighted sums of positive algebraic difference scores (ΣD). Weighting provides "on sight" comparability between scores of the various needs levels which are comprised of differing numbers of items. Differential weights of 1.0, 1.2, 1.5, and 2.0 are assigned respectively to safety needs, belongingness and love needs, esteem needs, and self-actualization needs. The resulting weighted scores provide the operational definition. A small weighted score indicates a higher degree of perceived need satisfaction whereas a large weighted score indicates a lower degree of perceived need satisfaction. Results of statistical tests employed in the present study are not affected by such weighting, that is, results using "raw" or "weighted" data are identical.

Safety needs - operationally, safety needs are represented by instrument items consistent with goal objects falling under the general categories of school policies, administrative backing of teachers, physical facilities, participation in group insurance programs, schedules of upcoming school events, and adequate school materials.

Belongingness and love needs - operationally, belongingness and love needs are represented by instrument items consistent with goal objects which fall under the general categories of teacher social activities, teacher and administrator social activities, group feeling and unity among teachers, closeness between administrators and teachers, cooperation among teachers, the school as a close knit social unit, and

closeness between teachers and students.

Esteem needs - operationally, esteem needs are represented by instrument items consistent with goal objects which fall under the general categories of recognition of quality teaching by the administration, recognition of good teaching by other teachers, community respect, opportunities to display teaching accomplishments, respect from students, respect from the administration, and the absence of any paternal attitude of administrators toward teachers.

Self-actualization needs - operationally, self-actualization needs are represented by instrument items consistent with goal objects which fall under the general categories of freedom to enter into new ways of teaching, freedom to select course content and ways of presenting it within a specific course, a situation where respect for the dignity of the individual is common practice, acceptance of the individual's true self and ideals, and facilities for quality in-service training and a professional library.

Willingness to persist - operationally, the "willingness to persist" concept refers to those teachers who select the statement: "IN VIEW OF MY WORK ENVIRONMENT ONLY, at the present time I feel that I would not like a change in teaching assignment from my present position to one in another school." As used in the present study, "permanence" also refers to the "willingness to persist" concept and is used interchangeably.

Unwillingness to persist - operationally, unwillingness to persist refers to those teachers who select the statement which

reads: "IN VIEW OF MY WORK ENVIRONMENT ONLY, at the present time I feel that I would like a change in teaching assignment from my present position to one in another school."

Total needs - operationally, the total needs concept indicates the combined perceived need satisfaction scores for all needs levels (i.e., an individual's safety need score plus his belongingness and love need score plus his esteem need score plus his self-actualization need score).

Rationale

In view of Stern's (1962, p. 727) statement to the effect that organismic survival depends upon congruence between an organism and its environment, it appears that two alternative approaches may be taken to achieve such a state or condition. First, given a specific organism, an appropriate environment may be selected which is conducive to the organism's survival. Second, given a specific environment, an appropriate organism may be selected on the basis of its ability to survive within this environment.

A degree of consistency is seen between Stern's statement and a theoretical construct of organizational equilibrium reported by March and Simon (1969) who indicate that individuals working within organizations perceive themselves in a particular state of congruence or incongruence with respect to their contributions made to the organization and, in return, their inducements received from the organization. Consistency between Stern and March and Simon can be seen when one equates organizational inducements with environmental factors and individual contributions with organismic factors. These contributions

and inducements are perceived by the organizational participants in terms of their utility value, that is, in terms of their usefulness, appropriateness, or importance to the individual at any particular time. With respect to the work environment of an individual, the degree of congruence or incongruence between the perceived contribution utilities and inducement utilities will, in part, determine the degree of his satisfaction or dissatisfaction. According to March and Simon (1969, p. 79),

To estimate the inducement-contribution utility balance directly, the most logical type of measure is some variant of individual satisfaction (with the job, the service, the investment, etc.). It appears reasonable to assume that the greater the difference between inducements and contributions, the greater the individual satisfaction.

March and Simon (1969, pp. 79-80) warn however that there is a distinct difference between a measure of individual satisfaction and a measure of the inducement-contribution utility balance. They state,

However, the critical "zero points" of the satisfaction scale and the inducement-contribution utility balance are not necessarily identical. The zero point for the satisfaction scale is the point at which one begins to speak of degrees of "dissatisfaction" rather than "satisfaction." It is, therefore, closely related to the level of aspiration and is the point at which we would predict a substantial increase in search behavior on the part of the organism. . . . The zero point on the inducement-contribution utility scale, on the other hand, is the point at which the individual is indifferent to leaving the organization. . . . Consequently, we can use satisfaction expressed by the individual as a measure of the inducement-contribution utility balance only if it is used in conjunction with an estimate of perceived alternatives available. Speaking roughly, only the desire to move enters into judgements of satisfaction; desire to move plus the perceived ease of movement enters into the inducement-contribution utility measure.

Sullivan (1950, p. 85) views need satisfaction as resulting from the reduction of tensions within the individual. Thus, he regards tensions

. . . as needs for particular energy transformations which will dissipate the tension, often with an accompanying change of 'mental state,' a change of awareness, to which we can apply the general term satisfaction.

Maslow (1954) speaks to this change in mental state and change in awareness as he proposes a prepotent motivational concept with respect to general needs areas. He identifies five general needs areas which an individual will attempt to satisfy in a prepotent manner. These needs areas are arranged hierarchially, with physiological needs representing the lowest prepotent level within the hierarchy, as follows:

5. Self-actualization needs
4. Esteem needs
3. Belongingness and love needs
2. Safety needs
1. Physiological needs

Maslow's motivation theory is based on the state of satisfaction of the above listed needs, that is, behavior is in part determined by a particular need which is unsated. Therefore, an individual who is starving is motivated to behave in a manner which will serve to satisfy this physiological need. Further, these needs levels are prepotent, that is, physiological needs must be sated before the next higher need, safety, can serve to motivate behavior; physiological needs and safety needs must be sated before the next higher need, belongingness and love, can serve to motivate behavior, and so on up through the hierarchy.

Thus, a certain degree of congruence is seen between Maslow's motivation theory and the contribution-inducement theory of organizational equilibrium proposed by March and Simon. This congruence lies between Maslow's thoughts on need satisfaction states as motivators of behavior and March and Simons' thoughts toward an individual's perception of his satisfaction balance as it affects his willingness to participate as an organizational member.

With the theoretical base provided by March and Simon and Maslow, the chief concerns of the present study become two-fold. First, to develop an instrument which will measure and preserve the idiosyncratic nature of the perceived need satisfaction variable. Second, to utilize this instrument to test one aspect of the March and Simon contribution-inducement equilibrium theory, that is, to test whether perceived need satisfaction comprises a possible factor with respect to teachers' willingness to persist within a particular high school.

Statement of Hypotheses

To accomplish the task of the present study, one research hypothesis was formulated to investigate perceived need satisfaction as a possible factor with respect to teacher permanence. In view of the theoretical base which prompted this study, it seemed appropriate to formulate a directional hypothesis in terms of a direct varying of perceived need satisfaction and teacher permanence.

H.1.: Teachers who are willing to persist in their present school will perceive their total needs to be satisfied to a greater extent than will those teachers who are unwilling to persist.

In addition to the hypothesis, one question seemed particularly relevant to the study. This question was concerned with determining

if one particular need level existed which appeared to serve the motivational role with respect to teachers' unwillingness to persist within their present high school. To answer the basic question required the formulation of four specific questions which, taken together, would reveal the apparent existence or non-existence of such a need level.

Q.1.: Do teachers who are willing to persist within their present school perceive their safety needs to be satisfied to a greater extent than those teachers who are unwilling to persist?

Q.2.: Do teachers who are willing to persist within their present school perceive their belongingness and love needs to be satisfied to a greater extent than those teachers who are unwilling to persist?

Q.3.: Do teachers who are willing to persist within their present school perceive their esteem needs to be satisfied to a greater extent than those teachers who are unwilling to persist?

Q.4.: Do teachers who are willing to persist within their present school perceive their self-actualization needs to be satisfied to a greater extent than those teachers who are unwilling to persist?

Limitations of the Study

One major limitation which must be imposed when viewing the results of the present study stems from the necessity to employ a causal-comparative research design. With respect to this design Van Dalen (1966, p. 221) comments, "When researchers cannot manipulate the independent variable and establish the controls that are required in 'true experiments,' they may conduct a causal-comparative study." Lack of control is cited by Van Dalen (1966, pp. 221-223) as being "... the greatest weakness of the causal-comparative method of research," for without control of the independent variable, the researcher "... cannot be certain that some other factor... might not be the real cause of the

occurrence." Therefore, although perceived need satisfaction is treated as the dependent variable and the teacher's willingness or unwillingness to persist is treated as the independent variable, no cause and effect relationship may be assumed.

Another limitation of the present study lies with the generalizability of results. The random sample of teachers was drawn entirely from the secondary schools of a large midwestern public school system. Hence, the reader should generalize with caution in that the present findings might or might not be indicative of the conditions which prevail in schools with characteristics other than those from which the sample was drawn.

Assumptions

It was assumed that responses of the sampled teachers to items of The Teacher Need Satisfaction Inventory were representative of their true perceptions of each statement's importance on both the "Importance To Me" and the "Importance To My School" continuums.

It was further assumed that sampled teachers would have physiological needs which were sated and thus, that these needs would not serve as motivators of behavior. In view of this assumption, physiological needs were not included as a sub-section of The Teacher Need Satisfaction Inventory.

Chapter Summary

The purpose of the introductory chapter has been to familiarize the reader with the problem in general terms and with the theoretical

framework from which the problem was derived. Chapter 2 will provide a background of greater depth for the study as a review of related research is presented.

CHAPTER II

REVIEW OF RELATED LITERATURE

Introduction

The intent of Chapter 2 is to present selected studies from the voluminous literature surrounding aspects of job satisfaction. A number of studies were located under such titles as morale, job satisfaction, opinion, and employee attitudes. As indicated by Ronan (1970), terminology has been, and continues to be, a major problem in this area of research. During the literature review, it became quite apparent that many investigators had arrived at conflicting and at times contradictory conclusions concerning the determinants and/or concomitants of job satisfaction.

From an administrator's viewpoint, the viewpoint from which the present study was conceived, it appeared that job satisfaction of employees could be accomplished through either of two basic approaches. First, the administrator might select employees who could attain satisfaction through their work experiences. This approach assumes, however, that the power to select and hire employees is at the disposal of the administrator. It assumes further, that accurate selection techniques are available. The second approach, at the disposal of all administrators, deals with manipulating environmental factors in an attempt at making the environment more conducive toward employee satisfaction. Herzberg, et al. (1957, p. 17) lend support to this

viewpoint as they state,

Job attitudes, including morale and job satisfaction, are critical aspects of the adjustment pattern of the worker. They are a part of his total adjustment to living, and this is basically a function both of his environment and of his personality.

As evidenced in the literature, these approaches are well known. They are also consistent with present organizational theory which emphasizes both the personality variable (idiographic dimension) and the environmental variable (nomothetic dimension) as determinants of organizationally relevant behavior. (Getzels, 1952; Getzels and Guba, 1957; Abbott, 1965; Brown, 1967).

The remainder of Chapter 2 is organized into three sections. In view of the several different conclusions concerning the relationships of elements in job satisfaction, it seems appropriate for section one to review research conducted for the purpose of identifying environmental factors related to job satisfaction, and for section two to review those studies dealing with demographic and personality factors as they relate to employee satisfaction. The orientation of the present study, in view of the above considerations, is then presented in section three.

Situational Factors

In an earlier descriptive study by Chase (1951), several situational factors were identified which tend to increase the satisfactions teachers experience in their work. Chase's findings were based on questionnaire data gathered from 1,784 teachers in over 200 school systems in 43 states. The author reported percentages of respondents signifying that existence of eleven specified conditions in their present systems contribute greatly in their satisfaction in teaching.

Of these eleven conditions, eight were found to vary directly and sharply with the extent of satisfaction with the school system. These eight conditions included the extent of participation in: (1) curriculum making, (2) policy formation, and (3) salary schedules. Also, the favorableness of opinion in regard to professional leadership of the (4) principal and the (5) superintendent. Finally, (6) favorable opinion regarding the value of supervision, (7) the extent to which aims and goals are clearly defined and attainable, and (8) the extent to which the good work of teachers is recognized.

Other conditions which varied directly but not so sharply included opinion with regard to (9) adequacy of salaries, (10) reasonableness of teaching load, and (11) amount of supervision provided.

