

RELATIONSHIP OF JOB CHARACTERISTICS
TO JOB SATISFACTION AMONG
PUBLIC SCHOOL PRINCIPALS

BY

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The purpose of this study was to examine the relationship of job characteristics to job satisfaction among public school principals. It is hoped that the results of this study will contribute to both the understanding of job satisfaction for public school administrators and to the systematic measurement of job satisfiers within this realm.

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CHAPTER I

INTRODUCTION

The topic of job satisfaction in the work place has piqued the interest of numerous researchers. Locke (1980, p. 409) estimated that more than 3,300 articles and dissertations have been published in which job satisfaction is the major focus of interest.

Job satisfaction has been studied for several reasons. First, some researchers have felt that satisfaction from work activities contributes to the self-concept of the worker, thereby fulfilling some of the workers' basic human needs (Maslow, 1975). Second, a few researchers have linked satisfaction in work to the physical and mental well-being the worker feels outside the work environment (Locke, 1976). And finally, a large body of research has supported the positive association of work productivity and job satisfaction (Hackman and Oldham, 1980).

Friesen, Holdaway and Rice (1983, p. 35) noted that, although many job satisfaction studies have been conducted, they tend to focus mainly on production workers rather than public school principals. Consequently, the antecedents and outcomes of job satisfaction studies have not been

delineated for those who serve as educational leaders in the public schools.

Statement of the Problem

The purpose of this study was to investigate the relationship between the perceptions of certain job characteristics among public school principals and their level of job satisfaction. The impact of gender and level of the public school setting on this relationship was also researched. More specifically, the intent of this study was to examine job satisfaction of public school principals using Hackman and Oldham's job characteristics model. Both job characteristics and job satisfaction of public school principals are important to study because they are related to outcomes which are important to the employees and the workplace. There is a relationship between job satisfaction and desirable outcomes for both employees and their workplaces. A positive relationship exists between certain job characteristics and both job satisfaction and job motivation (Sims, Szilagyi and Keller, 1976). Motivation, job commitment, alienation, turnover, absenteeism and stress have been associated with characteristics of the job or job satisfaction (Cooper, 1979).

Work motivation is thought to be highly related to the characteristics of the work itself (Hackman and Lawler, 1971; Hackman and Oldham, 1980; and Schwab and Cummings, 1976). Nonroutine, nonrepetitive jobs are more likely to serve as

positive motivators of behavior (Hurlin, 1971).

Characteristics of jobs which motivate and satisfy employees foster job commitment (Farrell and Rusbult, 1981; Hackman and Lawler, 1971; and Stone and Porter, 1975). Research has indicated that employees are committed and involved in their jobs if the jobs possess certain characteristics which meet employees' expectations or fulfill their needs (Hackman and Lawler, 1971).

A relationship also exists between certain job characteristics and undesirable outcomes for both employees and the workplace. Employees' attitudes toward certain factors within their work are influenced by the characteristics of their job. Job duties which are monotonous, machine paced, or closely supervised result in employees being alienated from their work environments. Employees who have poor attitudes are more likely to be less satisfied, respond with less enthusiasm, and develop other work related symptoms. Symptoms such as turnover, (Lawler, 1973; Locke, 1976; and Vroom, 1964), absenteeism (Hackman and Lawler, 1971) stress (Farrell and Rusbult, 1981) and burnout (Cedoline, 1982) have been linked to limited job commitment and job dissatisfaction.

The Hackman and Oldham model has been successfully used at a middle management level to increase job satisfaction, work commitment and motivation (Birnbaum, Farh and Wong, 1986; Fried and Ferris, 1986; Friedlander, 1964; Hackman and Lawler, 1971; Hackman and Oldham, 1980; Sims,

Szilagyi and Keller, 1976; and Turner and Lawrence, 1965). It has not been tested, however, with the mid-management position of public school principals. Greater teacher motivation to teach and greater student motivation to learn have been directly linked to schools with effective, satisfied principals (Sergiovanni, 1967).

The data provided from this study will be useful in determining which characteristics of public school principals' job are perceived as satisfiers. This data could also be useful in redesigning principals' job responsibilities and roles. It is important to know which aspects of public school principals' complex work environments impact their behaviors. Effective planning for organizational change can only take place when the job characteristics, which relate to job satisfaction, are determined for this group.

Definitions of the Terms

The definitions below are presented to provide a clearer understanding of the concepts and variables discussed in this study.

Job Satisfaction: This variable is defined as an "overall measure of the degree to which the employee is satisfied and happy in his or her work" (Hackman and Oldham, 1980). For the purpose of this study, the above term will be applied to principals' feelings about their work which cause them to be satisfied overall with their positions.

More complete definitions of job satisfaction will given on page sixteen.

Job Characteristics: This variable is defined as the degree to which workers' positions involve skill variety, task identity, task significance, autonomy, and job feedback (Hackman and Oldham, 1980) Definitions of each variable are provided below:

- a) Skill Variety: "The degree to which the job requires a variety of different activities in carrying out the work, involving the use of a number of different skills and talents of the person" (Hackman and Oldham, 1980, p. 78).
- b) Task Identity: "The degree to which a job requires completion of a whole and identifiable piece of work, that is, doing a job from beginning to end with a visible outcome" (Hackman and Oldham, 1980, p. 78).
- c) Task Significance: "The degree to which the job has substantial impact on the lives of other people whether, those people are in the immediate organization or in the world at large" (Hackman and Oldham, 1980, p. 79).
- d) Autonomy: "The degree to which the job provides substantial freedom, independence, and discretion to the individual in scheduling the work and in determining the procedures to be used in carrying it out" (Hackman and Oldham, 1980, p. 79).
- e) Feedback from Agents: "The degree to which the employee receives clear information about his or her performance from supervisors or from co-workers." (Hackman and Oldham, 1975, p. 162). For the purpose of this study, the above term will be called job feedback.

Gender: This variable refers to the sex of the principal, that is, whether the principal is a male or a female.

Level of Public School Setting: This variable is defined

by two distinct settings: elementary schools or secondary schools. Elementary schools are those pattern of settings which both exclude grades 9-12 and include, either totally or in part, grades K-6. Secondary schools are those which both exclude grades K-5 and include, either totally or in part, grades 6-12.

Principal: This variable is defined as a certified teacher who holds a current provisional or standard elementary or secondary principal's certificate in the state of Oklahoma, Missouri, or Kansas and belongs to the National Association of Elementary Principals or Secondary Principals.

Theoretical Background

The majority of research studies conducted with public school principals have relied primarily on motivational theories to determine the factors which contribute to job satisfaction. In particular, these theories have suggested that motivators, which reflect the nature of the work itself, (opportunities for achievement, recognition, responsibility, advancement and personal growth), tap higher order needs such as those for self-actualization or self-realization (Maslow, 1975). Motivational theories further have implied that employers can develop systematic programs of motivation if they know which needs are most important to their employees at particular times, providing environments necessary for satisfying those needs (Cooper, 1979).

Although the concept of job satisfaction has played a major role in the theories of work motivation (Landy and Trumbo, 1980), this role has been approached differently by various researchers. Some researchers have used the term job satisfaction and motivation interchangeably (Blood and Hulin, 1967 and Landy and Trumbo, 1980). Others have viewed the terms as independent entities (Locke, 1976 and Sergiovanni, 1987). Yet, others have perceived that employees' motivation directly influences their job satisfaction (Hackman and Lawler, 1971; Hackman and Oldham, 1980; Herzberg, 1966; Maslow, 1975; Porter and Lawler, 1975; Turner and Lawrence, 1965; and Vroom, 1964).

The latter view proposed by Hackman and Oldham has established a positive link between motivation and job satisfaction. Their approach to the study of job satisfaction has emphasized factors that, when present in a job, fulfill basic human needs and stress employees' perceptions, personal feelings, and attitudes toward the work environment. Their research has been primarily based upon the work of Maslow, Herzberg and Vroom.

Maslow's Need-Hierarchy Theory

Maslow's theory proposed that human needs are classified into five broad categories. These categories are: physiological, safety, love and belongingness, esteem, and self-actualization. Maslow's need-hierarchy theory is based on two fundamental principles: 1. Employees are

motivated to satisfy certain needs. 2. The needs employees pursue are arranged in a hierarchy in which lower-level needs must be satisfied before higher-level needs can be pursued or satisfied (Maslow, 1975). Unmet needs also serve as motivators for employees. If an employee cannot satisfy needs at a given level for any period of time, those needs again become important motivators (Hoy and Miskel, 1978).

Once lower-level needs are fulfilled, the degree to which upper-level needs are fulfilled determines the degree of motivation which employees experience. When employees have reached the self-actualization level, the process changes and results in the self-actualization need being the primary motivator (Landy and Trumbo, 1980).

Herzberg's Motivation Hygiene Theory

Herzberg's theory made a distinction between two sets of job characteristics. One set is called motivators and includes: recognition, responsibility, the work itself, advancement, and achievement. These motivation factors are intrinsic and correspond to employees' higher needs (Hoy and Miskel, 1987). When present, adequate and positive in a job situation, these factors cause feelings of job satisfaction in employees (Silver, 1983).

The other set is called hygiene factors and includes: salary, security, status, interpersonal relationships, working conditions, growth possibilities, and personal

life. Hygiene factors concerned with the conditions of work are extrinsic and correspond to employees' lower-level needs (Herzberg, 1966). When absent, negative, or inadequate these factors cause feelings of dissatisfaction (Silver, 1983).

When the five motivators are present in work, employees' basic needs for personal growth and self-actualization will be satisfied, and positive feelings, as well as improved performance, will result (Hoy and Miskel, 1987). Herzberg (1966) believed that the best way to design jobs to enhance satisfaction and work motivation is to manipulate the motivator factors so as to provide maximum opportunities for satisfaction of higher-order needs (Cooper, 1979).

Vroom's Expectancy Theory

Victor Vroom's (1964) theory of motivation focused on the dynamics of motivation as a force within employees (Silver, 1983). Further, Vroom viewed satisfaction and dissatisfaction as the springboards of motivation to act (Silver, 1983). When employees anticipate obtaining some valued outcome as a result of a contemplated action or course of action, that outcome may be termed a motivator for engaging in the action.

Expectancy theory specifically includes three concepts which contribute to the force of motivation: expectancy, valence, and instrumentality. Expectancy refers to the

employees' belief that their efforts will lead to successful performance. Instrumentality is the belief that a given performance is essential for attaining a given reward. Valence refers to the degree of attractiveness or desirability that employees attach to a reward. The basic premise of this theory has been that motivation to start and maintain a certain behavior is the product of expectancy, valence and instrumentality (Hoy and Miskel, 1987).

Hackman and Oldham's Job

Characteristics Model

Hackman and Oldham developed their theory of work redesign from combining and unifying Maslow's hierarchy of needs theory, Herzberg's motivation-hygiene theory and Vroom's expectancy theory into the job characteristics model (Hoy and Miskel, 1987).

From Maslow's theory, Hackman and Oldham have extracted the concept that a job represents an important opportunity for self-actualization. Specifically, employees who desire higher order need satisfaction can achieve it through meaningful jobs that provide them feedback on how effectively they perform their jobs.

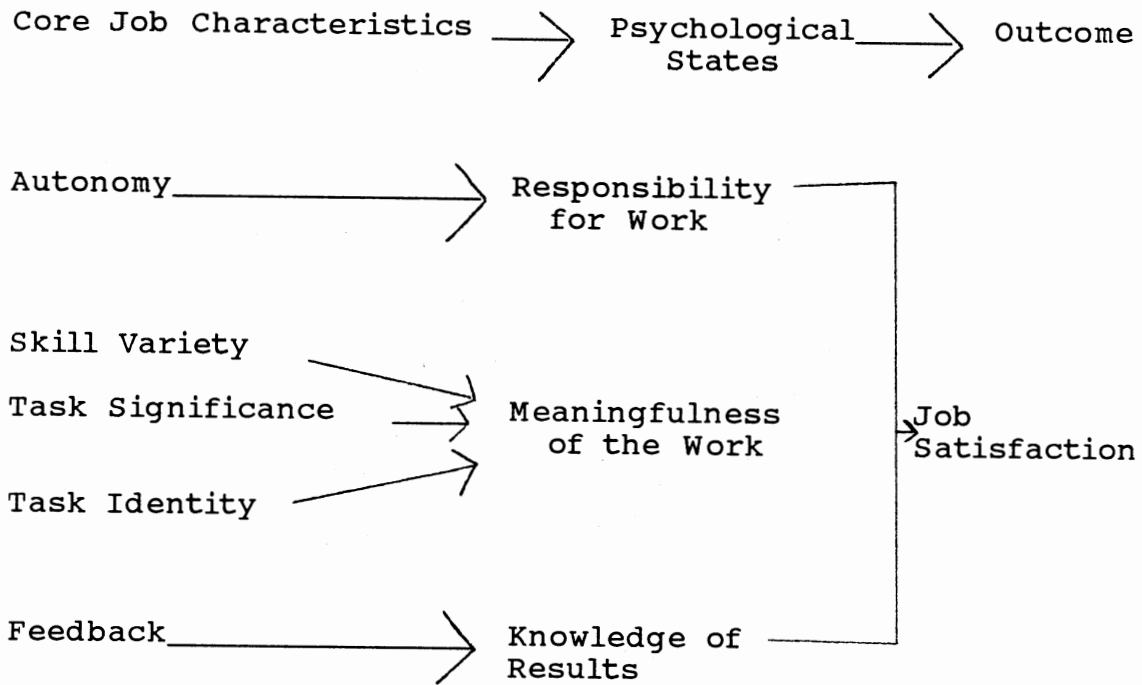
Focusing on Herzberg's theory of job enrichment, Hackman and Oldham incorporated "the work itself" concept into their model. This concept concentrates attention on the significance of the work itself as a factor in the ultimate motivation and satisfaction of employees.

Herzberg's theory specified that a job will enhance work motivation only to the degree that motivators are designed into the characteristics of the work environment (Hackman and Oldham, 1980). From this perspective, the motivating potential is based upon high scores on key job characteristics: skill variety, task identity, and task significance which create conditions for employees to be internally motivated and satisfied in their job.

From Vroom's expectancy theory, Hackman and Oldham have drawn on the concept that productive work generally leads to positive outcomes. Employees engage in a particular behavior when they believe they can obtain a reward for initiating this behavior. Contingent rewards, when selected and administered appropriately by employers, can often enhance employees' motivation and help them gain valued personal outcomes in return for their contributions to the attainment of organizational goals.

In the job characteristics model (See Figure 1) it is proposed that positive personal and work outcomes, such as job satisfaction, are obtained when three critical psychological states, meaningfulness of the work, responsibility for work and knowledge of results, are created by the presence of five core job characteristics. These characteristics are reasonably objective, measurable, and changeable properties of the work, foster the psychological states and produce work motivation (Hoy and Miskel, 1987).

The degree to which employees experience the three



Source: Adapted from J. Richard Hackman and Greg R. Oldham, Work Redesign (Reading, MA: Addison - Wesley, 1980), p. 83.

Figure 1. Job Characteristics Model

psychological states influences the ways in which they respond to the characteristics of their job in terms of job satisfaction, internal work motivation, and quality of performance (Cooper, 1979).

According to Hackman and Oldham's theory, meaningfulness of the work is enhanced primarily by three core dimensions: skill variety, task identity, and task significance. Responsibility for work outcomes is increased when a job has a high autonomy core dimension. Knowledge of results is increased when a job is high on the core dimension called feedback. In order to provide information on the interpersonal characteristics of jobs, dealing with others was added to the basic core job characteristics, but is not directly part of the model.

Hackman and Oldham's research indicates that objective job characteristics are important because they affect the perceptions and experiences of employees. Employees' daily experiences on the job contribute to their overall satisfaction with those characteristics which comprise their job duties and responsibilities. Research indicates job characteristics such as, autonomy, skill variety, task significance, and job feedback, are positively linked to employees' general job satisfaction (Birnbaum, Farh and Wong, 1986; Hackman and Lawler, 1971; Hackman and Oldham, 1980; and Turner and Lawrence, 1965). Employees' behavioral patterns develop as a function of their perceptions concerning what they can do on the job to obtain work outcomes

which satisfy them. Hackman and Oldham's research indicated the importance of job characteristics in establishing conditions which will enhance the intrinsic motivation and job satisfaction for employees.

Summary

The relationship between specific job characteristics and job satisfaction was investigated. In addition, the impact of gender and level of the work setting on this relationship was also investigated. Terms were defined in order to clarify the concepts and variables discussed in the study. A background of related motivational theories was presented to enhance reader understanding of the foundation upon which Hackman and Oldham's model was developed. Finally, the model was discussed as it related to the outcome - job satisfaction.

