RELATIONSHIP BETWEEN SELF-REPORTED STRESS LEVELS
AND JOB SATISFACTION AMONG ELEMENTARY
AND SECONDARY SCHOOL PRINCIPALS

DISSERTATION

Presented to the Graduate Council of the
North Texas State University in Partial
Fulfillment of the Requirements

For the Degree of

DOCTOR OF PHILOSOPHY

By

James R. Adams, M.Ed.
Denton, Texas
August, 1983

The problem with which this investigation is concerned is that of determining the nature of the differences and relationships between self-reported levels of stress and job satisfaction of elementary and secondary school principals in a selected school support region. This research effort employed a co-relational design.

A random sample of 100 elementary and 100 secondary school principals were selected to participate in the study, for which the response rate was 93 per cent. The principals were mailed the Morse Index of Employee Satisfaction and the Spielberger State-Trait Anxiety Inventory, Part A, and asked to assess their own job satisfaction and stress levels.

The data were analyzed descriptively and inferentially on all subjects across all variables. Means and standard deviations were computed on all data. A series of t tests was used to determine if any significant differences exist between principals' level of job satisfaction and self-evaluation stress levels. The Spearman-Brown correlation coefficient was used to determine the relationships between the respective job satisfaction
indices and self-evaluated stress levels. The p < .05 level of statistical significance is used as the criterion for rejection of all hypotheses.

It is concluded that school principals appear to be highly satisfied with their jobs. The self-reported stress level of principals is higher than anticipated based on the review of the literature. There is a weak relationship between stress and job satisfaction as reported by the respondents.
TABLE OF CONTENTS

LIST OF TABLES. ........................................... v

Chapter

I. INTRODUCTION. ................................. 1

Statement of the Problem
Purpose of the Study
Hypotheses
Background and Significance of the Problem
Definition of Terms
Basic Assumptions and Limitations
Chapter Bibliography

II. REVIEW OF THE LITERATURE. ............... 18

Introduction
Construct of Job Satisfaction
Construct of Stress
Summary
Chapter Bibliography

III. RESEARCH METHODOLOGY. .................. 48

Theoretical Framework of the Study
Independent Variables
Dependent Variables
Instrumentation
Setting, Population, and Sample
Data Collection Procedures
Analysis of the Data
Chapter Bibliography

IV. PRESENTATION AND ANALYSIS OF DATA .... 64

Introduction
District Involvement
Financial Job Satisfaction
Intrinsic Job Satisfaction
Pride-in-School Performance
Self-Evaluation (Stress)
Satisfaction and Stress
Summary
Chapter Bibliography
V. SUMMARY, FINDINGS, IMPLICATIONS
CONCLUSIONS, AND RECOMMENDATIONS . . . . . . . . . . 97

Summary
Findings and Implications
Conclusions
Recommendations
Chapter Bibliography

APPENDICES. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 116

BIBLIOGRAPHY. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 133
**LIST OF TABLES**

<table>
<thead>
<tr>
<th>Table</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>I.</td>
<td>Intercorrelation of the Indexes of the Morse Index of Employee Satisfaction.</td>
<td>54</td>
</tr>
<tr>
<td>II.</td>
<td>Distribution of Scores for Morse Index of Employee Satisfaction.</td>
<td>54</td>
</tr>
<tr>
<td>III.</td>
<td>Means and Standard Deviations of A-State Anxiety Scale Under Stressful and Nonstressful Conditions.</td>
<td>59</td>
</tr>
<tr>
<td>IV.</td>
<td>Analysis of District Involvement Scores for School Principals Grouped According to Selected Variables.</td>
<td>68</td>
</tr>
<tr>
<td>V.</td>
<td>Analysis of Financial Job Satisfaction Scores for School Principals Grouped According to Selected Variables.</td>
<td>72</td>
</tr>
<tr>
<td>VI.</td>
<td>Analysis of Intrinsic Job Satisfaction Scores for School Principals Grouped According to Selected Variables.</td>
<td>75</td>
</tr>
<tr>
<td>VII.</td>
<td>Analysis of Pride-in-School Performance for School Principals Grouped According to Selected Variables.</td>
<td>79</td>
</tr>
<tr>
<td>VIII.</td>
<td>Analysis of Self-Evaluation for School Principals Grouped According to Selected Variables</td>
<td>83</td>
</tr>
<tr>
<td>IX.</td>
<td>Spearman-Brown Rank Order Correlations Between Job Satisfaction Indexes/Self Evaluation and Selected Independent Variables.</td>
<td>87</td>
</tr>
<tr>
<td>X.</td>
<td>Spearman-Brown Rank Order Correlation Between Job Satisfaction Indexes and Self-Evaluation (Stress) (Total Group).</td>
<td>90</td>
</tr>
<tr>
<td>XI.</td>
<td>Characteristics of Elementary and Secondary School Principals.</td>
<td>100</td>
</tr>
</tbody>
</table>
CHAPTER I

INTRODUCTION

Changes in our society during the past decade have affected school programs and the administrators who implement them. Events affecting education include dwindling enrollment, shrinking tax revenues, escalating operational costs and declining confidence and support for public education. These factors and possibly others could affect the quality of work in educational environments and the morale of school administrators. Therefore, it seems appropriate for members of the education profession, especially school administrators, to focus attention on the socio-psychological problems of the school principal. The modern concept of educational administration currently emphasizes this encompassing role for the school administrator.

Gmelch (9, p. 31) states that change, more than any other factor, has increased the incidence of stress in our lives. This situation is further complicated by the fact that many people are neither aware of their stress levels nor have they been trained to manage stressful situations effectively. Stress is a condition that not only affects the mind but is felt throughout the entire body. Stress may have an effect that is both physical and social. In fact,
Rumel and Radar (29, p. 305) report, stress in the United States has surpassed the common cold as the most prevalent health problem.

Selye defines stress as "the nonspecific response of the body to any demands made upon it, either mental or physical" (31, p. 27). The response of the body to stress may be a negative affect, such as anger, anxiety, or depression, that is accompanied by potentially pathogenic physiological changes which result in an increased heart rate or release of adrenocorticotropic hormone into the bloodstream (31).

According to Adams (3) stress is an essential positive force. A fair amount of stress is necessary for one to function effectively and to maintain good health. However, stress becomes a problem when its presence rises too high. This situation may cause one to become over stimulated, hence to "burn out"; conversely, if stressful situations are avoided, this may cause a person to be under stimulated, hence to "rust out" (3, p. 1).

Selye's (31, pp. 38-40) research shows that when the body is subjected to high levels of stress, the equilibrium of the body is disrupted because the autonomic nervous system and the endocrine-gland system begins equipping the body to either fight or take flight. Those who do not have adequate outlets for their stress eventually experience manifestations of strain, such as hypertension, increased
smoking or drinking, irritability, depression, or sleeping problems. Those who live with these conditions over prolonged periods of time tend to have lower resistance to illness and subsequent decreases in their morale and effectiveness at work.

The research findings of Goss (11), Kyriacou and Sutcliffe (21), McLaughlin and Shea (26) and Warr and Wall (33) highlight the prevalence, sources, and symptoms of stress among educators. Kyriacou and Sutcliffe (22, p. 305) identify the needs to do stress-related research in educational settings, which will uncover patterns or sources of stress, and to investigate the relationships between specific factors implicated in stress and the interrelationships between such factors. Koff and others (19, p. 1) also note that there has been little stress research specifically on school administrators.

There may be a relationship between job satisfaction and job performance; individuals who are satisfied with their jobs (or are having their basic needs met by the job) perform at a higher level than individuals who are dissatisfied with their jobs. Locke (24) indicates that considerable attention has been given to the subject of job satisfaction and its affect on attitudes, physical health, longevity, mental health, and work-related behavior such as absenteeism and turnover. Hoy and Miskel (16) call
attention to the fact that research which is related to job satisfaction and performance needs to be conducted.

French and Capland (7) report that there is a direct relationship between participation and its affect on organizational members. Research also suggests that increasing participation is a way to decrease stress and increase job satisfaction. Kyriacou and Sutcliff (21) found that there is a negative relationship between job satisfaction and stress for teachers. The focus of this study is to investigate further the differences and relationships between stress and job satisfaction among school principals.

A number of studies indicate that stress is related to job dissatisfaction. Goss (11) and Warr (33) found a close association between sources of job dissatisfaction and sources of stress. McLaughlin and Shea (26, pp. 216-224) investigated job satisfaction among 348 elementary and 445 secondary school teachers and found some sixty-seven items of teacher dissatisfaction. However, they found that inadequate salaries and negative student attitudes are the main sources of dissatisfaction for secondary teachers, whereas excessive clerical work and supervisory duties at school are the most stressful for elementary school teachers.

Caplan and Jones (4, pp. 713-719) researched and studied the effects of workload, role ambiguity, and
personality type on anxiety, depression, and heart rate. They found that anxiety covaries with stress more than resentment and depression; depression appears to occur after a harmful or dangerous event, anxiety accompanies states of ambiguity about the future, and stress is greater on people who have Type A personalities.

According to Harlin (13), stress itself is neither good nor bad; its consequences depend upon an individual’s reaction to it. The average person is capable of dealing with stress occasionally. Lazarus (23), however, indicates that repeated stress in varying magnitudes can begin to affect the individual inversely. According to Newman (27), the response correlations that have been found to be associated with job stress are somatic (headaches, dizziness, sleeplessness, fatigue), psychological (job dissatisfaction, anxiety, tension, irritability, depression), and behavioral (use of medication, alcohol, cigarettes, appetite). Associations between occupational stressors (coronary heart disease, mental illness, and alcoholism) also are reported.

In the assessment of stress, prior research shows that there is a relationship between major stressful events in a person’s life and ill health. Gorsuch and Key (10, p. 352) conducted a study that measured states of anxiety and the magnitude of life change surrounding the pregnancies of 118 low-income client patients. Anxiety and life stresses
were found to contribute independently to abnormalities of pregnancy. A study by Greene and Miller (12) documents clusters of family life changes two years prior to the outbreak of leukemia in a child who had been subject to severe life changes.

The relationship between life change and neurotic illnesses has also been studied. The Life Change Unit Scale developed by Holmes and Rahe (14) is used in the assessment of life changes that could have an impact on one's health.

The classic study of job satisfaction in the educational field is Hoppock's (15). Hoppock was surprised when he found that less than 10 per cent of the sampled teachers were dissatisfied with their jobs. In 1951, similar findings were made by Chase (5) who found that less than 8 per cent of the respondent teachers indicated that they were dissatisfied with their jobs. Fuller and Miskel (8) also found that less than 8 per cent of respondent educators were dissatisfied. Such findings seem to support the conclusion that dissatisfaction among educators has remained relatively stable and below 10 per cent. Hoy and Miskel (16) point out that this may indicate a social bias on the part of educators since they have always been told that the proper orientation is to obtain satisfaction from serving children.

The two most common approaches for studying job satisfaction are (a) to ask about the job and the satisfaction level and relate the two concepts, and (b) to
determine personal characteristics, ask about the satisfaction level, and relate these concepts. Smith, Kendall, and Hulin (32) have developed another approach to the study of job satisfaction that is best explained as a discrepancy between work motivation attitudes and the incentives offered by the organization. Similar concepts are presented by March and Simon (25) (the "inducement-contribution" theory), Adams (2) (the "inequity" theory), and Festinger (6) (the "cognitive dissonance" theory). These theories support the concept that job satisfaction levels are related to the perceived differences between what is expected or desired as a fair and reasonable return, and what is actually experienced in the job situation.

Abbott (1) hypothesizes that as long as an educator remains in a school system, he will perform basically according to the way his position is defined for him; in doing so, he anticipates a relationship between the expected performance and the school district's rewards. If he performs and the rewards are not forthcoming, a condition of dissonance of inequity exists. The educator makes changes in his affective responses to the job to accommodate a change in the job-satisfaction level.

A considerable amount of research has been done to identify incentives that will produce high satisfaction levels among organizational members and produce strong commitments for obtaining organizational goals. The two
schools of thought that exist are the traditional theory and the motivator-hygiene theory.

Traditional theory holds that individual members of organizations have personal needs that can be satisfied directly or indirectly through their work involvement. Schaffer (30) indicates that there was little reason to believe that work is other than simply a special area of human behavior. Whatever causes a person to be satisfied or dissatisfied in any area of life would also cause satisfaction or dissatisfaction in the work area. Dissatisfaction is described as a state of tension and, theoretically, this state of tension is aroused when a person cannot satisfy certain of his needs. It is further theorized that the magnitude of the tension is dependent on the strength of a person's needs and the extent of the opportunity for satisfying these needs. Overall job satisfaction is thought to vary directly with the extent to which an organization can satisfy individual needs.

Statement of the Problem

The two-fold problem of this study is (1) to determine if there is a difference between the levels of self-reported stress and job satisfaction between elementary and secondary school principals, and (2) to determine if there is a relationship between self-reported levels of stress and job satisfaction among elementary and secondary school
principals. Specifically, this study seeks to answer the following questions.

(1) Is there a significant difference between elementary and secondary school principals' levels of self-reported stress?

(2) Is there a significant difference between elementary and secondary school principals levels of self-reported job satisfaction?

(3) Is there a significant relationship between elementary and secondary school principals' self-reported levels of stress and their self-reported levels of job satisfaction?

Purpose of the Study

This study is designed to determine the prevalence of self-reported stress and job satisfaction among elementary and secondary principals. The study will assist in building a data base and fill voids in knowledge relative to job satisfaction and stress among school administrators. The study will determine whether or not self-reported stress and job satisfaction are significantly different for elementary and secondary principals and if there is a correlation between sample groups across selected independent variables.

Hypotheses

The following hypotheses are developed and tested specifically for elementary and secondary principals.
Hypothesis I: There will be no significant differences between elementary and secondary school principals' mean levels of job satisfaction derived from district involvement across selected independent variables as measured by the Job Satisfaction Questionnaire, Morse Index of Employee Satisfaction.

Hypothesis II: There will be no significant differences between elementary and secondary school principals' mean levels of financial job satisfaction across selected independent variables as measured by the Job Satisfaction Questionnaire, Morse Index of Employee Satisfaction.

Hypothesis III: There will be no significant differences between elementary and secondary school principals' mean levels of intrinsic job satisfaction across selected independent variables as measured by the Job Satisfaction Questionnaire, Morse Index of Employee Satisfaction.

Hypothesis IV: There will be no significant differences between elementary and secondary school principal's mean levels of pride-in-school performance across selected independent variables as measured by the Job Satisfaction Questionnaire, Morse Index of Employee Satisfaction.

Hypothesis V: There will be no significant differences between elementary and secondary school principals' mean
levels of self-evaluation (stress) across selected independent variables as measured by the Self-Evaluation Questionnaire, Part A, State-Trait Anxiety Inventory.

Hypothesis VI: There will be no significant relationships between elementary and secondary school principals' mean levels of job satisfaction indexes and selected independent variables as measured by the Job Satisfaction Index, Morse Index of Employee Satisfaction.

Hypothesis VII: There will be no significant relationships between elementary and secondary school principals' mean level of self-report levels of stress and selected independent variables as measured by the Self-Evaluation Questionnaire, Part A, State-Trait Anxiety Inventory (STAI).

Hypothesis VIII: There will be no significant relationships between the mean job satisfaction indexes and mean self-evaluation (stress) scores of elementary and secondary school principals as measured by the Job Satisfaction Index, Morse Index of Employee Satisfaction and the Self-Evaluation Questionnaire, Part A, State-Trait Anxiety Inventory (STAI).

Definition of Terms

The following terms are defined as they relate to this study.

An elementary school principal is a professional who is
certified and assigned as the chief official of a single school that may have grades which range from kindergarten through eighth grade.