Katzell et al. (1961), in response to inconsistent results on the relationship between job satisfaction and job performance, provided a theoretical model which views the work situation as a system with inputs of environmental and personal characteristics, and outputs of job satisfaction and performance. Various inputs were seen as affecting either or both of the outputs via their effects on employee motivation, ability, or both.

Situational variables utilized in a study of employee satisfaction employing the above model included group size, ratio between male and female employees, wage rates, whether or not the group was unionized, and the city size in which the organization was located. The authors concluded that job satisfaction was associated with situational characteristics. Specifically, there was typically higher job satisfaction in situations characteristic of small town culture than in those with urban characteristics, that is, having more employees, a large city

location, higher wages, union representation, and proportionately more male employees.

Kornhauser and Sharp (1932), in a pioneering study of job satisfaction, found that character of supervision was related to satisfaction of employees. The authors also reported that negative feelings aroused by poor supervision spread to other and seemingly unrelated factors of the work situation.

Graham (1966), following similar lines, indicated that both job satisfaction and productivity are important considerations for an employer. To increase the job satisfaction of employees requires an administration which: (1) provides job flexibility, (2) strives for participative management, and (3) treats workers as a group to provide stimulating group experiences.

Sterner (1969), after reviewing motivational theory and research, suggested the following principles that should govern the actions of a manager in motivating the work of those with whom he is associated. The manager should: (1) provide an environment characterized by sincerity, trust, integrity and mutual respect, (2) adjust his motivational efforts to fit the situation, (3) recognize, accept, and work constructively with individual differences, (4) realize that people do not always act rationally, (5) be familiar with the broad spectrum of motivational opportunity and techniques.

In an historical perspective of job satisfaction and situational variables, Ronan (1970) remarked that studies in this area are becoming more complex and rely chiefly on factor analysis as their statistical method. Ronan concluded that although research has been conducted among varied populations and with different organizations, these studies

show the continued emergence of seven dimensions of job satisfaction. These dimensions include: (1) content of work, actual tasks performed, and control of work, (2) supervision, (3) the organization and its management, (4) opportunities for advancement, (5) pay and other financial benefits, (6) co-workers, and (7) working conditions.

Friedlander (1963) was somewhat more general as he identified, through factor analysis, three dimensions of job satisfaction. These included: (1) the social and technical environment, (2) recognition through advancement, and (3) intrinsic self-actualizing work. Friedlander's dimensions appear closely aligned with Maslow's needs levels of belongingness and love, esteem, and self-actualization respectively, although Friedlander does not purport them to be. Safety needs do not appear to be present; however, Friedlander points out that two of the seven items representing the social and technical environment dimension do not appear to be "other-directed" and thus are inconsistent with other items. These items, "I felt secure in my job," and "I had exceptionally good working conditions and equipment," appear, at face value, to reflect safety needs. Items reflecting Friedlander's three dimensions are somewhat consistent with items of The Teacher Need Satisfaction Inventory developed for use in this study.

Ghiselli and Johnson (1970), Argyris (1959), and Porter (1961) have reported somewhat consistent findings in regard to need satisfaction as a function of organizational position or structure.

Argyris (1960) proposed a theoretical construct based on the major assumption that mature healthy individuals are those characterized as being independent aggressive organisms who aspire toward equal and/or superordinate positions with respect to their peers, and who possess a

wide range of human abilities. Human problems, according to Argyris (1960, p. 228) arise because,

. . . relatively healthy people in our culture are asked to participate in work situations which cause them to be dependent, subordinate, submissive, (and) to use few of their more than skin surface abilities.

From this theoretical base, Argyris conducted research among high skilled and low skilled employees. Among his conclusions were: (1) that the two groups were significantly different in the desires they wish to satisfy at work; however, (2) the two groups did not differ in terms of individual actualization within the organizational setting. Argyris (1959) attributed this latter finding to the fact that both groups were within departments experiencing the same degree of subordination. He further indicated that personal actualization within the high skill department came from the "technical sphere" rather than the "interpersonal sphere." Creative activities reported by employees of the skilled department were also concerned with the technical sphere. It was only in management that a proportionately higher interest in social or service activities was found.

Porter (1961) extended the work of Argyris in a study of need satisfaction of bottom and middle management jobs. Based on Maslow's (1954) prepotency motivational concept, Porter devised a questionnaire for testing: (1) security needs, (2) social needs, (3) esteem needs, (4) autonomy needs, and (5) self-actualization needs. A factor analysis and critique of Porter's technique and need satisfaction questionnaire was reported by Payne (1970). Porter reported significant differences between bottom and middle management groups for the security, esteem and autonomy categories. The social and self-actualization categories

showed differences in the same direction although neither category had differences approaching significance.

Following the previous work of Worthy (1950), Ghiselli and Johnson (1970) studied need satisfaction and managerial success within "tall and flat" organizational structures. Using percent of positions a manager has moved up in his organization as their measure of success, as well as individual scores from Porter's (1961) Need Satisfaction Questionnaire, the authors computed correlation coefficients between managerial success and need satisfaction. They concluded that no significant difference existed between the correlations of security and social needs. For the other needs, however, significance was found, the p values being .04 for the esteem needs, .02 for the autonomy needs, and .01 for the need for self-actualization. The authors concluded that no significant relationship existed between managerial success and need satisfaction for the "tall" organization. In "flat" organizations the relationship between satisfaction and success was found to be negligible for the lower order needs; however, increases in need level indicated increases in the relationship between success and need satisfaction. Results of the Ghiselli and Johnson study are summarized in Figure 1.

Ford and Borgatta (1970) focused their efforts toward the "work itself" as a source of satisfaction for employees. Using factor analytic approaches across repetitive dissimilar samples, they concluded that eight clusters were identifiable as individual factors contributing to satisfaction. The authors attributed the lack of complete independence of factors to the central concept to which they relate. Ford and Borgatta (1970, p. 134) explained:

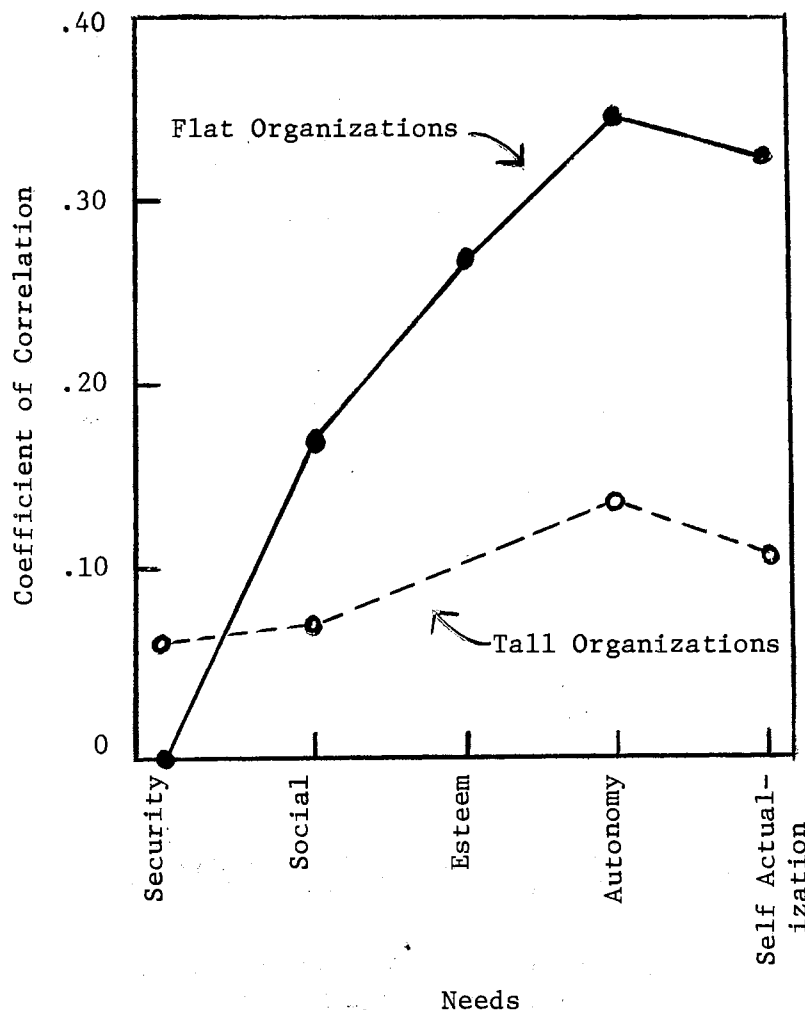


Figure 1. The coefficients of correlation between the need satisfaction of managers and their job success.

Thus, the factors must be viewed as similar to the situation in an area such as intelligence testing when a central concept may exist such as verbal ability, but it is known that verbal ability is not a single factor but a cluster of factors around a central concept or "super-factor."

The above quote should be considered when viewing Payne's (1970) technique through which he developed criticism concerning a Maslow-type need satisfaction instrument. Payne (1970, p. 263) concluded:

In this study the higher-order needs have consistently been the least satisfied and the most important, and they are amongst the highest loadings on the two general factors. However, as these are general factors it is apparent that the NSQ (Need Satisfaction Questionnaire) has not been measuring the satisfaction and importance of the five needs, but that responses to all the items have suffered from the halo effect of General Satisfaction with, or Importance of the job. This is further reflected in the lack of clear-cut factors representing any one of the five needs investigated, as measured by the items in the NSQ.

One might draw several implications from the studies of Ford and Borgatta (1970), Porter (1961), and Payne (1970). First, the lack of clear-cut factors representing individual levels might be attributed to the independence of items (goal objects) which comprise a particular need level. Thus, one could apply factor analytic techniques to each need level independently and define a cluster which would undoubtedly be named for the need level tested. It appears, in view of the inherent nature of hierarchial needs levels, that in this area of research one cannot establish validity through factor analytic techniques such as the one employed by Payne. Second, independence of items would lend support to the assumption that items are additive. Finally, Porter (1961) has consistently found that differences in the satisfaction of the different needs, across several independent variables, have been largely differences in the higher-order needs. These findings lend support not only to the prepotency concept, but also to the assumption that the levels may properly be summated to produce a measure of total need satisfaction.

In sum, one can draw very few, if any, specific conclusions concerning the identification of specific situational variables which affect need satisfaction. Brayfield and Crockett (1955) attribute this, in part, to such methodological considerations as sampling techniques,

diversity of populations studied, terminology, and the criterion measures selected.

General factors which have been isolated in many studies appear to be reflected by more specific items relevant only to the situation studied. It appears, however, that identifiable factors might be subsumed within Maslow's hierarchy of needs.

Demographic and Personal Factors

In relation to the preponderance of existing literature on situational factors and their effects on job satisfaction, demographic and personal factor research is rather limited.

In addition to situational factors, Kornhauser and Sharp (1932) in their pioneering study of job satisfaction also reported relationships between demographic and personal factors and satisfaction of employees. They reported no correlation between attitude scores and intelligence, age, schooling, marital status, and unhappy home life. Efficiency ratings showed no relationship to attitudes except in one sampled group in which a negative relationship was observed. Emotional adjustment, obtained from a brief psychoneurotic inventory, was reported to be only slightly correlated with favorable attitudes. These findings, which varied between work groups, led the authors to conclude that an interactive effect existed between personality factors and the work situation. Kornhauser and Sharp (1932, p. 402) reported:

The relationship between neurotic tendencies and negative attitudes is closest in those departments where there is greater strain and dissatisfaction. This illustrates nicely the intertwined working of objective and subjective factors. Where everything goes smoothly, the emotionally stable and unstable show little difference. But let the situation develop

difficulties or annoyances, and the individuals react more or less in proportion to their instability.

Kornhauser (1962) also alluded to the close relationship between situational and personality variables as he reported differences among factory workers. Holding childhood characteristics constant, Kornhauser reported persistent mental health differences between occupational groups. Childhood characteristics included reported anxiety symptoms, success in school, self-confidence, economic deprivations, and degree of happiness. Kornhauser (1962, p. 46) stated,

The relationship of mental health to occupation, in other words, appears to be "genuine"; mental health is dependent on factors associated with the job.

Kornhauser's conclusions are somewhat consistent with statements of Argyris (1960) who feels that most human problems arise when individuals participate in work situations which force them into dependent, subordinate, and submissive roles.

Fournet et al. (1966), reviewing literature of the past decade concerning job satisfaction, reported contradictory results which were "difficult to interpret." Reviewing such demographic and personal variables as individual differences, age, education and intelligence, sex, and occupational level, the authors attributed differences among findings to methodological factors and to the fact that many personal variables are highly confounded. As an example they stated, "Thus, high morale in a worker of low educational level may be a function of age rather than education." (Fournet et al., 1966, p. 170).