CHAPTER II

REVIEW OF THE LITERATURE

Introduction

The purpose of this study was to investigate the relationship between the perceptions of certain job characteristics among public school principals and their levels of job satisfaction. The impact of gender and the level of the public school setting on this relationship were also investigated in the study.

The review of the literature chapter is organized into the following sections:

1. Job satisfaction definitions.
2. Studies dealing with the job characteristics model.
3. Studies dealing with the relationship of work-related variables and job satisfaction.
4. Studies dealing with the relationship of gender and job satisfaction.
5. Studies dealing with the moderating effects of gender on the relationship between job characteristics and job satisfaction.
6. Studies dealing with the relationship of level of the work setting and job satisfaction.

7. Studies dealing with the moderating effects of level of the work setting on the relationship between job characteristics and job satisfaction.

8. Studies dealing with the joint moderating effects of gender and the level of the work setting on the relationship of job characteristics and job satisfaction.

Job Satisfaction Definitions

Several major definitions have been proposed explaining the emotional character of job satisfaction. In Herzberg's motivation-hygiene theory, it was postulated that the primary determinants of job satisfaction are the intrinsic aspects of the job called motivators (King, 1970). Maslow (1975) related satisfaction to the fulfillment of basic needs. Hoppock (1977) defined job satisfaction as any combination of psychological, physiological, and environmental circumstances that cause a person to say, "I am satisfied with my job." Vroom (1964) defined job satisfaction as the affective orientations of individuals toward work roles that they are presently occupying. Similarly, Smith (1978) asserted that this concept refers to an affective response of the worker to his job. Lawler (1973, p. 64) concurred by defining job satisfaction as "people's affective reactions to particular aspects of their job," and overall job satisfaction as "a person's affective reactions to his total work role." This view was also supported by Dunn and Stephens (1972).

Other definitions have been proposed which explain the potential role of satisfaction in the motivation of employees. These operational definitions are numerous. Locke (Landy and Trumbo, 1980) termed job satisfaction as "a function of the perceived relationship between what one wants from one's job and what one perceives it is offering." Porter and Lawler (1975) concurred and defined no job satisfaction as "the difference between what a person thinks he should receive and what he feels he actually does receive." Hackman and Oldham (1980) view job satisfaction as a work outcome which is obtained when core job dimensions interact with the critical psychological states yielding the work outcome, job satisfaction.

One common theme that pervaded most of these definitions was the emotional character of satisfaction and the potential role of satisfaction in the motivation of employees. It has been this latter relationship which has been a major impetus for job satisfaction research.

Studies Dealing with the Job

Characteristics Model

The job characteristics model has generated a tremendous amount of research resulting in generally positive support for many critical elements of the model (Dunham and Pierce, 1978). Research efforts which supported the model (Aldag and Brief, 1978; Dunham and Pierce, 1978; Sims and Szilagyi and Keller, 1976; and Stone and Porter, 1975)

have focused either on the components of the model or on the Job Diagnostic Survey which assesses perceived job characteristics.

Positive correlations between the job characteristics and indices of job satisfaction have been indicated in Aldags and Brief's (1978) study. This study was conducted with 155 registered nurses who held middle management positions in a hospital. Stone and Porter (1975) also confirmed this relationship. Their research was conducted with 556 employees in a western telephone company. Sims, Szilagyi and Keller's (1976) factor analysis technique noted that the five core job characteristics measured by the Job Diagnostic Survey (JDS) are the major components of a job. Their research was conducted with 192 supervisory employees of a manufacturing firm.

There has been a reasonable degree of disagreement among researchers in two areas, the delineation of the five core dimensions and the relationship of these dimensions to critical psychological states. Several researchers have confirmed the five core factor dimensions (skill variety, task identity, task significance, autonomy, and job feedback) as representing the major components of a job (Abdel-Halim, 1978; Ferratt and Reeve, 1977; and Ivanecevih, 1978). Other researchers have provided support for a fewer number of dimensions (Dunham, 1976; Dunham and Pierce, 1978; Fried and Ferris, 1986; and Gaines and Jermier, 1983).

More specifically, some research studies have indicated collapsing skill variety and autonomy dimensions into a single factor (Birnbaum, Farh and Wong, 1986 and Dunham, 1976). In a few research studies, skill variety and task significance have been combined into one core characteristic (Pokorney, Gilmore and Beehr, 1980). Aldag and Brief's (1977) research indicated that the vague boundaries across skill variety, task significance, and autonomy dimensions are the major reason for the inconsistent picture of dimensions underlying the J.D.S.

Studies dealing with the relationship between the core characteristics and psychological states have also revealed mixed findings. Some researchers (Birnbaum, Farh and Wong, 1986 and Roberts and Glick, 1981) have indicated that perceptions of the core job characteristics are not objective attributes of a job. Birnbaum, Farh and Wong's (1986) research indicated that social cues, changing needs and the employee's frame of reference may influence his ability to conceptualize the relationships between the core characteristics and the psychological states. Further, Roberts and Glick (1981) maintained that perceptions concerning the core characteristics are not properties of them. Perceptions should not be treated as real data but rather as affective orientations towards the characteristic of a job. Yet, other researchers (Fried and Ferris, 1986 and Stone and Porter, 1975) disagreed noting that perceptions are synonymous with properties and provide a useful source

of information concerning how core characteristics are viewed by employees.

Although many studies have generally supported the major constructs within the theory, there appear to be inconsistencies regarding the number of major dimensions the J.D.S. measures and the relationship between these core characteristics and employees' perceptions of them.

Studies Dealing with the Relationship of Work Related Variables and Job Satisfaction

Several research studies have been conducted with teachers and principals emphasizing the work related variables which contributed to their motivation to be satisfied and to remain in an educational setting. The results of these research studies are reported in order to identify the variables which appear to measure and to clarify job satisfaction factors.

Studies conducted by Lortie (1957), Miskel (1974), Pellicer (1984), Savage (1967), Sergiovanni (1967), and Wickestrom (1971) with teachers indicated that there are several key job satisfiers. Lortie's (1957) study in Dade County, Florida, revealed that autonomy and the relationship of co-workers are satisfiers. Miskel (1980) indicated that teacher job satisfiers are creativity and responsibility. Sergiovanni's (1967) research indicated that achievement, recognition, and the work itself

contribute to teachers' overall job satisfaction.

Pellicer's (1984) research was conducted in five Ohio, Richland School District high schools in Ohio. Some of the satisfiers noted were: teaching, autonomy, creative opportunities, and self-esteem. Both Wickestrom's (1971) study with teachers in Saskatchewan and Savage's (1967) research with teachers in Georgia supported this position.

Several research studies have focused on teachers' perceptions and affective responses to their position which also cause them to be satisfied in their job. Studies have been conducted by Chapman and Lowther (1982), Friesen, Holdaway and Rice (1983), Holloway (1978), and Hoppock (1977) in a public school environment. Chapman and Lowther's study (1982) revealed that teacher satisfaction is linked to recognition, responsibility, and working with significant others. Hoppock's (1977) research with 50 urban and rural communities in the Northeastern United States revealed similar results.

Friesen, Holdaway and Rice's (1984) research focused on three specific aspects of teaching that contribute to general job satisfaction. Their major findings indicated:

job satisfiers include working with students, and that relationships with others was a common source of both satisfaction and dissatisfaction (Friesen et al., 1984).

Studies conducted with principals also reveal several key job satisfiers. Achievement and recognition have been

noted by several researchers as key job satisfiers for principals (Buxton, Patterson and Fansher, 1982; Friesen, Holdaway and Rice, 1983; Iannone, 1973 ;Paddock, 1980; Peters, 1980; Reynolds and Reynolds, 1982; and Schmidt, 1976).

Iannone (1973) found that, for a random sample of 20 elementary and 20 secondary principals, achievement and recognition were mentioned far more frequently than any other factor as a source of job satisfaction. Schmidt (1976) conducted a similar study with a sample of 74 principals in Chicago. He also found that achievement and recognition are perceived as major determinants of overall job satisfaction. Reynolds and Reynolds (1982) conducted a random sample survey of members of the National Association of Elementary School Principals (NAESP) which yielded similar findings. Buxton, Patterson and Fansher's (1982) research conducted with 224 full-time female secondary school principals also indicates that achievement and recognition were "one of the most satisfying aspects of the principalship."

Self-esteem and advancement were also identified as important job satisfiers for principals. Self-esteem was noted as contributing to principals' overall feeling of satisfaction and is linked to how successful they feel (Buxton, Patterson and Fansher, 1982; Peters, 1980; Reynolds and Reynolds, 1982; and Ronco and Peattie, 1983). Advancement was indicated by Schmidt (1976) and Buxton,

Patterson and Fansher (1982) as a major job satisfier which results in principals' longevity in the position. Both studies (Buxton, Patterson and Fansher, 1982 and Schmidt, 1976) indicated that advancement is a primary force in motivating principals to accelerate their performance to approach their maximum potential.

Both male and female principals view autonomy as a key job satisfier in fulfilling their psychological needs of action, creativity, and task accomplishment. In a study conducted with 382 male principals, Gross and Napior (1977) indicated that the more autonomy principals receive, the greater their intrinsic job satisfaction and ability to complete their role responsibilities.

In a study of 327 principals in Alberta, Canada, Friesen, Holdaway and Rice (1984) indicated job satisfaction to be positively linked to responsibility and to autonomy as the best predictor of overall satisfaction. Further, Friesen, Holdaway and Rice's (1983) study conducted with 149 elementary and secondary principals in Alberta, Canada, indicated that 95 percent expressed satisfaction with their position. The mean overall satisfaction score was 5.05 on a six-point scale.

Research on interpersonal relationships with teachers, superiors and constituents has revealed mixed findings. Studies in which interpersonal relationships have been associated with positive feelings were conducted by Garawaski (1978), Gross and Napior (1977), Holloway (1978),

and Reynolds and Reynolds (1982). Reynolds and Reynolds (1982) noted that positive job satisfiers are relationships with teachers and good relations with the school board and community. Gross and Napior's (1977) research concurred with the above findings but also broke down the relationships with teachers to personal loyalty, commitment of staff to their responsibilities, and quality of the staff's performance. In a study of 410 principals in Alberta, Canada, Friesen, Holdaway and Rice (1984) concluded that job satisfaction is related to close relationships with teachers and interpersonal relationships with both the community and central office personnel. In a research study conducted with principals in Southeastern Pennsylvania, Garawaski (1978) noted that teacher supervision and teacher evaluation also contributed to principals' job satisfaction.

Studies in which interpersonal relationships were associated with negative feelings included those conducted by Buxton, Patterson and Fansher (1982), Iannone (1973), and Schmidt (1976). Iannone's (1973) research, with elementary and secondary principals, indicated that job dissatisfiers are interpersonal relationships with superiors and personal relationships with teachers. Schmidt's (1976) research, conducted with secondary principals, supports Iannone's findings. Buxton, Patterson and Fansher (1982) narrowed down the dissatisfying types of interpersonal relationships to ineffective and uncooperative people

or groups associated with the school programs and incompetent teachers.

Overall, research studies conducted with teachers indicated that work related variables which contributed to satisfaction are teaching, creativity, autonomy, responsibility, recognition, and relationships with co-workers. Job satisfiers for principals included autonomy, responsibility, achievement, recognition, and self-esteem. Studies dealing with interpersonal and personal relations with others have been viewed as both job satisfiers and job dissatisfiers.

Studies Dealing with the Relationship of Gender and Job Satisfaction

Traditionally, society has viewed males and females differently (Frasher and Frasher, 1979; Levandowski, 1977; Paddock, 1980; Shakeshaft, 1979; and Whitaker and Hales, 1984). Male principals are perceived as aggressive, competitive, and authoritarian decision makers while female principals are perceived as supportive, nurturing, democratic decision makers (Frasher and Frasher, 1979). The career development of male and female principals reflects these sex typed perspectives and influences their degree of satisfaction (Fishel and Pottker, 1975; Frasher and Frasher, 1979; Gross and Trask, 1976; and Sexton, 1976).

Research studies linking gender to job satisfaction have revealed that male principals are generally satisfied

with their jobs and careers (Reynolds and Reynolds, 1982), and female principals also appeared to be highly satisfied with their work (Paddock, 1980; and Reynolds and Reynolds, 1982). But, in a comparative study of male and female high school principals, Paddock (1980), indicated there is a significantly higher satisfaction level for female principals than for male principals. Hemphill's (1962) study revealed that 80 percent of the female principals would choose the same career as compared with 63 percent of the male principals. With a sample of 2,000 males and 6,000 females in non-teaching occupations, Buxton, Patterson and Fansher (1984) concluded that female principals score somewhat higher than male principals on job satisfaction and considerably higher than females in other occupations. Friesen, Holdaway and Rice's (1983) research also indicated that female principals are more satisfied than their male counterparts in both rural and suburban school settings.

Gross and Trask's (1964) research conducted with elementary male and female principals indicated that female principals' higher feelings of job satisfaction are a direct result of their greater self-confidence in their ability to direct instruction and in their commitment to the principalship. Barnes (1976), Damico and Nevill (1979), Esiler (1975), and Shakeshaft (1986) found similar results.

Generally, indicators have suggested that female

principals are more satisfied with their position than male principals (Reynolds and Reynolds, 1982). An explanation for female principals' increased feelings of job satisfaction has been proffered by Friedan (1981), Hennig and Jarding (1977), and Pascarella (1984). Pascarella (1984) noted:

a fast rising percentage of women are entering the work force, many pursuing careers. They are providing for themselves as persons, seeking self-fulfillment through resource and reinforcements for growth that are found in the work place.

He also noted in one study that 87 percent of working women polled cited "a personal sense of accomplishment as their main reason for working." Hennig and Jarding (1977) concurred stating that, "women see a career as personal growth, as self-fulfillment, as satisfaction, and as making contributions to others". Friedan (1981) agreed that, "today's female pursues a career as a stage of self-fulfillment."

In summary, research studies on gender linkages to job satisfaction have produced mixed findings. While male and female principals are generally satisfied with their positions, indicators have suggested that female principals are more satisfied than male principals. Areas in which female principals' satisfaction levels are greater include job commitment, career choice, direct instruction and need for self-fulfillment.

Studies Dealing with the Moderating
Effects of Gender on the
Relationship between Job
Characteristics and
Job Satisfaction

Research studies which have indicated a moderating relationship between gender and job characteristics of principals are limited. Those that exist have focused on tasks which principals perform, such as: job feedback, interrelationships with others, and autonomy within the job.

There are differences in the way that male and female principals perceive these job characteristics (Frasher and Frasher, 1979; Grobman and Hines, 1968; Gross and Trask, 1976; Millson, 1973; and Shakeshaft, 1986). Specifically, male and female principals put a different emphasis on the importance of the tasks (Futrell, 1985 and Shakeshaft, 1986). Female principals derive more satisfaction from their job responsibilities, supervising instruction, determining student differences, and developing and implementing curriculum content while male principals derive greater satisfaction from administrative tasks (Gross and Trask, 1976). Female principals notice potential problem situations within the work environment and review the results of their action on these problems more often than male principals (Hoyle, 1969).

Differences are also evident in the feedback system used by principals. Female principals seek feedback from others more often than male principals. Female principals seek and use information from others while involving both superordinates and subordinates in decision making; whereas male principals tend to act alone (Frasher and Frasher, 1979 and Shakeshaft, 1986). Female principals appear to use participatory decision making and foster a democratic environment within the schools (Grobman and Hines, 1968).

In summary, gender differences are evident in the tasks which principals perform, the feedback sought from others, decision making procedures, and their interrelationships with others.

Studies Dealing with the Relationship of Level of the Work Setting and Job Satisfaction

Elementary and secondary teachers appear satisfied with their positions. The research of Chapman and Lowther (1982), and Miskel, Glasnapp and Hatley (1975) indicated they are both highly satisfied with their positions. Chapman and Lowther (1982) noted that "elementary and secondary teachers are highly satisfied with their positions," but stated that "teachers' skills and abilities were significantly related to their overall job satisfaction on both levels." According to their study, elementary and secondary teachers with more sophisticated skills and

abilities appeared to be more satisfied with their positions.

Miskel's (1982) research conducted with 2,000 Kansas elementary and secondary teachers indicates identical job satisfaction levels for both groups. Holloway's (1978) research conducted with 800 Alberta, Canada, elementary and secondary teachers indicated 58 facets of a teacher's work environment which were related to overall job satisfaction. Eighty-nine percent of the elementary teachers indicated they are satisfied with their positions as compared with 78 percent of the secondary teachers.