Job satisfaction is operationally defined as the respondents' scores on four indices of the Morse Index of Employee Satisfaction that range from 4-20 on each index; theoretically, job satisfaction is defined as the degree of satisfaction that individuals obtain from the various roles they play in an organization.

A secondary school principal is a professional who is certified as an administrator and assigned as the chief official of a single school that has grades which range from ninth through twelfth.

Self-evaluation (stress) is operationally defined as a respondent's composite score on the twenty-item Self-Evaluation Questionnaire State-Trait Anxiety Inventory, Part A; it is theoretically defined as current feelings of emotional and physical uneasiness and apprehension that are associated with perceived stressful events in the work environment.

Basic Assumptions and Limitations

It is assumed that the respondent administrators will respond candidly to the data collection instruments. This study is limited to a large school support region that is located in north central Texas. The subjects were randomly selected from an eight-county area that consists of
eighty-one school districts which includes public and private schools.

Background and Significance of the Study

The development of this research study emanated from recognizing the necessity of articulating the importance of measuring the state of tension in the educational environment and reporting how school principals feel about their job performance. It is hoped that the study answers some of the questions concerning the relationships between stress and job satisfaction among school administrators. Prior research reveals that the percentage of dissatisfied educators has remained at a relatively stable, low level—below 10 per cent (5, 8, 15). Hoy and Miskel (16) explain this relatively low percentage as a socially biased response. This research provides an indication of any changes in social norms among educators in reporting their feelings about their job performance.

Self-disclosure is purported to bring about improved personal and interpersonal functioning, and improved mental and physical health (17, 18, 28). Additionally, data relative to the prevalence of stress from this study and the study by Koff and others (19) will serve as a basis for conducting stress management training to assist school principals in coping with stress in the work environment. This research effort is intended to serve as a stimulus for
further investigation of stress and job satisfaction and for improvement in the educational work environment.

In summary, it is evident that highly stressful situations in the educational environment does not tend to enhance job satisfaction among school administrators. Kyriacou and Sutcliff (20, 21) identify the need for further educational research in the area of stress and job satisfaction. It is hoped that this study aids in determining the relationships between self-reported levels of stress and job satisfaction, assists in building a data base, and fills voids in knowledge relative to job satisfaction and stress among administrators. The study makes a quantitative assessment of the prevalence of stress and job satisfaction among school principals. These data provide a basis for stress management training and establish the need to improve the work environment for school administrators.
CHAPTER BIBLIOGRAPHY


CHAPTER II

REVIEW OF THE LITERATURE

Introduction

This chapter contains a review of the literature and research that is relevant to the problem of this study. The two major sections of this chapter are (a) a review of the theoretical formulations and empirical findings on the construct of job satisfaction, and (b) a discussion of the construct of stress and a review of recent research studies on the relationship between stress and various conditions and phenomena.

The Construct of Job Satisfaction

Job satisfaction is defined by Locke (37, pp. 1,297-1,298) as a positive emotional state resulting from the appraisal of one's job or work experiences. The term overall job satisfaction refers to the evaluation of the job as a whole, which includes such factors as job components (financial rewards, resources to get the job done, interest, challenge, autonomy, relations with co-workers) and comfort factors (such as hours, travel time, and physical surroundings). As a general term, job satisfaction refers to the fulfillment acquired by experiencing various job activities and rewards.
According to Cummings and Schwab (14, p. 8), satisfaction is a term used to analyze outcomes already experienced by an employee. Thus, satisfaction is the result of rewards and punishments associated with past performance. An employee can be satisfied or dissatisfied with behavior, performance, or reward relationships that currently exist. Motivation and satisfaction are related, but they are not synonymous concepts. Motivation is primarily concerned with goal-directed behavior, whereas job satisfaction is concerned with enjoying every aspect of a particular job.

Mortimer (40, p. 1) indicates that a number of measures of satisfaction have been utilized, the most common of which are based on multiple item scales. The trend over the years has been to include individual items in large-scale surveys of national representative samples. Between the years from 1958 to 1973, Mortimer notes seven national surveys were conducted on job satisfaction by the National Opinion Research Center of the University of Chicago and the Survey Research Centers of the Universities of Michigan and California that simply asked, with minor variations "how satisfied are you with your job?" The use of straightforward questions has not lacked for criticism, which has stemmed mainly from uncertainty about what such items actually measure. The results reveal that more than 80 per cent of workers report at least moderate satisfaction
with their jobs. Strauss (62) believes that when workers report that they are satisfied with totally boring jobs, it means that self-respect forces them to answer in this way. In our society, work is considered to be central to life, and to report that one's job is unsatisfactory is almost to admit failure in life itself.

Some researchers use "discrepancy measures" as a means of identifying the difference between the experiences and rewards actually obtained on the job and those that the worker would like to have or feels he deserves. This approach is consistent with current industrial psychology theories of Adams (1) Locke (37) Porter and Lawler (45) and Vroom (67). Seashore and Taber (53, pp. 339-345) argue that there is little evidence to prove that such measures are more valuable or reliable than direct measurements. Additionally, the scores are often ambiguous and difficult to interpret.

Bridges (8, pp. 41-56) use the Job Descriptive Index to measure job satisfaction in his research on the relationship between job satisfaction and employee absenteeism in the private sector. Consistent with previous research, Bridges concludes that there is evidence to suggest that the relationships between job satisfaction and absenteeism are more apt to relate under a condition of high-work independence than under moderate or low interdependence.
Chandler (12) uses the Minnesota Satisfaction Questionnaire (MSQ) to measure the job satisfaction of 159 teachers in Memphis. Findings indicate that there is no significant difference in the satisfaction levels of teachers who work in desegregated or segregated schools. Working conditions is the only factor that is significant, but not with both groups.

Gemmill and Heisler (19) use a Likert-type job satisfaction scale to measure job satisfaction in terms of job content, progress, opportunities to use one's abilities, and the company in toto. The study investigates the relationship between Machiavellian orientation and several job-related correlations among 150 managers in a large manufacturing firm. The findings indicate that Machiavellian orientation is positively associated with job strain and perceived opportunity for formal control, and it is negatively associated with job satisfaction.

Ewen (16, pp. 68-73) conducted a study to determine the importance of the components of the job to the employee as well as how satisfied he is with each component. The Job Description Index (JDI) (29) was used to measure job satisfaction. It was found that by combining satisfaction with several different components into an estimate of overall job satisfaction, weighting the components by using important measures does not appear to be warranted.
Theories of Job Satisfaction

Four major theories provide theoretical references for this study. They are (a) the traditional theory, (b) Herzberg and others (26) and the two-factor theory, (c) Maslow (38) and the need hierarchy, and (d) Festinger (18) and cognitive dissonance.

Traditional theorists hold that individual members of organizations have personal needs that can be satisfied either directly or indirectly through work involvement. A need creates a state of tension that continues as long as the need is not satisfied. Traditional theorists are concerned with identifying personal needs that can be satisfied either directly or indirectly by the organization. Schaffer (56) indicates that there is little reason to believe that work is other than a special area of human behavior. Simon (57) and Weick (69) help to explain the traditional theory by stating that it is a question of obtaining a satisfactory level of performance by learning what an individual's needs are and then offering to fulfill these needs in exchange for his services to the organization.

A contrast to traditional theory is provided by the motivation-hygiene theory of Herzberg and others (26) which is the result of a study of satisfaction and dissatisfaction of personnel at the middle-management level in a formal organization. This departure from the traditional theory
resulted from the observation that some kinds of work gratification seem to act as satisfiers, while others act as dissatisfiers. Initially, Herzberg and others' study resulted in two specific conclusions about this theory. The first conclusion is that there is a set of extrinsic job conditions that result in dissatisfaction among employees when the conditions are not present; these conditions are dissatisfiers or hygiene factors since they are needed to maintain at least a level of no satisfaction. The second conclusion is that a set of intrinsic job conditions exists to operate and build strong levels of motivation that can result in good job performance. It should also be noted that this theory has not been accepted without criticism.

The two-factor theory is still being studied and subjected to critical review (11, 15, 23). One major weakness of the Herzberg theory is its lack of flexibility in explaining differences in individual personality needs. Studies have found that significant differences are created by personality factors in the area of job satisfaction. It has been suggested that job satisfaction can be estimated directly from the measurement of varying degrees of need satisfaction.

Because of these results, various need theories in social psychology become operative as a fertile ground for further exploration of job satisfaction. Maslow's (38) need theory becomes the most significant in job satisfaction
research. Maslow's theory is based on the idea that an individual's needs develop in a sequence from low-order to high-order needs. The five-plateau hierarchy he proposes consists of (a) basic physiological needs, (b) safety and security needs, (c) social-affection needs, (d) esteem needs, and (e) self-realization needs.

Bloom and Barry (7, p. 293) conclude that hygiene needs must be met before motivation needs become operative. It can be further viewed that the extrinsic factors of Herzberg relate directly to Maslow's lower-order needs, and the intrinsic factors relate closely with higher-order needs. The synthesis of Herzberg and Maslow's theories seem to point in the direction of a more workable and realistic model of job satisfaction.

While the Herzberg-Maslow synthesis seems to be a step toward reality, there are many unexplained deviations in studies that deal with life situations. Some researchers add another dimension to their discussion in an attempt to explain more of these deviations. Festinger (18) developed the "cognitive dissonance" theory that is based on the assumption that people strive to avoid inconsistencies in their beliefs. He proposes that dissonance between two cognitive elements will motivate an individual to do whatever is easiest to achieve in consistency between the disparate beliefs. This may cause a person to change a conflicting attitude or may merely involve the reweighting
the importance of various attitudes of factors determining them. Handyside (25) describes this concept as a dynamic process of balancing one thing against another rather than viewing job satisfaction as a static process of having a particular level of overall satisfaction.

The idea of a cognitive balance system led to the development of an input-output model of job satisfaction, such as the one proposed by Katzell, Barrett, and Parker (33). They visualize employee satisfaction and performance as the output, and the working environment and employee efforts as the inputs. Further research in this area led to the conclusion that the Herzberg-Maslow synthesis can be viewed in terms of an input-output relationship that is mediated by the expectations that an individual brings to a job (28; 66, pp. 416-423).

Components of Job Satisfaction

In order to understand fully the concept of job satisfaction, it is necessary to separate job satisfaction into its basic components or determinants. According to Mortimer and Lorence (41) the two major components of job satisfaction can be identified as those that are external to the worker and those that are internal. A great deal of discussion has been conducted relative to the importance of these two factors. Some of the features of work itself—including occupational as well as organizational characteristics—are important determinants of job
satisfaction. Another concept presented (41) in the literature is that the physical attributes of the worker are of little consequence. Mortimer and Lorence (41) report that the whole matter of job satisfaction lies in the fit or congruence of the worker and the job. It has also been reported (41) that workers respond differently to their job experiences depending on their orientations and the rewards that are considered important. The psychological attributes of the worker will vary according to the worker's education, age, stage in the family life cycle, sex, race, and other social characteristics (41).

Job satisfaction has also been found to be positively related to a number of work dimensions that are indicators of a good job (37). These dimensions include such considerations as autonomy and freedom from close supervision, good pay, and other economic benefits, job security, promotional opportunities, use of valued skills and abilities, variety, and interesting work. It is also argued by Locke (37) that job satisfaction is related to occupational prestige. Research findings show higher job satisfaction among professional, technical and managerial workers, and lower job satisfaction in the blue collar, semi-skilled, and unskilled ranks.

Locke (37) summarizes the current knowledge of the determinants of satisfaction, which includes the attributes of work itself (opportunity to use abilities, creativity,
variety, autonomy), attributes of the self (such as self-esteem, pay, promotion, opportunities, supervisors' behavior), and the characteristics of the organization and its system of supervision and management. Locke concludes that there is a relationship between satisfaction and productivity; satisfaction can be an outcome of productivity when high productivity leads to such rewards as approval, pay increases and promotions.

Some researchers have not been able to agree on the relative importance of the various occupational attributes and experiences. Locke (37) identifies three schools of thought in this continuing debate related to work. First the physical-economic school of the 1920s, which was led by Frederick Taylor and his associates, emphasizes the importance of physical work conditions and pay. Second the human-relations school, started in the 1930s, features the social function of the work group and good supervisory relations in producing worker satisfaction or dissatisfaction. Third, the work-itself school of recent years, in which the primary emphasis is on the interest and challenge of work. A different concept is presented by Herzberg and others (26) who argue that only motivators, or the intrinsic features of work inherent in the work experience, generate job satisfaction. The motivators include achievement, recognition, the work itself, responsibility, and advancement. Herzberg and others (26)
further indicates that extrinsic features (or "hygienes") relating to salary, supervision, interpersonal relations, and working conditions will produce dissatisfaction when they are deficient but will generate satisfaction when they are adequate.

Selected researchers also have found that intrinsic features of work are important as sources of job satisfaction. Gurin and others (21) determined from a natural sample of male workers that those who are generally satisfied with their jobs are more likely to mention ego related factors (such as interest, variety, responsibility, and competence) as producing satisfaction, while those who are generally dissatisfied are more likely to mention only extrinsic dimensions. According to Kohn and Schooler's (35) findings, autonomy and job scope are the major determinants of job satisfaction for workers. Kahn (32) Locke (37), and Seashore and Taber (53) provided additional evidence regarding the significance of intrinsic work features in producing job satisfaction. A great deal of attention has been given to the intrinsic and extrinsic features of the job as sources of satisfaction and dissatisfaction. However, the organizational structure, organizational climate, the size of the organization, and the shape of the hierarchical structure have been studied in relationship to job satisfaction (31).
The fit hypothesis places emphasis on the compatibility of external work features and the internal attributes that the individual brings to the work situation. According to Locke (37), these internal attributes include social characteristics (such as education, race, and life cycle stage), values (intrinsic and extrinsic reward values), and needs (safety, affiliation, self-actualization, etc.). Locke concludes that job satisfaction is essentially an inverse function of the degrees of discrepancy between the individual's work preference and actual work experiences, weighted by the importance or intensity of those preferences. There are significant variations in expectations, aspirations, needs, and values among workers, and these differences are associated with social background and other personal characteristics. Seybolt (54) found that rewards of greater magnitude (pay, variety, task complexity) are required to satisfy the more highly educated employee. Tannenbaum and others (63) report that education has a significant negative effect on job satisfaction. Wright and Hamilton (70) show that in 1973 younger workers were more dissatisfied with their jobs than older workers. Variations in job satisfaction are reported by Gurin and others (21) Kohn and Schooler (35), Quinn and others (48) are found to differ by occupational level and education.

There is evidence that pay and other extrinsic concerns are of major importance in influencing the job satisfaction
of workers (17, 31, 37, 63). Voydanoff (66), using data from the 1969 survey of working conditions, shows that intrinsic job features are not more important than the extrinsic features in explaining job satisfaction.

A number of factors have been studied in an attempt to explain job satisfaction in terms of psychological theories (23, 47, 68). In a study of blue collar workers, males have a higher turnover rate than females, but females have a higher absentee rate (34). Male-female distinctions seem to be bound to specific situations and cannot be generalized from one occupation to another or even from one company to the next (9).

In the case of the relationship between organizational size and job satisfaction, evidence is unclear and sometimes contradictory. For buyers, the large organization was found to be the most satisfactory (5, 49). Beer (5) found an inverse relationship between organizational size and satisfaction. Porter (43) found that there is a curvilinear relationship between job satisfaction and the size of an organization. The relationship between job level and job satisfaction, however, is fairly consistent. Porter (44) reportes that job satisfaction and the industrial hierarchy (or the status of occupation) holds a direct and strong relationship with the degree of workers' satisfaction. The review of the literature does not address type (private and public) of organization.
The Construct of Stress

The study and discussion of stress is perhaps one of the most frequently appearing subjects in psychological literature. The theoretical and operational definitions of stress are replete with semantic confusion. This situation has led to vague and interchangeable uses of the term with anxiety in the research literature. Also, a considerable lack of agreement is prevalent regarding the nature of stress, conditions that arouse it, and specific past or current experiences that make an individual vulnerable to it.