Summary of Situational, Demographic and Personal Factors

According to Fournet, et al. (1966), literature relating to job satisfaction reflects varied methodological approaches, each with its own effect on the findings. It appears that characteristics of both the job and the individual are somehow related to job satisfaction, but these factors appear to be so interrelated that it becomes extremely difficult to isolate them for investigation. Similarly, it is difficult to see the relationship between these factors and behavior.

Fournet, et al. (1966, p. 180), however, provide an optimistic view of the future:

In spite of the apparent confusion and complexity in job satisfaction as an area of study, there is a large amount of literature emerging which should help to clarify the issues.

Research Orientation

As can be seen from the foregoing review, the bulk of research efforts in the area of need satisfaction within a work environment has been primarily restricted to identifying factors which relate to job satisfaction and to the relationship between these factors and various forms of behavior.

Situational factors have been isolated through factor analytic techniques. These general factors, however, appear to be reflecting more specific situational variables which are, themselves, a function of the respective research setting.

Demographic and personal characteristics show little or no correlation with job satisfaction and attitude, although these variables are

seen as being confounded, interrelated with situational variables, and extremely hard to isolate for study.

In view of the apparent state of confusion in this area, it seems appropriate at the present time to focus research on theory. Specifically, to establish whether or not an individual's "willingness to persist" would be a possible function of perceived need satisfaction within the work environment. In addition, the present research must attempt: (1) to avoid methodological traps which add to the confusion, (2) to identify specific situational factors relevant to teachers within their educational work setting, and, (3) to provide for idiosyncratic measures of the need satisfaction variable.

Chapter 3 will continue with a discussion of methodological considerations.

CHAPTER III

METHOD AND PROCEDURE

Introduction

Chapter 3 will describe the research method. Specifically, the development of the instrument, the research sampling technique, and the procedure used in administering the instruments are described in this chapter. A description of scoring procedures for deriving data for analyses of the questions and the hypothesis, and a discussion of statistical treatment of the data conclude the chapter.

Instrumentation

A preliminary review of various instrument scales (Scott, 1954) resulted in the identification of three techniques which were potentially appropriate for determining perceived need satisfaction. These included the Thurstone, Likert, and Guttman techniques for scale construction. Smith, Kendall, and Hulin (1969, p. 10) point to the importance of proper selection of measuring techniques as they state, "We need to understand the properties of the measures we choose to use for any particular purpose, rather than to assume that one is as good as another." A survey of the literature was therefore conducted focusing on aspects of these techniques which included the general purposes, assumptions, advantages, and disadvantages of each.

Thurstone-type Scales

Selltiz, et al. (1959) indicate the Thurstone-type scale to be essentially a differential scale for the measurement of attitudes. A differential scale consists of a number of items whose positions on the scale are determined by some kind of ranking or rating performed by judges. The authors (1959, p. 360) list the following steps in selecting items for the scale and assigning values to them,

(1) The investigator gathers several hundred statements conceived to be related to the attitude being investigated. (2) A large number of judges - usually 50 to 300 - working independently, classify these statements into eleven groups. In the first pile the judge places the statements he considers most favorable to the object; in the second, the statements he considers next most favorable; and in the eleventh pile, the statements he considers most unfavorable. The sixth, or 'neutral' position is defined as the point at which there is neither 'favorableness; nor unfavorableness.' (3) The scale value of a statement is computed as the median position to which it is assigned by the group of judges. Statements that have too broad a scatter are discarded as ambiguous or irrelevant. (4) A final selection is made, taking items that are spread out evenly along the scale from one extreme position to the other.

The resulting Thurstone-type scale is a series of statements, usually about twenty, of which the position of each statement on the scale has been determined by the judges' classifications.

Scott (1954) indicates that Thurstone-type scales require items which are nonmonotonic in nature and which measure operating characteristics having a single maxima.

Thurstone-type scales have been criticized (Scott, 1954; Selltiz, et al., 1959; Kerlinger, 1964) in the following areas:

- (1) The amount of work involved in constructing the scale is extensive.
- (2) Since the individual's score is the mean or median of the scale values of the several items he checks, essentially different attitudinal patterns may be expressed in the same score.
- (3) Scale values assigned to the items are influenced by the attitudes of the judges themselves.
- (4) Thurstone-type scales achieve only an ordinal level of measurement. In view of recent findings which establish parametric statistical techniques as being very robust under certain conditions, the criticism of resultant ordinal data appears to be less valid. (Gaito, 1970(a); Gaito, 1970(b); Boneau, 1970)

During the literature survey two important limitations, in addition to the aforementioned disadvantages, were seen with respect to use of a Thurstone-type scale for studying perceived need satisfaction. First, the very format of the Thurstone-type scale was deemed inappropriate with respect to determining perceived need satisfaction as operationally defined. The second limitation was elimination of the idiosyncratic nature of the perceived need satisfaction variable by using judges' ratings of scale values for the items. For these reasons, a pure Thurstone-type scale was deemed inappropriate as a scaling technique for use in this study.

Guttman-type Scales

It became apparent during the literature review that a Guttman-type scale would be inappropriate for use in the present study. The major limitation of the Guttman-type scale is indicated by Selltitz, et al. (1959, p. 376) to be the assumption:

. . . that unidimensionality is a property of a measuring instrument, rather than of the patterning of an attitude among a given group of individuals. For one group, a number of items may be arranged unidimensionally in a given order; for another group, the same items may fall into a different order; for still another group, they may not form a unidimensional pattern at all.

With respect to perceived need satisfaction, it appeared that the Selltitz, et al. statement could be pursued to its ultimate, that is, for one individual a number of items (or goal objects) could be arranged unidimensionally in a given order; for another individual the same items (or goal objects) could fall into a different order, or in no order whatsoever. It appeared, in view of the nature of the present study, that use of the Guttman technique would possibly require development of a separate and distinct instrument for every individual member of the sample.

Likert-type Scales

Likert-type scales, sometimes referred to as summated scales, consist of a series of items to which a subject is asked to react. Unlike the Thurstone scale, however, the Likert-type scale is not based upon items which have been judged to be distributed evenly over a continuum of favorableness-unfavorableness. The Likert-type scale has as one of its basic premises the assumption that the universe of items are of equal attitude value (Kerlinger, 1964). Scott (1954) indicates another assumption of the Likert technique to be that items of the scale should have operating characteristics which are monotonically increasing functions of the latent attitude variable. That is, the more favorable an attitude toward an item, the higher the item score.

The procedure for constructing a Likert-type scale is given by Selltitz, et al. (1959, pp. 367-368):

(1) The investigator assembles a large number of items considered relevant to the attitude being investigated and either clearly favorable or clearly unfavorable. (2) These items are administered to a group of subjects representative of those with whom the questionnaire is to be used. The subjects indicate their response to each item by checking one of the categories of agreement-disagreement. (3) The responses to the various items are scored in such a way that a response indicative of the most favorable attitude is given the highest score. It makes no difference whether 5 is high and 1 is low or vice versa. The important thing is that the responses be scored consistently in terms of the attitudinal direction they indicate. Whether 'approve' or 'disapprove' is the favorable response to an item depends, of course, upon the content and wording of the item. (4) Each individual's total score is computed by adding his item scores. (5) The responses are analyzed to determine which of the items discriminate most clearly between the high scorers and the low scorers on the total scale. . . . Items that do not show a substantial correlation with the total score, or that do not elicit different responses from those who score high and those who score low on the total test, are eliminated to ensure that the questionnaire is 'internally consistent' - that is, that every item is related to the same general attitude.

Selltitz, et al. (1959) discuss several advantages of the Likert-type scale over the Thurstone-type scale. Included are the following:

(1) Items may be used which are not manifestly related to the attitude being measured. Any item, unlike the Thurstone scaling technique, may be used which is found to be empirically consistent with the total score. (2) The Likert-type scale is considered to be simpler to construct than the Thurstone-type scale. (3) The Likert-type scale is generally more reliable than the Thurstone-type scale in that more categories are possible with the former. (4) More information may be elicited with the Likert-type scale simply because more response categories are possible than with the Thurstone-type scale.

Two disadvantages of the Likert-type scale are cited by Selltitz et al. (1959). First, that only an ordinal level of measurement may be assumed, and second, that the total score of an individual often has little meaning since many patterns of responses may produce the same score.

One prominent disadvantage was noted with respect to the appropriateness of the Likert technique for measuring perceived need satisfaction. This disadvantage is the assumption that the universe of items represent equal attitude values. In the present study, it was a major consideration that each individual might possess his own particular hierarchy of goal objects and that each goal object would have a weight in accordance with its position in the hierarchy. Therefore, it appeared that the consideration of individual hierarchies could not be met with respect to justifying use of a Likert scaling technique in developing an instrument for the present study.

In view of the assumptions of the various scales, it became apparent that none of the scaling techniques, in their pure form, were applicable for use in this study of perceived need satisfaction. The decision was therefore made to select aspects from the Thurstone and Likert scaling techniques which seemed particularly relevant to the present study; and then to mold these into a scaling technique more appropriate in view of the idiosyncratic nature of the perceived need satisfaction variable.

One characteristic of the Likert scaling technique which was employed was that items comprising the scale would be monotonic in nature. Another characteristic of the Likert technique which was selected was that of the five response categories for each item. These

categories ranged from strongly agree to strongly disagree for the Likert technique, but were modified for the present study into a 100 point scaled continuum which ranged from "More Important" to "Less Important."

Item weighting by judges was the only characteristic selected from the Thurstone scaling technique. Here, however, the judges were to be the respondents themselves, each judging and arranging goal objects according to his own perceived hierarchy of wants or desires. It was felt that this weighting technique would allow the instrument to maintain the idiosyncratic nature of the perceived need satisfaction variable. Judges or experts in the field were utilized only to establish the face validity of goal objects as they related to Maslow's hierarchy of needs and of individual instrument items as they related to these goal objects.

Procedural Steps During Instrument Development

Development of The Teacher Need Satisfaction Inventory (Appendix A), as an instrument for determining the perceived need satisfaction of teachers, proceeded through three distinct stages.

Stage one of the developmental process was concerned with identifying goal objects relevant to the school environment as perceived by teachers working within that environment. Rationale for this concern is two-fold. First, as indicated by Jackson (1967), the concept of acquiescence, as a response set in test taking behavior, can be effectively reduced through selection and utilization of items which are particularly relevant to the individual respondent. Second, assuming that teacher willingness to participate in the present study

is an aspect similar to teacher willingness to participate in decision-making, relevance becomes a prime factor with respect to eliciting cooperation. As Bridges (1967, p. 52) so aptly states with respect to shared decision-making,

Decisions that clearly fall outside the teachers' zone of indifference are those which have consequences for them; this becomes more pronounced as the magnitude of these consequences increases. Therefore, when the teachers' personal stakes in the decision are high, their interest in participation should also be high. . . . To determine whether the decision falls within the zone of indifference, the principal must first apply the test of relevance of the decision to those affected.

To identify goal objects for use in developing items for The Teacher Need Satisfaction Inventory, 74 teachers were polled by administering two forms of a questionnaire designed to elicit statements concerning important factors in their school with respect to teacher need satisfaction. Teachers were asked to respond to one of the two forms, these forms differing only to the extent that one was more specific with respect to Maslow's individual needs levels than the other. One form of the questionnaire asked the teachers to respond by listing two factors which they felt were most important with respect to satisfying their needs for each of Maslow's hierarchial levels. The first questionnaire form is included as Appendix B. The second form was less specific in that it asked the teachers to respond, in view of Maslow's needs levels, by listing the five most relevant factors with respect to satisfying teachers' needs and the five most relevant factors with respect to teacher dissatisfaction. The second form of the questionnaire is included as Appendix C.

From the teachers polled, 402 statements were elicited. These statements were assumed to reflect particular goal objects considered by the teachers to be relevant with respect to their need satisfaction. The researcher was quite surprised to find that none of the 402 elicited statements were concerned with salary. Chase (1951, p. 131) notes, however, "that when teachers regard salaries as reasonably adequate, they tend to disregard salary provisions as a source of satisfaction."

Stage two of the developmental process had as its goal, categorization of the elicited statements as they related to the individual need levels of safety, belongingness and love, esteem, and self-actualization. The categorization process was given prime consideration by the researcher and, in view of the questions formulated in Chapter 1 concerning Maslow's prepotency concept, correctness in categorization of the statements was weighted to a greater extent than the relevancy factor previously mentioned. Here, it was felt that individual statements, although relevant, should be sacrificed if they were of such a nature that consistency of categorization to a particular need level was not possible. Theoretically, all goal objects should fit within Maslow's hierarchy. Here, it was a matter of determining the correct level. Therefore, during the categorization process, the criterion for retaining a particular statement was set at 100 percent agreement among a panel of experts as to the need level the statement represented. The panel of experts utilized during this categorization process consisted of three doctoral candidates in educational psychology.