Generally, elementary and secondary principals experience a similar level of satisfaction, but there are differences in the areas of leisure time away from the school and the amount of time spent with family (Gross and Trask, 1964 and Poppenhagen, Mingus and Rogus, 1980). Secondary principals seemed to be less satisfied with the amount of time they have away from their job than elementary principals. Specifically, they were dissatisfied because they work longer hours at their schools.

In summary, research studies comparing the job satisfaction levels of elementary and secondary teachers and principals indicated a similar level of satisfaction. Teachers with more sophisticated skills and elementary teachers appear more satisfied. Elementary principals also appeared slightly more satisfied than their secondary counterparts, who cite lack of leisure time away from school

and the lack of time spent with family as major dissatisfiers.

Studies Dealing with the Moderating
Effects of Level of the Work
Setting on the Relationship
between Job Characteristics
and Job Satisfaction

Several factors within the level of the work setting affect the characteristics of principals' jobs. These factors have an influence on each environment. Differences exist in both the composition of each setting and the principals' roles within each setting.

Elementary and secondary school cultures represent diverse educational settings. Elementary schools tend to have nurturing, cooperative, dependent, and democratic environments in contrast to secondary schools which reflect more aggressive, independent, self-assertive, and authoritative environments (Damico and Nevill, 1979). The curriculums are also different within these environments. Elementary schools teach global, basic skills while secondary schools offer course work especially designed to prepare students for college, vocational schools or the business world (Kmetz and Willower, 1982).

Teacher certification programs reflect differences based on teaching content and shaping students' behavior. Elementary teacher training programs stress the development

of the whole-child, learning theory, methods courses, and in general, academic content while secondary teacher training programs emphasize specific subject knowledge (Sergiovanni, 1987).

The principals' role within each setting further reflects this diversity. Elementary and secondary principals perform their daily activities differently. Kmetz and Willower (1982) found that the time spent on administrative tasks was dissimilar. Their results revealed that elementary principals engage in more activities, have fewer scheduled meetings, less correspondence, more desk work, and conduct more telephone calls than secondary principals. Furthermore, elementary principals had more contacts with superiors and with parents and spent more time on the school's instructional programs and less on extracurricular activities.

Poppenhagen, Mingus and Rogus (1980) also distinguish differences in elementary and secondary principals' perceptions of feedback from others, autonomy, influence on others, and their management of daily activities. Elementary principals engaged in more feedback from others, including students, and feel they have more influence on others. Secondary principals appeared to have more autonomy in making decisions within their building and more control over daily activities than elementary principals.

In summary, the content of each setting, the teachers' roles, and the principals' roles within each setting are

different. These differences are evident in the diverse environments, teaching content, teacher training programs, time spent on daily administrative tasks, and principals' perceptions of those tasks.

Studies Dealing with the Joint Moderating
Effects of Gender and Level of the
Work Setting on the Relationship
between Job Characteristics
and Job Satisfaction

After a careful review of the literature, studies dealing with the joint moderating effects of gender and level on the relationship between job characteristics and job satisfaction do not appear to be evident. However, it is possible to extend the previous research conclusions cited in this study to support the concept of these joint moderating effects on the relationship of job characteristics and job satisfaction. A study conducted by Frasher and Frasher (1979), indicated that, "the nurturing, supportive and socializing behaviors of female principals contribute to their higher level of satisfaction especially at the elementary level." Their research also indicated that female elementary principals received higher ratings from superiors than their male counterparts as effective, satisfied administrators.

If it is true that females are perceived as being more nurturing and democratic in their leadership behavior than

males, and if elementary schools are associated with more nurturing and democratic climates, then elementary female principals would more likely feel a greater sense of satisfaction, than their male, secondary counterparts under lower autonomy conditions. Consequently, there would be a greater compatibility between the employee and the work setting. Conversely, under conditions of high job autonomy, male secondary principals would more likely feel a higher degree of job satisfaction than female, elementary principals.

In summary, one might expect gender and the level of the work setting to moderate the relationship between the characteristics of principals' jobs and the degree of satisfaction they receive from it.

Hypotheses and Rationale

Using both the basic theoretical framework presented in chapter one and the supportive evidence presented in this chapter, four research hypotheses are postulated to signify the relationship between the perceptions of certain job characteristics among public school principals and their level of job satisfaction.

Hypothesis I:

There is a positive and significant relationship between each of the five job characteristics and job satisfaction for public school principals.

1a. There is a positive and significant relationship between skill variety and the degree of overall job satisfaction for public school principals.

1b. There is a positive and significant relationship between task identity and the degree of overall job satisfaction for public school principals.

1c. There is a positive and significant relationship between task significance and the degree of overall job satisfaction for public school principals.

1d. There is a positive and significant relationship between autonomy and the degree of overall job satisfaction for public school principals.

1e. There is a positive and significant relationship between job feedback and the degree of overall job satisfaction for public school principals.

Rationale: Research indicates that the job characteristics (autonomy, skill variety, task significance, and job feedback) are positively linked to middle managers', general levels of job satisfaction. Research studies on middle managers' job satisfaction also confirm the reliability and validity of the J.D.S. instrument in determining that these five core characteristics are related to job satisfaction (Aldag and Brief, 1978; Sims, Szilagyi and Keller, 1976; and Stone and Porter, 1975). Since public school principals are middle managers, a positive association would be expected to exist between the job characteristics of middle managers and principals' satisfaction.

Furthermore, previous research on job satisfaction of public school principals has specifically linked the job characteristics (autonomy, achievement, recognition, self-esteem and relationship with others) to their overall level

of job satisfaction. Though skill variety, task identity, task significance have not been specifically investigated with public school principals, these core job characteristics are an integral component of a principal's job responsibilities. Since job satisfaction research studies have indicated that public school principals are satisfied with their positions, one might expect these job characteristics (skill variety, task identity and task significance) to be positively correlated with public school principals' overall job satisfaction.

Hypothesis II:

The interaction between gender and each of the job characteristics will contribute significantly to the degree of variance in job satisfaction for public school principals.

Rationale: Gender affects how male and female principals perform their job and are satisfied within their job. Research studies have indicated significant differences in their prioritizing of tasks, interacting with others and accepting feedback from others. For example, under low feedback conditions, female principals may be more satisfied than male principals and less satisfied than their male counterparts under high feedback conditions. Although there is not sufficient evidence to predict the direction of this interaction, it appears that gender could moderate

the relationship between job characteristics and job satisfaction.

Hypothesis III:

The interaction between levels in the public school setting and each of the job characteristics will contribute significantly to the degree of variance in job satisfaction for public school principals.

Rationale: Elementary and secondary school environments, course offerings, time spent on administrative tasks and teacher training programs are different. Consequently, it might be expected that these environments might moderate the relationship between job characteristics and job satisfaction in different ways.

For example, elementary principals have traditionally had less job autonomy than their secondary counterparts. Because this condition is frequently anticipated by those training for public school principal positions, it is possible that those who aspire to the various levels of the principalship would feel comfortable with the characteristics of the position. Therefore, it seems to be reasonable to state that elementary principals would likely be more satisfied than secondary principals under conditions of low job autonomy.

Hypothesis IV:

The three-way interaction between gender, level, and each of the job characteristics contributes significantly to the degree of variance in job satisfaction for public school principals.

Rationale: What is suggested is that gender and level moderate the relationship between job characteristics and job satisfaction. Although job autonomy generally has been associated with higher levels of job satisfaction, that relationship can be moderated by gender and level jointly.

An example will serve to clarify this statement. Because elementary principals are socialized to accept less autonomy than secondary principals, it is expected that they would be more satisfied with less job autonomy. Because males are acculturated to expect more job autonomy than females, it is possible that they would be less satisfied than females with less autonomy. Consequently, it would be expected that elementary male principals would be less satisfied with low autonomy than elementary females, but more satisfied than secondary males. Furthermore, female secondary principals might be dissatisfied with high job autonomy while their male secondary counterparts would be highly satisfied.

Summary

A concise review of the literature was presented in

studies relating to the hypothesized areas.

It was hypothesized that each of the five core job characteristics would significantly and positively relate to job satisfaction, that gender would moderate the relationship between the job characteristics and job satisfaction, that level would moderate the relationship between the job characteristics and job satisfaction, and that together gender and level would jointly moderate the relationship between the job characteristics and job satisfaction.

CHAPTER III

DESIGN AND METHODOLOGY

Scope of the Study

This research was designed to examine the relationship between certain job characteristics of public school principals and their level of job satisfaction. The moderating effects of gender and level of the public school setting on this relationship were also investigated in this study.

To accomplish this, it was necessary to select a sample, measure the constructs and analyze the data. These procedures are described in the following sections: assumptions and limitations, definition of population and selection of the sample, data collection, instrumentation, research design of the study, and summary.

Assumption and Limitations

For the purposes of this study, the following assumptions were made by the researcher:

- 1) The sample of elementary and secondary principals were representative of elementary and secondary principals throughout the states of Oklahoma, Kansas and Missouri who were members of their respective principal organizations.

- 2) The responses of all participants on the Job Diagnostic Survey reflected a true representation of their attitudes and understanding of each question.
- 3) The responses of all participants on the demographic survey reflected a true representation of the personal characteristics of the sample population.

This study examined the relationship of job characteristics to general job satisfaction, but is limited by:

- 1) Public school principals who were members of the National Oklahoma, Kansas or Missouri Association of Elementary or Secondary School Principals.
- 2) The size of the sample and the design of the study restricted the generalization of these findings to this population.

Definition of the Population and

Selection of the Sample

The population for this study was limited to full-time, non-teaching principals. Each principal was a certified teacher who held a current provisional or standard principal's elementary or secondary certificate in either the state of Oklahoma, Kansas, or Missouri. Principals belonged to the National Association of Elementary School Principals or the National Association of Secondary School Principals. These three states were chosen because of their geographic proximity and similarities in cultural norms and values. Principals must have been registered with their state and national organizations for the 1986-1987 school year. In Table I, the defined population indicated the number of principals who were currently

TABLE I

POPULATION AND SAMPLE GROUP

AREAS	PRINCIPALS REGISTERED IN 1986-87	NUMBER SAMPLED	PORTION OF POPULATION SAMPLED	NUMBER WHO RESPONDED	RESPONSE RATE
Elementary Males	595	180	(31)	106	(59)
Elementary Females	274	180	(66)	104	(58)
Secondary Males	860	180	(21)	105	(58)
Secondary Females	248	180	(73)	100	(56)
Population Total	1977	720	(36)	436	(61)

registered, those sampled for this study and the number who responded from the sample group.

It was decided that to obtain the sample of 400 school principals needed to test the hypotheses, it was necessary to draw a large enough sample of 700 principals to compensate for the standard non-return rate of 40 percent with two mail-outs (Gay, 1981). According to Fowler (1984), an analysis of subgroups is used to determine what the size of a sample ought to be. Based on the smallest subgroup (in this case, level of the work setting by gender), an estimate of size is made according to the minimum numbers required to allow an adequate statistical analysis of the data. Kerlinger and Pedhazur (1973) recommend a sample size of at least 30 for every independent variable in the regression model. Since one model in this study contained three independent variables, it was necessary to collect data for approximately 100 female elementary principals, 100 male elementary principals, 100 female secondary principals and 100 male secondary principals.

The names of the principals comprising this sample were randomly selected from the 1986-1987 Oklahoma, Kansas or Missouri National Association of Elementary School Principals or Secondary School Principals' Member Mailing Lists. Male elementary principals were assigned a consecutive number from 0 to 594. Female elementary principals were assigned a number from 594 to 869. Male secondary principals were assigned a number from 870 to 1,030.

Female secondary principals were assigned a number from 1,031 to 1,277. Using a table of random numbers, 180 principals from each of the the four groups were selected.

Within this sample, secondary and elementary female principals were under-represented in the defined population, thereby making them over-represented in the sample group. Since each group was given a chance of selection different from other groups in the population, appropriate compensatory weighting was conducted to generate accurate population statistics for the combined total sample (Fowler, 1984).

Data Collection

A letter describing the research project was sent in July, 1986, to the Oklahoma, Kansas, and Missouri National Associations of Elementary School Principals and Secondary School Principals requesting a mailing list with the names of the currently registered elementary and secondary non-teaching principals. All associations complied with the request.

On July 16, 1986, a letter requesting a copy of the Job Diagnostic Survey (J.D.S.) and permission to use the questionnaire in this research study was sent to Roy Walters and Associates. Roy Walters and Associates agreed to allow the researcher to use the J.D.S. instrument (See Appendix A) for the collection of data.

In October, 1986, questionnaires and answer sheets

were mailed to a random sample of principals from each subgroup (See Appendices B and C). All questionnaires were coded so that follow-up questionnaires could be sent to non-respondents. Along with the questionnaires, an explanatory letter and stamped self-addressed envelope were forwarded to the sample group (See Appendix D). In December, non-respondents received a second questionnaire. By January, 1987, 436 questionnaires or 61 percent of the total number had been completed and returned. (See Table I). Of that number, 416 (58 percent) returned usable questionnaires. As each questionnaire was returned to the researcher, it was hand scored to determine the respondents' scores on the five job characteristics and their general job satisfaction score.

The following data were collected from the questionnaires which were mailed to the sample: overall job satisfaction, skill variety, task identity, task significance, autonomy, and job feedback. Respondents were also asked to provide the following demographic information concerning themselves and their educational setting: sex, position, level of work setting, time in present position, years of experience as a principal, highest degree attained, and career goals.

Instrumentation

The emphasis of this research was on the perceived relationship between the five job characteristics and the

overall job satisfaction levels for elementary and secondary school principals. Job satisfaction was measured with the Job Diagnostic Survey (J.D.S.), developed and tested by Hackman and Oldham (1980). Over the last few years, this instrument has been used extensively in research and change projects across the United States. The norms were based on the responses of 6,930 employees who work on 876 different jobs in 56 organizations. The norms were computed by averaging the scores of employees who work on each of the 876 jobs and then computing overall means across those jobs. The J.D.S. elicits respondents' perceptions of the attributes of their jobs and their satisfaction levels through job characteristic variables and a general job satisfaction measure. Each variable was measured in two different sections of the J.D.S. and by items written in two different formats, thereby decreasing the degree to which substantive content and measurement technique are confounded within the instrument.

Reliabilities were computed by obtaining the median interim correlation for all items which were scored on each variable and then adjusting the median by Spearman-Brown procedures to obtain an estimate of the reliability for the summary scale score. Internal consistency reliabilities range from a high of .76 to a low of .59 (See Table II). For this study, the reliability coefficients ranged from a high of .73 to a low of .61 (See Table II).

The substantive validity of the instrument shows that

TABLE II

RELIABILITIES OF THE JOB DIAGNOSTIC SURVEY

J.D.S. SCALE	NUMBER OF SCALE ITEMS	INTERNAL RELIABILITY CONSISTENCY	INTERNAL RELIABILITY OF SAMPLE
<u>JOB DIMENSIONS</u>			
Skill Variety	3	.71	.63
Task Identity	3	.59	.73
Task Significance	3	.66	.61
Autonomy	3	.66	.68
Job Feedback	3	.71	.70
<u>SATISFACTION</u>			
General Job	5	.76	.69

the variables measured by the J.D.S. related to one another generally as predicated by the theory on which the instrument was based. All variables were expressed on a seven point Likert-like scale where one was low and seven was high.

Statistical Procedures

Four multiple regression models were constructed to test the hypotheses. The first regression model examined all five job characteristics in a multiple regression procedure. A stepwise regression procedure of the significant variables, followed by forced entry of the remaining variables, was used to determine the importance of each job characteristic within each set. To establish the impact of gender on the relationship between the job characteristics and general job satisfaction, a moderated, hierarchical procedure was employed with the second model. Three variables were entered in the following, specific order: the job characteristic, gender, and the job characteristic-gender interaction term. This procedure was duplicated for each job characteristic (skill variety, task identity, task significance, autonomy, and feedback from the job) in the Hackman and Oldham model. To establish the impact of level of the work setting on the relationship between the job characteristic and general job satisfaction, a moderated, hierarchical procedure was also employed with the third model. Three variables were entered in the following,

specific order: the job characteristic, level, and the job characteristic-level interaction term. This procedure was again duplicated for each job characteristic in the Hackman and Oldham model. To establish the impact of the joint moderators (gender and level) on the relationship between the job characteristics and general job satisfaction, a moderated hierarchical procedure was also employed with the fourth model. Several variables were entered hierarchically in the following order: were the job characteristic, gender, level, relevant two-way interaction terms and the job characteristic-gender-level interaction term. This procedure was again duplicated for each job characteristic in the Hackman and Oldham model.