The immediate impetus and popularity of the concept of stress comes from physiology, and in particular from Selye's (55 p. 36) analysis of the general adaptation syndrome (GAS). Selye's general adaptation syndrome explains the concept of stress in three stages. First, there is an "alarm reaction" that produces various physiological changes. Selye's theory maintains that these changes remain the same no matter what the stress. If the stress remains, the individual will experience the "disease of adaptation" (headache, fever, colitis, fatigue, loss of appetite, nausea, rash, etc.) Individuals differ in their responses due to personality, genetic make-up, and early or previous experiences. The second stage is the "stage of resistance." The human organism is a marvelous machine and will itself try to adapt to the stress. The symptoms will disappear
even though the stressors' stimulus remains. However, since the human organism can continue this resistance only so long, next is the "stage of exhaustion" wherein the symptoms of "alarm reaction" reappear and cause permanent physiological change. The change usually incapacitates the person and, in extreme cases, might cause death (55, pp. 37-40).

One major source of the ambiguity and confusion in the research on stress is the fact that the terms stress and anxiety are used interchangeably by many investigators. Lazarus (36) asserts that stress has at least four different meanings. It is used to refer to (a) the dangerous stimulus conditions (stressors) that produce emotional reactions, (b) the cognitive, behavioral, and physiological changes (stress reactions) that are produced by stressful stimuli, (c) intervening variables that mediate between stressful stimuli, and emotional responses, and (d) a collective term that describes a broad area of study. The failure to distinguish between stress and anxiety tends to compound a dangerous situation (36).

Spielberger and others (60) propose that an adequate theory of stress should consider anxiety and deal with the meaning of threat as a psychological concept. They also propose that the terms stress and threat be used to denote different aspects of a temporal sequence of events that results in the evocation of an anxiety reaction. In keeping
with this view, stress refers to the physical and psychological dangers that are objectively associated with stimulus properties of a situation. These may include variations in environmental conditions or circumstances that occur naturally or those that are introduced or manipulated by an experimenter. Threat, on the other hand, describes an external stimulus condition or situation that is characterized by some degree of objective danger as defined by an experimenter or as consensually validated by two or more observers.

The literature does not reveal when stress and anxiety become separate concepts. According to Spielberger (58 p. 11), stress theories really began with anxiety concepts of which one of the first was that developed by Freud. Freud regarded anxiety as "something felt"—an unpleasant affective state or condition. Freud initially defined anxiety as being repressed libidinal excitation, but he later defined it as being a signal that indicated the presence of a dangerous situation. He differentiated between objective anxiety and neurotic anxiety largely on the basis of whether the danger originated from the external world or from internal impulses (60, pp. 9-10).

Mowrer (42) proposes the "guilt theory" to explain anxiety. He explains that "anxiety comes not from acts which the individual would commit but dares not, but from acts which he has committed but wishes that he had not"
(42, p. 537). If an individual behaves irresponsibly, with too much self indulgence and too little restraint, then anxiety is experienced.

Sullivan (61) describes anxiety in terms of an interpersonal theory—an intensely unpleasant state of tension arising from experiencing disapproval in interpersonal relations. Once aroused, anxiety or stress distorts the individual's perception of reality, limits the range of stimuli that are perceived, and causes those aspects of the personality that are disapproved of to be dissociated.

The learning theory posed by May (39) views anxiety as apprehension cued off by a threat to some value that the individual holds essential to his existence as an esteemed personality. The capacity to experience anxiety is innate, but the particular event or stimulus that evokes it is largely determined by learning.

Tillich (64) describes anxiety as a type of fear resulting from the threat of nothingness or no being. This concept emphasizes that anxiety results from unresolved conflicts between structural elements of personality.

According to Rycroft (50), anxiety is an emotion focused on something in the future. A person is not anxious about what has happened, but what is happening and what may happen. He states that a person may experience anxiety from something that the individual does not understand.
Graham and Conley (20) describe anxiety as the apprehensive tension that stems from the subjective anticipation of imminent or impending danger. The presence of a danger serves as an alarm reaction to a perceived threat to the organism.

According to Averill (3), stress in its broadest sense has been used as a generic term for states of negative affect (or the conditions which lead to such states). This usage uncovers two related topics that are (a) specific emotional reactions (fear, anger, grief, etc.) and (b) nonspecific or generalized states (anxiety, conflict and frustration). Averill further postulates that there is a concept that stress is made up of both physiological and psychological stress. Physiological stress is generally defined as nonspecific in physiological systems—e.g., the pituitary-adrenal axis—due to physical injury or to any other of a wide variety of stressor agents. Psychological stress is a broader concept including behavioral and cognitive changes as well as physiological changes.

An explanation of the difference between physiological and psychological stress reactions is suggested by Bakan (4). The physiological changes that accompany the GAS (e.g., inflammation) may themselves place severe wear and tear on tissue, resulting in what Selye calls "disease of adaptation" (55, p. 84). Adaptive changes in some components of the physiological system in response to stress
may become—if too extreme or prolonged—maladaptive from the point of view of the system as a whole. Bakan notes the close resemblance between this process on a psychological level and the Freudian defense mechanism on a psychological level. The latter forms the nucleus of many neuroses that might be considered "disease of psychological adjustment" (4, p. 44).

Hall and Mansfield (22, p. 533) describe stress as an external force operating on a system, be it an organization or a person. Strain is the change in the state of the internal system that results from this external stress and strain. Stress and strain are not synonymous. Selye (55) proposes that a living organism exposed to threat will first experience a state of alarm which entails system strain and impairment, (e.g., diminished body weight and blood volume in the human body); the system will tend to remove the strain by entering a state of resistance or coping with stress. Analogously, changes external to an organization may be stressful and lead to internal organizational strain; then efforts will be made within the organization to remove the internal strain through responses to the external stress which may be adaptive.

Benson (6) indicates that stress can be defined through its physiologic correlates, particularly elevated blood pressure. Elevated blood pressure is consistently related to environmental situations that require behavioral
adjustments by the individual and thus may be described as stressful. The behavioral adjustments associated with socioeconomic mobility, cultural change, urbanization, and migration are examples of such environmental situations.

Rummel and Rader (51, p. 305) describes stress not only as a condition of the mind but as a condition that affects the entire body—mentally, physically, emotionally, spiritually and socially. Stress can be further described, they say, as anything that disturbs a person's psychological or biological equilibrium. The body can tolerate almost anything in moderation, and a certain amount of stress is desirable. But constant and intense stress will take its toll in the form of a mental, emotional, or physical breakdown. Stress of any sort produces a chemical response by the body that in turn produces a short-term physiological reaction such as increased heart rate, blood pressure, and respiratory rate. When these short-term effects are present for long periods of time due to continual stress, certain conditions such as heart attacks or essential hypertension may occur.

**Measurement of Stress**

Houston and others (27) use the Today Form of the Affect Adjective Check List to evaluate the effects of stressful experiences in two studies, both of which are concerned with the relationships between subject's feelings and their physiological measures (such as pulse rate and
skin resistance). Stressfulness was manipulated in both studies by means of shock, and both the self of feelings and physiological measures indicate that these manipulations were highly successful; the results clearly indicate that subjects in high-stress conditions experience more distress than subjects in low-stress conditions.

The Teaching Event Stress Inventory was designed to measure the degree of stress caused by thirty-six events that are associated with the teaching profession. Cichon and Koff (13, p. 27) report that the inventory was answered by 4,934 elementary and secondary teachers who are employed by the Chicago Board of Education. Event one on the inventory, the first week of the school year, was given an arbitrary stress value of 500, and teachers were asked to rate subsequent events numerically as more or less stressful than this event. Results were used to provide a quantitative basis for the investigation of stress, to ascertain differential reactions by educators with different backgrounds and situational characteristics, and to determine implications for educational policy. Discriminant analysis reveals no significant differences for sex, age, race, or type of school.

The Instructor Teacher Health Questionnaire (30) was used to gather data for the "NCHLE's" study of teacher health. The study reveals that stress weighs as the top concern of teachers nationwide.
A review of the literature indicates that limited research has been done to explore ways to identify stress among educators (12, 24, 47). Aydelotte (2), Pride (46), and Volicer (65) report progress in assessing stress under medical conditions. Studies with subjects using the STATE TRAIT ANXIETY INVENTORY have been used primarily in academic learning situations. Sarason and others (52) report that several studies have been conducted in school situations where anxiety related to test taking and general ability is being examined. The Spielberger and others' (59) State-Trait Anxiety Inventory is a self-report measure of both state and trait anxiety. The state score measures subjective feelings at a particular moment, which is the essential quality that is to be assessed in this study.

Cattell and Scheier's (10) factor analytic studies identify two specific types of anxiety--state and trait anxiety. State anxiety is described by such characterological aspects as "ergic tensions, ego weakness, guilt proneness, suspiciousness, and tendency to embarrassment" (10, p. 57). Trait anxiety is identified by physiological changes (changes in respiration rate and systolic blood pressure). Spielberger and others (59, p. 3) use the distinction between state and trait anxiety to develop these two constructs. They say,

State anxiety (A-State) is conceptualized as a transitory emotional state or condition of the human organism that is characterized by subjective, consciously perceived feelings of tension and
apprehension and heightened autonomic nervous system activity. A-State may vary in intensity and fluctuate over time.

Trait anxiety (A-Trait) refers to relative stable individual differences between people in the tendency to respond to situations perceived as threatening with elevation in A-State intensity.

Summary

The review of the literature on job satisfaction and stress lead to the hypothesis that school principals who are highly satisfied with their jobs will experience low levels of stress, and principals who are dissatisfied with their jobs will experience high levels of stress. Since only limited research has been done on school administrators and stress, the literature supports the need for the present study.


CHAPTER III

RESEARCH METHODOLOGY

Introduction

A co-relational research methodology is employed in this study. Initially, it involved the identification of relevant independent variables through a review of related literature and the examination of several and selection of two survey instruments. Finally, it involved the collection of data from elementary and secondary school principals in an educational setting to determine the current relationships, similarities, and differences between these data. Specifically, this study seeks to determine the relationships of self-reported levels of stress and job satisfaction between and among elementary and secondary principals and to determine whether or not these measures are significantly different between sample groups across selected independent variables.

This chapter contains (a) the theoretical framework of the study, (b) an identification of variables independent and dependent variables, (c) description of the instruments, (d) description of the setting, population, and sample, and (e) the data collection and analysis procedure.
Theoretical Framework

The literature and research on job satisfaction and stress seem to support the proposition that persons who are satisfied with their jobs experience less stress on the job than persons who are dissatisfied. Selye's (8) research provides an explanation of how the body responds to stress. Still, there are numerous questions to be answered regarding the prevalence of stress among school principals. Has stress altered the satisfaction that educators usually received from their work? Traditionally, the reported satisfaction level among educators has been high and dissatisfaction very low. Has stress and the social issues caused this situation to change? Warr and Wall (11) report a close association between job dissatisfaction and sources of stress. Applying the concepts of Warr and Wall (11), principals who report low levels of job satisfaction should have high levels of self-reported stress, and principals who report low levels of stress should have high levels of job satisfaction.

Herzberg and others (2) two factor theory supports the concept that job satisfaction is composed of two components—one that is physiological and one that is psychological. Spielberger and others (9) concept of stress is that it can be measured as a state and a trait component of anxiety. Organizational theory holds that individual members of organizations have personal needs that can be
satisfied directly and indirectly through work involvement (3, p. 126). Schaffer (7) indicates that there is little reason to believe that work is other than a special area of human behavior; whatever causes a person to be satisfied or dissatisfied in any area would also cause satisfaction and dissatisfaction in the work area. Dissatisfaction is described as a state of tension and theoretically, this state of tension is aroused when a person cannot satisfy certain of his needs. It is further theorized that the magnitude of the tension is dependent on the strength of a person's need and the extent of the opportunity for satisfying these needs (7).

Independent Variables

The independent variables used in this study for both elementary and high school principals are as follows.

1. The sex classification of school principals: (a) male, and (b) female.
2. One of the two types of schools in which school principals are employed: (a) private schools, and (b) public schools.
3. The size of the schools according to attendance: (a) small—1 to 500 pupils, and (b) large—501 or more pupils.
4. Grade levels supervised: (a) elementary school—grades K thru 8, and (b) secondary school—grades 9 thru 12.
Dependent Variables

The dependent variables for both groups of subjects, elementary and secondary school principals, are the scores obtained on the following survey instruments.

1. The State-Trait Anxiety Inventory, Part A, State Anxiety (9), which is referred to in this study as the Self-Evaluation Questionnaire (SEQ).

2. The Morse Indexes of Employee Satisfaction (6) which is referred to in this study as the Job Satisfaction Questionnaire (JSQ), with the following sub-test categories:
   (a) intrinsic job satisfaction;
   (b) school involvement;
   (c) financial and job satisfaction;
   (d) pride-in-school performance.

Survey Instruments

The two instruments utilized in this study are the Morse Index of Employee Satisfaction (MIES) (6) and the Self-Evaluation Questionnaire (Stress) State Anxiety Inventory, Part A, of the State-Trait Anxiety Inventory (STAI) (9). A description of each instrument along with, its available reliability and validity data follows.

Morse Index of Employee Satisfaction

The Morse Index of Employee Satisfaction (6) is composed of four indices which measure the degree of satisfaction that individuals obtain from the various rules
that they play in an organization, specifically, (a) satisfaction with doing the actual content of the work, (b) satisfaction with being in the work group, (c) satisfaction with working in the company, and, (d) satisfaction with pay and job status. These are the specific variables that the instrument was designed to measure.

Each of the indices of employee satisfaction, is made up of four items developed through a combination of logical and empirical method. Initially the items were selected from employee interviews on the basis of the definitions of each area of employee satisfaction. Intercorrelations were then computed among all items that logically appeared to belong to each area. The items that showed very low correlations were removed. Although the items that comprise each index are not differentially weighted, they were added with unit weights to give a single measure of each type of employee satisfaction. The indices are called (a) intrinsic job satisfaction, (b) company involvement, (c) financial and job status satisfaction, and (d) pride in group performance. Each index has four items that are answered on a five-point scale which ranges from strong like to strong dislike; this allows a range of possible scores of from 4 to 20 on each index.

No split half or test-retest reliabilities are reported for the Morse Index of Employee Satisfaction instrument. However, internal consistency on the scales is reported in
terms of average intercorrelations. The intercorrelations are reported in Table I.

Three of the four indices—intrinsic job satisfaction, company involvement, and financial job status—are significantly interrelated (intercorrelations, r = .33 to r = .43). The index items as well as the indices themselves are related. These three indexes can be used to represent a general morale factor that can be used to predict an individual's desire to stay in the organization rather than being committed to productivity. Pride-in-group performance is, with few exceptions, not significantly related to the items of the other indices or to the indices themselves.

The pride-in-group performance index should be treated as an independent factor. This index is related to the amount of voluntary help given by members to one another, friendliness in interpersonal relations, and the absence of antiproductivity group norms. It is reported (5) that this index correlates with the supervisor's identification with employees.

Scores of the Morse Index of Employee Satisfaction have been standardized and are presented reported in Table II. The four satisfaction indices of the instrument are (a) intrinsic job satisfaction, (b) Financial and job status satisfaction, (c) company involvement, and (d) pride-in-group performance. The scores obtained on each of these indices can be further grouped according to high,
**TABLE I**

INTERCORRELATION OF THE INDEXES OF THE MORSE INDEX OF EMPLOYEE SATISFACTION

<table>
<thead>
<tr>
<th>SATISFACTION INDEX</th>
<th>r</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intrinsic Job Satisfaction</td>
<td>.50</td>
</tr>
<tr>
<td>Company Involvement</td>
<td>.45</td>
</tr>
<tr>
<td>Financial and Job Status Satisfaction</td>
<td>.52</td>
</tr>
<tr>
<td>Pride-in-Group Performance</td>
<td>.39</td>
</tr>
</tbody>
</table>

*Adapted from Miller (5).