The categorization process was accomplished in the following steps: First, all statements were typed in random order and the typed list of statements was presented to the panel of experts. The panel,

working independently of one another, categorized all 402 statements under the respective need levels. The panel reached 100 percent agreement on 153 of these statements which, in turn, were retained for use in item construction. The remaining 249 statements were discarded as being too ambiguous or vague to categorize. The second step dealt with combining duplicate or similar statements into goal object categories and, from these, developing items seen as being consistent with these categories. The goal object categories, in addition to providing the source for item construction, also served to provide operational definitions for the various need levels. The third and final step of the process was concerned with validating completed items as relating to the same need level as the goal object category from which they were constructed. To accomplish item validation, 41 completed items were typed in random order and the typed list of items was given to the panel of experts. The panel was asked to categorize, independently of one another, all items in terms of the need levels they reflected. The 100 percent agreement criterion was again imposed resulting in an instrument containing 36 total items. Of these items, 12 were concerned with safety needs, 10 with belongingness and love needs, 8 with esteem needs, and 6 with self-actualization needs.

Thus, through the above processes and in view of the operational definitions given to the various need levels in Chapter 1, it seemed justifiable to assume that a reasonable measure of content validity for the instrument, as defined by Kerlinger (1964), had been established.

Stage three, the final stage of the developmental process, dealt with determining communicative aspects of the instrument, its reliability, and its ability to discriminate between those teachers who were

more satisfied with their work environment and those teachers who were less satisfied with their work environment. To accomplish these goals required three pilot studies.

The first of the pilot studies was designed to view several aspects of the instrument. These aspects included a determination of the time required to complete the instrument, the extent to which instructions and items would be understood, if any literary or emotional bias existed within the items, and if there were any items or aspects within the instrument which might be considered caustic or potentially threatening by the teacher respondents.

A graduate level class in tests and measurements was used as the sample for the first pilot study. This class consisted of eighteen students, including both teachers and administrators presently employed within various public school systems. All members of the class were required to complete the instrument with no instructions other than those provided within the instrument itself. This requirement placed each member of the class in approximately the same position as a teacher who would receive the instrument through the mail. Times were noted as each of the respondents completed the instrument and an average time for completion was computed to be 18.69 minutes. In addition, the minimum and maximum completion times were found to be 13 and 25 minutes respectively. When all respondents had completed the instrument, a question and answer session followed. Respondents were then asked for suggestions, remarks, and discussion concerning the instrument. The first pilot study was extremely helpful, specifically with respect to clarifying the instructions and the personal data section of the instrument. In view of the elicited comments, it was

felt that no change was necessary with respect to the items. However, since both the instructions and the personal data section of the instrument were revised extensively, it was determined by the researcher that an additional pilot study should be conducted for the purpose of determining the clarity and communicative effects of the revised instructions and personal data section.

The second pilot study utilized 22 students from another graduate level class in tests and measurements. This class was composed entirely of teachers who were either presently teaching in the public schools or who had taught within the past few years. A procedure similar to that utilized during the first pilot study was employed except that the time factor was not computed during this second study. As a result of the question and answer session and the general discussion concerning the instrument, only minor changes were deemed necessary with respect to the instructions and personal data section. The respondents indicated that no change was necessary with respect to the instrument items.

With the completion of the first two pilot studies, it appeared that the instrument was in a form satisfactory enough to pursue a pilot study under actual experimental conditions. The primary purpose of this final study was to determine the discriminating power of the instrument, that is, to determine how well it differentiated between known groups of more and less satisfied teachers. An important secondary purpose of the final pilot study was to obtain a measure of internal consistency for the instrument. A final purpose was that of double-checking the communicative aspects of the instructions under actual experimental conditions.

To accomplish the goals of this final pilot study first required identification of those teachers who were "more satisfied" and those teachers who were "less satisfied." These groups of teachers were established by asking the principals of seven schools, including elementary, junior high, and high schools, in a moderately sized school system, to respond to a questionnaire which asked them to list the three "most satisfied" and the three "least satisfied" teachers within their schools. This questionnaire is included as Appendix D. Returned questionnaires contained the names of 42 teachers; 21 in each of the two known groups.

The home addresses of these teachers were determined from the school system's personnel directory. The Teacher Need Satisfaction Inventory and a letter of introduction from the Superintendent's office were then mailed to each of the sampled teachers. The Superintendent's letter is included as Appendix E.

Each instrument was coded in a manner similar to that decided upon for the ultimate study; the purpose of the code was to provide both known-group and follow-up information for the researcher.

Validity

The third pilot study utilized the known-group method to establish a measure of construct validity for the instrument. Kerlinger (1964, p. 453), speaking of the known-group method indicates, "In this method groups of people with 'known' characteristics are administered an instrument and the direction of difference is predicted." It was predicted that teachers known to be less satisfied would have higher scores (representing less satisfaction) than would teachers known to be more satisfied.

Thirty-four of the selected teachers responded to the instrument. Of this total, 14 of the "less satisfied" and 20 of the "more satisfied" responded to provide data from which the differentiating power of the instrument was to be determined. In view of the acceptable percentage of response, no follow-up procedures were employed to solicit data from non-respondents.

The Mann-Whitney U test was selected to statistically evaluate the prediction that teachers known to be less satisfied would have higher scores (representing less satisfaction) than would those teachers known to be more satisfied. Concerning the use of this statistical technique, Siegel (1956, p. 116) says,

When at least ordinal measurement has been achieved, the Mann-Whitney U test may be used to test whether two independent groups have been drawn from the same population. This is one of the most powerful of the non-parametric 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.

"Known group" data for total needs, safety needs, belongingness and love needs, esteem needs, and self-actualization needs are summarized in Table I. Homogeneity of variance tests were computed between the known groups. Results of these tests are also summarized in Table I.

The value of the calculated U for total needs between the known groups was 57. The critical one-tailed U value with $n_1 = 14$ and $n_2 = 20$ for the .01 level of significance was 73. Since the calculated U value was less than the critical U value, it was concluded that the instrument did, in fact, discriminate between the known groups. Data related to this test are summarized in Table II.

TABLE I
A SUMMARY OF PILOT STUDY "KNOWN
GROUPS" CHARACTERISTICS

Group	n	\bar{X}	s^2	s	Variance Check	p
Total Needs						
More Satisfied	20	320.85	44,999.81	212.13	F = 7.844	<.001
Less Satisfied	14	824.15	352,979.74	594.12		
Safety Needs						
More Satisfied	20	123.75	7,122.69	84.40	F = 1.855	<.20
Less Satisfied	14	198.79	13,214.60	114.95		
Belongingness & Love Needs						
More Satisfied	20	69.30	3,425.31	58.53	F = 5.705	<.001
Less Satisfied	14	176.23	19,539.74	139.78		
Esteem Needs						
More Satisfied	20	69.30	3,126.29	55.91	F = 16.903	<.001
Less Satisfied	14	228.75	52,846.63	229.88		
Self-Actualization Needs						
More Satisfied	20	58.50	3,361.15	57.98	F = 11.224	<.001
Less Satisfied	14	220.43	37,724.67	194.23		

TABLE II
VALIDITY TEST BETWEEN KNOWN GROUPS OF MORE
AND LESS SATISFIED TEACHERS ON
TOTAL NEEDS

Group	n	Σ of Ranks	<u>U</u>	p
Less Satisfied	14	$R_1 = 328$	57*	<.01
More Satisfied	20	$R_2 = 267$		

* Critical U = 73. With this test, the calculated U value must be equal to or smaller than the tabled U value for rejection of the null hypothesis. (Siegel, 1956, p. 119)

In addition to establishing the validity of the test in terms of total needs, a validity measure for each need level was calculated.

The value of the calculated U for safety needs between the two known groups was 87. With $n_1 = 14$ and $n_2 = 20$, the critical value for the .05 level of significance was determined to be 92. It was concluded that the validity of the instrument in terms of its ability to discriminate between the known groups' safety needs was significant at the .05 level. Data related to this test are summarized in Table III.

The calculated U between the known groups for belongingness and love needs was 73. The critical value of U with $n_1 = 14$ and $n_2 = 20$ at the .01 level of significance was determined to be 73. It was concluded that the instrument discriminated between the known groups in terms of belongingness and love needs. The discriminating power was significant at the .01 level. Data related to this test are summarized in Table IV.

TABLE III
VALIDITY TEST BETWEEN KNOWN GROUPS OF MORE
AND LESS SATISFIED TEACHERS ON
SAFETY NEEDS

Group	n	Σ of Ranks	<u>U</u>	p
Less Satisfied	14	$R_1 = 298$	87*	<.05
More Satisfied	20	$R_2 = 297$		

* Critical U = 92.

TABLE IV
VALIDITY TEST BETWEEN KNOWN GROUPS OF MORE
AND LESS SATISFIED TEACHERS ON
BELONGINGNESS AND LOVE NEEDS

Group	n	Σ of Ranks	<u>U</u>	p
Less Satisfied	14	$R_1 = 312$	73*	.01
More Satisfied	20	$R_2 = 283$		

* Critical U = 73.

A U of 69 was calculated between the known groups on esteem needs. With $n_1 = 14$ and $n_2 = 20$, the critical U value at the .01 level of significance was determined to be 73. At the .01 level, the discriminating power was concluded to be significant in terms of differentiating between the two known groups on esteem needs. Data relative

to this test are presented in Table V.

TABLE V
VALIDITY TEST BETWEEN KNOWN GROUPS OF MORE
AND LESS SATISFIED TEACHERS
ON ESTEEM NEEDS

Group	n	Σ of Ranks	<u>U</u>	p
Less Satisfied	14	$R_1 = 316$	69*	< .01
More Satisfied	20	$R_2 = 279$		

* Critical U = 73.

A U value between the self-actualization needs of the known groups was calculated to be 47. The critical U with $n_1 = 14$ and $n_2 = 20$ for the .001 level of significance was determined to be 54. The instrument discriminated between the known groups' self-actualization needs at the .001 level of significance. Data related to this test are presented in Table VI.

In summary, several measures of construct validity were established. In terms of total needs, the instrument differentiated the known groups beyond the .01 level of significance. For sub-sections of the instrument, representing safety needs, belongingness and love needs, esteem needs, and self-actualization needs, the instrument differentiated the known groups at or beyond the .05, .01, .01, and .001 levels respectively.

TABLE VI
VALIDITY TEST BETWEEN KNOWN GROUPS OF MORE
AND LESS SATISFIED TEACHERS ON
SELF-ACTUALIZATION NEEDS

Group	n	Σ of Ranks	<u>U</u>	p
Less Satisfied	14	$R_1 = 338$	47*	<.001
More Satisfied	20	$R_2 = 257$		

* Critical U = 54.

Reliability

Reliability of the instrument was determined from data obtained during the final pilot study. The split-half method was employed which, according to Downie and Heath (1959), provides a "coefficient of internal consistency" for the instrument.

A Spearman "rho" correlation coefficient (Siegel, 1956, pp. 203-231) was calculated between the ranks of individual respondent's scores on odd and even numbered items. This resulted in an uncorrected reliability coefficient of 0.85 (rounded). The Spearman-Brown formula (Downie and Heath, 1959, p. 193) which corrects for the reduced number of items inherent with the split-half method was then employed and resulted in a reliability coefficient of 0.92 (rounded).

Data related to this measure of reliability are summarized in Table VII.

TABLE VII
SPLIT-HALF RELIABILITY OF THE TEACHER
NEED SATISFACTION INVENTORY

N	Uncorrected Spearman rho	Corrected Spearman-Brown
34	0.85	0.92

Characteristics of the Scaling Technique

The modified scaling technique employed during development of The Teacher Need Satisfaction Inventory contained the following inherent characteristics. First, each item or statement was to be placed on two continuums which ranged from "MORE" to "LESS" importance as perceived by the individual respondent. These continuums were scaled, that is, as respondents placed statements upon the continuums they gave them numerical meaning. The numerical range of the continuums was from zero (representing less importance) to one-hundred (representing more importance). The two continuums were entitled "Importance To Me" and "Importance To My School." The "Importance To Me" continuum was defined as representing the importance of each statement as it pertained personally to the individual respondent. In effect, this continuum allowed each individual to construct his own hierarchy of goal objects and to provide numerical meaning for each of the goal objects within this hierarchy. The "Importance To My School" continuum was defined as representing the importance of each statement as the individual respondent perceived his school placing value upon it. In effect, this continuum represented the degree to which the factor was perceived

to be present within the school. Respondents were cautioned to place statements upon this continuum as they saw the situation to be, not as they felt it should be.