Because females and secondary principals were selected at a rate that was higher than that reflected in the target population, it was necessary to employ a compensatory weighting technique. This compensatory weighting procedure adjusted for the over representation of females and under representation of males in the sample groups. The weight for each group was derived by calculating the percentage each group represented in the sample and frequency percentage of the sample (See Table III). In this way, it was possible to generate models reflective of the population with a disproportionate sample. This technique was only used with the model in which subgroup analysis was not employed.

A probability level of .05 was established to test the

TABLE III

DIFFERENTIAL PROBABILITIES
OF
SELECTION TECHNIQUE

AREAS	ELEMENTARY MALES	ELEMENTARY FEMALES	SECONDARY MALES	SECONDARY FEMALES	TOTAL
NUMBER IN POPULATION	595	274	860	248	1979
PERCENT OF POPULATION	30.1	13.9	43.5	12.5	100
NUMBER IN SAMPLE	106	104	105	100	415
PERCENT OF SAMPLE	.178	.380	.122	.403	
WEIGHT	1.178	.555	1.719	.519	

interaction term for significance.

Summary

This chapter described the methodology utilized to analyze the data collected on job characteristic variables of public school principals and their perceptions of their level of job satisfaction. Correlation techniques and several multiple regression models were utilized as the major statistical treatment methods. The population was limited to full-time, non-teaching principals who belonged to their respective principal organizations in the states of Oklahoma, Kansas, and Missouri.

CHAPTER IV

PRESENTATION AND ANALYSIS OF DATA

Introduction

This chapter presents an analysis of the collected data. The analysis of data was based on the responses to the Job Diagnostic Survey by a sample of 415 principals. The sample contained 210 elementary principals and 205 secondary principals. Demographic data were also collected in order to provide a general description of the background and goals of the respondents who participated in the study.

The results of this study will be reported in the testing of hypotheses and demographic information sections.

Testing of Hypotheses

Four hypotheses were used to examine the relationship between certain job characteristics of public school principals and their level of job satisfaction.

Hypothesis I:

There is a positive and significant relationship between each of the five job characteristics and job

satisfaction for public school principals.

1a. There is a positive and significant relationship between skill variety and the degree of overall job satisfaction for public school principals.

1b. There is a positive and significant relationship between task identity and the degree of overall job satisfaction for public school principals.

1c. There is a positive and significant relationship between task significance and the degree of overall job satisfaction for public school principals.

1d. There is a positive and significant relationship between autonomy and the degree of overall job satisfaction for public school principals.

1e. There is a positive and significant relationship between job feedback and the degree of overall job satisfaction for public school principals.

Since five predicator variables were used, each variable was loaded into the regression equation to determine its relationship with job satisfaction. Three of the five hypothesized job characteristics were positively and significantly related to job satisfaction (See Table IV).

TABLE IV

A STEPWISE REGRESSION MODEL SHOWING THE
RELATIONSHIP BETWEEN JOB
CHARACTERISTICS AND
JOB SATISFACTION

Variable	b	F	Probability	R ²
Job Feedback	.2439	24.89	0.0001**	.1558
Autonomy	.1194	5.83	0.0162*	
Task Significance	.1496	5.38	0.0209*	
Skill Variety	-.0406	0.51	0.4764	
Task Identity	.0182	0.29	0.5889	

** Significant at the .01 level

* Significant at the .05 level

Based on the results displayed in Table IV, it can be seen that skill variety and task identity did not contribute significantly to the variance in job satisfaction while task significance, autonomy, and job feedback did. Job feedback provided the greatest contribution to job satisfaction, followed by autonomy and task significance. These five variables accounted for sixteen percent of the variance in job satisfaction.

Hypothesis II

The interaction between gender and each of the job characteristics will contribute significantly to the degree of variance in job satisfaction for public school principals.

TABLE V

A MODERATED REGRESSION MODEL SHOWING THE EFFECTS OF SKILL VARIETY, GENDER AND THE INTERACTION TERM ON JOB SATISFACTION

Source	DF	SS	F	prob>F	R ²
Full Model	3	6.7226	3.24	.0221*	.0230
Skill Variety(SV)	1	1.5386	2.22	.1367	
Gender (G)	1	4.9183	7.11	.0080**	
SV x G	1	.2657	.38	.5358	
Error	411	284.3678			
Total	414				

** Significant at the .01 level.

* Significant at the .05 level

Based on the results displayed in Table V, it can be concluded that skill variety did not significantly contribute to job satisfaction, gender did significantly contribute to job satisfaction, and the interaction term was not significant. Consequently, the hypothesis was not confirmed. Gender did not moderate the relationship between skill variety and job satisfaction. The total model accounted for two percent of the variance in job satisfaction.

TABLE VI

A MODERATED REGRESSION MODEL SHOWING THE EFFECTS OF TASK IDENTITY, GENDER AND THE INTERACTION TERM ON JOB SATISFACTION

Source	DF	SS	F	prob>F	R ²
Full Model	3	15.3597	7.63	.0001**	.0528
Task Identity (TI)	1	9.7064	14.47	.0002**	
Gender (G)	1	4.7547	7.09	.0081**	
TI x G	1	.8986	1.34	.2478	
Error	411	275.7308			
Total	414				

** Significant at the .01 level

* Significant at the .05 level

Based on the results displayed in Table VI, it can be concluded that task identity and gender significantly contributed to job satisfaction, but the interaction term was not significant. Consequently, the hypothesis was not confirmed. Gender did not moderate the relationship between task identity and job satisfaction. The total model accounted for five percent of the variance in job satisfaction.

TABLE VII

A MODERATED REGRESSION MODEL SHOWING THE EFFECTS OF TASK SIGNIFICANCE, GENDER AND THE INTERACTION TERM ON JOB SATISFACTION

Source	DF	SS	F	prob>F	R ²
Full Model	3	25.0349	12.89	.0001**	.0860
Task Significance (TS)	1	19.1077	29.52	.0001**	
Gender (G)	1	4.6915	7.52	.0074**	
TS x G	1	1.2356	1.91	.1679	
Error	411	266.0556			
Total	414				

** Significant at the .01 level

* Significant at the .05 level

Based on the results displayed in Table VII, it can be concluded that task significance and gender significantly contributed to job satisfaction, but the interaction term was not significant. Consequently, the hypothesis was not confirmed. Gender did not moderate the relationship between task significance and job satisfaction. The total model accounted for approximately nine percent of the variance in job satisfaction.

TABLE VIII

A MODERATED REGRESSION MODEL SHOWING THE
EFFECTS OF AUTONOMY, GENDER AND
THE INTERACTION TERM ON
JOB SATISFACTION

Source	DF	SS	F	prob>F	R ²
Full Model	3	21.3245	10.83	.0001**	.0733
Autonomy (A)	1	14.3618	21.88	.0001**	
Gender (G)	1	5.5915	8.52	.0037**	
A x G	1	1.3712	2.09	.1491	
Error	411	269.7659			
Total	414				

** Significant at the .01 level

* Significant at the .05 level

Based on the results displayed in Table VIII, it can be concluded that autonomy and gender significantly contributed to job satisfaction, but the interaction term was not significant. Consequently, the hypothesis was not confirmed. Gender did not moderate the relationship between autonomy and job satisfaction. The total model accounted for seven percent of the variance in job satisfaction.

TABLE IX

A MODERATED REGRESSION MODEL SHOWING THE
EFFECTS OF JOB FEEDBACK, GENDER
AND THE INTERACTION TERM ON
JOB SATISFACTION

Source	DF	SS	F	prob>F	R ²
Full Model	3	28.3792	14.80	.0001**	.0975
Job Feedback (JF)	1	20.0304	31.34	.0001**	
Gender (G)	1	5.9677	9.34	.0024**	
JF x G	1	2.3811	3.73	.0543*	
Error	411	262.7112			
Total	414				

** Significant at the .01 level

* Significant at the .05 level

Based on the results displayed in Table IX, it can be concluded that all three variables were significant. Job feedback, gender and the interaction term contributed to job satisfaction. Consequently, the hypothesis was confirmed. In this model, gender did moderate the relationship between job feedback and job satisfaction. The total model accounted for ten percent of the variance in job satisfaction.

Hypothesis III

The interaction between levels in the public school setting and each of the job characteristics will contribute significantly to the degree of variance in job satisfaction for public school principals.

TABLE X

A MODERATED REGRESSION MODEL SHOWING THE
EFFECTS OF SKILL VARIETY, LEVEL OF WORK
SETTING AND THE INTERACTION TERM
ON JOB SATISFACTION

Source	DF	SS	F	prob>F	R ²
Full Model	3	1.6358	.77	.5089	.0056
Skill Variety (SV)	1	1.5386	2.18	.1402	
Level (L)	1	.0446	0.06	.8014	
SV x L	1	.0526	0.07	.7848	
Error	411	289.4546			
Total	414				

** Significant at the .01 level

* Significant at the .05 level

Based on the results displayed in Table X, it can be concluded that skill variety, level of work setting, and the interaction term did not significantly contribute to job satisfaction. Consequently, the hypothesis was not confirmed. Level of the work setting did not moderate the relationship between skill variety and job satisfaction. The total model accounted for less than one percent of the variance in job satisfaction.

TABLE XI

A MODERATED REGRESSION MODEL SHOWING THE
EFFECTS OF TASK IDENTITY, LEVEL OF WORK
SETTING AND THE INTERACTION TERM
ON JOB SATISFACTION

Source	DF	SS	F	prob>F	R ²
Full Model	3	12.4270	6.11	.0004**	.0426
Task Identity (TI)	1	9.7063	14.32	.0002**	
Level (L)	1	.1156	0.17	.6798	
TI x L	1	2.6049	3.84	.0507*	
Error	411	278.6635			
Total	414				

** Significant at .01 level

* Significant at the .05 level

Based on the results displayed in Table XI, it can be concluded that task identity and the interaction term significantly contributed to job satisfaction, but level of the work setting was not significant. Consequently, the hypothesis was confirmed. In this model, level of the work setting did moderate the relationship between task identity and job satisfaction. The total model accounted for four percent of the variance in job satisfaction.

TABLE XII

A MODERATED REGRESSION MODEL SHOWING THE
EFFECTS OF TASK SIGNIFICANCE, LEVEL OF
WORK SETTING AND THE INTERACTION
TERM ON JOB SATISFACTION

Source	DF	SS	F	prob>F	R ²
Full Model	3	19.8563	10.03	.0001**	.0682
Task Significance (TS)	1	19.1077	28.95	.0001**	
Level (L)	1	.0168	0.03	.8738	
TS x L	1	.7319	1.11	.2929	
Error	411		271.2341		
Total	414				

** Significant at the .01 level

* Significant at the .05 level

Based on the results displayed in Table XII, it can be concluded that task significance significantly contributed to job satisfaction, but level of work setting and the interaction term were not significant. Consequently, the hypothesis was not confirmed. Level of the work setting did not moderate the relationship between task significance and job satisfaction. The total model accounted for seven percent of the variance in job satisfaction.

TABLE XIII

A MODERATED REGRESSION MODEL SHOWING THE
EFFECTS OF AUTONOMY, LEVEL OF WORK
SETTING AND THE INTERACTION
TERM ON JOB SATISFACTION

Source	DF	SS	F	prob>F	R ²
Full Model	3	15.0137	7.45	.0001**	.0516
Autonomy (A)	1	14.3618	21.38	.0001**	
Level (L)	1	.0227	0.03	.8542	
A x L	1	.6291	.94	.3337	
Error	411	276.0769			
Total	414				

** Significant at the .01 level

* Significant at the .05 level

Based on the results displayed in Table XIII, it can be concluded that autonomy significantly contributed to job satisfaction, but level of work setting and the interaction term were not significant. Consequently, the hypothesis was not confirmed. Level of the work setting did not moderate the relationship between autonomy and job satisfaction. The total model accounted for five percent of the variance in job satisfaction.

TABLE XIV

A MODERATED REGRESSION MODEL SHOWING THE
EFFECTS OF JOB FEEDBACK, LEVEL OF WORK
SETTING AND THE INTERACTION
TERM ON JOB SATISFACTION

Source	DF	SS	F	prob>F	R ²
Full Model	3	20.7381	10.51	.0001**	.0712
Job Feedback (JF)	1	20.0304	30.45	.0001**	
Level (L)	1	.5306	.81	.3697	
JF x L	1	.1771	.27	.6041	
Error	411	270.3524			
Total	414				

** Significant at the .01 level

* Significant at the .05 level

Based on the results displayed in Table XIV, it can be concluded that job feedback significantly contributed to job satisfaction, but level of the work setting and the interaction term were not significant. Consequently, the hypothesis was not confirmed. Level of the work setting did not moderate the relationship between job feedback and job satisfaction. The total model accounted for seven percent of the variance in job satisfaction.

Hypothesis IV:

The three-way interaction between gender, level and each of the job characteristics contributes significantly to the degree of variance in job satisfaction for public school principals.

TABLE XV

A MODERATED REGRESSION MODEL SHOWING THE EFFECTS OF SKILL VARIETY, GENDER, LEVEL AND THE INTERACTION TERM ON JOB SATISFACTION

Source	DF	SS	F	prob>F	R ²
Full Model	7	7.0846	1.45	.1836	.0243
Skill Variety (SV)	1	1.5386	2.20	.1383	
Gender (G)	1	4.9183	7.05	.0082**	
Level (L)	1	.0355	.05	.8217	
G x L	1	.0123	.02	.8945	
SV x G x L	3	.5799	.28	.8420	
Error	407	284.0058			
Total	414				

** Significant at the .01 level

* Significant at the .05 level

Based on the results displayed in Table XV, it can be concluded that only gender significantly contributed to job satisfaction. Skill variety, level, gender x level, and the interaction term were not significant. Consequently, the hypothesis was not confirmed. Gender and level of the work setting did not moderate the relationship between skill variety and job satisfaction. The total model accounted for two percent of the variance in job satisfaction.

TABLE XVI

A MODERATED REGRESSION MODEL SHOWING THE EFFECTS OF TASK IDENTITY, GENDER, LEVEL AND THE INTERACTION TERM ON JOB SATISFACTION

Source	DF	SS	F	prob>F	R ²
Full Model	7	17.7778	3.78	.0005**	.0611
Task Identity (TI)	1	9.7064	14.45	.0002**	
Gender (G)	1	4.7547	7.08	.0081**	
Level (L)	1	.1005	.15	.6990	
G x L	1	.0067	.01	.9207	
TI x G x L	3	3.2105	1.58	.1903	
Error	407	291.0905			
Total	414				

** Significant at the .01 level

* Significant at the .05 level

Based on the results displayed in Table XVI, it can be concluded that task identity and gender significantly contributed to job satisfaction. Level, gender x level, and the three-way interaction term were not significant. Consequently, the hypothesis was not confirmed. Gender and level of the work setting did not moderate the relationship between task identity and job satisfaction. The total model accounted for six percent of the variance in job satisfaction.

TABLE XVII

A MODERATED REGRESSION MODEL SHOWING THE
EFFECTS OF TASK SIGNIFICANCE, GENDER,
LEVEL AND THE INTERACTION TERM
ON JOB SATISFACTION

Source	DF	SS	F	prob>F	R ²
Full Model	7	26.1271	5.73	.0001**	.0896
Task Significance (TS)	1	19.1077	29.35	.0001**	
Gender (G)	1	4.6915	7.21	.0076**	
Level (L)	1	.0188	.03	.8644	
G x L	1	.0036	.01	.9406	
TS x G x L	3	2.3052	1.18	.3169	
Error	407	264.9634			
Total	414				

** Significant at the .01 level

* Significant at the .05 level

Based on the results displayed in Table XVII, it can be concluded that task significance and gender significantly contributed to job satisfaction. Level, gender x level, and the three-way interaction term were not significant. Consequently, the hypothesis was not confirmed. Gender and level of the work setting did not moderate the relationship between task significance and job satisfaction. The total

model accounted for about nine percent of the variance in job satisfaction.

TABLE XVIII

A MODERATED REGRESSION MODEL SHOWING THE EFFECTS OF AUTONOMY, GENDER, LEVEL AND THE INTERACTION TERM ON JOB SATISFACTION

Source	DF	SS	F	prob>F	R ²
Full Model	7	24.712	5.39	.0001**	.0849
Autonomy (A)	1	14.3618	21.94	.0001**	
Gender (G)	1	5.5915	8.54	.0037**	
Level (L)	1	.0177	.03	.8693	
G x L	1	.0714	.11	.7413	
A x G x L	3	4.6703	2.38	.0693	
Error	407	266.3777			
Total	414				

** Significant at the .01 level

* Significant at the .05 level

Based on the results displayed in Table XVIII, it can be concluded that autonomy and gender significantly contributed to job satisfaction. Level, gender x level, and

the three-way interaction term were not significant. Consequently, the hypothesis was not confirmed. Gender and level of the work setting did not moderate the relationship between autonomy and job satisfaction. The total model accounted for eight percent of the variance in job satisfaction.