**TABLE II**

DISTRIBUTION OF SCORES FOR MORSE INDEX OF EMPLOYEE SATISFACTION

<table>
<thead>
<tr>
<th>SATISFACTION INDEX</th>
<th>GROUP</th>
<th>RANGE</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intrinsic Job Satisfaction</td>
<td>High</td>
<td>04-07</td>
<td>717</td>
</tr>
<tr>
<td></td>
<td>Medium</td>
<td>08-11</td>
<td>222</td>
</tr>
<tr>
<td></td>
<td>Low</td>
<td>12-20</td>
<td>181</td>
</tr>
<tr>
<td>Financial and Job Status</td>
<td>High</td>
<td>04-08</td>
<td>160</td>
</tr>
<tr>
<td>Satisfaction</td>
<td>Medium</td>
<td>09-12</td>
<td>227</td>
</tr>
<tr>
<td></td>
<td>Low</td>
<td>13-20</td>
<td>248</td>
</tr>
<tr>
<td>Company Involvement</td>
<td>High</td>
<td>04-08</td>
<td>250</td>
</tr>
<tr>
<td></td>
<td>Medium</td>
<td>09-12</td>
<td>255</td>
</tr>
<tr>
<td></td>
<td>Low</td>
<td>13-20</td>
<td>165</td>
</tr>
<tr>
<td>Pride-in-Group Performance</td>
<td>High</td>
<td>04-08</td>
<td>227</td>
</tr>
<tr>
<td></td>
<td>Medium</td>
<td>09-10</td>
<td>264</td>
</tr>
<tr>
<td></td>
<td>Low</td>
<td>11-20</td>
<td>251</td>
</tr>
</tbody>
</table>

*Adapted from Miller (5).*
medium, and low levels of satisfaction. On the intrinsic index, a score of 04 to 07 indicates a high level of satisfaction, a score of 08 to 11 indicates a medium level of satisfaction, and a score of 12 to 20 indicates a low level of satisfaction. For the financial and job status index, a score of 04 to 08 indicates a high level of satisfaction, a score of 09 to 12 indicates a medium level of satisfaction, and a score of 13 to 20 indicates a low level of satisfaction.

The company involvement scores are also grouped according to the high, medium, and low levels of satisfaction. A score of 04 to 08 indicates high level satisfaction, a score of 09 to 12 indicates medium level of satisfaction, and a score of 13 to 20 indicates a low level of satisfaction.

Scores on the pride-in-group performance index are also grouped according to high, medium, and low levels of satisfaction. A score of 04 to 08 indicates a high level of satisfaction, a score of 09 to 10 indicates a medium level of satisfaction, a score of 11 to 20 indicates a low level of satisfaction.

For this study, the Morse Index of Employee Satisfaction is modified by changing the names of the indexes to conform to an educational setting. The index names used are (a) district involvement, (b) financial and job status index, (c) intrinsic job satisfaction, (d)
pride-in-school performance. Copies of the instrument and cover letter with enclosures that were mailed to each subject comprise Appendix A.

Self-Evaluation Questionnaire (Stress)

The State Anxiety Inventory, Part A, of the State-Trait Anxiety Inventory (STAI) (9) was used for the Self-Evaluation Questionnaire. This instrument is composed of separate self-report scales for measuring two distinct anxiety concepts—state anxiety (A-State) and trait anxiety (A-Trait). Although originally developed as a research instrument for investigating anxiety phenomena in normal (non-psychiatrically disturbed) adults, the STAI has been found to be useful in the measurement of anxiety in junior and senior high school students, and in neuropsychiatric, medical and surgical patients.

The A-State scale consists of twenty statements that ask the subjects to indicate how they feel at a particular moment in time. It has been demonstrated that scores on the A-State scale increase in response of certain kinds of stress and decrease as a result of relaxation training. State anxiety (A-State) is conceptualized as a transitory emotional state or condition of the human organism that is characterized by subjective, consciously perceived feelings of tension and apprehension, and heightened autonomic nervous system activity.
The Spielberger (9) State-Trait Anxiety Inventory was used to measure both elementary and high school principals' perceptions of stress (4). The reliability of the STAI has been established through the methods of test-retest correlation, measures of internal consistency using Cornbach modified K-R 20 formula, and item remainder correlations. Test-retest correlation coefficients on the state anxiety scale are relatively low, ranging from .16 to .54; however, on the trait anxiety scale, the test-retest correlation coefficients are relatively high, ranging from .73 to .86. The measure of internal consistency yields reliability coefficients that range from .83 to .92 for the trait-anxiety scale. Additional evidence of reliability is provided through obtaining median item-remainder correlations for various norm groups, ranging from .45 to .55 on the state-anxiety scale and from .46 to .54 on the trait-anxiety scale. Spielberger and his associates conclude that

The test-retest reliability of the STAI A-Trait scale is relatively high, but stability coefficient for the STAI A-State scale tends to be low, as would be expected for a measure designed to be influenced by situational factors. Both the A-Trait and A-State scales have a high degree of internal consistency. (9, p. 10.)

The concurrent validity of the STAI A-Trait anxiety scale was established by comparison with several other anxiety scales (9, p. 10). The correlation coefficients between the A-Trait anxiety scale and the IPAT by Cattell
and Schier are between .75 and .77; those with the Taylor Manifest Anxiety Scale are between .79 and .83; those with the Affect Adjective Checklist are between .52 and .58. Spielberger established construct validity of the STAI through administering the A-State Anxiety Scale to 977 undergraduate students using standard instructions under both normal and examination conditions. Under normal conditions male students (N = 332) scored 40.02, and under exam conditions males scored 54.99; female students N = 655) scored 39.36 under normal conditions and 24.14 under exam conditions (9, p. 10).

Lazarus and Opton (4) also administered the STAI to 197 undergraduate students under (a) normal conditions, (b) related conditions (in which the test was administered after a period of relaxation training) (c) examination conditions (in which the subjects were asked to work on the Terman Concept Mastery Test but were interrupted after ten minutes to take the STAI) and (d) the movie condition (in which the subjects viewed a stressful movie depicting several accidents in a wordworking shop prior to taking the STAI). Table III contains a summary of these data.

Critical ratios were obtained through the examination of the differences between the A-State mean scores in the relaxed condition and each of the other three conditions. The results are (a) relaxed condition vs. normal conditions: male = 5.80, females = 9.01; (b) relaxed condition vs. exam


# TABLE III

MEANS AND STANDARD DEVIATIONS OF A-STATE ANXIETY SCALE
UNDER STRESSFUL AND NONSTRESSFUL CONDITIONS*

<table>
<thead>
<tr>
<th>CONDITIONS</th>
<th>Male (n = 100)</th>
<th>Females (n = 88)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>X</td>
<td>S.D.</td>
</tr>
<tr>
<td>Normal</td>
<td>36.99</td>
<td>9.57</td>
</tr>
<tr>
<td>Relax</td>
<td>32.70</td>
<td>9.02</td>
</tr>
<tr>
<td>Exam</td>
<td>43.61</td>
<td>11.23</td>
</tr>
<tr>
<td>Movie</td>
<td>50.03</td>
<td>12.48</td>
</tr>
</tbody>
</table>

*Adapted from: Spielberger and others (9).

conditions: male = 9.17, females = 12.22; (c) relaxed conditions vs. movie condition: males = 12.10, females = 22.89. All critical ratios are significant beyond the .001 level of confidence (9, p. 24).

The Self-Evaluation Questionnaire (Stress) was mailed to each respondent with a brief explanation of the research study and instructions for administering the test (Appendix B). The range of possible scores varies from a minimum score of 20 to a maximum score of 80. Subjects responded by rating themselves on a four-point scale. The four categories for the A-State scale are (a) not at all, (b) somewhat, (c) moderately, and (d) almost always. The subjects were asked to complete the instrument as to how they feel in relationship to their work environment.
Setting, Population, and Sample

The research setting for this study is an Educational Service Center Region that consists of eighty-one school districts in north central Texas. The service region consists of both large and small districts, both private and public schools, and includes kindergarten, elementary, junior, and high schools.

The population consists of the elementary and secondary school principals who are located in a regional educational support service area. The population is composed of 276 principals from 124 secondary schools and 152 elementary principals.

A random sample of 100 elementary and 100 high school principals comprises the sample of school administrators selected for this study. The sample consists of the description components (a) male principals (N = 157), (b) female principals (N = 29), (c) public school principals (N = 181), (d) private school principals (N = 5), (e) principals from small schools (N = 87), (f) principals from large schools (N = 99), (g) elementary principals (N = 95), and (h) secondary school principals (N = 91).

Data Collection Procedures

A random sample of 100 elementary and 100 secondary school principals was selected from the 1981-1982 Texas School Directory (10) that comprises Region XI Education Service Center Area. Early in 1982 each selected principal
was mailed two instruments and asked to assess his own job satisfaction and stress levels. The self-reported stress instrument consists of 20 statements asking for an indication of how respondents feel now about their job situation; the Job Satisfaction Questionnaire covers some four areas with sixteen questions relating to job satisfaction. A 60 per cent rate of return was established as acceptable for the distributed instruments. A return rate of 93 per cent was experienced by the return of 186 questionnaires. A personal-data form was also distributed to collect basic demographic data on all subjects who returned the completed questionnaires.

Analyses of the Data

The data are analyzed descriptively and inferentially on all subjects across all variables. Means and standard deviations are computed on all data. A series of t tests are used to determine if any significant differences exist between principals' level of job satisfaction and self-evaluation levels (stress). The Spearman-Brown correlation coefficient was obtained to determine the relationships between the respective job satisfaction indexes and self-evaluation (stress) levels. The p .05 level of statistical significance is used as the criterion for rejection of hypotheses.

Borg and Gall (1) state that a correlation coefficient may be interpreted in terms of (a) whether the correlation
is or is not statistically significant, and (b) whether the correlation has meaning for prediction for an individual or for a group. Borg and Gall note that, for groups of 100 or more subjects, correlations with values of .20 to .35 show a very slight relationship, and those with values from .35 to .65 show a moderate relationship. Those correlations with values of .65 to .85 are accurate enough for most purposes. Correlations above .85 are used to show a close relationship between two selected variables.
CHAPTER BIBLIOGRAPHY


CHAPTER IV

PRESENTATION AND ANALYSES OF DATA

Introduction

This chapter contains the presentation and analyses of data on both elementary and secondary principals mean level of job satisfaction as measured by the Morse Index of Employee Satisfaction (MIES) and levels of stress (self-evaluation) as measured by the State Anxiety Inventory, Part A, the State-Trait Anxiety Inventory (STAI). Data relative to job satisfaction are grouped according to the four indexes of district involvement, financial job satisfaction, intrinsic job satisfaction, and pride-in-school activities. These data are further organized and analyzed across the independent variables of sex (male, female), type of school (public, private), grade levels (elementary, grades K thru 8; high school, grades 9 thru 12; and size of school (small school, student enrollment 1 to 500; large school, student enrollment 501 or more).

This chapter is organized into six sections that include (a) district involvement (b) financial job satisfaction (c) intrinsic job satisfaction (d) pride-in-school performance (e) self-evaluation and (f) the relationships between job satisfaction and self-evaluated stress. Each section states the hypotheses that are tested
and presents associated charts and illustrations for the relevant date for the variables in each hypothesis. The t test is used to determine differences in group means for independent samples in population with unequal variances. A brief summary of the statistical procedure follows.

Given populations with unequal variances, t cannot be computed for the difference in sample means. Instead, an approximation to t may be computed.

\[
t = \frac{(x_1 - x_2) - (\mu_1 - \mu_2)}{\sqrt{s_1^2/n_1 + s_2^2/n_2}}
\]

This statistic is not distributed as Student's t. However, the probability for t can be approximated by treating it as t, but with degrees of freedom.

\[
df = \frac{[(s_1^2/n_1) + (s_2^2/n_2)]^2}{[(s_1^2/n_1)^2/(n_1 - 1)] + [s_2^2/n_2]^2/(n_2 - 1)}
\]

This number is usually not an integer, but a reasonably accurate probability is obtained by rounding to the nearest integer.

If it is not known whether or not the two populations have the same variance, an F test of sample variances may be performed: The null hypothesis \( H : \sigma_1^2 = \sigma_2^2 \) with alternative \( H : \sigma_1^2 \neq \sigma_2^2 \) and a significance level \( \alpha' \) is chosen (\( \alpha' \) does not necessarily have the same value as \( \alpha \) used for the t test). From the sample variances, F is computed.

\[
F = \frac{\text{larger } s^2}{\text{smaller } s^2}
\]

If the probability for F is greater than \( \alpha' \), H is accepted; t based on the pooled-variance estimate for \( \sigma^2 \) should be issued.

If the probability for F is less than or equal to \( \alpha' \), H is rejected; t based on the separate variance estimate for \( \sigma^2 \) should be used (1, pp. 269-270).
Spearman-Brown correlations coefficients (2, pp. 106-110) are used to determine the relationships that exist between the dependent variables. The sample consists of 100 elementary and 100 secondary school principals who were selected at random from Region XI to participate in the study. A 93 per cent overall rate of return was obtained for the self-evaluation data collection instruments. The p < .05 level of significance is the criterion for rejection of all hypotheses. This chapter concludes with a discussion of relationships between dependent variables that are highlighted in this analyses of data.

District Involvement

District involvement is described as the degree to which the principal derives satisfaction from and identifies with the district and the community in which he is employed. The measurement of district involvement describes the degree to which the principal has a positive or negative feeling about the school system as a whole. This measurement-score is obtained from responses to questions on the Morse Scale about the district. The coded responses to these questions are summed to obtain each principal's score on the district-involvement index. A score of 04 to 08 indicates a high level of satisfaction with district involvement, a score of 09 to 12 indicates a medium level of satisfaction, while a score of 13 to 20 indicates a low level of satisfaction with district involvement.
Hypothesis I predicts that there will be no significant differences between elementary and high school principals' mean levels of job satisfaction derived from district involvement across selected independent variables as measured by the Job Satisfaction Questionnaire Morse Index of Employee Satisfaction. The data in Table IV depicts job satisfaction in terms of district involvement.

For the sex variable, male principals (N = 156) have a mean score of 5.526, with a standard deviation of 1.819; the mean score for female principals (N = 29) is 5.138, with a standard deviation of 1.329. According to established criteria, both male and female administrators are in the high category for district involvement (high, medium, low = 04-08, 09-12, 13-20, respectively). The F test of 1.87 (p < .05) for the homogeneity of the group variance indicates that the pooled variance should be used. The statistic of t = 1.09 is not significant at the p < .05 level of confidence. Hypothesis I is accepted for the sex variable.