A second characteristic of the technique dealt with scoring procedures. By placing each factor upon both continuums, the respondents assigned two scores to each of the thirty-six statements comprising the total instrument. The difference between these two scores (The "Importance To Me" score minus the "Importance To My School" score) provided the measure of perceived satisfaction of the statement in question. Since stated goal objects do not serve motivational roles, and since negative scores represent satiation with respect to goal objects, these scores were not tallied as part of the perceived need satisfaction score. In essence, negative scores were treated as having zero motivational value.

A third characteristic was concerned with the nature of individual items. Items were considered, in view of their positive orientation, to be monotonic in nature. This assumption was consistent with March and Simons' (1958) assumption that contributions and inducements are monotonic in relation to their utility value. As indicated earlier in the chapter, Green (1954) noted this to be one of the characteristics of the Likert technique. Monotonic items are those where an increase in item value represents an increase in the underlying variable of the item. With respect to perceived need satisfaction however, this assumed characteristic may also comprise a limitation if viewed in light of certain personality theorists. Lewin (1951), for example, assumes the position that three states regarding needs can be distinguished; a state of hunger, of satiation, and of oversatiation. Lewin

(1951, p. 282) states, "These states correspond to a positive, a neutral, and a negative valence of the activity regions which are related to a particular need." Thus, for the reader who accepts this aspect of Lewin's personality theory, the assumption that items which comprise the instrument are monotonic in nature would be inherently invalid and the relationship between the degree of presence of a goal object and perceived satisfaction of the goal object would be curvilinear. No attempt was made by the researcher to determine if such a curvilinear relationship existed.

A fourth and final characteristic of the technique dealt with controlling response set of individual respondents. Jackson (1967) indicates one form of response set to be that of acquiescence and further, that control of this form of response set is effectively accomplished through selection of relevant items. Therefore, procedural steps were employed to identify relevant factors of the school situation, as perceived by teachers, from which to construct the items. Another characteristic of the technique which was aimed at reducing response set was the use of difference scores as the measure of satisfaction. This technique was utilized by Ian and Ross (1957) to control response set on individual items. Ian and Ross, however, did not attempt to establish equivalence of items which comprised pairs from which their difference scores were derived. The technique employed here approaches this apparent deficiency by utilizing two scores for the same item. It solves the response set problem if one assumes response set to be the same for the two continuums. The extent to which this assumption is invalid, however, defines the extent to which the response set problem is still present.

Thus, the technique employed in developing The Teacher Need Satisfaction Inventory resulted in an instrument characterized by 36 relevant items each of which was to be placed on two continuums. Positive difference scores between these continuums represented the data of the dependent variable. Items were considered to be monotonic in nature, thus, the relationship between goal object presence and satisfaction was assumed to be linear. Through use of relevant items and difference scores, the instrument contained characteristics which attempted to control response set. Through use of the "Importance To Me" continuum, data obtained were seen as being more idiosyncratic in nature. This characteristic, the most important in the researcher's view, was congruent with the consideration that man is a unique being, each with his own hierarchy of wants and desires.

Sampling

In order to test the hypothesis and questions previously formulated a sample of teachers in eight senior high schools in a large midwestern city was asked to respond to The Teacher Need Satisfaction Inventory. These eight schools represented all of the senior high schools within the metropolitan school system and, as such, were assumed to represent an adequate cross section of economic, socio-cultural, and physical factors which are generally found within metropolitan public school systems. The sample did not include teachers within elementary or junior high schools, nor were any teachers included from private schools.

Two hundred teachers were selected from these high schools for participation in the study by means of a proportional stratified random sampling technique. Concerning the use of this technique, Van Dalen (1966, p. 299) says,

Since a random sample may by chance have an undue proportion of one type of unit in it, an investigator may use stratified random sampling to get a more representative sample. When employing this technique, he divides his population into strata by some characteristic and from each of these smaller homogeneous groups draws at random a pre-determined number of units.

The characteristic used to stratify the population for this study was the school itself. Since eight schools were involved, this provided eight strata from which to select the sample. Further, to insure the best representativeness possible, the number of teachers selected from each of the strata were in proportion to the actual size of the stratum in the total population.

Concerning proportional sampling, 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 college graduates, 10 percent of the sample is taken from this stratum.

A table of random numbers (Popham, 1967) was employed during the sampling process.

Administration of the Instrument

Upon completion of the sampling process, the selected teachers' home addresses were determined through use of the school system's personnel directory.

A packet of materials, including the instrument, a self-addressed return envelope, and a letter of introduction from the Research Coordinator for the school system, was sent to each of the sampled teachers. The teachers were asked to respond when they found time,

and to return the completed instruments directly to the researcher. A follow-up letter was sent approximately two weeks after the initial mailing of the instrument. A copy of the follow-up letter is included as Appendix F.

The present method of administering the instruments had its advantages and disadvantages. Advantages were seen to include the following: First, allowing the teachers to respond when they wished should result in a more positive orientation of the teachers toward participation in the study. This, of course, assumes that an alternative method would require a teacher's meeting either before or after school. Second, if the teachers felt threatened as a result of their participation, they could participate at home thus keeping their responses external to the physical confines of the school. Third, the method was considered to be much more feasible from the school administration's point of view because of the largeness of the sample size. The fact of feasibility seemed to be weighted heavily by the administration when either approving or disapproving research within their school system. Finally, the present method insured that all teachers would receive standard instructions during administration of the instrument.

The most obvious disadvantage associated with this method of instrument administration was the fact that no control could be obtained with respect to insuring responses to the instrument. Although steps were taken to gain cooperation from the teachers and follow-up procedures were employed for non-responders, 37 percent of the sampled teachers did not respond. Another disadvantage involved the standard instructions for completing the instruments. The reader will remember

that all three pilot studies, to some extent, were concerned with insuring the clarity of the instructions. Even with these precautions, a few of the sampled teachers obviously did not understand how to properly complete the instrument. Respondents whose returned questionnaires were either incomplete or improperly completed were contacted by personal letter in an effort to elicit correct and complete information. In addition, it was considered doubtful that 100% of the sampled teachers would choose to participate in the study. In view of this consideration, plans were developed to randomly select a sample of teachers from those who had not responded within a period of approximately one month from the date of original mailing.

Fifty-five percent of the teachers responded during the one month period following issuance of the questionnaires. Since the percentage of response was approximately equal across all schools, it was decided that sampling two non-responding teachers from each school would not endanger representativeness of the original sample. A table of random numbers was again employed during the sampling process.

Through follow-up, the cooperation of these 16 teachers was accomplished. Statistical procedures were then employed to establish equivalence between respondents (responding within one month) and non-respondents (the sixteen sampled teachers). On the basis of these calculations, it was concluded that the two groups (respondents and non-respondents) were equivalent in terms of their total, safety, belongingness and love, esteem, and self-actualization need satisfaction scores. Combining the two groups resulted in a total return of 63 percent on the original 200 questionnaires.

A summary of equivalence checks between respondent and non-respondent teachers is shown in Table VIII.

TABLE VIII
A SUMMARY OF EQUIVALENCE CHECKS BETWEEN RESPONDENT
AND NON-RESPONDENT TEACHERS

Group	n	Σ of Ranks	<u>U</u>	<u>z</u>	p
Total Needs					
Respondents	108	6646.0			
Non-respondents	16	1104.0	760.0	0.775	>.2177
Safety Needs					
Respondents	110	6932.0			
Non-respondents	16	1069.0	827.0	0.388	>.3483
Belongingness & Love Needs					
Respondents	110	6931.0			
Non-respondents	16	1070.0	826.0	0.396	>.3446
Esteem Needs					
Respondents	108	6726.5			
Non-respondents	16	1023.5	840.5	0.175	>.4286
Self-actualization Needs					
Respondents	110	6886.0			
Non-respondents	16	1115.0	781.0	0.725	>.2327

Scoring Procedures

Continuums of The Teacher Need Satisfaction Inventory were developed to a scale of 1/16 inch = 1 score point. Objective scoring was accomplished through use of a clear plastic ruler to determine both the goal object strength and goal object satisfaction scores for each item.

The null hypothesis to be tested in this study stated:

H.1.: There will be no significant difference in the degree of satisfaction of total needs between those teachers who are willing to persist within their present schools and those teachers who are unwilling to persist.

Operationally, total needs were defined in Chapter 1 as indicating the combined perceived need satisfaction scores for all need levels, that is, an individual's safety need score plus his belongingness and love need score plus his esteem need score plus his self-actualization need score. To test this hypothesis therefore required combination of the perceived need satisfaction scores for all need levels. Combining scores resulted in one score for each individual which represented his total needs. Thus for each group (those willing to persist and those unwilling to persist), the total needs concept had been operationalized. This process provided the necessary data for a statistical test of Hypothesis 1.

In addition to the above hypothesis, four questions were formulated for statistical analysis. These questions were concerned with Maslow's hierarchial prepotency principle. Specifically, they were formulated to determine if one particular need level existed which appeared to serve the motivational role with respect to teachers' unwillingness to persist within their present high school. These

questions were stated as follows:

Q.1.: Do teachers who are willing to persist within their present school perceive their safety needs to be satisfied to a greater extent than those teachers who are unwilling to persist?

Q.2.: Do teachers who are willing to persist within their present school perceive their belongingness and love needs to be satisfied to a greater extent than those teachers who are unwilling to persist?

Q.3.: Do teachers who are willing to persist within their present school perceive their esteem needs to be satisfied to a greater extent than those teachers who are unwilling to persist?

Q.4.: Do teachers who are willing to persist within their present school perceive their self-actualization needs to be satisfied to a greater extent than those teachers who are unwilling to persist?

Data to statistically evaluate Question 1 were derived by computing the perceived need satisfaction score of the safety need for each respondent. Data for the two groups (those willing to persist and those unwilling to persist) were then compared to determine the acceptability of Question 1. Data to statistically evaluate Questions 2, 3, and 4 were derived in the same manner, that is, for each question the appropriate perceived need satisfaction scores were computed. The resulting group data were then compared to determine the acceptability of each of the respective questions.

Statistical Treatment of Data

In view of data characterized by heterogenous variances between groups and, sampled groups which were of unequal size, it was concluded that the most appropriate statistical technique to employ should be non-parametric in nature. The Mann-Whitney U test was utilized to test

H.1., Q.1., Q.2., Q.3., and Q.4. As noted earlier in this chapter, Siegel (1956) indicated this statistical test to be one of the most powerful non-parametric techniques available and one which is most useful as an alternative to the parametric t test.

When the larger of the two sampled groups (n_2) exceeds $n = 20$, the distribution of the U rapidly approaches a normal distribution (Siegel, 1956). It is therefore appropriate to transform U to z and test the probabilities of values as extreme as observed values of z in the normal distribution. A z transformation was computed during data analysis of the present study.

Group characteristics and weighted score characteristics for teachers who "would" and "would not" desire a transfer are reported in Chapter 4.

Summary

Chapter 3 has presented the technique employed to develop The Teacher Need Satisfaction Inventory and the procedural steps utilized during the developmental process. In addition, the sampling methodology, the scoring procedures utilized to derive data necessary to evaluate the hypothesis and each of the questions, and the statistical technique utilized for these evaluations were also discussed. Chapter 4 will continue by focusing upon the findings of these individual evaluations.

CHAPTER IV
PRESENTATION AND ANALYSIS
OF THE DATA

Introduction

In this chapter the presentation and analysis of the data will be reported. Before viewing findings as they relate to the hypothesis and each of the questions, it seems appropriate to view data characteristics of the sampled teachers. Group characteristics for teachers who "would" and "would not" desire a transfer are reported in Table IX. Weighted score characteristics for teachers who "would" and "would not" desire a transfer are reported in Table X.

Adhering to common practice, the writer indirectly accepted alternate forms of the hypothesis and questions when such an inference was supported at the .05 level of significance.

Hypothesis One

H.1. Teachers who are willing to persist in their present school will perceive their total needs to be satisfied to a greater extent than will those teachers who are unwilling to persist.

The calculated U value between the total needs scores of teachers identified as willing and unwilling to persist was 204.0. Transformation of the U value resulted in a z score of -5.125.