TABLE XIX

A MODERATED REGRESSION MODEL SHOWING THE EFFECTS OF JOB FEEDBACK, GENDER, LEVEL AND THE INTERACTION TERM ON JOB SATISFACTION

Source	DF	SS	F	prob>F	R ²
Full Model	7	31.5412	7.07	.0001**	.1084
Job Feedback (JF)	1	20.0304	31.41	.0001**	
Gender (G)	1	5.9677	9.36	.0024**	
Level (L)	1	5.1094	.80	.3713	
G x L	1	.0243	.04	.8452	
JF x G x L	3	5.0077	2.62	.0526**	
Error	407	259.5493			
Total	414				

** Significant at the .01 level

* Significant at the .05 level

Based on the results displayed in Table XIX, it can be concluded that job feedback, gender, and the three-way interaction term significantly contributed to job satisfaction. Level, and gender x level were not significant. Consequently, in this model the hypothesis was confirmed. Gender and level of the work setting did moderate the relationship between job feedback and job satisfaction. The total model accounted for eleven percent of the variance in job satisfaction.

Demographic Data

A review of the demographic data obtained from the 415 respondents who completed the questionnaire for this study is provided in order to describe the pertinent characteristics of the sample (See Table XX).

The data indicated that 51 percent were elementary principals while 49 percent were secondary principals. From this group, 51 percent had held their current positions for one to five years. About 26 percent had held their positions for five to ten years. A majority of principals sampled had been in administration for two to seven years. Eighty-one percent of the principals sampled held a Master's degree plus some hours. Only 14 percent or 58 principals held a Doctorate degree.

Data concerning goals revealed that 26 percent wanted to be elementary principals. Approximately, 22 percent

indicated their goal was to be a superintendent while 17 percent wished to seek the position of Assistant Superintendent.

TABLE XX

DEMOGRAPHIC DATA DESCRIBING
THE RESPONDENTS

Variable	Frequency	Frequency Percent	Cumulative Percent
<u>Level of the Work Setting</u>			
Elementary	210	50.6	50.6
Secondary	205	49.4	100.0
<u>Sex</u>			
Female	204	49.2	49.2
Male	211	50.8	100.0
<u>Highest Degree</u>			
Doctorate	58	14.0	14.0
Master's + Hrs.	335	80.7	94.7
Master's	19	4.6	99.3
Bachelor's + Cert.	1	.2	99.5
Bachelor's + Hrs.	2	.5	100.0
<u>Goals</u>			
State Dept. Ed.	16	3.9	3.9
Superintendent	91	21.9	25.8
Asst. Superintendent	71	17.1	43.0
H.S. Principal	53	12.8	55.8
Asst. H.S. Principal	16	3.9	59.7
Elem. Principal	108	26.0	85.7
Other	59	14.2	100.0
<u>Time in Present Position (Yrs)</u>			
1 - 5	213	51.3	51.3
5 - 10	109	26.3	77.6
10 - 15	48	11.6	89.2
15 - 20	23	5.5	94.7
20 +	22	5.3	100.0

CHAPTER V

SUMMARY, DISCUSSION, AND CONCLUSIONS IMPLICATIONS AND RECOMMENDATIONS

Introduction

The major purposes of this chapter are to discuss the results of the research, to suggest the practical implications of this theory, and to recommend future research.

Summary

This research was designed to determine which job characteristics of the principalship contributed to job satisfaction and to ascertain the singular and joint moderating effects of gender and level of the work setting on the relationship of these job characteristics and job satisfaction. One standard and three moderated regression models were constructed to test the hypotheses.

It was hypothesized that the five core job characteristics would contribute to the variance in job satisfaction, that gender would moderate the relationship between the various job characteristics and job satisfaction, that level would moderate the relationship between the various job characteristics and job satisfaction, and that together gender and level would jointly moderate the relationship

between the various job characteristics and job satisfaction.

It was determined that only three of the five job characteristics (job feedback, task significance, and autonomy) influenced the variance in job satisfaction. Gender only moderated the relationship between job feedback and job satisfaction. The level of the work setting only moderated the relationship between task identity and job satisfaction. Both gender and level only moderated the relationship between job feedback and job satisfaction.

A more detailed interpretation of the significant results will be presented.

Discussion and Conclusion

The results revealed that a significant and positive relationship exists between each of these job characteristics (task significance, autonomy, and job feedback) and job satisfaction. Task identity and skill variety did not contribute significantly to job satisfaction. It is interesting to note that the relationship between skill variety and job satisfaction was negative. Altogether these five core job characteristics explain only 16 percent of the total variance of public school principal's job satisfaction. Consequently, 84 percent of the variance in job satisfaction remains unexplained.

The intricate relationship between each job characteristics and job satisfaction, including the impact of the

gender-level moderators, will be discussed in the sections which follow. Job characteristics will be presented in the order of their degree of contribution to the variance in job satisfaction.

Job Feedback

Job feedback contributed to the level of job satisfaction and was moderated by the single effect of gender, the joint effects of gender and level, but not by the single effect of level. Because the relationship was influenced by both gender and level jointly, it is not as accurate to discuss the main effects of job feedback or the single moderating effects of gender alone as it is to discuss the joint interaction.

For example, while it was generally true that, as job feedback increased, job satisfaction increased, it was more true for some groups and less true for others. An interpretation of the singular moderating effect of gender on the feedback satisfaction relationship would lead to the conclusion that females are less satisfied than males when there is a great deal of feedback (See Figure 2). It is, however, more accurate to state that all male principals and elementary female principals are more satisfied than secondary female principals under conditions of high job feedback (See Figure 3).

Job feedback was more satisfying to secondary male principals and least satisfying to secondary female

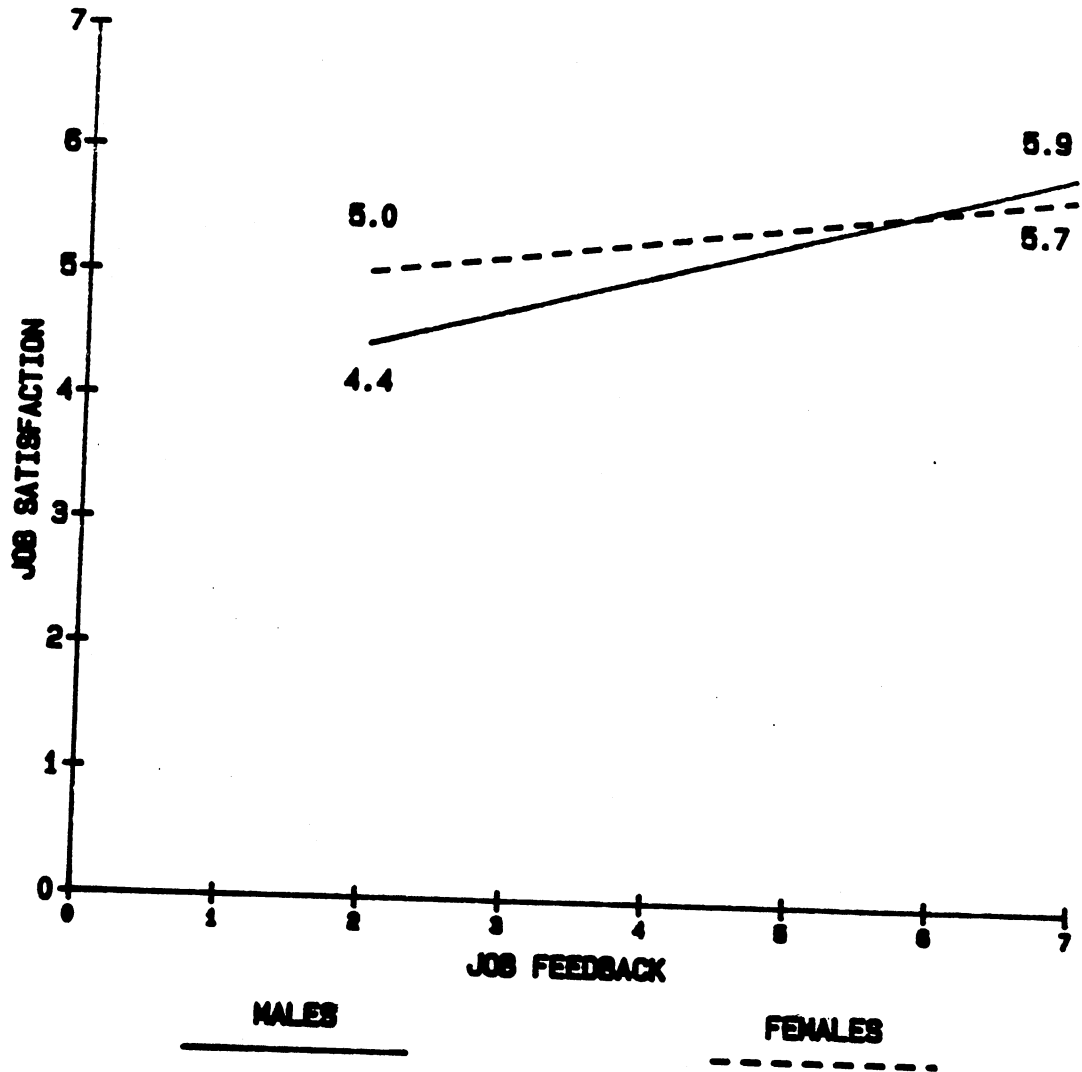


Figure 2. The Interaction Effect of Gender and Job Feedback on Job Satisfaction

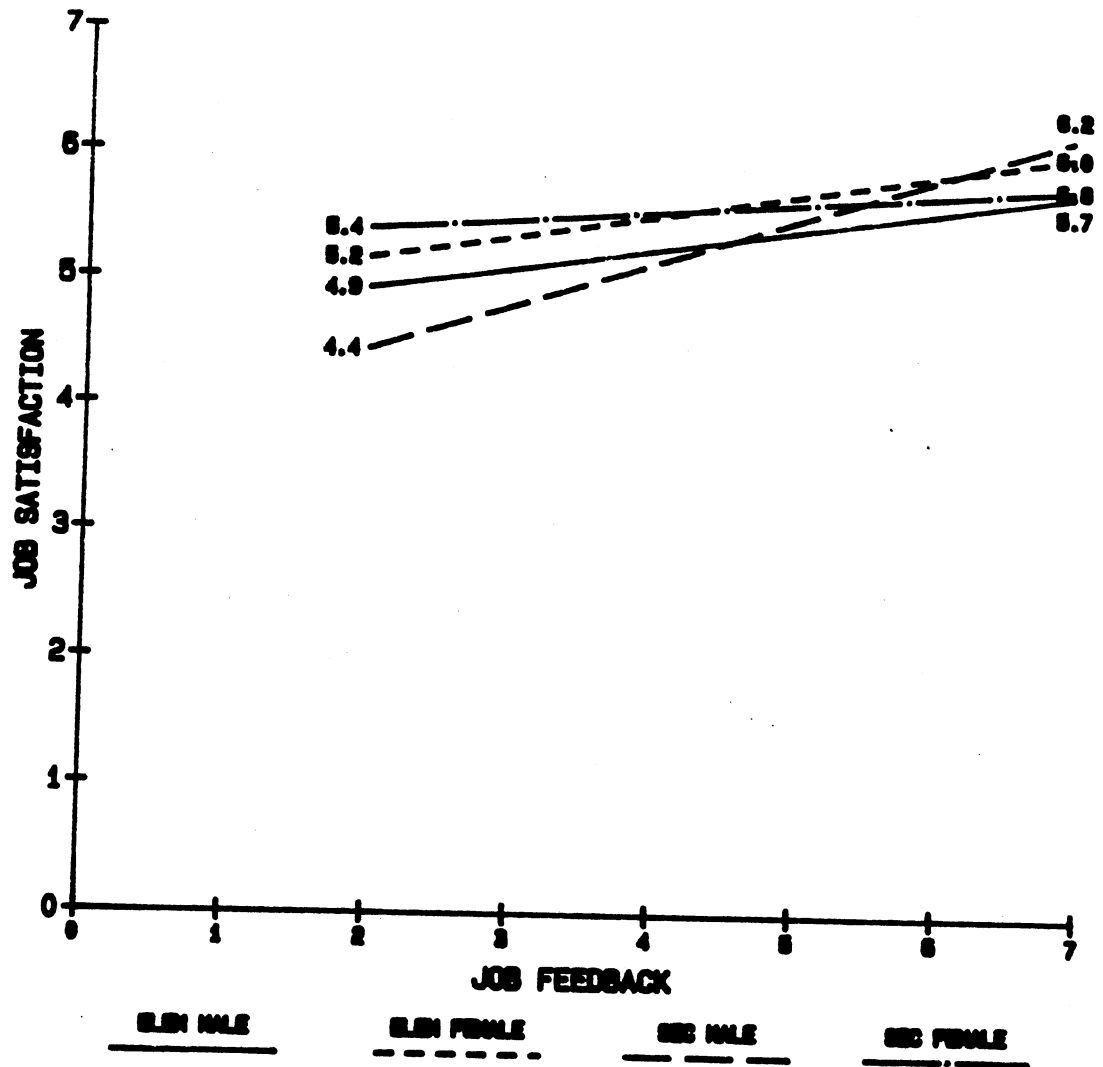


Figure 3. The Interaction Effect of Gender, Level and Job Feedback on Job Satisfaction

principals. Indeed, secondary female principals experienced a steady level of satisfaction, under both high and low feedback conditions. On the other hand, secondary male principals appeared significantly less satisfied, under low job feedback conditions, than the other groups.

Perhaps, this was the result of several factors operating within the structure of the secondary level which are salient for males, but not their female counterparts. Charol Shakeshaft (1986) suggested that male supervisors of principals did not provide females with the same high quality feedback that was given to their male counterparts. When asked why, they stated that they were afraid of women crying; therefore they frequently did not provide important, corrective feedback concerning the job performance of female, secondary principals. Possibly, the supervisors hesitation was more true at the secondary level than at the elementary level because of their belief that women could not handle the demands of a traditional male job which has a higher ratio of male teachers. It may be perceived that elementary female principals could respond to criticism successfully because their jobs required traditional female behaviors, that is, nurturing and empathic attitudes. Consequently, the quality of feedback received may be lower for secondary female principals, even when it is of sufficient quantity. Further, the informal feedback network for female secondary principals is marginal because of the limited numbers of fellow females in the secondary

principalship.

To compensate, secondary female principals have had to learn how to generate their own self-feedback systems centered around their own beliefs and values. This skill may be developed to a greater degree by female secondary principals than male secondary principals because the latter have a greater opportunity to receive their job feedback from the formal system. Some research studies (Gross and Trask, 1976) indicated that males have been socialized and acculturated to receive regular feedback on their performance. However, because secondary females must, by necessity, rely on self-feedback, they appear to be more satisfied than their male counterparts under low feedback conditions.

On the elementary level, satisfaction levels for both male and female principals were similar across all levels of job feedback. The issue of masculinity or femininity appears not to be differentiated at this level. Perhaps, this is true because elementary schools contain a nurturing, cooperative and dependent environment which is more conducive to providing quality job feedback. In this setting, elementary male and female principals received formal and informal job feedback.

Autonomy

Autonomy contributed to public school principals' level of job satisfaction but was not moderated by single

or joint effects of gender and level as hypothesized. Public school principals place importance on the substantial freedom and independence they have in carrying out their responsibilities.

This conclusion could be explained by the roles and responsibilities principals have as educational leaders, to make daily decisions concerning the multiple responsibilities and activities required by the position. Authors Poppenhagen, Mingus and Rogus (1980) suggested that autonomy corresponded with the ideal concept of educational leadership as the central focus of the principals' roles and allows them to carry out their responsibilities.

The results of this study indicated that under high autonomy conditions, male and female, elementary and secondary principals experienced a similar increase in job satisfaction. Male and female public school principals viewed themselves as leaders with responsibilities which required freedom and independence. When they received the autonomy which they require to complete the task satisfactorily, they are satisfied. When they do not, they are less satisfied.

Level and gender, either singularly or jointly, did not moderate the relationship between autonomy and job satisfaction. Each setting is organized and structured in such a way that autonomy is necessary to accomplish the major task of educating children at any level. This is true, whether the role incumbents are male or female. It

is very likely that responsibilities of the position are just too great to tolerate autonomy reduction on the basis of gender.