Table IV data indicate that the type of school variable in association with district involvement of public school administrators (N = 180) produces a mean score of 5.378 and a standard deviation of 1.635, the private school principals' (N = 5) produces a mean score of 8.600 and a standard deviation of 3.050. According to established criteria, the public school administrators' mean score is in
## TABLE IV

**Analysis of District Involvement Scores for School Principals Grouped According to Selected Variables**

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>$\bar{X}$</th>
<th>S.D.</th>
<th>F</th>
<th>P</th>
<th>t</th>
<th>df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sex</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>156</td>
<td>5.526</td>
<td>1.819</td>
<td>1.87</td>
<td>0.053$^1$</td>
<td>1.09</td>
<td>183</td>
<td>0.28</td>
</tr>
<tr>
<td>Female</td>
<td>29</td>
<td>5.138</td>
<td>1.329</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Type of School</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Public</td>
<td>180</td>
<td>5.378</td>
<td>1.635</td>
<td>3.48</td>
<td>0.018$^2$</td>
<td>-2.35</td>
<td>4</td>
<td>0.08</td>
</tr>
<tr>
<td>Private</td>
<td>5</td>
<td>8.600</td>
<td>3.050</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>School Size</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Small</td>
<td>86</td>
<td>5.767</td>
<td>1.826</td>
<td>1.22</td>
<td>0.343$^1$</td>
<td>2.21</td>
<td>183</td>
<td>0.03$^*$</td>
</tr>
<tr>
<td>Large</td>
<td>99</td>
<td>5.202</td>
<td>1.654</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Grades</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elem</td>
<td>95</td>
<td>5.589</td>
<td>1.747</td>
<td>1.02</td>
<td>0.939$^1$</td>
<td>0.99</td>
<td>138</td>
<td>0.322</td>
</tr>
<tr>
<td>HS</td>
<td>90</td>
<td>5.333</td>
<td>1.761</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Significant outcome (p < .05)
**Significant outcome (p < .01)

1 Pooled variance estimate
2 Separate variance estimate
the high category (04-08), while the private administrators' mean score approaches the medium category (09-12). The F test of 3.48 (p < .05) indicates the homogeneity of variance is not significant at p < 0.05 level of significance. Therefore, the t statistic associated with the separate variance estimate applies. The statistic of t = -2.35 is not significant at the (p < 0.05) level of significance. Hypothesis I is therefore accepted for the type-of-school variable.

Table IV data indicate that for the size of school variable, small school principals (N = 86) produce a mean score of 5.767 and a standard deviation of 1.826; the principals from large schools (N = 99) produce a mean score of 5.202 and a standard deviation of 1.654. Principals from both large and small schools produce mean scores in the high category (04-08). The F test of 1.22 (p < 0.05) for the homogeneity of variance indicates that the t statistic associated with the pooled variance estimate should be used. The statistic t = 2.21 is significant at the p < 0.05 level of significance. Hypothesis I therefore is rejected for the size-of-school variable.

Table IV data indicate that for the grades-supervised variable, the elementary principals (N = 95) produce a mean score of 5.589 and a standard deviation of 1.747, the high school principals (N = 90) produce a mean score of 5.333 and a standard deviation of 1.761. The mean scores for both
elementary and secondary principals are in the high category (04-08). The \( F \) test of 1.02 (\( p < 0.05 \)) for the homogeneity of the group indicates that the pooled variance estimate should be used to accept or reject the hypothesis. The statistic \( t = 0.99 \) was not significant at \( p < 0.05 \) level of significance. Therefore Hypothesis I is accepted for the grades-supervised variable.

Financial Job Satisfaction

Financial job satisfaction is described as the degree of job satisfaction that principals have with their present and expected earnings and with the status of their present and expected position in the school system. A series of questions are used to obtain the financial job-satisfaction index. A measurement of each principal's satisfaction with his pay and job status is obtained by summing his score on the series of questions. Principals who are satisfied with their salary, satisfied with their chances of getting more pay, satisfied with their chances of getting ahead, and who evidence relatively no frustration concerning their vocational desires receive a low individual financial job satisfaction score. A score of 04 to 08 indicates a high level of satisfaction, a score of 09 to 12 indicates a medium level of satisfaction, and a score of 13 to 20 indicates a low level of satisfaction.

Hypotheses II predicts that there will be no significant differences between elementary and high school
principals' mean levels of financial job satisfaction across selected independent variables as measured by the Job Satisfaction Questionnaire, Morse Index of Employee Satisfaction. The data in Table V depicts financial job satisfaction of school principals across selected independent variables.

For the sex variable, male principals (N = 157) have a mean score was 9.682 and a standard deviation of 3.683, the female principals (N = 29) have a mean score of 8.483 and a standard deviation of 2.886. According to established criteria, scores are described as high (04-08), medium (09-12), and low (13-20). The mean score of the male principals is in the medium category, and the mean score of the female principals is on the low end of the high category. The F test of 1.63 (p < .05) for the homogeneity of the group variance indicates that the pooled variance should be used. The statistic of t = 1.66 is not significant at the p < .05 level of confidence. Therefore, Hypothesis II is accepted for the sex variable.

Table V data indicate that for the type school variable, public school principals (N = 181) mean score is 9.464, with a standard deviation of 3.603; the private school principals (N = 5) produced a mean score of 10.600, with a standard deviation of 3.209. The mean scores of both public and private school principals is in the medium category of satisfaction (09-12) as identified by
### TABLE V

**ANALYSIS OF FINANCIAL JOB SATISFACTION FOR SCHOOL PRINCIPALS GROUPED ACCORDING TO SELECTED VARIABLES**

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>$\bar{X}$</th>
<th>S.D.</th>
<th>F</th>
<th>P</th>
<th>t</th>
<th>df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sex</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>157</td>
<td>9.682</td>
<td>3.683</td>
<td>1.63</td>
<td>0.130</td>
<td>1.66</td>
<td>184</td>
<td>0.09</td>
</tr>
<tr>
<td>Female</td>
<td>29</td>
<td>8.483</td>
<td>2.886</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Type</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Public</td>
<td>181</td>
<td>9.464</td>
<td>3.603</td>
<td>1.26</td>
<td>0.938</td>
<td>-0.70</td>
<td>184</td>
<td>0.49</td>
</tr>
<tr>
<td>Private</td>
<td>5</td>
<td>10.600</td>
<td>3.209</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>School Size</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Small</td>
<td>87</td>
<td>9.805</td>
<td>3.209</td>
<td>1.47</td>
<td>0.069</td>
<td>1.10</td>
<td>184</td>
<td>0.27</td>
</tr>
<tr>
<td>Large</td>
<td>99</td>
<td>9.222</td>
<td>3.890</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Grades</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elem</td>
<td>95</td>
<td>9.547</td>
<td>3.602</td>
<td>1.00</td>
<td>0.991</td>
<td>0.20</td>
<td>184</td>
<td>0.84</td>
</tr>
<tr>
<td>HS</td>
<td>91</td>
<td>9.440</td>
<td>3.597</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Significant outcome (p < .05)
**Significant outcome (p < .01)
1 Pooled variance estimate
2 Separate variance estimate
established criteria. The $F$ test of 1.26 ($p < .05$) for the homogeneity of group variance indicates that the pooled variance estimate should be used. The statistic of $t = -0.70$ is not significant at the $p < .05$ level of confidence. Therefore, Hypothesis II is accepted for the type-of-school variable.

Table V data show that on the size of school variable (small and large), the principals of small schools ($N = 87$) produce a mean score of 9.805 and a standard deviation of 3.209. The principals of large schools ($N = 99$) produce a mean score of 9.222 and a standard deviation of 3.890. The mean scores of both large and small school principals are in the medium category as defined by established criteria. The $F$ test of 1.47 ($p < .05$) for the homogeneity of variance indicates that the pooled variance estimate should be used. The statistic of $t = 1.10$ is not significant at the $p < .05$ level of confidence. Therefore, Hypothesis II is accepted for the size of school variable.

Table V data indicate that for the grade variable (elementary and high school), elementary school principals ($N = 95$) produce a mean score of 9.547 and a standard deviation of 3.602. The high school principals ($N = 91$) produce a mean score of 9.440 and a standard deviation of 3.597. Both elementary and high school administrators produce scores that are classified in the medium category as defined by established criteria. The $F$ test of 1.00
(p < .05) for the homogeneity of variance indicates that the pooled variance estimate should be used. The statistic of \( t = 0.20 \) is not significant at the \( p < .05 \) level of confidence. Therefore, Hypothesis II is accepted for the grade-levels supervised variable.

**Intrinsic Job Satisfaction**

Intrinsic job satisfaction is described as the degree of satisfaction obtained by the principals from performing those tasks which constitute the content of their job. The measure of intrinsic job satisfaction for liking the content of the job is based on responses of principals to a series of questions. The coded responses to these questions are summed to give the intrinsic job satisfaction index score. A score of 04 to 08 indicates a high level of satisfaction, a score of 09 to 12 indicates a medium level of satisfaction, and a score of 13 to 20 indicates low intrinsic job satisfaction.

Hypothesis III predicts that there will be no significant differences between elementary and secondary principals mean levels of intrinsic job satisfaction across selected independent variables as measured by the Job Satisfaction Questionnaire, Morse Index of Employee Satisfaction. The data in Table VI depicts intrinsic job satisfaction scores of school principals across selected independent variables.
TABLE VI
ANALYSIS OF INTRINSIC JOB SATISFACTION FOR SCHOOL PRINCIPALS
GROUPED ACCORDING TO SELECTED VARIABLES

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>X</th>
<th>S.D.</th>
<th>F</th>
<th>p</th>
<th>t</th>
<th>df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>157</td>
<td>6.236</td>
<td>2.064</td>
<td>2.85</td>
<td>0.002²</td>
<td>3.42</td>
<td>62</td>
<td>0.01**</td>
</tr>
<tr>
<td>Female</td>
<td>29</td>
<td>5.273</td>
<td>1.227</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Type</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Public</td>
<td>181</td>
<td>6.033</td>
<td>1.903</td>
<td>4.00</td>
<td>0.008²</td>
<td>-1.15</td>
<td>4</td>
<td>0.31</td>
</tr>
<tr>
<td>Private</td>
<td>5</td>
<td>8.000</td>
<td>3.808</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>School Size</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Small</td>
<td>87</td>
<td>6.448</td>
<td>2.155</td>
<td>1.48</td>
<td>0.061¹</td>
<td>2.36</td>
<td>184</td>
<td>0.02*</td>
</tr>
<tr>
<td>Large</td>
<td>99</td>
<td>5.768</td>
<td>1.772</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grades</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elem</td>
<td>95</td>
<td>5.990</td>
<td>1.876</td>
<td>1.25</td>
<td>0.287¹</td>
<td>-0.68</td>
<td>184</td>
<td>0.50</td>
</tr>
<tr>
<td>HS</td>
<td>91</td>
<td>6.187</td>
<td>2.097</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Significant outcome (p < .05)
**Significant outcome (p < .01)
1 Pooled variance estimate
2 Separate variance estimate
For the sex variable, male principals (N = 157) have a mean score of 6.236 and a standard deviation of 2.064. The female principals (N = 29) obtained a mean score of 5.273 and a standard deviation of 1.227. According to established criteria, both male and female principals produced scores in the high category (04-07) as defined by established criteria. The female principals produced a higher mean score than their male counterparts. The F test of 2.85 (p < .05) for the homogeneity of variance indicates that the separate variance should be used. The statistic of \( t = 3.42 \) is significant at the p < .01 level of confidence. Therefore, Hypothesis III is rejected for the sex variable.

Table VI data indicate that for the type of school variable (private and public school), the public school principals (N = 181) have a mean score of 6.033 and a standard deviation of 1.903. The private school principals (N = 5) have a mean score of 8.000 and a standard deviation of 3.808. According to established criteria, the mean scores of the public school administrators are in the high category (04-07), and the private school administrators are in the medium category (08-11). The F test of 4.00 (p < .05) for the homogeneity of variance indicates that separate variance estimate should be used. The statistic of \( t = 1.15 \) is not significant at the p < .05 level of confidence. Therefore, Hypothesis III is accepted for the type-of-school variable.
Table VI data show that for the size of school variable (small, large), principals of small schools (N = 87) have a mean score of 6.448 and a standard deviation of 2.155. The principals of large schools (N = 99) have a mean score of 5.768 and a standard deviation of 1.772. According to established criteria principals from both small and large schools produced mean scores that are in the high category (04-07). The F test of 1.48 (p < .05) for the homogeneity of variance indicated that the pooled variance estimate should be used. The statistic of $t = 2.36$ is significant at the $p < .05$ level of confidence. Therefore, Hypothesis III is rejected for the size-of-school variable.

Table VI data indicate that for the grades supervised variable (elementary and high school), elementary school principals (N = 95) have a mean score of 5.990 and a standard deviation of 1.876. The high school principals (N = 91) have a mean score of 6.187 and a standard deviation of 2.097. According to established criteria, both elementary and high school principals produce mean scores in the high category (04-08). The F test of 1.25 (p < .05) for the homogeneity of variance indicates that the pooled variance estimate should be used. The statistic of $t = -0.68$ is not significant at the $p < .05$ level of confidence. Hypothesis III therefore is accepted for the type-of-school variable.
Pride-in-School Performance

Pride-in-school performance is described as the satisfaction that principals feel with the accomplishments of their staffs, teachers, students, and the identification which they feel with their schools' accomplishments. Pride-in-school performance is obtained by summing up responses to a series of questions. This index measures a principal's personalized, emotional response to his staff, teachers, and students and their performance as perceived by the principal. The relationship of this index to the supervisory and employee variable thus measures pride-in-school performance. A score of 04 to 08 indicates a high level of pride-in-school activities, a score of 09 to 10 indicates medium satisfaction and a score of 11 to 20 indicates a low satisfaction level in pride-in-group performance.

Hypothesis IV predicts that there will be no significant differences between elementary and high school principals' mean level of pride-in-school performance across selected independent variables as measured by the Job Satisfaction Questionnaire, Morse Index of Employee Satisfaction. The data in Table VII depicts pride-in-school performance scores of school administrators across selected independent variables.

On the sex variable (male, female), male principals (N = 156) have a mean score of 8.461 and a standard deviation of 4.154. The female principals (N = 29) have a
TABLE VII
ANALYSIS OF PRIDE-IN-SCHOOL PERFORMANCE FOR SCHOOL PRINCIPALS
GROUPED ACCORDING TO SELECTED VARIABLES

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>X</th>
<th>S.D.</th>
<th>F</th>
<th>t</th>
<th>df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>156</td>
<td>8.461</td>
<td>4.154</td>
<td>1.85</td>
<td>0.57¹</td>
<td>1.93</td>
<td>183</td>
</tr>
<tr>
<td>Female</td>
<td>29</td>
<td>6.897</td>
<td>3.051</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Type</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Public</td>
<td>181</td>
<td>8.128</td>
<td>4.040</td>
<td>3.08</td>
<td>0.28¹</td>
<td>-1.80</td>
<td>183</td>
</tr>
<tr>
<td>Private</td>
<td>5</td>
<td>11.400</td>
<td>2.302</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>School</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Small</td>
<td>86</td>
<td>8.558</td>
<td>3.937</td>
<td>1.09</td>
<td>0.68¹</td>
<td>1.07</td>
<td>183</td>
</tr>
<tr>
<td>Large</td>
<td>99</td>
<td>7.919</td>
<td>4.115</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grades</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elem</td>
<td>95</td>
<td>7.821</td>
<td>3.856</td>
<td>1.18</td>
<td>0.420¹</td>
<td>-1.37</td>
<td>183</td>
</tr>
<tr>
<td>HS</td>
<td>90</td>
<td>8.633</td>
<td>4.196</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Significant outcome (p < .05)
**Significant outcome (p < .01)
¹ Pooled variance estimate
² Separate variance estimate
mean score of 6.897 and a standard deviation of 3.051. The mean scores for both male and female principals are in the high category (04-08) as defined by established criteria. The F test of 1.85 (p < .05) for the homogeneity of variance indicates that the pooled variance estimate should be used. The statistic of $t = 1.93$ is not significant at the $p < .05$ level of confidence. Therefore, Hypothesis IV is accepted for the sex variable.

Table VII data show that for the type of school variable (public, private), public school principals ($N = 181$) have a mean score of 8.128 and a standard deviation of 4.040. The private school principals ($N = 5$) have a mean score of 11.400 and a standard deviation of 2.302. According to established criteria, public school principals produce a mean score in the high category (04-08) and the private school principals scored in the low group (11-20). The F test of 3.08 ($p < .05$) for the homogeneity of variance is not significant, therefore, the pool variance estimate is used. The statistic of $t = -1.80$ is not significant at the $p < .05$ level of confidence. Therefore, Hypothesis IV is accepted for the type-of-school variable.