TABLE IX
A SUMMARY OF GROUP CHARACTERISTICS FOR TEACHERS
WHO WOULD AND WOULD NOT DESIRE A TRANSFER

Group	n	\bar{X}	s^2	s	Variance Check	p
Total Needs						
Would Transfer	17	1,445.61	413,116.43	642.74	F = 2.140	< .01
Would Not Transfer	107	556.19	192,971.40	439.28		
Safety Needs						
Would Transfer	17	355.88	29,165.99	170.78	F = 2.077	< .01
Would Not Transfer	109	149.86	14,042.00	118.50		
Belongingness & Love Needs						
Would Transfer	17	301.28	45,254.91	212.73	F = 2.037	< .01
Would Not Transfer	109	135.81	22,210.66	149.03		
Esteem Needs						
Would Transfer	17	439.85	51,544.56	227.03	F = 2.249	< .01
Would Not Transfer	107	149.38	22,915.51	151.38		
Self-Actualization Needs						
Would Transfer	17	348.59	40,740.88	201.84	F = 1.696	< .05
Would Not Transfer	109	119.01	24,015.31	154.97		

TABLE X
WEIGHTED SCORE CHARACTERISTICS FOR TEACHERS WHO WOULD
AND WOULD NOT DESIRE A TRANSFER

Group	Low Score	High Score	Range
Total Needs			
Would Transfer	545.2	3,113.8	2,569.6
Would Not Transfer	0.0	2,019.9	2,020.4
Safety Needs			
Would Transfer	0.0	705.0	705.5
Would Not Transfer	0.0	585.0	585.5
Belongingness & Love Needs			
Would Transfer	44.4	776.0	732.6
Would Not Transfer	0.0	637.2	637.7
Esteem Needs			
Would Transfer	111.0	1,038.0	928.0
Would Not Transfer	0.0	862.5	863.0
Self-Actualization Needs			
Would Transfer	36.0	682.0	647.0
Would Not Transfer	0.0	896.0	896.5

On the basis of these calculations, it was concluded that a significant difference existed between the two groups. Those teachers who were willing to persist within their present school were found to be more satisfied in their total needs than those teachers who were unwilling to persist. The null hypothesis was rejected at the .05 level. Data related to this test are summarized in Table XI.

TABLE XI
MANN-WHITNEY U TEST BETWEEN TOTAL NEEDS OF
TEACHERS WILLING TO PERSIST AND
TEACHERS UNWILLING TO PERSIST

Group	n	Σ of Ranks	<u>U</u>	<u>z</u> *	p
Willing to Persist	107	5982.0	204.0	-5.125	<.00003
Unwilling to Persist	17	1768.0			

* Critical z = 1.65

Question One

Q.1. Do teachers who are willing to persist within their present school perceive their safety needs to be satisfied to a greater extent than those teachers who are unwilling to persist?

The value of the calculated U between safety needs scores for those teachers who were willing to persist and those teachers who were unwilling to persist was 315.0. Transforming this U to z resulted in a score of -4.367. In view of this calculated z value, it was

concluded that the two groups were significantly different. The alternate form of the question was accepted. Those teachers who were willing to persist within their present school were found to be more satisfied in their safety needs than those teachers who were unwilling to persist. Data related to this test are shown in Table XII.

TABLE XII
MANN-WHITNEY U TEST BETWEEN SAFETY NEEDS OF TEACHERS
WILLING TO PERSIST AND TEACHERS UNWILLING
TO PERSIST

Group	n	Σ of Ranks	<u>U</u>	<u>z</u> *	p
Willing to Persist	109	6310.0	315.0	-4.367	< .00003
Unwilling to Persist	17	1691.0			

* Critical z = 1.65

Question Two

Q.2. Do teachers who are willing to persist within their present school perceive their belongingness and love needs to be satisfied to a greater extent than those teachers who are unwilling to persist?

The U value between the two groups of teachers was calculated to be 425.5. Through transformation of U, a z score of -3.578 was obtained.

In view of the critical \underline{z} value of 1.65, it was concluded that the two groups did not represent the same population. The alternate form of the question was therefore accepted. Those teachers who were willing to persist within their present school were found to be more satisfied in their belongingness and love needs than those teachers who were unwilling to persist. Summary data for this test are shown in Table XIII.

TABLE XIII
MANN-WHITNEY \underline{U} TEST BETWEEN BELONGINGNESS AND LOVE
NEEDS OF TEACHERS WILLING TO PERSIST
AND TEACHERS UNWILLING TO PERSIST

Group	n	Σ of Ranks	\underline{U}	\underline{z}^*	p
Willing to Persist	109	6420.5	425.5	-3.578	<.00023
Unwilling to Persist	17	1580.5			

* Critical \underline{z} = 1.65

Question Three

Q.3. Do teachers who are willing to persist within their present school perceive their esteem needs to be satisfied to a greater extent than those teachers who are unwilling to persist?

The Mann-Whitney \underline{U} test between esteem needs scores of the two groups resulted in a calculated \underline{U} value of 225.5. Transforming \underline{U} to \underline{z} resulted in a value of -4.969. In view of the calculated and critical

values of \underline{z} , it was concluded that the alternate form of the question should be accepted. Those teachers who were willing to persist within their present school were found to be more satisfied in their esteem needs than those teachers who were unwilling to persist. Data related to this test are summarized in Table XIV.

TABLE XIV
MANN-WHITNEY \underline{U} TEST BETWEEN ESTEEM NEEDS OF TEACHERS
WILLING TO PERSIST AND TEACHERS
UNWILLING TO PERSIST

Group	n	Σ of Ranks	\underline{U}	\underline{z}^*	p
Willing to Persist	107	6003.5	225.5	-4.969	< .00003
Unwilling to Persist	17	1746.5			

* Critical \underline{z} = 1.65

Question Four

Q.4. Do teachers who are willing to persist within their present school perceive their self-actualization needs to be satisfied to a greater extent than those teachers who are unwilling to persist?

The calculated \underline{U} value between self-actualization needs of teachers willing and unwilling to persist was 290.5. Transforming this \underline{U} value resulted in a \underline{z} score of -4.542. On the basis of calculated and critical values of \underline{z} , it was concluded that the alternate form of the

question should be accepted. Those teachers who were willing to persist within their present school were found to be more satisfied in their self-actualization needs than those teachers who were unwilling to persist. Data related to this test are summarized in Table XV.

TABLE XV
MANN-WHITNEY U TEST BETWEEN SELF-ACTUALIZATION NEEDS
OF TEACHERS WILLING TO PERSIST AND
TEACHERS UNWILLING TO PERSIST

Group	n	Σ of Ranks	<u>U</u>	<u>z</u> *	p
Willing to Persist	109	1715.5	290.5	-4.542	<.00003
Unwilling to Persist	17	6285.5			

* Critical z = 1.65

Summary

Chapter 4 has presented the findings of the study. All questions and the hypothesis formulated in Chapter 1 were rejected at the .05 significance level. Chapter 5 will continue with a summary, conclusions, and recommendations of the present study.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

The central purpose of the present study was to determine if perceived need satisfaction of teachers comprised a possible factor with respect to teachers' willingness to persist within a particular high school.

A random sample of 200 teachers was drawn from eight senior high schools in a large metropolitan school system. The Teacher Need Satisfaction Inventory, developed for use in this study, was mailed to each of the sampled teachers. Sixty-three percent of the sampled teachers responded to the original questionnaire. A random sample of 16 non-respondents was drawn and, through follow-up procedures, their cooperation was elicited. A statistical test was then employed to determine the equivalence or non-equivalence of the two groups. The respondent and non-respondent groups were found to be equivalent in terms of their scores for total needs, safety needs, belongingness and love needs, esteem needs, and self-actualization needs. In view of these findings, it was assumed that a certain degree of generalizability of results had been maintained even though a 100 percent return had not been accomplished on the original sample.

Teachers assigned themselves either to the "would" or "would not" like to transfer group. Assignment to these groups operationalized

the "teacher permanence" concept, which comprised the independent variable of the study. Scores of the two groups were compared to determine the acceptability of each hypothesis and question formulated in Chapter 1.

A secondary purpose of this study dealt with development of instrumentation consistent with the consideration that individuals are unique beings, each with his own perceived hierarchy of wants and desires. The resulting instrument was seen to elicit data of an idiosyncratic nature; that is, item data which had been weighted according to the perceived desires of the individual teachers. The instrument was also designed in accordance with the hierarchical prepotent motivation concept set forth by Maslow. Thus, the instrument contained four sections which encompassed safety needs, belongingness and love needs, esteem needs, and self-actualization needs. Physiological needs were assumed to be sated within the sampled population, and thus, were not included as a section of the instrument.

It seems appropriate to note that additional data were gathered from sampled teachers during the present study. Basically, these data are biographical in nature and include the variables of age, sex, marital status, number of children, total teaching experience, experience in present position, degrees held, percentage of total income represented by teaching salary, and city size in which the respondent grew up. Additionally, data were obtained as to requests for transfer during the previous year and the results of such requests (granted or denied). Although the present study was not structured to view such variables, analysis is presently being undertaken. A forthcoming descriptive report of the present analysis appears enlightening and fruitful.

The hypothesis and each of the questions were tested using the Mann-Whitney U statistical procedure. One-tailed tests at the .05 level of significance were used throughout the study. Individual findings are summarized below:

Hypothesis One

Hypothesis one stated that teachers who were willing to persist in their present school would perceive their total needs to be satisfied to a greater extent than would those teachers who were unwilling to persist. The hypothesis was supported.

Question One

Question one asked if teachers who were willing to persist in their present school would perceive their safety needs to be satisfied to a greater extent than would those teachers who were unwilling to persist. Question one was supported.

Question Two

Question two asked if teachers who were willing to persist in their present school would perceive their belongingness and love needs to be satisfied to a greater extent than would those teachers who were unwilling to persist. The question was supported.

Question Three

Question three asked if teachers who were willing to persist in their present school would perceive their esteem needs to be satisfied to a greater extent than would those teachers who were unwilling to

persist. Question three was supported.

Question Four

Question four asked if teachers who were willing to persist in their present school would perceive their self-actualization needs to be satisfied to a greater extent than would those teachers who were unwilling to persist. Question four was supported.

In summary, it was found that teachers who were unwilling to persist in their present high schools were significantly less satisfied than teachers who were willing to persist, in terms of their total needs. With respect to individual needs levels, it was found that significant differences existed between the groups for the levels of safety, belongingness and love, esteem, and self-actualization.

Recommendations

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

1. Although the reliability and validity coefficients reported for The Teacher Need Satisfaction Inventory were established and considered acceptable, it must be remembered that these coefficients were derived from satisfaction scores of teachers from only one school system. Additionally, the number of teachers involved was not large. Thus, further investigation is required before the quality of the instrument may be accurately determined. Factor analytic techniques, however, do not appear appropriate, as indicated in Chapter 2, as methods for establishing construct validity of an instrument such as The Teacher Need Satisfaction Inventory. Further research on the

instrument itself comprises the first recommendation.

2. It is recommended that the operationally constructed need levels of The Teacher Need Satisfaction Inventory be expanded to include more factors of the school environment. The base of the satisfaction construct as defined by items of the present instrument is quite narrow as the result of validating techniques employed during development. Research focusing upon the identification of relevant teacher satisfaction factors of the school environment appears to be in order. Additionally, research to determine if these factors are consistent across educational levels, between school systems, and between schools should be undertaken.

3. The population of this study included only those teachers from senior high schools within a large metropolitan school system. Comparisons between other sample groups (i.e., elementary, junior high, or private school teachers) may or may not be supportive. Additional investigation which would replicate this study, utilizing sample groups from other populations, is recommended.

4. It is recommended that research employing an experimental design be undertaken for the central purpose of reaching definite conclusions regarding perceived need satisfaction as a factor with respect to teacher permanence. An experimental design employed under laboratory conditions appears to be a most feasible approach toward the study of this problem. Studies such as this should be very rewarding to students either of educational administration or business administration.

5. It is recommended that further research be conducted in the area of need satisfaction. Specifically, need satisfaction as a

predictor variable of teacher and student unrest appears fruitful. Also, need satisfaction as it relates to alienation (powerlessness, meaninglessness, normlessness, isolation, and self-estrangement), perceptions of bureaucracy, perceptions of leader behavior, and teacher militancy might be studied. Finally, following the work of Kornhauser (1962), the role of need satisfaction and its determinant and/or concomitant effects on mental health must be extensively studied.