Task Significance

Task significance contributed significantly to public school principals' level of job satisfaction. As a total group, those public school principals who placed importance upon the impact they had on the lives of others within their work environment were more satisfied with their job than those who did not.

This culture supported two views of the significance of principals' work, that is, the notion that the principalship is the key to successful schooling and excellence in education (Edmonds, 1979) and the notion that the principalship is not the key to these outcomes. As educational leaders, public school principals have the opportunity to influence classroom learning, teaching, supervision, evaluation, staff development, curriculum and school climate (Sergiovanni, 1987). However, there are also those in society who demean the role of the school leader. These critics have suggested that parents and socioeconomic conditions play a greater role in student development than school principals. In addition, in their push for autonomy, teachers frequently downplay the impact of the principals' leadership role.

Whether principals are male or female, elementary or

secondary, work which was perceived to be enriching resulted in greater job satisfaction. Work which was not perceived to be significant resulted in lower levels of satisfaction. Nothing in the socialization process of a male elementary principal, a female elementary principal, a male secondary principal or a female secondary principal is strong enough to counter these individual perceptions. Therefore, task significance was not moderated by gender or level.

Task Identity

For the total group, task identity was not significantly related to job satisfaction. This could be explained by the nature of the work itself. Public school principals do not always deal with identifiable pieces of work from beginning to end in their position. Their primary task is to educate children to be functioning literate adults. Their secondary task requires the management of a variety of other activities. Both tasks often necessitate the delegation of these responsibilities to others.

Gender did not moderate the relationship between task identity and job satisfaction for public school principals. Perhaps this is so because the necessity for delegating the responsibilities of the position is required whether the role incumbent is male or female.

Level did moderate the relationship between task identity and job satisfaction (See Figure 4). Although elementary principals were more satisfied when task identity is high, levels of job satisfaction were much more stable for them whether task identity is high or low. Secondary principals, on the other hand, experienced more extreme reactions to fluctuations in task identity. When task identity was high, they were more satisfied than their elementary counterparts. When task identity was low, they are less satisfied than their elementary counterparts.

This could be a result of the diverse cultures existing at each level. Elementary schools contain a more homogenous student population; faculty are generalists; and curriculum focuses on the whole child approach to teaching integrated subjects. On the other hand, secondary schools contain a heterogeneous population; faculty are specialists; curriculum is more segregated and more focused on multiple areas (college preparation, business and vocational schools); and the organizational goals are more diversified. Further, secondary principals are more removed from the instructional task and must delegate their responsibilities to a greater degree. Since task identity appears to be built into their organizational structure at the elementary level, elementary principals take it for granted. Likewise, because task identity is not a part of the formal system at the secondary level, secondary principals appreciate efforts to formalize task structure.

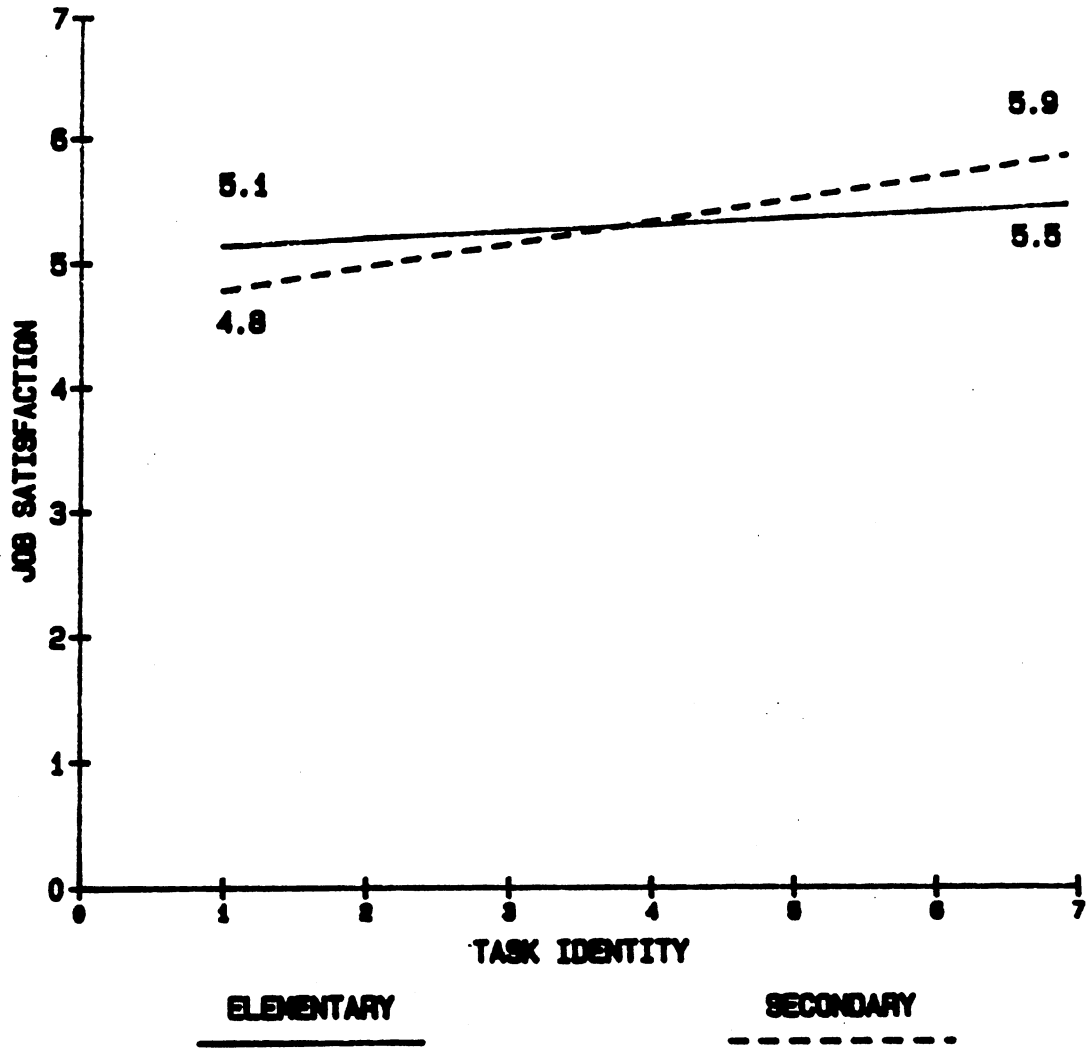


Figure 4. The Interaction Effect of Level and Task Identity on Job Satisfaction

Therefore, the hypothesized relationship seemed to be true to a greater degree for secondary principals than for elementary principals.

Gender and level did not jointly moderate the relationship between task identity and job satisfaction. Whether principals are male elementary or female elementary principals, task identity is inherent to the culture. At the secondary level, whether principals are male or female, task identity needs to be structurally formalized. Consequently, the hypothesis was not confirmed.

Skill Variety

Skill variety did not contribute to public school principals' level of job satisfaction and was not moderated by the single or joint effects of gender and level.

Although the relationship between skill variety and job satisfaction was not significant, the existing relationship was negative. Perhaps there is too much variety in the principals' position. Sergiovanni (1987) suggested that public school principals' jobs are complex by their design and encompass a multiplicity of skills, such as, leadership, supervision, curriculum development and public relations. Typically, their work environment is characterized by limited resources such as space, staff, time and materials. These constraints further result in public school principals being dissatisfied due to the stress, frustration and anxiety resulting from the varied demands

of the position. Friesen, Holdaway and Rice (1984) noted that the task demands of the principalship result in their being less satisfied.

Since the basic responsibilities of the principalship are similar on the elementary and secondary level, excessive skill variety would be present at both levels. If this is true, then one could conclude that increasing levels of skill variety would contribute to greater dissatisfaction for both elementary and secondary principals.

Likewise, role responsibilities and requirements of the position are the same for both male and female role incumbents. The result was similar patterns of dissatisfaction due to the varied responsibilities within this work environment.

Consequently, excessive skill variety is present in public school principals' positions whether or not that position is held by a male, or a female, or on the elementary or secondary level. Although skill variety did not make a significant contribution to job satisfaction, the direction of the relationship was not positive, but rather was negative; therefore the hypothesis was not confirmed.

Implications

The results of this study have clear practical and theoretical implications.

Practical Implications

It was determined that job feedback, task significance and autonomy are positively and significantly related to public school principals job satisfaction. Gender moderates the relationship between job feedback and job satisfaction. Level moderates the relationship between task identity and job satisfaction. Both gender and level moderate the relationship between job feedback and job satisfaction.

From a practical point of view, the findings indicate that public school principals need to be given the independence to identify, set, and coordinate institutional goals and objectives. Further, they need to have the freedom to manage and to delegate their daily activities. At the secondary level, a formal system needs to be developed to manage the variety of tasks required in this position.

A feedback loop for task management activities and student long-range progress information needs to be instituted. This would give principals more information on the progress of students and projects.

In order to accomplish this job, one might consider the redesign of the public school principalship, the restructuring of school systems and the modification of curriculum content at the university level. Superintendents may want to provide quality feedback which is substantive, regular, and consistent, regardless of the principal's

gender. Likewise, they may want to employ a participatory and collaborative style of leadership system which involves management personnel, principals, teachers, parents, students, and other citizens at the school system level. Together, this team would actively manage the various activities of the school and would serve as a built-in feedback loop.

At the university level, educators may want to train current role incumbents and aspiring administrators in a participatory and collaborative style of management called the TEAMS (Toward Educational And Management Success) concept. This concept incorporates skills in group decision making, open-communication, conflict resolution, problem-solving, listening, deductive reasoning, community involvement and realistic goal setting which can be used at the building level. Training in these areas would provide principals with the skills needed to implement this approach with their teams. Special training also may be needed for all administrators in the area of womens' studies in administration. Particular emphasis could be placed on their leadership styles and other relevant female topics. By incorporating courses in these areas into the university curriculum, awareness of gender issues and skills acquisition related to participatory management would be facilitated.

At the school board level, board members may want to employ a recognition system which honors effective

principals and principals implementing special district projects. Further, they may want to consider touring the individual buildings, thereby giving direct feedback to principals on their observations.

Theoretical Implications

The Hackman and Oldham model explains only a small portion of public school principals' job satisfaction. Much variance in job satisfaction is unexplained. If other studies in school settings confirm this finding, the model or the Job Diagnostic Survey, should be regarded with a degree of skepticism for use with educational organizations. It is possible that undefined worker-related variables are moderating the major variables in the model.

Recommendations for Future Research

Several recommendations will be made which relate to a replication of the study, a refinement of the instrument used in the operationalization of the model, and a search for additional moderators.

Since Hackman and Oldham's model has not been extensively tested in an educational setting, it is recommended that other researchers replicate this study in order to substantiate the effectiveness of the model in predicting job satisfaction.

It is recommended that the core dimensions measured by the Job Diagnostic Survey (J.D.S.) be validated by additional research. Since job characteristics are not

necessarily independent of one another, a job high on one core characteristic may also be high on one or others. The positive intercorrelations among the job characteristics may reflect problems in how they are measured by the instrument. Intensive research may be necessary to resolve the issue of job dimensionality. It is suggested that some items contained in the J.D.S. be revised to be more descriptive of a particular dimension. Additional items may be added to expand the number and type of job characteristics being measured. A factor analysis of responses to these revised items could then result in a more concise definition of the dimensionality of each job characteristic.

It is possible that undefined worker and/or organizational variables are moderating the relationships between the major variables in the model. To determine whether or not this is the case, it is recommended that future research projects incorporate a more thorough and systematic investigation of organizational or employee differences which might influence the relationship between job characteristics and job satisfaction.

Concluding Comments

Public school principals are the key to effective educational reform and excellence. Sergiovanni (1987) has stated, "greater teacher motivation to teach and greater student motivation to learn have been directly linked to

schools with effective, satisfied principals." If this is true, then researchers must continue searching for and defining conditions which ultimately will lead to better schools.

BIBLIOGRAPHY

- Abdel-Halim, Ahmed. "Individual and Interpersonal Moderators of the Relationship between Job Characteristics and Job Attitudes." Academy of Management Journal 21 (1978): 155-167.
- Adams, Stacy. "Inequity in Social Exchange." Advances in Experimental Social Psychology. New York: American Press (1965).
- Aldag, Ramon J. and Brief, Arthur F. "The Job Characteristics Inventory: An Examination." Academy of Management Journal 21 (1978): 659-670.
- Austin, Ann E. and Gamson, Zelda F. Academic Workplace New Demands Heightened Tensions. ASHE-ERIC. Higher Educational Research # 10. Washington D.C.: The-Clearing House on Higher Education.
- Barnes, Thelma. "America's Forgotten Minority: Women School Administrators." NASSP Bulletin 60 (1976): 87-93.
- Bella, Swyit K. "Principal's Leadership Style: Does it Affect Teacher Morale?" Education 4 (1982): 369-376.
- Birnbaum, Philip H.; Farh, Jiing-Lih; and Wong, Gilbert Y. "The Job Characteristics Model in Hong Kong." Journal of Applied Psychology 71 (1986): 419-426.
- Blood, Milton R. and Hulin, Charles L. "Alienation, Environmental Characteristics and Worker Responses." Journal of Applied Psychology 51 (1967): 284-290.
- Burrow, Martha G. Women: A Worldwide View of Their Management Development Needs. New York: American Management Association (1976).
- Burrow, Martha G. Developing Women Managers: What Needs To Be Done? New York: American Management Association (1978).
- Buxton, Thomas H.; Patterson, Jackie S.; and Fansher, Ted R. "Advice for Prospective Women Administrators." NASSP Bulletin 458 (1982): 78-87.

- Campbell, John P.; Dunnette, Marvin D.; Lawler, Edward E.; and Weick, Karl E., Jr. Managerial Behavior, Performance and Effectiveness. New York: McGraw-Hill Book Company (1976).
- Campbell, Ronald F.; Bridges, Edwin M.; and Nystran, Raphael O. Introduction to Educational Administration. Boston: Allyn and Bacon, Inc. (1977).
- Cannie, Joan K. The Women's Guide to Management Success. New Jersey: Prentice Hall (1979).
- Cedoline, Anthony J. Job Burnout in Public Education. New York: Teachers College (1982).
- Chapman, David W. and Hutcheson, Susan M. "Survey of Graduates with Teaching Certificates." Office of the Dean, School of Education, The University of Michigan, Ann Arbor (1980).
- Chapman, David W. and Lowther, Malcolm A. "Teachers' Satisfaction With Teaching." Journal of Educational Research 75 (1982): 241-247.
- Cirincione-Coles, Kathryn. "The Administrator: Male or Female?" Journal of Teacher Education 4 (1975): 326-327.
- Cooper, Gary L. Behavior Problems in Organizations. New Jersey: Prentice-Hall (1979).
- Damico, Sandra B. and Nevill, Dorothy. "Education and Role Conflict: A Women's Dilemma." Educational Horizons 56 (1979): 140-142.
- DeLeonibus, Nancy and Thomson, Scott D. "Pushout Principals: Why They Leave and Where They Go." NASSP Bulletin 63 (1979): 1-9.
- Dorminy, Fred N. and Brown, Sidney E. "Job Satisfaction of High School Assistant Principals as Related to their Perceptions of Principals' Behavior as Leaders." Perceptual Motor Skills 55 (1982): 387-390.
- Dunham, Randall B. "The Measurement and Dimensionality of Job Characteristics." Journal of Applied Psychology 61 (1976): 404-409.
- Dunham, Randall B. and Pierce, Jon L. "The Measurement Perceived Job Characteristics: The Job Diagnostic Survey Versus The Job Characteristics Inventory." Academy of Management Journal 21 (1978): 123-128

- Dunn, John D. and Stephens, Elvis C. Management of Personnel. New York: Mc Graw Hill (1972).
- Edmonds, Ronald. "Some Schools Work and More Can." Social Policy 9 (1979): 28-32.
- Esiler, Suzanne. "Women as Leaders in Public Education." Signs 1 (1975): 363-378.
- Fansher, Ted A. and Buxton, Thomas H. "A Job Satisfaction Profile of the Female Secondary School Principal in the United States." NASSP Bulletin 468 (1984): 32-40.
- Farrell, Daniel and Rusbult, Caryl E. "Exchange Variables as Predictors of Job Satisfaction, Job Commitment, and Turnover: The Impact of Rewards, Costs, Alternatives, and Investments." Organizational Behavior of Human Performance 28 (1981): 78-95.
- Ferratt, Thomas W. and Reeve, John M. "The Structural Integrity of the J.D.S. and J.D.I. when Examined Together." Academy of Management Journal 20 (1977): 144-145.
- Fishel, Andrew and Pottker, Janice. "Performance of Women Principals: A Review of Behavioral and Attitudinal Studies." Journal of National Association of Women Deans, Administrators and Counselors 38 (1975): 289-299.
- Fowler, Floyd. Survey Research Methods. California: Sage Publications (1984).
- Frasher, James M. and Frasher, Ramona S. "Educational Administration A Feminine Profession." Educational Administration Quarterly 15 (1979): 1-13.
- Fried, Yitzhak and Ferris, Gerald. "The Dimensionality of Job Characteristics: Some Neglected Issues." Journal of Applied Psychology 71 (1986): 419-426.
- Friedan, Betty. The Second Stage. New York: Summit Books (1981).
- Friedlander, Frank. "Job Characteristics as Satisfiers and Dissatisfiers." Journal of Applied Psychology 48 (1964): 388-392.
- Friesen, David; Holdaway, Edward A.; and Rice, Alan W. "Satisfaction of School Principals With Their Work." Educational Administrative Quarterly 19 (1983): 35-58.