Table VII data indicate that for the size of school variable (large and small), principals of small schools ($N = 86$) have a mean score of 8.558 and a standard deviation of 3.937. The principals of large schools ($N = 99$) have a mean score of 7.919 and a standard deviation of 4.115. The
mean scores of the principals of small schools are in the medium category (09-10), and the mean scores of the principals of large schools are in the high category (04-08). The $F$ test of 1.09 ($p < .05$) is not significant, which indicates that the pooled variance estimate should be used. The statistic of $t = 1.07$ is not significant at the $p < .05$ level of confidence. Therefore, Hypothesis IV is accepted for the size-of-school variable.

Table VII data show that for the grade levels supervised variable (elementary, high school), elementary school principals ($N = 95$) have a mean score of 7.821 and a standard deviation of 3.856. The high school principals ($N = 90$) have a mean score of 8.633 and a standard deviation of 4.196. According to established standards the elementary school principals have a mean score in the medium category (09-10), and the high school principals have a mean score in the high category (04-08). The $F$ test of 1.18 ($p < .05$) for the homogeneity of variance is not significant; therefore, the pooled variance estimate is used. The statistic of $t = 1.37$ is not significant at the $p < .05$ level of confidence. Therefore, Hypothesis IV is accepted for the grade-levels-supervised variable.

**Self-Evaluated Stress**

Self-evaluated stress is described as a current feeling of emotional and physical uneasiness and apprehension that is associated with perceived stressful events experienced in
the work environment. If one obtains a mean score of 28.00 to 33.00, he is considered as in a relaxed condition, a score of 34.00 to 39.00 is considered a normal condition, a score 40 to 49 is considered a moderately stressful exam condition, and a score of 50.00 or higher is considered as a stressful movie condition (see Table III).

Hypothesis V predicts that there will be no significant differences between elementary and high school principals' mean level of self-evaluation (stress) across selected independent variables as measured by the Self-Evaluation Questionnaire, Part A, State-Trait Anxiety Inventory - STAI (Stress). The data in Table VIII depicts the self-evaluation scores (stress) of elementary and high school principals as measured across the selected independent variables of sex, type of school, size of school and grade levels supervised.

On the variable sex, male principals (N = 151) have a mean score of 47.026 and a standard deviation of 4.575. The female principals (N = 29) have a mean score of 46.759 and a standard deviation of 4.223. The self-evaluated stress mean scores of the male principals are slightly higher (more stressful) than those of their female counterparts. This situation depicts a moderately stressful, exam condition. The F test of 1.17 (p < .05) for the homogeneity of variance is not significant; therefore; the pooled variance estimate is used. The statistic of t = 0.29 is not significant at
### TABLE VIII

**Analysis of Self-Evaluation for School Principals Grouped According to Selected Variables**

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>X</th>
<th>S.D.</th>
<th>F</th>
<th>P</th>
<th>t</th>
<th>df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sex</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>151</td>
<td>47.026</td>
<td>4.575</td>
<td>1.17</td>
<td>0.641</td>
<td>0.29</td>
<td>178</td>
<td>0.77</td>
</tr>
<tr>
<td>Female</td>
<td>29</td>
<td>46.759</td>
<td>4.223</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Type</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>School</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Public</td>
<td>176</td>
<td>46.972</td>
<td>4.535</td>
<td>1.50</td>
<td>0.851</td>
<td>-0.23</td>
<td>178</td>
<td>0.82</td>
</tr>
<tr>
<td>Private</td>
<td>4</td>
<td>47.500</td>
<td>3.697</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>School Size</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Small</td>
<td>84</td>
<td>46.226</td>
<td>4.537</td>
<td>1.06</td>
<td>0.781</td>
<td>-2.13</td>
<td>178</td>
<td>0.04*</td>
</tr>
<tr>
<td>Large</td>
<td>96</td>
<td>47.646</td>
<td>4.403</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Grades</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elem</td>
<td>95</td>
<td>46.800</td>
<td>4.148</td>
<td>1.40</td>
<td>0.121</td>
<td>-0.58</td>
<td>178</td>
<td>0.57</td>
</tr>
<tr>
<td>H.S.</td>
<td>85</td>
<td>47.188</td>
<td>4.900</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Significant outcome (p < .05)
**Significant outcome (p < .01)
1 Pooled variance estimate
2 Separate variance estimate
the $p < .05$ level of confidence. Therefore, Hypothesis V is accepted for the sex variable.

Table VIII data show that for the type of school supervised variable, public school principals ($N = 176$) have a mean score of 46.972 and a standard deviation of 4.535. Private school principals ($N = 4$) have a mean score of 47.500 and a standard deviation of 3.697. On this variable the mean scores of private school principals are slightly higher (more stressful) than the scores of public school principals. The $F$ test of 1.50 ($p < .05$) for homogeneity of variance is not significant; therefore, the pooled variance estimate is used. The statistic of $t = -0.23$ is not significant at the $p < .05$ level of confidence. Therefore, Hypothesis V is accepted for the type-of-school supervised variable.

Table VIII data indicate that the size-of-school variable, principals of small schools ($N = 84$) have a mean score of 46.226 and a standard deviation of 4.537. The principals of large schools ($N = 96$) have a mean score of 47.646 and a standard deviation of 4.403. In evaluating the mean scores, it is indicated that principals of larger schools experience a higher mean level of stress. The $F$ test of 1.06 ($p < .05$) for the homogeneity of the variance is not significant; therefore, the pooled variance estimate is used. The statistic of $t = -2.13$ is significant at the
p < .05 level of confidence. Therefore, Hypothesis V is rejected for the size-of-school variable.

Table VIII data show that for the grade-levels supervised variable, elementary school principals (N = 95) have a mean score of 46.800 and a standard deviation of 4.148. The high school principals (N = 85) have a mean score of 47.188 and a standard deviation of 4.900. The high school principals produce a slightly higher score than the elementary school principals. The F test of 1.40 (p < .05) for the homogeneity of variance is not significant; therefore, the pooled variance estimate should be used. The statistic of t = -0.58 is not significant at the p < .05 level of confidence. Therefore, Hypothesis V is accepted for the grade-levels supervised variable.

Relationships between Elementary and High School Principals' Levels of Job Satisfaction and Self-Evaluated Stress

Job satisfaction is defined as the degree of satisfaction that individuals obtain from the various roles they play in an organization. The Morse Index of Employee Satisfaction used in the study consists of four indexes that describe four aspects of job satisfaction. These four indexes will be used in this analysis to determine whether a relationship exists between the respective mean job satisfaction score and the self-evaluated stress mean score. The explanation of self-evaluation scores as outlined previously is also applicable to this section. The
Spearman–Brown rank order correlation is used to analyze all data in this section.

The presentation and analysis of data in this section identifies the relationships (a) between mean job satisfaction index scores and selected independent variables for elementary and high school principals (b) between mean self-evaluation (stress) scores and selected independent variables for elementary and high school principals, and (c) between mean job satisfaction index scores and mean self-evaluation scores for elementary and high school principals. Correlations matrices of these data are presented in Tables IX and X, respectively.

Hypothesis VI predicts that there will be no significant relationships between elementary and high school principals' mean levels of job satisfaction indexes and selected independent variables as measured by the Job Satisfaction Index, Morse Index of Employee Satisfaction. When school principals are analyzed according to job satisfaction indexes across selected independent variables the following significant \((p < .05)\) relationships were discovered. Data relative to job satisfaction are presented in Table IX.

The four indices of job satisfaction—(a) district involvement, (b) financial job satisfaction, (c) intrinsic job satisfaction, and (d) pride-in-school performance are analyzed across the four selected independent variables of
TABLE IX

SPEARMAN-BROWN RANK ORDER CORRELATIONS BETWEEN JOB SATISFACTION INDICES/SELF-EVALUATION AND SELECTED INDEPENDENT VARIABLES

<table>
<thead>
<tr>
<th>INDEXES</th>
<th>Sex</th>
<th>Type of School</th>
<th>Size of School</th>
<th>Grade Levels</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>JOB SATISFACTION</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>District Involvement</td>
<td>-0.06</td>
<td>0.20**</td>
<td>0.19**</td>
<td>-0.09</td>
</tr>
<tr>
<td>Financial Job Satisfaction</td>
<td>-0.12</td>
<td>0.06</td>
<td>-0.12*</td>
<td>-0.02</td>
</tr>
<tr>
<td>Intrinsic Job Satisfaction</td>
<td>-0.17</td>
<td>0.09</td>
<td>-0.16*</td>
<td>0.03</td>
</tr>
<tr>
<td>Pride-In-School Performance</td>
<td>-0.14*</td>
<td>0.17**</td>
<td>-0.12</td>
<td>0.12</td>
</tr>
<tr>
<td><strong>STRESS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-Evaluated Stress</td>
<td>-0.02</td>
<td>0.02</td>
<td>0.18**</td>
<td>0.04</td>
</tr>
</tbody>
</table>

* p < .05  
** p < .01

sex, type of school, size of school, and grades supervised. When the index of district involvement is analyzed across selected independent variables, it was found that there is a negative relationship between district involvement and sex and grades supervised. There are positive relationships between district involvement and type of school and size of school that are significant at p < .01. Financial job satisfaction is analyzed across the selected independent
variables of sex, type of school, size of school, and grade levels supervised. The relationships are negative between the variables sex, size of school, and grade levels. The negative relationship between financial job satisfaction and size of school is significant at $p < .05$. The relationship between financial job satisfaction and size of school was positive. Intrinsic job satisfaction is analyzed across the selected independent variables of sex, type of school, size of school, and grade levels supervised. The relationships are negative between the variables sex and size of school and positive between the variables type of school and grade levels. The negative relationship between intrinsic job satisfaction and size of school is significant at $p < .05$. Pride-in-school performance is analyzed across selected independent variables of sex, type of school, size of school and grade levels supervised. The relationships are negative between the variables sex, and size of school and positive between type of school and grade levels. The negative relationship between pride-in-school performance and sex is significant at $p < .05$. The positive relationship between pride-in-school performance and type of school is significant at $p < .01$.

Hypothesis VII predicts that there will be no significant relationships between elementary and high school principals' mean level of self-evaluated stress and selected independent variables as measured by the Self-Evaluation
Questionnaire, Part A, State-Trait Anxiety Inventory (STAI). These data are shown in the lower part of Table IX. The Spearman-Brown Rank Order Correlation is used to determine the relationship between self-evaluation (stress) and the four selected independent variables of sex, type of school, size of school, and graded supervised. It was found that there is a negative correlation between self-evaluated stress and sex. However, there is a positive correlation between type of school, size of school and grade levels. There is a significant positive correlationship at the $p < .01$ level between self-evaluation (stress) and size of school.

Hypothesis VIII predicts that there will be no significant relationships between the mean job satisfaction indexes and self-evaluated stress mean scores of elementary and high school principals as measured by the Job Satisfaction Index. These data are presented in Table X. These data show the relationships between the four job satisfaction indices and self-evaluated stress when compared with the total group (both samples). There is a significant positive correlationship between district involvement and financial job satisfaction, intrinsic job satisfaction, and pride-in-school participation. There is a significant negative correlation between district involvement and self-evaluated stress. There are significant positive correlations financial job satisfaction between intrinsic
### TABLE X
SPEARMAN-BROWN RANK ORDER CORRELATIONS BETWEEN
JOB SATISFACTION INDEXES
SELF-EVALUATION (STRESS)
(TOTAL GROUP)

<table>
<thead>
<tr>
<th>Variables</th>
<th>1.</th>
<th>2.</th>
<th>3.</th>
<th>4.</th>
<th>5.</th>
</tr>
</thead>
<tbody>
<tr>
<td>District Involvement (DI)</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Financial Job Satisfaction (FJS)</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intrinsic Job Satisfaction (IJS)</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pride-In-School Participation (PISP)</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-Evaluation (Stress) (SE)</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*p < .05
**p < .01
***p < .001
job satisfaction and pride-in-school performance. There is a significant negative relationship between financial job satisfaction and self-evaluated stress. There is a significant positive correlation between intrinsic job satisfaction and pride-in-school participation. There is a significant negative correlation between intrinsic job satisfaction and self-evaluated stress. There is a significant negative correlation between pride-in-school participation and self-evaluated stress. All correlations are significant at the p < .001, and they range from 0.24 to 0.46 across the selected variables.

Summary of Data Findings

Eight major hypotheses were tested in this study. Chapter V contains a presentation and analysis of data relative to each of the hypotheses. The following discussion includes a restatement of each major hypothesis and a summary of the significant findings.

Hypothesis I predicts that there will be no significant differences between elementary and high school principals' mean levels of job satisfaction derived from district involvement across selected independent variables as measured by the Job Satisfaction Questionnaire, Morse Index of Employee Satisfaction. There is a significant difference in district involvement between elementary and secondary principals when grouped according to the size of school; principals of small schools have a slightly lower score on
district involvement than principals from large schools. There are no significant differences in district involvement between principals when grouped according to sex, type of school and grade levels supervised.

Hypothesis II predicts that there will be no significant differences between elementary and high school principals' mean levels of financial job satisfaction across selected independent variables as measured by the Job Satisfaction Questionnaire, Morse Index of Employee Satisfaction. There are no significant differences in financial job satisfaction between principals when grouped according to sex, type of school, size of school, and grade levels supervised. For the sex variable, the mean score of male principals tends to be in the medium range, while the scores of the female principals are on the low end of the high category. When grouped according to type of school, size of school, and grade levels supervised, elementary and high school principals score in the medium range on financial job satisfaction.

Hypothesis III predicts that there will be no significant differences between elementary and high school principals' mean levels of intrinsic job satisfaction across selected independent variables as measured by the Job Satisfaction Questionnaire, Morse Index of Employee Satisfaction. There are significant differences in intrinsic job satisfaction between elementary and high
school principals when grouped according to sex and size of school. The elementary and high school principals tend to score high on grade levels supervised; and public school principals score high on intrinsic job satisfaction while the private school principals score in the medium category.

Hypothesis IV predicts that there will be no significant differences between elementary and high school principals' mean level of pride-in-school performance across selected independent variables as measured by the Job Satisfaction Questionnaire, Morse Index of Employee Satisfaction. There are no significant differences in pride-in-school performance scores between elementary and high school principals when grouped according to sex, size of school, type of school, and grade levels supervised. When grouped according to sex, both male and female principals score in the medium category; according to type, public school principals score in the high group while private school principals score in the low group; according to size, principals from small schools scored in the medium category; while principals from large schools score in the high category; according to grades, elementary principals score in the high category, and high school principals score in the medium category.

Hypothesis V predicts that there will be no significant differences between elementary and high school principals' mean level of self-evaluation (stress) across selected
independent variables as measured by the Self-Evaluation Questionnaire, Part A, State-Trait Anxiety Inventory-STAI (Stress). There is a significant difference in self-evaluated stress scores between elementary and high school principals when grouped according to size of school. Principals from large schools have slightly higher self-evaluation scores than principals from small schools. When grouped according to sex, male principals have a slightly higher mean score than the female principals; according to type of school, private school principals have a slightly higher score than public school principals; according to grade levels supervised, high school principals obtained a higher mean self-evaluation score than elementary principals.

Hypothesis VI predicts that there will be no significant correlations between elementary and high school principals mean levels of job satisfaction indexes and selected independent variables as measured by the Job Satisfaction Index, Morse Index of Employee Satisfaction. There are correlations between district involvement and type of school and district involvement and size of school. The correlation is positive for type of school and negative for size of school. There is a significant negative correlation between financial job satisfaction and size of school. There is a negative correlation between intrinsic job satisfaction and size of school. There are significant
negative correlations between pride-in-school performance, and sex and type of school supervised.