Conclusions and Implications

It seems appropriate to caution the reader that while viewing conclusions of the present study one must remember the previously cited limitations imposed through use of a causal-comparative research design. Thus, since lack of experimental control prohibits the establishment of cause-effect relationships, the reader should remain alert to terms such as "possible" and "appear" while viewing this section. The following conclusions were derived from the study:

1. Total needs, as operationally defined, comprise possible factors with respect to teacher permanence.
2. Safety needs, the lowest of the prepotent levels for which significance was found between the "willing" and "unwilling" groups, appear to serve the motivational role with respect to teachers' unwillingness to persist within their present school.

Several implications may be gleaned from the findings and conclusions of this study: First, although the conclusions are limited in view of the research design, the extreme probabilities on which these conclusions are based may lend a degree of support to their

validity. This, of course, must be weighed by the individual reader. Second, this study has determined that there are a number of relatively less satisfied teachers within the school system who remain due to restraints either internal or external to the work environment. The approach taken here has implications for the administrator who is interested in the personal satisfaction of his staff, for it offers a methodology for determining the status of environmental factors relevant to the teacher satisfaction variable. This approach comprises what might be termed the "practical" contribution of the study. Third, the relatively equal probabilities obtained across the hierarchical need levels do not lend support to Payne's (1970) finding that the higher-order needs were consistently the least satisfied of the levels. It may be, however, that this finding of the present study was confounded, and resulted from the methodology employed for item construction. In an attempt to identify the most relevant factors to include as instrument items the researcher may have tapped only those items of an "either/or" nature; i.e., items with which teachers were either very satisfied or very dissatisfied, with little or no middle range of satisfaction. Thus, the extreme probabilities may have resulted from the inherent nature of the items, rather than in regard to the need levels which the items represented. A clearer picture might have emerged had insignificant differences been found between the group's lower level needs of safety, or safety and love and belongingness. Thus, it is relatively clear that the instrument utilized in this study is sensitive to total needs as operationally defined. However, the area of individual needs levels is still hazy and requires further research.

It seems appropriate here to speak to a question which might be raised concerning the construct which is being measured by The Teacher Need Satisfaction Inventory. This question is extremely relevant to the findings and conclusions of the present study in that the answer to such a question will determine the departure point for research subsequent to this study.

The intent of the present study was to take "one step back" from other studies in this area which have, with little success, attempted to relate need satisfaction and behavior. In the present study the attempt has been to establish need satisfaction as a possible factor with respect to "willingness" to behave rather than as a possible factor with respect to "actual" behavior. In essence, the present attempt has been that of establishing a base from which future research on need satisfaction and behavior might profit.

The question which might be raised concerns itself with an assumption inherent within The Teacher Need Satisfaction Inventory. Specifically, when an item is scored higher in regard to its perceived presence within the school environment than it is scored on the perceived importance to me continuum, the assumption is made that the individual respondent is satisfied in regard to that item. At this point one might raise the following questions: "Is the above assumption valid?" "Is perceived need satisfaction the construct being measured or is this technique simply measuring the degree of congruence between goal object importance and goal object presence?" "If a goal object is present in the environment and is unavailable to the individual in terms of producing satisfaction, is the goal object perceived to be present?"

A number of points must be considered when judging the position of the present study in regard to the construct measured:

1. If one views perceived need satisfaction as operationally defined in Chapter 1, the obvious answer is that perceived need satisfaction is the construct being measured. However, situations such as this can become somewhat tautological which, as seen by the researcher, is one limitation of operational definitions.

2. Of more importance is the "construct validity" of the instrument. As reported in Chapter 3, acceptable validities were attained for total needs, safety needs, belongingness and love needs, esteem needs, and self-actualization needs. Construct validity was established using a "known groups" method in which principals were asked to identify groups of "more" and "less" satisfied teachers. Directional hypotheses were formed, statistically tested, and supported during a pilot study of the instrument. Here, the reader may wish to consider the criterion chosen to establish this measure of construct validity, that is, principal's perceptions of more and less satisfied teachers.

3. Acceptance or rejection of perceived need satisfaction as the construct being measured in the present study appears to rest largely on one's view of personality theory. The researcher's orientation is largely consistent with learning theory which implies that individuals act in regard to their perceptions. Thus, it was assumed that teachers would respond to the present instrument as they perceived the situation to be. From the individual respondent's point of view, his perceptions represent reality in regard to his actions. Thus, if a school system actually has a clearly stated school policy but it is perceived as being vague by an individual teacher, the assumption was that the

teacher respondent would score the item low as to its presence in the school environment. Here, the philosophical arena is being approached in that a consideration of "truth" or "reality" appears at issue.

In view of the above considerations, it appears that each reader, from his own perspective, must render judgement as to the position of the present study. Two alternatives are available. First, if the reader rejects perceived need satisfaction as the construct being measured, the position of the present study becomes that of a study of perceived congruence between goal object strength and goal object presence as a possible factor with respect to teacher permanence. The next logical step for this reader is that of developing a measure of perceived need satisfaction. Second, the reader who accepts perceived need satisfaction as the construct being measured is consistent with the view of the researcher. This reader will view the conclusions and recommendations of the present study as both accurate (within stated error confines) and useful in terms of real life situations.

As a final implication, the results of this study support one aspect of the theoretical equilibrium construct proposed by March and Simon (1969), and point to this construct as a fruitful area for further research surrounding organizational behavior. Most assuredly, the link between need satisfaction and willingness to persist must be strengthened. As further research accomplishes this, however, thought must also be given to development of methods for evaluating the utility functions of contributions and inducements. When perfected, these methods will provide means through which the total March and Simon theory of equilibrium may be tested. The results of such research would undoubtedly reduce much of the confusion which presently exists

in regard to the relationship between need satisfaction and behavior.

The value of this study will be determined, in part, by the extent to which it stimulates further research in this area. Additionally, its value lies in the validity of the small base of knowledge which it establishes.

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APPENDIX A
THE TEACHER NEED SATISFACTION INVENTORY

Department of Education
Research Project

Stillwater 74074

Dr. Kenneth St. Clair
Project Coordinator

The Teacher Need Satisfaction Inventory

QUESTION: Why should I, a teacher, take time to respond to this questionnaire?

ANSWER: Because your response will help to isolate factors of your school environment which are of importance to you with respect to making your job a more satisfying personal experience.

TIME REQUIRED: An average of 18.69 minutes to complete the questionnaire.

All responses which you make to this questionnaire will remain confidential to the Oklahoma State University research team. You are not asked to provide your name, and neither you nor your school will be identified either during this study or in its written results; therefore, please feel free to express your sincere perceptions of the importance of statements which comprise this instrument.

To insure valid results, it is imperative that you respond to all questions and return this questionnaire in the self-addressed envelope which is enclosed.

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

1. Age: 20-30 / 31-40 / 41-50 / 51-60 / over 60
2. Sex: Male / Female
3. Marital Status: Married / Separated / Divorced / Widowed / Single
4. Number of Children: None / 1 / 2 / 3 / 4 / 5 / 6 or more
5. Total Teaching Experience: 0-2 yrs. / 3-5 yrs. / 6-10 yrs. /
11-15 yrs. / 16+ yrs.
6. Experience in Present Position: 0-2 yrs. / 3-5 yrs. / 6-10 yrs. /
11+ yrs.
7. Degrees Held: B.A. / B.S. / M.S. / M.S. plus hours / Ed.S. /
Ed.D. / Other _____
8. Is your teaching salary the primary
source (over 50%) of your family's income? YES / NO
9. In what size city did you grow up? Under 5,000 / 5,001-20,000 /
over 20,000

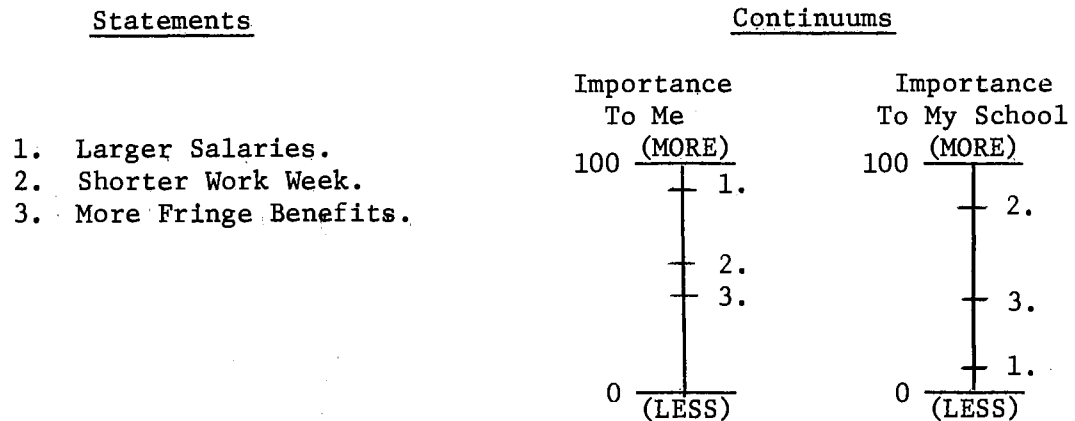
The Teacher Need Satisfaction Inventory

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

Directions:

1. Your task, as respondent to this questionnaire, is that of arranging given statements on two vertical lines which are called continuums. These continuums are scaled; that is, they are numbered. They reflect your view of the importance of the given statements, and range from "MORE" important with a scale value of 100, to "LESS" important with a scale value of 0. As you place a statement on a continuum, you give it a numerical meaning so that not only does its position have meaning, but also, distances between positions have meaning.
2. Each of the given statements will be placed on two continuums; the "Importance To Me" continuum, and the "Importance To My School" continuum.
 - A. The "Importance To Me" continuum 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" continuum 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 placed toward the "LESS" important end of the continuum. NOTE: here you must arrange the statements on the continuum AS YOU SEE THE SITUATION TO BE, NOT AS YOU FEEL IT SHOULD BE.
3. To place a statement on a continuum, draw a short horizontal line through the continuum at the point which you feel represents the importance of the statement. Then, write the number of the statement immediately to the right of the horizontal line. Here is an example of a completed set of continuums:

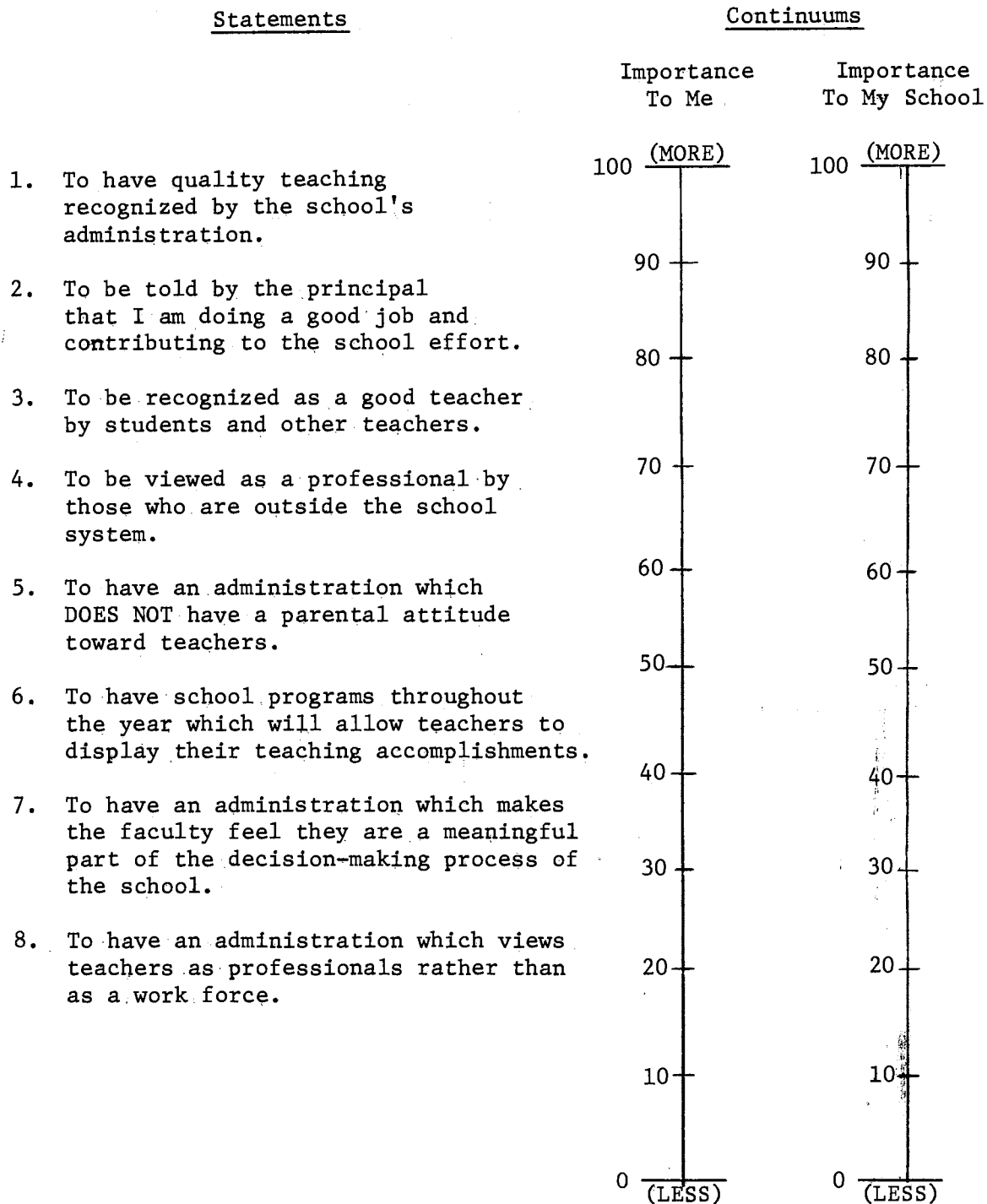
Example



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 very important. The importance of fringe benefits is the same (3.)(3.); that is, the school is providing just enough fringe benefits to satisfy me.