- Friesen, David; Holdaway, Edward A.; and Rice, Alan W. "Factors Contributing to the Job Satisfaction of School Principals." The Alberta Journal of Educational Research 30 (1984): 157-170.
- Futrell, Mary H. "Female Leadership and the Future of Education." Educational Horizons 63 (1985): 20-21.
- Gaines, Jeannie T. and Jermier, John M. Emotional Exhaustion in a High Stress Organization." Academy of Management Journal 26 (1983): 567-586.
- Gay, Lauri P. Educational Research. Ohio: Charles E. Merrill (1981).
- Garawski, Robert A. "The Assistant Principal." Clearing House. 521 (1978): 8-10.
- Gmelch, Walter; Koch, James; Tung, Rosalie; and Swent, Boyd. "Job Stress Among School Administrators: Factorial Dimensions and Differential Effects." Journal of Applied Psychology 67 (1982): 493-499.
- Grigaliunas, Benedict S. and Herzberg, Frederick B. "Relevancy in the Test of Motivator-Hygiene Theory." The Journal of Applied Psychology 55 (1971): 73-79
- Grobman, Hulda and Hines, Vynce A. "What Makes A Good Principal?" NASSP Bulletin 40 (1968): 5-16.
- Gross, Neal and Napior, David A. "The Job and Career Satisfaction of Men School Principals." National Principalship Studies Series. Monograph 5. Cambridge, Massachusetts: Graduate School of Education (1977).
- Gross, Neal and Trask, Anne E. "Men and Women as Elementary School Principals." National Principalship Studies Series. Monograph 2. Cambridge, Massachusetts: Graduate School of Education (1964).
- Gross, Neal and Trask, Anne E. The Sex Factor and the Management of Schools. New York: Wiley-Interscience Publication (1976).
- Hackman, Richard J. and Lawler, Edward E. "Employee Reactions to Job Characteristics." Journal of Applied Psychology 55 (1971): 259-286.
- Hackman, Richard J. and Oldham, Greg R. "Motivation Through the Design of Work: Test of a Theory." Technical Report. Number 4. New Haven, Connecticut: Yale University, Department of Administrative Sciences (1974).

- Hackman, Richard J. and Oldham, Greg R. "Development of the Job Diagnostic Survey." Journal of Applied Psychology 60 (1975): 159-170.
- Hackman, Richard J. and Oldham, Greg R. "The Job Diagnostic Survey: A New Tool For Organizational Diagnosis." California Management Review 6 (1975): 3-15.
- Hackman, Richard J. and Oldham, Greg R. Work Redesign. California: Addison Wesley Publishing Company (1980). ✓
- Haldene, Bernard. Career Satisfaction and Success. New York: AMACOM (1981).
- Hanson, Mark E. Educational Administration on Organizational Behavior. Boston: Allyn and Bacon, Inc. (1979).
- Harragan, Betty L. Games Mother Never Taught You. New York: Warner Books (1977).
- Hellwig, Basia. "73 Women Ready to Run Corporate America." Working Woman (April 1985): 98-101.
- Hemphill, John K.; Griffiths, Daniel E.; and Frederiksen, Norman. Administrative Performance and Personality. New York: Teachers College, Columbia University (1962)
- Hennig, Margaret and Jarding, Anne. The Managerial Woman. New York: Pocket Books (1977).
- Herzberg, Frederick B. Work and the Nature of Man. New York: World Publishing (1966).
- Hickman, Craig H. and Silva, Michael A. Creating Excellence. New York: NAL Books (1984).
- Holloway, Edward A. "Facet and Overall Satisfaction of Teachers." Educational Administration Quarterly 14 (1978): 30-47.
- Hoppock, Robert. Job Satisfaction. New York: Arno Pres (1977).
- Hoy, Wayne K. and Miskel, Cecil G. Educational Administration: Theory, Research, and Practice. 1st. ed. New York: Random House (1978).
- Hoy, Wayne K. and Miskel, Cecil G. Educational Administration: Theory, Research, and Practice. 3d. ed. New York: Random House (1987).

- Hoyle, John. "Who Shall Be Principal?" National Elementary Principal. 43 (1969): 23-24.
- Iannoccone, Lawrence Organizing Schools for Effective Education. Illinois: Interstate Printers and Publishers (1973).
- Iannone, Richard. "What Makes Principals?" Journal of Educational Research 66 (1973): 208-216.
- Ivanecevich, John M. "The Performance to Satisfaction Relationship: A Casual Analysis of Stimulating and Non-stimulating Jobs." Organizational Behavior and Human Performance 22 (1978): 350-365.
- Kahn, Robert. Work and Health. New York: John Wiley and Sons (1981).
- Kalleberg, Arne L. "Work Values and Job Rewards: A Theory of Job Satisfaction." American Sociology Review 42 (1977): 124.
- Katz, Daniel and Kahn, Robert L. The Social Psychology of Organization 2 ed. New York: John Wiley and Sons (1978).
- Kerlinger, Fred N. and Pedhazur, Elazer. Multiple Regression in Behavioral Research. New York: Holt Rinehart and Winston Inc. (1973).
- King, Nathan. "Clarification and Evaluation of the Two-Factor Theory of Job Satisfaction." Psychological Bulletin 74 (1970): 18-31.
- Kmetz, John T. and Willower, Donald J. "Elementary School Principals' Work Behavior." Educational Administration Quarterly 4 (1982): 62-78.
- Landy, Frank J. and Trumbo, Don A. Psychology of Work Behavior. Illinois: The Dorsey Press (1976 and 1980).
- Lawler, Edward E. Motivation in Work Organizations. California: Brooks/Cole (1973).
- Levandowski, Barbara S. "Women in Educational Administration: Where Do They Stand?" NASSP Bulletin (1977): 101-107.
- Locke, Edwin A. "What is Satisfaction?" Organizational Behavior and Human Performance 4 (1968): 309-336.

- Locke, Edwin A. "The Nature and Causes of Job Satisfaction." In M.D. Dunnette (Ed.). Handbook of Industrial and Organization Psychology. Chicago: Rand McNally (1976). ✓
- Lortie, Dan C. School Teacher Career and Work Rewards. Chicago: University Press (1957).
- Marshall, Catherine. "The Stigmatized Woman: The Professional Woman in a Male Sex - Typed Career." The Journal of Educational Administration 2 (1985): 130-152.
- Maslow, Abraham H. Motivation and Personality. New York: Plenum Press (1975).
- McMillin, Marvin R. "Leadership Aspirations of Prospective Teachers - A Comparison of Men and Women." Journal of Teacher Education 4 (1975): 323-324.
- Meeker, Eleanor M. "A Study of Five Aspects of Job Satisfaction Among Teacher Resignees. (Unpub Ed.D. dissertation, Oklahoma State University, 1983.)
- Millson, Carol. "Women and Education." Educational Leadership 31 (1973): 99-101.
- Miskel, Cecil G. "Intrinsic, Extrinsic, and Risk Propensity Factors in the Work Attitudes of Teachers, Educational Administrators and Business Managers." The Journal of Applied Psychology 59 (1974): 339-343.
- Miskel, Cecil G.; Glasnapp, Douglas; and Hatley, Richard. "A Test of the Inequity Theory of Job Satisfaction Using Educators' Attitudes Toward Work Motivation and Work Incentives." Educational Administration Quarterly 11 (1975): 38-54.
- Miskel, Cecil G. "Motivation in Educational Organizations." Educational Administration Quarterly 18 (1982): 65-68.
- Newton, Thomas A. "An Investigation of the Relationship Between Job Satisfaction for Professors of Educational Administration." (Unpub. Ed.D dissertation, Oklahoma State University, 1979.)
- Paddock, Susan. "Women Principals: The Rule or the Exception?" NASSP Bulletin 440 (1980): 1-4.
- Pascarella, Perry. The New Achievers. New York: The Free Press. 1984.

- Pastor, Margaret C. and Erlandson, David A. "A Study of Higher Order Needs Strength and Job Satisfaction in Secondary Public School Teachers." The Journal of Educational Administration 20 (1982): 172-183.
- Pellicer, Leonard O. "Job Satisfaction - Its Impact Upon Teacher Attendance." NASSP Bulletin 475 (1984): 44-47.
- Peters, Thomas J. and Waterman, Robert H., Jr. In Search of Excellence. New York: Harper and Row (1982).
- Peters, Jacqueline. "The Quest of the New Woman in Public School Education: 1980." NASSP Bulletin 440 (1980): 14-18.
- Pokorney, John J.; Gilmore, David C.; and Beehr, Terry A. "Job Diagnostic Survey Dimensions: Moderating Effect of Growth Needs and Correspondence with Dimensions of Job Rating Form." Organizational Behavior and Human Performance 26 (1980): 222-237.
- Poppenhagen, Brent; Mingus, Julian; and Rogus, Joseph. "Comparative Perceptions of Elementary, Junior High, and Senior High School Principals on Selected Work Related Variables." Journal Of Educational Administration 18 (1980): 69-87.
- Porter, Lyman W.; Lawler, Edward E.; and Hackman, Richard J. Behavior In Organizations. New York: McGraw-Hill (1975).
- Pulakos, Elaine D. and Schmitt, Neal. "A Longitudinal Study of A Valence Model Approach for the Prediction of Job Satisfaction of New Employees." The Journal of Applied Psychology 67 (1982): 307-312.
- Reynolds, JoAnne M. and Reynolds, Jill J. "The Principalship: Career Considerations." Perceptual Motor Skills 55 (1982): 9-11.
- Roberts, Karlene H. and Glick, Wwilliam. "The Job Characteristics Approach To Task Design: A Critical Review." Journal of Applied Psychology 66 (1981): 193-217.
- Ronco, William and Peattie, Lisa. Making Work. New York: Plenum Press (1983).
- Rosenbaum, Bernard L. How To Motivate Todays Workers. New York: Mc Graw Hill Book Company (1982).

- Rousseau, Denise M. "Technological Differences in Job Characteristics, Employee Satisfaction, and Motivation: A Synthesis Of Job Design Research and Sociotechnical Systems Theory." Organizational Behavior and Human Performance 19 (1977): 18-42.
- Savage, Ralph M. "A Study of Teacher Satisfaction and Attitudes: Cause and Effects." (Unpub. Ed.D. dissertation, Auburn University, 1967.)
- Schaef, Anne W. Women's Reality. Minnesota: Winston Press (1981).
- Schmidt, Gene L. "Job Satisfaction Among Secondary School Administrators." Educational Administration Quarterly 12 (1976): 68-86.
- Schwab, Brent P. and Cummings, L. L. "A Theoretical Anzlysis of the Impact of Task Scope on Employee Performance." Academy of Management Review 1 (1976): 23-25.
- Sergiovanni, Thomas. "Factors Which Affect Satisfaction and Dissastisfaction of Teachers." Journal of Educational Administration 5 (1967): 66-82.
- Sergiovanni, Thomas. The Principalsip. Boston: Allyn ✓ and Bacon, Inc. (1987).
- Sexton, Patricia. Women in Education. Bloomington, Indiana: Phi Delta Kappan (1976).
- Shakeshaft, Charol. "The Training of the Woman in the Principal's Office". (Paper presented at the Thirtieth Anniversary Convention of UCEA, Charlottesville, Virginia, October 30-November 1, 1979).
- Shakeshaft, Charol. "A Female Organizational Culture." Educational Horizons 40 (1986): 117-122.
- Silver, Paula F. Educational Administration: Theoretical Perspective on Practice and Research. New York: Harper and Row Publishers, Inc. (1983).
- Sims, Henry P.; Szilagyi, Andrew D.; and Keller, Robert T. "The Measurement of Job Characteristics." Academy of Management Journal 19 (1976): 195-210.
- Smith, Judith A. "Encouraging Women to Enter Administration." NASSP Bulletin 62 (1978): 114-119.

- Smith, Patricia. Studies in Industrial Psychology. Illinois: Dorsey Press (1967).
- Steers, Richard M. and Porter, Lyman W. "Job Characteristics and Job Attitudes." Journal of Applied Psychology 60 (1975): 57-64.
- Stiegmeier, Lois. "Confidence, A Necessity for Women Administrators." NASSP Bulletin 64 (1980): 34-35.
- Stone, Eugene F. and Porter, Lyman. "Job Characteristics and Job Attitudes: A Multivariate Study." Journal of Applied Psychology 60 (1975): 57-64.
- Turner, Arnold N. and Lawrence, Patricia R. "Industrial Jobs and the Worker." (Unpub. Ed.D. dissertation, Harvard University, 1965).
- U.S. Department of Labor Bureau of Labor Statistics. Women at Work: A Chartbook. Washington, D.C.: Government Printing Office (1983).
- U.S. Department of Labor Employment Standards Administration Women's Bureau. Mature Women Workers: A Profile. Washington, D.C.: Government Printing Office (1976).
- U.S. Department of Labor Office of the Secretary Women's Bureau. Job Options for Women in the 80's. Washington, D.C.: Government Printing Office (1976).
- Vroom, Victor. Work and Motivation. New York: John Wiley and Sons, Inc. (1964).
- Weitz, Joseph P. and Nuckola, Robert C. "Job Satisfaction and Job Survival." The Journal of Applied Psychology 39 (1955): 294-300.
- Wickestrom, Rodney A. "An Investigation into Job Satisfaction Among Teachers." (Unpub. Ed.D. dissertation, University of Oregon, 1971).
- Whitaker, Colbert and Hales, William. "Women in Administration." (Paper presented at the Annual Meeting of the National Association of Secondary Principals, Las Vegas, Nevada, February 3-7, 1984).

APPENDICES

APPENDIX A

JOB DIAGNOSTIC SURVEY AND
PERMISSION LETTER

Job Diagnostic Survey

On the following pages you will find several different kinds of questions about your job. Specific instructions are given at the start of each section. Please read them carefully. It should take no more than 25 minutes to complete the entire questionnaire. Please move through it quickly.

The questions are designed to obtain your perceptions of your job and your reactions to it.

There are no "trick" questions. Your individual answers will be kept completely confidential. Please answer each item as honestly and frankly as possible. Record your responses on the one-page answer sheet

Thank you for your cooperation.

Section 2

Listed below are a number of statements which could be used to describe a job.

You are to indicate whether each statement is an accurate or an inaccurate description of your job.

Once again, please try to be as objective as you can in deciding how accurately each statement describes your job - regardless of whether you like or dislike your job.

Write a number in the appropriate space on the answer sheet, based on the following scale:

How accurate is the statement in describing your job?

1	2	3	4	5	6	7
Very Inaccurate	Mostly Inaccurate	Slightly Inaccurate	Uncertain	Slightly Accurate	Mostly Accurate	Very Accurate

11. The job requires me to use a number of complex or high-level skills.
12. The job requires a lot of cooperative work with other people.
13. The job is arranged so that I do not have the chance to do an entire piece of work from beginning to end.
14. Just doing the work required by the job provides many chances for me to figure out how well I am doing.
15. The job is quite simple and repetitive.
16. The job can be done adequately by a person working alone - without talking or checking with other people.
17. The supervisors and co-workers on this job almost never give me any "feedback" about how well I am doing in my work.
18. This job is one where a lot of other people can be affected by how well the work gets done.
19. The job denies me any chance to use my personal initiative or judgment in carrying out the work.
20. Supervisors often let me know how well they think I am performing the job.
21. The job provides me the chance to completely finish the pieces of work I begin.
22. The job itself provides very few clues about whether or not I am performing well.
23. The job gives me considerable opportunity for independence and freedom in how I do the work.
24. The job itself is not very significant or important in the broader scheme of things.

Section 3

Now please indicate how you personally feel about your job.