Hypothesis VII predicts that there will be no significant correlations between elementary and high school principals mean level of self-evaluation (stress) and selected independent variables as measured by the Self-Evaluation Questionnaire, Part A, State-Trait Anxiety Inventory (STAI). There is a significant correlation between self-evaluated stress and size of school. There are no other significant correlations.

Hypothesis VIII predicts that there will be no significant correlations between the mean job satisfaction indexes and mean self-evaluation (stress) scores of elementary and high school principals as measured by the Job Satisfaction Index, Morse Index of Employee Satisfaction and Self-Evaluation Questionnaire, Part A, State-Trait Anxiety Inventory (STAI). There are significant correlations with each job satisfaction index when paired with district involvement, financial job satisfaction, intrinsic job satisfaction, and pride-in-school participation, respectively. There are significant negative correlations between each job satisfaction index mean score and the self-evaluated stress mean score.
CHAPTER BIBLIOGRAPHY


CHAPTER V

SUMMARY, FINDINGS, IMPLICATIONS,
DISCUSSION, AND RECOMMENDATIONS

Summary

The problem with which this study is concerned was to determine the relationships between self-reported levels of job satisfaction and self-reported levels of stress among elementary and secondary school principals in a school setting. The elementary and secondary principals in a Regional Service Area in North Central Texas are the subjects of the study. The preceding chapters presented a comprehensive review of the relevant literature and research on the constructs of job satisfaction and self-reported stress, a theoretical framework, an explanation of the research methodology, and the presentation and analysis of the data that are used to test eight major hypotheses. This chapter contains a summary of the findings and implications relative to the hypotheses that were tested, and recommendations that are related to public school administration and educational research.

This study sought to determine the relationships between self-reported levels of job satisfaction and self-reported levels of stress of elementary and secondary school principals in an operational setting. Specifically
the three major questions addressed are as follows. Is there a significant difference between elementary and secondary school principals' levels of self-reported stress? Is there a significant difference between elementary and secondary school principals' levels of self-reported job satisfaction? Are there significant relationships between elementary and secondary school principals' levels of self-reported stress and their levels of self-reported job satisfaction?

In Chapter I it is suggested that there is a relationship between job satisfaction and job performance. If a person is satisfied with his job, he should perform at a higher level than a person who is dissatisfied. Kyriacou and Sutcliff (3) found through research that there is a negative relationship between stress and job satisfaction of school teachers.

Traditional organizational theory holds that individual members of organizations have personal needs that can be satisfied directly or indirectly through their work involvement (2). Schaffer (5) indicates that there is little reason to believe that work is other than simply a special area of human behavior. Whatever causes a person to be satisfied or dissatisfied in any area of life also would cause satisfaction or dissatisfaction in the work area. Dissatisfaction is described as a state of tension and, theoretically, this state is aroused when a person cannot
satisfy certain of his needs. Job satisfaction is thought to vary directly and to the extent which an organization can satisfy individual needs. This study sought to determine whether or not a relationship exists between self-reported levels of job satisfaction and self-reported levels of stress among elementary and secondary school principals. Within the context of this study, job satisfaction is viewed as the result of rewards and punishments associated with past job performances. Stress has been viewed as a physical and psychological danger that is associated with stimulus properties of a situation. This research proposed measuring both constructs, job satisfaction and stress, in elementary and secondary school principals since these two groups are subject to similar work environments.

The independent variables for both elementary and secondary school principals include (a) sex (male, female), (b) type of school (private, public), (c) size of school by attendance, (small school—1 to 500 pupils, a large school—501 pupils or more) and (d) grade levels supervised, (elementary school—grades K thru 8th, secondary school—grades 9 thru 12). The dependent variable for both elementary and secondary school principals are (a) State-Trait Anxiety Inventory, Part A, State Anxiety, which is referred to in this study as The Self Evaluation Questionnaire, (b) The Morse Index of Employee Satisfaction,
which is referred to in this study as the Job Satisfaction Questionnaire.

In order to gather data pertaining to the problem of this study, a sample of elementary and secondary school principals from an educational service center in north-central Texas was obtained. Principals were randomly selected and requested to respond to two research instruments. A summary of characteristics of the sample is presented in Table XI.

TABLE XI

CHARACTERISTICS OF ELEMENTARY AND SECONDARY SCHOOL PRINCIPALS

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Number = (N)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex</td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>157</td>
</tr>
<tr>
<td>Female</td>
<td>29</td>
</tr>
<tr>
<td>Type School</td>
<td></td>
</tr>
<tr>
<td>Public</td>
<td>181</td>
</tr>
<tr>
<td>Private</td>
<td>5</td>
</tr>
<tr>
<td>School Size</td>
<td></td>
</tr>
<tr>
<td>Small</td>
<td>86</td>
</tr>
<tr>
<td>Large</td>
<td>99</td>
</tr>
<tr>
<td>Grades Supervised</td>
<td></td>
</tr>
<tr>
<td>Elementary Principals</td>
<td>95</td>
</tr>
<tr>
<td>Secondary Principals</td>
<td>90</td>
</tr>
</tbody>
</table>
Data abstracted from the personal data sheets and the questionnaires were compiled and analyzed. The statistical treatment of the data provided the following:

1. The means and standard deviations for the measures of job satisfaction and self-reported evaluation (stress);

2. The t test was used to determine differences in group means for independent samples in populations with unequal variances across all independent variables;

3. Spearman-Brown correlation coefficients were used to determine relationships between job satisfaction and self-report levels of stress for both elementary and secondary school principals.

The constructs of state anxiety is operationally defined by the subject's response to the Self-Evaluation Questionnaire (STAI) Part II A. Scores could range from a minimum of 20 points to a maximum of 80 points. For the purpose of this study, is theoretically defined as a current feeling of emotional or physical uneasiness and apprehension associated with perceived anxiety events.

The Morse Indexes of Employee Satisfaction is operationally defined as the respondents' score on four indexes that could range from 4 to 20 on each index. Theoretically, the Morse Indexes of Employee Satisfaction is theoretically defined as the degree of satisfaction that individuals obtain from the various roles they play in an organization.
The data in this study were presented and analyzed in Chapter IV. The eight formulated hypotheses were tested. The $p < .05$ level of significance is used as the criterion for rejection of all hypotheses. The following sections include a restatement of each hypothesis, a summary of the findings, implications, and conclusions.

Findings and Implications

Eight major hypotheses were tested in this study. The following discussion includes a restatement of each major hypothesis and a summary of the findings and implications.

Job Satisfaction

The first four hypotheses relate to job satisfaction as measured by the Morse Index of Employee Satisfaction that includes the indexes of district involvement, financial job satisfaction, intrinsic job satisfaction, and pride-in-school involvement as analyzed across selected variables.

**Hypothesis I.**—This hypothesis predicts that there will be no significant differences between elementary and secondary school principals' mean levels of district involvement across selected independent variables as measured by the Job Satisfaction Questionnaire, Morse Index of Employee Satisfaction. The sample of elementary and secondary school principals in this study have significantly different district involvement mean scores when grouped
according to the size of the school involved; the district involvement scores of principals from small school are significantly lower than for principals of large schools. There are no significant differences in district involvement scores between principals when grouped according to sex, type of school, and grade levels supervised.

The mean levels of job satisfaction measured in terms of district involvement across the size of school variable, is in the high category (04 - 08) for both elementary and secondary school principals. This finding indicates that principals of large schools perceive greater job satisfaction from district involvement than principals from small schools. This finding may be expected since large schools usually have a greater number of activities so that principals may participate in a greater variety of school activities.

The distribution of the scores of this study are not similar to the distribution of the standard scores reported by all scores for both elementary and secondary principals who are in the high category. For the standard scores 37 per cent of the scores are in the high group, 38 per cent in the medium group, and 24 per cent in the low group.

The variables, sex, type of school (public, private) and grades supervised (elementary, secondary) do not seem to be factors that influence differentials in principals' job satisfaction as expressed in terms of district involvement.
Hypothesis II—This hypothesis predicts that there will be no significant differences between elementary and secondary school principals' mean level of financial job satisfaction across selected independent variables as measured by the Job Satisfaction Questionnaire, Morse Index of Employee Satisfaction. For the respondent elementary and secondary principals, the mean levels of financial job satisfaction are not significantly different when grouped according to sex, type of school, size of school, and grade levels supervised. For the sex variable, the mean score of the male principals tends to be in the medium category, while the scores of the female principals are on the low end of the high category. When grouped according to size of school and grade levels supervised, elementary and secondary principals score in the medium category on financial job satisfaction.

The mean level of financial job satisfaction does not differ significantly across the selected independent variables. The mean score of female principals is slightly higher than that of their male counterparts. This finding may be expected since female principals are relatively few in number and have not always received a salary on a par with that of male principals. The financial job satisfaction of scores appeared to be normally distributed when compared with the standard scores listed in Table II. The variables, sex, type school (public, private) size of
school (small, large) and grades supervised (elementary, secondary) do not seem to be factors influencing differentials in financial job satisfaction of school principals.

**Hypothesis III**—This hypothesis predicts that there will be no significant differences between elementary and secondary school principals' mean level of intrinsic job satisfaction across selected independent variables as measured by the Job Satisfaction Questionnaire, Morse Index of Employee Satisfaction. The respondent elementary and secondary school principals have significantly different intrinsic job satisfaction mean scores when grouped according to sex and size of school. Both elementary and secondary school principals have mean scores that are in the high category when grouped according to grades supervised. When the principals are grouped according to the type of school variable, public school principals have a mean score that is in the high category, while private school principals' mean score is in the medium category.

The mean level of intrinsic job satisfaction is significantly different for male and female school principals. The mean scores for females is slightly higher than that of their male counterparts. This finding indicates that female principals perceive greater intrinsic job satisfaction from their jobs than male principals. The mean scores for intrinsic job satisfaction varied
from high to medium across all selected independent variables. The variables of type of school (public and private) and grades supervised (elementary and secondary) do not seem to be factors that influence differentials in principals' mean levels of intrinsic job satisfaction.

**Hypothesis IV**—This hypothesis predicts that there will be no significant differences between elementary and secondary school principals' mean level of pride-in-school performance across selected independent variables as measured by the Job Satisfaction Questionnaire, Morse Index of Employee Satisfaction. For the respondent elementary and secondary school principals, the mean levels of job satisfaction are not significantly different when grouped according to the variables of sex, size of school, type of school and grade levels supervised. The female principals have a mean score that seems to indicate a higher level of pride-in-school performance than their male counterparts. Public school principals have a mean score that is in the medium category and private school principals have a mean score in the low category. The mean scores for principals when grouped according to the variables of school size and grade levels supervised are on the low end of the high category.

The mean levels of pride-in-school performance scores for both elementary and secondary principals do not differ significantly across the selected independent variables.
The mean scores of school principals selected for this study varies from high to low. A greater variation in mean scores is obtained on this index than for any of the other indexes.

**Self-Reported Stress Evaluation**

The next hypothesis analyzes self-evaluation stress. This is measured by the Self-Evaluation Questionnaire, Part A, State-Trait Anxiety Inventory (STAI), across selected variables.

**Hypothesis V**—This hypothesis predicts that there will be no significant differences between elementary and secondary school principals' mean level of self-evaluation (stress) across selected independent variables as measured by the Self-Evaluation Questionnaire, Part A, State-Trait Anxiety Inventory-STAI. There is a significant difference in the self-evaluation mean scores between elementary and secondary school principals when grouped according to size of school. Principals from large schools have a higher mean self-evaluation score than principals from small schools. When grouped according to the sex variable, male principals have a slightly higher self-evaluation score than do their female counterparts. When principals are grouped according to type of school, the private school principals have a higher stress mean score than their public school counterparts. According to grade levels supervised,
secondary school principals have a higher stress mean score than their female counterparts.

There is a significant difference in the stress mean scores of principals when grouped according to size of school supervised. Principals from large schools seem to experience slightly higher stress levels than their counterparts from small schools.

The mean scores vary from 46.226 to 47.500, which is higher than the stress experienced by students under exam conditions. This situation does not seem to pose a health problem since the job satisfaction scores are also relatively high which indicates that principals are satisfactorily involved in their work. The variables, sex, type of school (public, private), and grades supervised (elementary, secondary) do not seem to be factors influencing differentials in principals' self-reported levels of stress.

**Relationships between Job Satisfaction and Self-Evaluated Stress**

The last three hypotheses analyze the relationships between the job satisfaction indices and levels of self-evaluated stress across selected independent variables and the relationships of the job satisfaction indexes and levels of self-evaluated stress.

**Hypothesis VI**—This hypothesis predicts that there will be no significant relationships between elementary and
secondary school principals mean levels of the job satisfaction indexes and selected independent variables as measured by the Job Satisfaction Index, Morse Index of Employee Satisfaction. There are significant positive relationships between the index of district involvement and the independent variables for type of school (private, public) and the size of school (large, small), and significant negative relationships existed between the indexes financial job satisfaction and intrinsic job satisfaction and the size of school (small, large). Significant correlations are found between pride-in-school performance and variables for sex and type of school. The relationships are negative and positive, respectively.

There is a significant positive relationship between district involvement and principals by type and size of school; however, this relationship seems to be rather moderate. This situation applies to both significant and non-significant variables.

Both job satisfaction and intrinsic job satisfaction are negatively related to size of school. Since both of these relationships are negative, this finding tends to lend support to the research proposition that organization size is inversely related to job satisfaction. Pride-in-school performance is inversely related to the variable for sex and directly related to the variable for type of school. There does not seem to be a supportable rationale for explaining
these relationships. Both of these relationships are moderate and significant.

**Hypothesis VII**—This hypothesis predicts that there will be no significant relationships between elementary and secondary school principals' mean levels of self-evaluation (stress) and selected independent variables as measured by the Self-Evaluation Questionnaire, Part A, State-Trait Anxiety Inventory (STAI). There is a significant positive relationship between stress and size of school. When stress levels are analyzed according to sex, type of school, and grade levels supervised, no significant relationships are found.

There is a significant positive relationship between self-evaluated stress and the variable for size of school. The research proposition is that the relationship between organizational size are not supportable from the literature. A small relationship exists between self-evaluated stress and the variables sex for type of school, and grade levels supervised.

**Hypothesis VIII**—This hypothesis predicts that there will be no significant relationships between the mean job satisfaction indexes and mean self-evaluation (stress) scores of elementary and secondary school principals as measured by the Job Satisfaction Index, Morse Index of Employee Satisfaction and Self-Evaluation Questionnaire,
Part A, State-Trait Anxiety Inventory (STAI). There are significant positive relationships between each job satisfaction index when paired with district involvement, financial job satisfaction, intrinsic job satisfaction, and pride-in school participation. There are significant negative relations between each job satisfaction index and self-evaluated stress scores for elementary and secondary school principals selected for this study.

There are significant positive relationships between the job satisfaction indexes; however, these relationships seem to be moderate across all indexes. There is a significant negative relationship between self-evaluated stress scores and each job satisfaction index. The relationships seem to be moderate and certainly not unequivocal across all job satisfaction indexes. There seems to be a supportable rationale for these findings from the assertions of Kyriacou and Sutcliff (3), Levine and Scotch (4) and Warr and Wall (7) that there is a negative relationship between job satisfaction and self-evaluated stress.

Conclusions

The mean job satisfaction scores on all indexes varies from high to medium in all situations except for type of school for which the private school sample size is too small to render a supported conclusion. These data also help to answer the research question that there is no significant
difference in the job satisfaction levels of elementary and secondary school principals. Data in this study also support the findings of Fuller and Miskel (1) that dissatisfactions among educators have remained relatively stable and below 10 per cent.

The mean self-evaluated stress levels across all selected independent variables vary from 46.759 to 47.646, which is similar to that experienced by students under exam conditions (6, p. 24). These data support the proposition that the mean stress level of school principals is relatively high when compared with normal conditions, which may be explained as work involvement since job satisfaction scores are also relatively high. These data also support the proposition that there is no significant difference between the mean stress levels of elementary and secondary school principals.