<u>Statements</u>	<u>Importance To Me</u>	<u>Importance To My School</u>
	100 <u>(MORE)</u>	100 <u>(MORE)</u>
1. To have clearly stated, and enforced, school policy which provides protection for teachers from irate parents.	90	90
2. To have enough materials for the teacher to do an adequate job in class.	80	80
3. To have a clearly stated, and enforced, school policy concerning student conduct.	70	70
4. To have a definite and stable schedule of upcoming activities, classes, and events for the school term.	60	60
5. To have school participation in health and liability insurance programs for teachers.	50	50
6. To have a clearly stated school policy with respect to the responsibilities of teachers.	40	40
7. To know, well in advance, where and what you will be teaching.	30	30
8. To have clear administrative guidelines for teachers on how teachers should conduct themselves.	20	20
9. To have teachers' contracts issued well in advance of the beginning of the school year.	10	10
10. To have strong administrative backing for teachers in all areas of their work.	0 <u>(LESS)</u>	0 <u>(LESS)</u>
11. To have physical facilities which are safe in terms of fire, storms, accidents, etc.		
12. To have consistent administrative backing of teachers with respect to student disciplinary matters.		

<u>Statements</u>	<u>Continuums</u>	
	Importance To Me	Importance To My School
	100 <u>(MORE)</u>	100 <u>(MORE)</u>
1. To have social activities where teachers can relax and really get to know each other.	90	90
2. To have a close personal and working relationship with other teachers within my area of specialization.	80	80
3. To have social activities which include both teachers and the administrative staff.	70	70
4. To have the feeling that students and teachers are a cooperative group working together for the benefit of themselves and others.	60	60
5. To have the feeling of being a necessary part of the entire school program.	50	50
6. To feel a close bond with my fellow teachers.	40	40
7. To have a helpful situation where teachers work together and share ideas.	30	30
8. To feel a close bond with my administration.	20	20
9. To feel welcome in the principal's office.	10	10
10. To have faculty unity; that is, a close knit group feeling.	0 <u>(LESS)</u>	0 <u>(LESS)</u>



<u>Statements</u>	<u>Continuums</u>
	Importance To Me Importance To My School
	100 <u>(MORE)</u> 100 <u>(MORE)</u>
1. To have an excellent in-service training program and a professional library for the teaching staff.	<div style="display: flex; justify-content: space-between; width: 100%;"> 100 90 80 70 60 50 40 30 20 10 0 </div> <div style="border-left: 1px solid black; height: 100%; position: relative;"> <div style="position: absolute; top: 0; left: -5px;">100</div> <div style="position: absolute; bottom: 0; left: -5px;">0</div> </div> <div style="display: flex; justify-content: space-between; width: 100%;"> (MORE) (LESS) </div>

This next question is MOST IMPORTANT to the results of this study. We ask that when answering this question you disregard factors external to your school situation; that is, that you disregard such things as the distance you must travel to work, the fact that you own your own home, that you have good neighbors, etc. In other words, select an answer based solely upon factors of your work environment.

Check the one statement below which best describes your feelings:

____ IN VIEW OF FACTORS WITHIN MY WORK ENVIRONMENT ONLY, at this time I feel that I would like a change in teaching assignment from my present position to one in another school.

____ IN VIEW OF FACTORS WITHIN MY WORK ENVIRONMENT ONLY, at this time I feel that I would not like a change in teaching assignment from my present position to one in another school.

ONE FINAL QUESTION!!!

Check the one statement below which best describes you:

____ Within the past year I have requested and received a transfer within my present school system.

____ Within the past year I have not requested and have not received a transfer within my present school system.

____ Within the past year I have requested a transfer within my present school system but the transfer was denied.

____ Within the past year I have not requested a transfer, but I have been transferred within my present school system.

Our sincere thanks for your cooperation and time.

APPENDIX B
QUESTIONNAIRE FOR GATHERING SPECIFIC NEED LEVEL FACTORS

Personal Data

1. What is the population (approximate) of the city where you now reside? _____
2. Approximately how many students are enrolled in the school where you now teach? _____
3. What is your present position (principal, teacher, etc.) _____
4. If you are a teacher, What grade level do you teach? _____

Information

People have personal needs which they constantly attempt to satisfy. These needs can be generally categorized under the following headings:

- (a) Safety Needs -- includes physical safety and psychological safety.
- (b) Belongingness and love needs -- includes both a group and individual aspect.
- (c) Esteem Needs -- includes both the respect from others and self-respect.
- (d) Self-actualization Needs -- to be what one is able to become, to utilize all of the resources of one's being.

Instructions

List two specific factors at your school which you feel are most important with respect to satisfying your safety needs (either physical or psychological). Be very specific in your answer, that is, list concrete rather than highly abstract factors.

1. _____
2. _____

List two specific factors at your school which you feel are most important with respect to satisfying your belongingness and love need. Be specific.

1. _____
2. _____

List two specific factors at your school which you feel are most important with respect to satisfying your esteem needs. Again, be specific.

1. _____
2. _____

List two specific factors at your school which you feel are most important with respect to satisfying your self-actualization needs. Be as specific as possible.

1. _____
2. _____

APPENDIX C

QUESTIONNAIRE FOR GATHERING GENERAL NEED LEVEL FACTORS

Personal Data

1. What is the population (approximate) of the city where you now reside? _____
2. Approximately how many students are enrolled in the school where you are now teaching? _____
3. What is your present position (principal, teacher, etc.) _____
4. If you are a teacher, what grade level do you teach? _____

Information

People have personal needs which they constantly attempt to satisfy. Maslow provides structure to these needs when he states that personal needs can be categorized as (1) safety needs, (2) belongingness and love, (3) esteem needs, and (4) self-actualization needs.

Given the following situation: You have just assumed the position of principal of a new school. There are very few external pressures or restrictions placed on you, as principal, with respect to policies or programs which you can structure aimed at satisfying your teachers personal needs.

In view of Maslow's needs categories above, list the five most relevant factors which you would attempt to maximize with respect to satisfying the personal needs of your teachers.

1. _____
2. _____
3. _____
4. _____
5. _____

Now list five things which you consider to be most relevant with respect to teacher dissatisfaction.

1. _____
2. _____
3. _____
4. _____
5. _____

APPENDIX D
QUESTIONNAIRE FOR DETERMINING 'KNOWN GROUPS'

To the Principal

The purpose of this pilot study is to establish the validity of an instrument entitled "The Teacher Need Satisfaction Inventory." The validating technique which is being used is that of "known groups," a technique which establishes the differentiating power of the instrument. In this study, the question to be answered is whether or not the instrument differentiates between those teachers who are "more satisfied" and those teachers who are "less satisfied" with aspects of their work environment.

You, the principal, are asked to participate in this study since you know your teachers and can, therefore, establish these "known groups."

Instructions: You are asked to provide the names of (1) three teachers in your school who you feel are most satisfied with their work environment and, (2) three teachers in your school who you feel are least satisfied with their work environment. Simply write the names under the appropriate categories below and return this sheet in the enclosed self-addressed envelope. NOTE: Work environment refers to all aspects of the school situation; that is, physical, social, psychological, etc.

MOST SATISFIED

1. _____
2. _____
3. _____

LEAST SATISFIED

1. _____
2. _____
3. _____

Information: These teachers will be sent a copy of the instrument along with an accompanying letter from the superintendent's office indicating school system approval for conducting the pilot study. All teachers will receive the same materials; that is, they will not be informed either that certain groups of more or less satisfied teachers have been identified or that they are a member of any selected group. This action has been taken to preclude any "waves" for you as a result of your participation in this study.

Your cooperation is more than appreciated. If you have any questions concerning the methodology of the pilot or the upcoming study, please feel free to come by or call. Again, THANKS A MILLION!

Sincerely,

Larry A. Thomas
Gunderson 304
372-2879 (Home)
372-6211 Ext. 6245-46 (Office)

APPENDIX E

SUPERINTENDENT'S LETTER OF INTRODUCTION

January 2, 1971

To: A Selected Sample of Teachers, _____ Public Schools

From: _____, Superintendent of Schools

Subject: The Attached Research Study

Each year we get a large number of requests from graduate students and professors at both Oklahoma University and Oklahoma State University to allow research studies to be done in the _____ Public Schools. Since we receive so many requests, most are turned down simply because we could not devote the time necessary to do them. Occasionally, we do participate in such studies when the time element involved is not great and when the research involved promises to have some significance for us.

The purpose of this memo is to provide an introduction to the research in which you are now being asked to participate. Your involvement consists entirely of responding to the enclosed instrument which is entitled The Teacher Need Satisfaction Inventory. It is my understanding that it will require approximately twenty minutes of your time to complete.

The focus of this study is one which should be of particular interest to you in that it deals with identifying factors within the school environment which you perceive as being more or less satisfying with respect to your personal needs.

You are one of 42 teachers who will comprise a sample representing the _____ Public School system. It is my understanding that the identification of individuals in this study is not necessary; therefore, you will not be asked to sign your name nor will you as an individual be identified in any way. I hope you will feel that you can take time to participate since a large response will assure a more valid study.

Thank you for your cooperation.

APPENDIX F

FOLLOW-UP LETTER SENT TO SAMPLED TEACHERS

January 10, 1971

Dear Teacher

Just a note of thanks for your cooperation and participation in our present research concerning the identification of factors of the school environment which either aid or hinder your personal satisfaction.

At this point, a large majority of the 200 sampled teachers have responded and returned their completed instruments to us. A very warm "thanks" is hereby extended. We are concerned, however, for we have not as yet received all of the instruments which were originally mailed. In a study such as this, it is imperative that 100% of the sampled teachers respond to the instrument. Therefore, we actively solicit your help in obtaining the instruments which have not been received to date. Without them, the validity of the results of the study will be forever questionable.

Again, let us point out that neither you nor your school will be identified in any way either during the study or in its written results. We feel that we have taken every step to eliminate any threat which may be sensed by you as a participant in the study and we sincerely hope that we have succeeded in this effort.

Thanks a million for your time!!!

Very respectfully,

The Research Staff

VITA

Larry Allen Thomas

Candidate for the Degree of

Doctor of Education

Thesis: PERCEIVED NEED SATISFACTION AND TEACHER PERMANENCE

Major Field: Educational Administration

Biographical:

Personal Data: Born in Chelsea, Oklahoma, May 1, 1939, the son of Dr. and Mrs. Denton B. Thomas

Education: Graduated from Chelsea High School, Chelsea, Oklahoma, in May, 1957; attended Northeastern Oklahoma A. & M. Junior College, Washington State University, and Oklahoma State University during the period 1957 to 1961; received the Bachelor of Science degree from Oklahoma State University in 1961, with a major in Forestry; received the Master of Science degree from Oklahoma State University in 1969, with a major in Secondary Education; completed requirements for the Doctor of Education degree at Oklahoma State University in May, 1971.

Professional Experience: Naval Officer, 1962 through 1968; graduate teaching and research assistant, Department of Education, Oklahoma State University, 1969 through 1971. Consultant for Title I and Title III, ESEA evaluation, Stillwater Public School System, Stillwater, Oklahoma, 1971; Director, ESEA Title III project, Stillwater Public School System, Stillwater, Oklahoma, 1971.