Each of the statements below is something that a person might say about his or her job. You are to indicate your own, personal feelings about your job by marking how much you agree with each of the statements.

Write a number in the blank for each statement, based on this scale:

How much do you agree with the statement?

1	2	3	4	5	6	7
Disagree Strongly	Disagree	Disagree Slightly	Neutral	Agree Slightly	Agree	Agree Strongly

25. It's hard, on this job, for me to care very much about whether or not the work gets done right.
26. My opinion of myself goes up when I do this job well.
27. Generally speaking, I am very satisfied with this job.
28. Most of the things I have to do on this job seem useless or trivial.
29. I usually know whether or not my work is satisfactory on this job.
30. I feel a great sense of personal satisfaction when I do this job well.
31. The work I do on this job is very meaningful to me.
32. I feel a very high degree of personal responsibility for the work I do on this job.
33. I frequently think of quitting this job.
34. I feel bad and unhappy when I discover that I have performed poorly on this job.
35. I often have trouble figuring out whether I'm doing well or poorly on this job.
36. I feel I should personally take the credit or blame for the results of my work on this job.
37. I am generally satisfied with the kind of work I do in this job.
38. My own feelings are not affected much one way or the other by how well I do on this job.
39. Whether or not this job gets done right is clearly my responsibility.

Section 4

Now please indicate how satisfied you are with each aspect of your job listed below. Once again, write the appropriate number in the space on the answer sheet.

How satisfied are you with this aspect of your job?

1	2	3	4	5	6	7
Extremely Dissatisfied	Dissatisfied	Slightly Dissatisfied	Neutral	Slightly Satisfied	Satisfied	Extremely Satisfied

40. The amount of job security I have.
41. The amount of pay and fringe benefits I receive.
42. The amount of personal growth and development I get in doing my job.
43. The people I talk to and work with on my job.
44. The degree of respect and fair treatment I receive from my boss.
45. The feeling of worthwhile accomplishment I get from doing my job.
46. The chance to get to know other people while on the job.
47. The amount of support and guidance I receive from my supervisor.
48. The degree to which I am fairly paid for what I contribute to this organization.
49. The amount of independent thought and action I can exercise in my job.
50. How secure things look for me in the future in this organization.
51. The chance to help other people while at work.
52. The amount of challenge in my job.
53. The overall quality of the supervision I receive in my work.

Section 5

Now please think of the other people in your organization who hold the same job you do. If no one has exactly the same job as you, think of the job which is most similar to yours.

Please think about how accurately each of the statements describes the feelings of those people about the job.

It is quite all right if your answers here are different from when you described your own reactions to the job. Often different people feel quite differently about the same job.

Once again, write a number on the answer sheet for each statement, based on scale:

How much do you agree with the statement?

1	2	3	4	5	6	7
Disagree Strongly	Disagree	Disagree Slightly	Neutral	Agree Slightly	Agree	Agree Strongly

54. Most people on this job feel a great sense of personal satisfaction when they do the job well.
55. Most people on this job are very satisfied with the job.
56. Most people on this job feel that the work is useless or trivial.
57. Most people on this job feel a great deal of personal responsibility for the work they do.
58. Most people on this job have a pretty good idea of how well they are performing their work.
59. Most people on this job find the work very meaningful.
60. Most people on this job feel that whether or not the job gets done right is clearly their own responsibility.
61. People on this job often think of quitting.
62. Most people on this job feel bad or unhappy when they find that they have performed the work poorly.
63. Most people on this job have trouble figuring out whether they are doing a good or a bad job.

Section 6

Listed below are a number of characteristics which could be present on any job. People differ about how much they would like to have each one present in their own jobs. We are interested in learning how much you personally would like to have each one present in your job.

Using the scale below, please indicate the degree to which you would like to have each characteristic present in your job.

1	2	3	4	5	6	7
Would like having this only a moderate amount (or less)			Would like having this very much			Would like having this <u>extremely</u> much

64. High respect and fair treatment from my supervisor.
65. Stimulating and challenging work.
66. Chances to exercise independent thought and action in my job.
67. Great job security.
68. Very friendly co-workers.
69. Opportunities to learn new things from my work.
70. High salary and good fringe benefits.
71. Opportunities to be creative and imaginative in my work.
72. Quick promotions.
73. Opportunities for personal growth and development in my job.
74. A sense of worthwhile accomplishment in my work.

Section 7

People differ in the kinds of jobs they would most like to hold. The questions in this section give you a chance to say just what it is about a job that is most important to you.

For each question, two different kinds of jobs are briefly described. You are to indicate which of the jobs you personally would prefer - if you had to make a choice between them.

In answering each question, assume that everything else about the job is the same. Pay attention only to the characteristics actually listed.

Two examples are given below.

JOB A

A job requiring work
with mechanical equipment
most of the day.

JOB B

A job requiring work
with other people most
of the day.

1-----2-----3-----4-----5
Strongly Slightly Neutral Slightly Strongly
Prefer A Prefer A Prefer B Prefer B

If you like working with people and working with equipment equally well, you would write the number 3, on the answer sheet.

Example 1. 3

Here is another example. This one asks for a harder choice - between two jobs which both have some undesirable features.

JOB A

A job requiring you to
expose yourself to con-
siderable physical danger.

JOB B

A job located 200 miles
from your home and family.

1-----2-----3-----4-----5
Strongly Slightly Neutral Slightly Strongly
Prefer A Prefer A Prefer B Prefer B

If you would slightly prefer risking physical danger to working far from your home, you would write the number 2, on the answer sheet.

Example 2. 2

JOB A

JOB B

75. A job where the pay is very good.

A job where there is considerable opportunity to be creative and innovative.

1-----2-----3-----4-----5
 Strongly Slightly Neutral Slightly Strongly
 Prefer A Prefer A Prefer B Prefer B

76. A job where you are often required to make important decisions.

A job with many pleasant people to work with.

1-----2-----3-----4-----5
 Strongly Slightly Neutral Slightly Strongly
 Prefer A Prefer A Prefer B Prefer B

77. A job in which greater responsibility is given to those who do the best work.

A job in which greater responsibility is given to loyal employees who have the most seniority.

1-----2-----3-----4-----5
 Strongly Slightly Neutral Slightly Strongly
 Prefer A Prefer A Prefer B Prefer B

78. A job in an organization which is in financial trouble - and might have to close down within the year.

A job in which you are not allowed to have any say whatever in how your work is scheduled, or in the procedures to be used in carrying it out.

1-----2-----3-----4-----5
 Strongly Slightly Neutral Slightly Strongly
 Prefer A Prefer A Prefer B Prefer B

79. A very routine job.

A job where your co-workers are not very friendly.

1-----2-----3-----4-----5
 Strongly Slightly Neutral Slightly Strongly
 Prefer A Prefer A Prefer B Prefer B

80. A job with a supervisor who is often very critical of you and your work in front of other people.

A job which prevents you from using a number of skills that you worked hard to develop.

1-----2-----3-----4-----5
 Strongly Slightly Neutral Slightly Strongly
 Prefer A Prefer A Prefer B Prefer B

- JOB A**
81. A job with a supervisor who respects you and treats you fairly.
- JOB B**
A job which provides constant opportunities for you to learn new and interesting things.
- 1-----2-----3-----4-----5
Strongly Slightly Neutral Slightly Strongly
Prefer A Prefer A Prefer B Prefer B
82. A job where there is a real chance you could be laid off.
- A job with very little chance to do challenging work.
- 1-----2-----3-----4-----5
Strongly Slightly Neutral Slightly Strongly
Prefer A Prefer A Prefer B Prefer B
83. A job in which there is a real chance for you to develop new skills and advance in the organization.
- A job which provides lots of vacation time and an excellent fringe benefit package.
- 1-----2-----3-----4-----5
Strongly Slightly Neutral Slightly Strongly
Prefer A Prefer A Prefer B Prefer B
84. A job with little freedom and independence to do your work in the way you think best.
- A job where the working conditions are poor.
- 1-----2-----3-----4-----5
Strongly Slightly Neutral Slightly Strongly
Prefer A Prefer A Prefer B Prefer B
85. A job with very satisfying team-work.
- A job which allows you to use your skills and abilities to the fullest extent.
- 1-----2-----3-----4-----5
Strongly Slightly Neutral Slightly Strongly
Prefer A Prefer A Prefer B Prefer B
86. A job which offers little or no challenge.
- A job which requires you to be completely isolated from co-workers.
- 1-----2-----3-----4-----5
Strongly Slightly Neutral Slightly Strongly
Prefer A Prefer A Prefer B Prefer B

July 21, 1986

Roy W. Walters & Associates
Whitney Industrial Park
Whitney Road
Mahwah, New Jersey 07430

Dear Mr. Walters:

After reading Hackman and Oldham's Work Redesign, I became not only interested in the concept, but also interested in how this concept could be applied to school administrators. Since I am completing my doctoral work at Oklahoma State University (OSU) in administration, I have decided to utilize the Job Diagnostic Survey as the instrument to measure aspects of elementary and secondary public school administrator's job perceptions.

Could you please send me a price list for the Job Diagnostic Survey, the Job Rating Form, and the scoring keys. I would also like information on your scoring service.

Sincerely,

Diane Montgomery
Diane Montgomery
Assistant Principal
Tulsa Public Schools
8229 S. Louiseville
Tulsa, Oklahoma 74137

DM:wmm

APPENDIX B

JOB DIAGNOSTIC SURVEY ANSWER SHEET

APPENDIX C

DEMOGRAPHIC QUESTIONNAIRE

Fellow Administrator:

Use check the appropriate box in each section. Your assistance is greatly appreciated. If you would like a copy of the data compiled, use check the last box. Thank you.

Diane Montgomery

<u>Age</u>		<u>Race</u>	<u>Currently a Member of</u>	<u>Highest Degree Attained</u>
<input type="checkbox"/> Male	_____	<input type="checkbox"/> Caucasian	<input type="checkbox"/> NAESP	<input type="checkbox"/> Doctorate
<input type="checkbox"/> Female	_____	<input type="checkbox"/> Black	<input type="checkbox"/> NAESP	<input type="checkbox"/> Master's + Hours
		<input type="checkbox"/> Indian	<input type="checkbox"/> State Elementary Principal	<input type="checkbox"/> Master's
		<input type="checkbox"/> Mexican/American	<input type="checkbox"/> State Secondary Principal	<input type="checkbox"/> Bachelor's - Administrator's Certificate
		<input type="checkbox"/> Other	<input type="checkbox"/> No longer belong to Principal's organization	<input type="checkbox"/> Bachelor's + Hours
			<input type="checkbox"/> Never belonged to a principal's organization	<input type="checkbox"/> Bachelor's

Grades in Your School

Total Years of Experience as an Administrator

Salary As A Principal

\$19,999 - \$24,999

\$25,000 - \$31,999

\$32,000 - \$39,999

\$39,000 - \$45,999

\$50,000 - \$56,999

\$57,000 - \$63,999

Over \$64,000

in Present Position

1-5 Years

5-10 Years

10-15 Years

15-20 Years

Over 20 Years

Career Goals

State Department of Education

Superintendency

Assistant Superintendent

High School Principal

Assistant High School Principal

Elementary Principal

Other

Compiled Information

Yes

APPENDIX D

GENERAL CORRESPONDENCE

July 21, 1986

Dr. Bill Scofield
KASP - DEA
Emporia State University
Emporia, Kansas 66801

Dear Dr. Scofield:

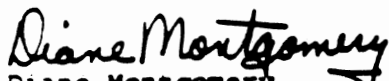
I am a COSA/NASSP member who is engaged in graduate doctoral study at Oklahoma State University in Educational Administration. I am studying job satisfaction of elementary and secondary principals as it relates to job characteristics, gender, and levels of the work environment. My research necessitates assistance from your organization.

In order to investigate these variables, I would like a copy of the names and addresses of your current members. All information will be kept confidential. I am willing to sign a statement to that effect as well as pay all duplicating costs. In return, members who participate in the study will receive a copy of the results.

If you have any questions concerning my request, please feel free to contact me. Mr. Sandaze and Mr. Burnett have also been contacted concerning the matter. Your assistance in this research project would be greatly appreciated.

Thank you for your time and consideration.

Sincerely,


Diane Montgomery
Assistant Principal
8229 S. Louiseville
Tulsa, Oklahoma 74137

DM:wmm

July 24, 1986

Mr. James Sandage
Cooperative Council for Oklahoma
School Administration
4001 Lincoln Boulevard
Suite 410
Oklahoma City, Oklahoma 73105

Dear Jim:

As discussed with you last week, I am a COSA/NASSP member who is engaged in graduate doctoral study at Oklahoma State University in Educational Administration. I am studying job satisfaction of elementary and secondary principals as it relates to job characteristics, gender, and levels of the work environment. My research necessitates assistance from your organization.

In order to investigate these variables, I would like a copy of the names and addresses of your current members. All information will be kept confidential. I am willing to sign a statement to that effect as well as pay all duplicating costs. In return, members who participate in the study will receive a copy of the results.

If you have any questions concerning my request, please feel free to contact me at 481-5139 (home) or 245-2541, extension 200. Your assistance in this research project would be greatly appreciated.

Thank you for your time and consideration.

Sincerely,

Diane Montgomery
Diane Montgomery
Assistant Principal
8229 S. Louiseville
Tulsa, Oklahoma 74137

DM:wmm



Oklahoma State University

DEPARTMENT OF EDUCATIONAL ADMINISTRATION
AND HIGHER EDUCATION

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

October 15, 1986

Dear Fellow Educator:

The public school principal's role in the American educational system has become increasingly more complex as evidenced by: higher accountability standards, greater demands for providing diverse educational programs, limited funding sources, and greater attention towards meeting the complex needs of public schools and their constituents. Yet with all these demands, principals and assistant principals appear to enjoy their positions with many remaining in the profession until retirement. It would be interesting to know what parts of the role contribute to greater levels of satisfaction.

In this study I will be investigating the effects of job characteristics, gender, and elementary-secondary levels on the job satisfaction of principals.

You have been carefully selected to participate in this research. I hope you will take thirty minutes from your busy day to complete the questionnaire and demographic survey. You can be absolutely assured that your responses will remain anonymous. While each questionnaire is coded in order to identify the participant for the purpose of a second mailing, no individual will be identified in the records. The code numbers will be removed from the questionnaires as soon as they are received.

Because partial responses will have to be discarded, please answer all questions. A stamped, self-addressed envelope is enclosed for returning the questionnaire and demographic survey by November 29, 1986.

If you would like a summary of this research, please check the appropriate box on the answer sheet.

Thank you for your time and cooperation in assisting a fellow educator.

Sincerely,

Diane Montgomery

Diane Montgomery, Asst. Principal
Emerson Elementary School
Tulsa, Oklahoma 74106

Lynn K. Arney

Dr. Lynn Arney, Asst. Professor
Educational Admin. & Higher Education
Oklahoma State University
Stillwater, OK. 74078

VITA²

Diane Marlene Montgomery
Candidate for the Degree of
Doctor of Education

Thesis: RELATIONSHIP OF JOB CHARACTERISTICS TO JOB
SATISFACTION AMONG PUBLIC SCHOOL ADMINISTRATORS

Major Field: Educational Administration

Biographical:

Personal Data: Born in New York City, New York,
January 24, 1949, the adopted daughter of Charles
and Santina DiGiorgio; married to Dennis Edward
Montgomery.

Education: Graduated from the Academy of St Joseph,
Brentwood, Long Island, New York, 1967; received
Bachelor of Science in Education degree from C.W.
Post College, Brookville, New York in 1972;
received Master of Arts in Special Education from
St. Thomas College, St. Paul, Minnesota in 1978;
completed requirements for Doctor of Education
degree at Oklahoma State University in May 1988.

Professional Experience: Elementary third grade
teacher, Patchogue, New York, September 1972 to
August 1974; second grade teacher, St. Charles,
Illinois, January, 1975 to March, 1976; learning
disabilities elementary and secondary teacher,
Rosemount, Minnesota, July, 1976 to July, 1977;
emotionally disturbed teacher, IDEA Program,
DCTVI, Rosemount, Minnesota, July, 1977 to June,
1980; emotionally disturbed program developer,
trainer and teacher, Jenks, Oklahoma, July, 1980
to July, 1982; assistant principal at Lloyd E.
Rader Diagnostic and Evaluation Center, Sand
Springs, Oklahoma, July, 1983 to July, 1986;
Administrative internship served at Emerson
Magnet School, Tulsa, Oklahoma, August, 1986 to
June, 1987; acting principal of Mitchell
Elementary School, Tulsa Oklahoma, June, 1987 to
present.