The findings of the study also indicate that there is a strong significant negative relationship between mean self-evaluated stress levels and each job satisfaction index. This data is supportive of Kryiacou and Sutcliff's (3) conclusion that there is a negative relationship between job satisfaction and stress.

Furthermore, based on the findings and implications of this study, the following conclusions seem to be supported.

1. The district involvement and financial job satisfaction indices of principals varies from medium to
high levels; the variables of sex, type of school, size of school, and the grade level of the schools do not seem to influence their levels of job satisfaction.

2. The intrinsic job satisfaction of principals is at a high level and seems to be influenced by the variables of sex and size of school; i.e., female principals are significantly more intrinsically satisfied than male principals, and principals in smaller schools are more intrinsically satisfied than those in larger schools.

3. The pride-in-school performance job satisfaction of principals is at a high level, and the variables of sex, type of school, size of school, and grade levels of schools do not seem to influence this type of job satisfaction.

4. The principals self-reported levels of stress are similar to those levels of stress reported by Spielberger (6) for students under exam conditions, which do not seem to pose a health problem for them since their job satisfaction scores on all indices also are relatively high.

5. There is a moderate relationship between self-reported levels of stress among principals; however, their self-reported levels of stress are significantly higher in larger schools than in smaller schools.

Recommendations

Based on the findings and implications of this study, the following recommendations are suggested.
1. Self-evaluation questionnaire should be used to measure levels of stress in instances where principals demonstrate poor work performance.

2. Stress management training should be a part of in-service training for principals in order to provide a means of dealing with stress related to the job of being a school principal.

3. Additional research should be done to improve the data base for dealing with job satisfaction and stress problems in the area of school administration.
CHAPTER BIBLIOGRAPHY


March 12, 1982

Mr. James R. Adams
1709 Elk Grove Drive
Richardson, Texas 75081

Dear Mr. Adams:

This letter is official notification of the results of your proposal seminar held on February 25. The special committee for this seminar has accepted your proposal as presented with the following actions:

(1) Limit Statement of the Problem to one sentence including "in a selected Educational Service Center region."

(2) Add stress to state anxiety in #2 and #4 in definitions.

(3) Highlight the Work Environment in the directions for completing the Instrument.

(4) Restate the definitions operationally.

(5) Establish 60% as a minimal response for each group of principals.

The committee has asked me to convey to you congratulations on the attainment of this important milestone in your doctoral program.

For the committee,

/s/

Frank Halstead

jm

cc: Dr. R. Washington
    Dr. F. Halstead
    Dean R. Toulouse
    Dr. V. Schmidt
    LRC (4)
North Texas State University  
Public School Administration  
And Supervision  
Denton, Texas 76203  

August 6, 1981  

To Whom It May Concern:  

I hereby certify that Mr. James R. Adams is a graduate student in the College of Education at North Texas State University. He intends to use both the Minnesota Teacher Attitude Inventory (MTAI) and the Spielberger State-Trait Anxiety Inventory (STAI) in his doctoral research dissertation.  

Mr. Adams has the academic and experiential qualifications to administer these instruments to subjects, and I would appreciate that he be given permission to have access to them.  

Sincerely yours,  

Roosevelt Washington, Jr., Ed.D.  
Professor of Education  
(Division of Educational Administration and Supervision)  
Major Professor to James R. Adams
Nancy C. Morse  
The Institute for Social Research  
University of Michigan  
Ann Arbor, Michigan  

Dear Ms. Morse:

Request permission to use the Morse Inventory of Employee satisfaction for a research investigation I am conducting. A copy of the modified instrument is attached.

An approved statement from my advisory committee is enclosed for information. Your favorable and prompt attention to this request will expedite my research effort.

Thank you for your assistance.

Sincerely yours,

James R. Adams  
Doctoral Student

Enclosures (2)
March 11, 1982

Permission Editor
Consulting Psychologists Press, Inc.
577 College Avenue
Palo Alto, CA 94306

Dear Editor:

Request permission to use the State Anxiety Inventory Part A of the State-Trait Anxiety Inventory (STAI) for a research investigation I am conducting. A copy of the modified instrument is attached.

An approved statement from my advisory committee is enclosed for information. Your favorable and prompt attention to this request will expedite my research effort.

Thank you for your assistance.

Sincerely yours,

James R. Adams
Doctoral Student

Enclosures (2)
In response to your request of March 11, 1982 permission is hereby granted you to reproduce copies of the STAI X-1, as indicated by your enclosures, to use in collecting data for your doctoral dissertation subject to the following restrictions:

(a) Any and all material used will contain proper acknowledgements; e.g., "Reproduced by special permission from The State Trait Anxiety Inventory by Charles Spielberger, Richard Gorsuch and Robert Lushene, Copyright 1968, Published by Consulting Psychologists Press Inc., Palo Alto, CA 94306."

(b) None of the materials may be sold or used for purposes other than those mentioned above.

(c) One copy of any material reproduced will be sent to the Publisher.

(d) Payment of a royalty/license fee. There will be a minimum fee of $5.00 unless you are reproducing more than 200 copies in which case it will cost three cents a copy. Please remit without further bill and mail to my attention.

CONSULTING PSYCHOLOGISTS PRESS INC.
Dear Principal:

The purpose of this letter is to briefly describe a research effort and solicit your participation therein. This research is concerned with how you feel in your work environment and the relationship of total job satisfaction among elementary and secondary school administrators.

This research effort is part of a doctoral dissertation and is being sponsored by the Department of Public School Administration and Supervision at NORTH TEXAS STATE UNIVERSITY. The student is James R. Adams and the Major Professor is Dr. Roosevelt Washington, Jr.

Prudent care will be given to all data to insure privacy and anonymity. To guarantee this the student: (1) will roster all data by number not by name, (2) will destroy the original sample protocols as soon as the study is completed, and (3) has provided a postage free self-addressed envelope for the return of all materials. Additionally, each respondent will be provided a summary report upon completion of this project.

Please complete the demographic data sheet and both self-administered questionnaires. It should require only about twenty minutes of your time. Further request that all materials be returned by April 25, 1982.

Thank your for your cooperation in this research effort.

Sincerely,

/s/
James R. Adams
Student

/s/
Dr. Roosevelt Washington, Jr.,
Professor
Department of Public School Administration and Supervision

Enclosures: Demographic Data Sheet
Employee Satisfaction Questionnaire
Self-Evaluation Questionnaire
SECTION I
DEMORAPHICAL DATA

1. Personal data
   Sex: (check one)
   ____ Male
   ____ Female

2. School data
   (a) Type of school: (check one)
       ____ Public
       ____ Private
   (b) Grade levels of school: (indicate as appropriate)
       ____ Elementary (K-6 or K-8)
       ____ Secondary (9-12 or 10-12)
   (c) Size of school: (indicate size in accordance with enrollment)
       ____ 1 - 500 students (small)
       ____ 501-plus (large)
SECTION II
MORSE INDEX OF EMPLOYEE SATISFACTION

Directions: A number of statements which people have used to describe job satisfaction are given below. Read each question and then circle the number to indicate how you feel about your work situation. Do not spend too much time on any one statement but give the answer which seems to describe your present feelings.

A. District Involvement

1. How do you like working in your respective school district?
   a. Like Strongly          d. Dislike
   b. Like                   e. Dislike strongly
   c. Neither like/dislike

2. Would you advise a friend to seek employment as a principal in your district?
   a. Yes                   b. Pro/Con     c. No

3. What is your overall feeling as to the fairness of the district?
   a. District is fair and generous
   b. District is fair but very exacting
   c. District is unfair

4. How would you rate your identification with the district.
   a. Strong identification
   b. Some identification
   c. No identification

B. Financial and Job Status Index

1. Very Satisfied          4. Dissatisfied
2. Quite Satisfied         5. Very Dissatisfied
3. Pro-Con

1. How well satisfied are you with your salary?
   (circle one number)

   1 ---- 2 ---- 3 ---- 4 ---- 5
2. How satisfied are you with your chances of getting an increase in salary? (circle one number)

1 ---- 2 ---- 3 ---- 4 ---- 5

3. How about your own case, how satisfied are you with the way things have been working out for you? (circle one number)

1 ---- 2 ---- 3 ---- 4 ---- 5

4. What degree of satisfaction have you experienced in making advancements in your job or career field? (circle one number)

1 ---- 2 ---- 3 ---- 4 ---- 5

C. Intrinsic Job Satisfaction

1. How well do you like the sort of work you are doing? (circle one number)

1. Very Satisfied
2. Quite Satisfied
3. Pro-Con
4. Dissatisfied
5. Very Dissatisfied

2. Does your job give you a chance to do the things you feel you do best? (circle one number)

1. Very Good Chance
2. Fairly Good Chance
3. Some Chance
4. Very Little Chance
5. No Chance

3. How do you feel about the accomplishments that you have made in the work you are doing? (circle one number)

1. Very Satisfied
2. Quite Satisfied
3. Pro-Con
4. Dissatisfied
5. Very Dissatisfied

4. How do you feel about your job, does it rate as an important job with you? (circle one number)

1. Very Important
2. Fairly Important
3. Some Importance
4. Very Little
5. No Importance
D. Pride-in-Group Performance Index

1. The Very Best
2. Very Good
3. Good
4. Average
5. Below Average

1. How well do you think your school compares with other schools in the district? (circle one number)
   1 ---- 2 ---- 3 ---- 4 ---- 5

2. How well do you think your school compares with other schools in performing the job of teaching students? (circle one number)
   1 ---- 2 ---- 3 ---- 4 ---- 5

3. How well do you think your school compares with other schools in school/community involvement? (circle one number)
   1 ---- 2 ---- 3 ---- 4 ---- 5

4. The community would rate the performance of your school as: (circle one number)
   1 ---- 2 ---- 3 ---- 4 ---- 5
SECTION III

SELF-EVALUATION QUESTIONNAIRE

Directions: A number of statements which people have used to describe themselves are given below. Read each statement and then circle the number to the right of the statement to indicate how you feel now (at this moment) in relation to your work situation. Do not spend too much time on any one statement but give the answer which seems to describe your present feelings best.

<table>
<thead>
<tr>
<th>Statements</th>
<th>Not at all</th>
<th>Somewhat</th>
<th>Moderately so</th>
<th>Very much so</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I feel calm</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. I feel secure</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. I am tense</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. I am regretful</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. I feel at ease</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. I feel upset</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. I am presently worrying over possible misfortunes</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. I feel rested</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. I feel anxious</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. I feel comfortable</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. I feel self-confident</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. I feel nervous</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13. I am jittery</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14. I feel &quot;high strung&quot;</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15. I am relaxed</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16. I feel content</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17. I am worried</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18. I feel over-excited and &quot;rattled&quot;</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19. I feel joyful</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20. I feel pleasant</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
APPENDIX C
SPECIFICS OF THE STUDY
Specifics of the Study

This section contains the names of the doctoral Advisory Committee, the research timetable and budget and the explanation of ethical and legal considerations involved in conducting this research utilizing human subjects.

Advisory Committee

Many members of the staff and faculty of North Texas State University provided inspiration, direction and technical assistance in the development and completion of this research activity. Members of the Advisory Committee were:

Dr. Roosevelt Washington, Chairperson
Dr. Mary S. Thibodeaus, Minor Professor
Dr. Dwane Kingery, Committee Member
Dr. Joseph Bezdek, Committee Member

Ethical Considerations

The ethical and legal responsibilities of the investigator to North Texas State University, the Education Service Region and all subjects were taken into consideration from initial preparation to pursue the study through its completion. Requests were initiated to obtain permission to use instruments and the necessary fees were paid. The letters requesting permission to use the State-Trait Anxiety Inventory (STAI) and the Morse Index of Employee Satisfaction are included in Appendix A.
Procedures were established to ensure that prudent care was given to all collected data to maintain privacy and anonymity. To guarantee this, all data were rostered by number rather than by name. The original sample protocols were destroyed as soon as the data was coded. My return address was used for all returned mail. All persons who requested summary reports will be provided same. All subjects were asked to participate in the study. No subjects under the legal age of autonomous consent were included in the research sample.

The necessary certification was furnished to publishers to satisfy the American Psychological Association, Inc., requirements for access to the necessary controlled test manuals.

TIME TABLE

<table>
<thead>
<tr>
<th>Month</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>February 1982</td>
<td>Defense of dissertation proposal</td>
</tr>
<tr>
<td>March 1982</td>
<td>Obtained approval to conduct proposal research</td>
</tr>
<tr>
<td>April 1982</td>
<td>Commenced and completed data collection</td>
</tr>
<tr>
<td>May - July 1982</td>
<td>Coded and processed data</td>
</tr>
<tr>
<td>August - December 1982</td>
<td>Analyses and reporting of research findings</td>
</tr>
<tr>
<td>December 10, 1982</td>
<td>First draft of research report</td>
</tr>
<tr>
<td>January 1983</td>
<td>Defense of dissertation</td>
</tr>
</tbody>
</table>

Changes to the original time schedule were coordinated with the major professor.
BUDGET ESTIMATES

Spielberger State-Trait Anxiety Inventory
(Manual and sample test) ....................... $ 5.00

Morse Employee Satisfaction Index ............... 0.00

Proposal Costs

<table>
<thead>
<tr>
<th>Item</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Envelopes</td>
<td>12.00</td>
</tr>
<tr>
<td>Stamps</td>
<td>85.00</td>
</tr>
<tr>
<td>Typing Cost</td>
<td>55.00</td>
</tr>
<tr>
<td>Duplicating Proposal</td>
<td>31.65</td>
</tr>
<tr>
<td>Computer Time</td>
<td>125.00</td>
</tr>
<tr>
<td>Mailing Labels</td>
<td>12.00</td>
</tr>
<tr>
<td>Telephone Calls</td>
<td>25.15</td>
</tr>
</tbody>
</table>

Dissertation Costs

<table>
<thead>
<tr>
<th>Item</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Typing first draft dissertation</td>
<td>100.00</td>
</tr>
<tr>
<td>Correcting first draft and typing</td>
<td>100.00</td>
</tr>
<tr>
<td>of dissertation</td>
<td></td>
</tr>
<tr>
<td>Duplicating dissertation</td>
<td>100.00</td>
</tr>
<tr>
<td>Typing of oral presentation</td>
<td>50.00</td>
</tr>
<tr>
<td>Visuals for oral presentation</td>
<td>25.00</td>
</tr>
<tr>
<td>Binding Cost</td>
<td>50.00</td>
</tr>
<tr>
<td>Microfilming</td>
<td>30.00</td>
</tr>
<tr>
<td>Copyright</td>
<td>25.00</td>
</tr>
</tbody>
</table>

TOTAL $830.80
BIBLIOGRAPHY

Books


Articles


Gorsuch, Richard and Martha K. Key, "Abnormalities of Pregnancy as a Function of Anxiety and Life Stress." Psychosomatic Medicine, XXXVI (July-August, 1974) 352.


Greene, W. A. Jr., and Gerald Miller, "Psychological Factors and Reticuloendothelial Disease, IV: Observations on a Group of Children and Adolescents with Leukemia. An Interpretation of Disease Development in Terms of Mother-Child Unit," Psychosomatic Medicine, XXVIII (March-April, 1958), 124-144.


Instructor, LXXXIV (February, 1977), 12.


__________, "Teacher Stress and Satisfaction," Educational Research, XXI (Fall, 1979), 89-96.


Seybolt, John W., "Work Satisfaction as a Function of the Person - Environment Interaction," Organizational Behavior and Human Performance, XVII (October, 1976), 66-75.


Reports


Morse, Nancy C., Satisfaction in the White Collar Job, Ann Arbor, University of Michigan Institute for Social Research, 1953.

Government Documents


Unpublished Materials


