

To the Graduate Council:

I am submitting herewith a dissertation written by Sharon Lunceford Barkdoll entitled "Positive Affect, Self-Management, and Stress As They Relate to Intrinsic and Extrinsic Job Satisfaction." I have examined the final copy of this dissertation for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy, with a major in Education.

Robert L. Williams

Robert L. Williams, Major Professor

We have read this dissertation
and recommend its acceptance:

Kathleen B. Sawler

Sandra P. Thomas

Laurie J. Coleman

Accepted for the Council:

C. W. Mink

Associate Vice Chancellor
and Dean of the Graduate School

POSITIVE AFFECT, SELF-MANAGEMENT, AND STRESS
AS THEY RELATE TO INTRINSIC AND EXTRINSIC
JOB SATISFACTION

A Dissertation presented
for the
Doctor of Philosophy Degree
The University of Tennessee, Knoxville

Sharon Lunceford Barkdoll

December, 1991

Acknowledgements

First, I would like to thank my committee for the time and thought they've put into guiding me through the program. Each contributes in a unique way, Robert Williams, Chair, offered focus and organization which kept me on course, Larry Coleman listened and encouraged, Sandra Thomas gave sound advice and strength and Kathy Lawler was a constant source of support, encouragement and guidance.

Marcie Phillips was my right arm through the typing and editing phase of the dissertation. I would like to thank her for her many efforts in my behalf and for her patience with me throughout.

I would like to thank John Habel who pointed me in this direction and helped me believe in myself. Very special thanks go to my friend and fellow-student Carol Witherington. Without her support and affection the past few years would have been much more difficult.

Most of all, I would like to thank my family, Mike, Gina, and Greg for giving me the strength when mine faltered, for tolerating the hectic times I imposed on them, and for their unwavering faith in me.

Abstract

Teaching is generally viewed as a demanding profession. The daily interactions with co-workers and students plus the incessant, fragmented demands of teaching often lead to overwhelming stress. Notwithstanding, many teachers report high levels of job satisfaction.

While there have been many studies on the relationship between teachers' stress and job satisfaction, the findings are inconsistent. Clarification of this relationship may be achieved via the framework of the intrinsic and extrinsic reward systems. Further, stress and job satisfaction may be related to the individual difference variables positive affect and self-management.

This study had three main objectives. The first was to establish a solid basis for analysis through the use of well-established, standardized instruments. The second was to examine the relationship between teachers' stress and job satisfaction within the framework of the intrinsic and extrinsic reward systems. The third goal was to explore how the

individual difference variables, positive affect and self-management, relate to stress and job satisfaction.

The responses of 110 teachers on job satisfaction and stress questionnaires revealed that the majority of teachers expressed uncertainty about job satisfaction. Their stress levels were about the same or slightly higher than other similar groups. Self-management was negatively correlated with stress but was not correlated with job satisfaction. There was a fairly strong negative correlation between stress and intrinsic job satisfaction and overall job satisfaction but not between stress and extrinsic job satisfaction. Further analysis revealed that there was a differential linkage of stress to job satisfaction, depending on the level of positive affect. The most intrinsically satisfied teachers were those who were low in stress and high in positive affect, whereas the least satisfied were those high in stress and low in positive affect. Implications of these results are discussed and directions for future research are suggested.

Table of Contents

CHAPTER I - INTRODUCTION.....	1
Review of the literature.....	2
Work.....	2
Teachers' Job Satisfaction.....	6
Teachers' Stress.....	7
Relationship Between Job Satisfaction and Stress.....	10
Individual Difference Variables.....	15
Positive Affect.....	15
Development of Self Report Mood Instruments.....	17
Positive Affect and its Relationship to Job Satisfaction.....	19
Positive Affect and its Relationship to Stress.....	21
Conclusions from Research.....	22
Self-Management.....	23
Instrument for Measuring Self- Management.....	27
Self-Management and its Relationship to Job Satisfaction.....	29
Self-Management and its Relationship to Stress.....	31
Conclusion from Research.....	35

Statement of the Problem.....	36
CHAPTER II - METHODOLOGY.....	41
Subjects.....	41
Instruments.....	42
Personal & Professional Inventory.....	42
Minnesota Satisfaction Questionnaire.....	43
Perceived Stress Scale.....	45
Positive Temperament Survey.....	46
Life Style Approaches.....	47
Procedures.....	48
CHAPTER III - RESULTS.....	50
Demographic and Job Related Information.....	50
Comparisons with Other Groups.....	51
Correlations.....	54
Regression Analysis.....	55
Post-hoc Within Sample Analyses.....	58
CHAPTER IV - DISCUSSION.....	61
Findings Related to the Goals of the Study.....	62
Comparisons Across Studies.....	62
The Relationship Between Job Satisfaction, Stress, Positive Affect, and Self- Management.....	69
General Conclusions.....	71
Implications for Future Research.....	73

REFERENCES.....	75
APPENDICES.....	90
VITA.....	116

CHAPTER I

INTRODUCTION

Every year, thousands of bright, enthusiastic, idealistic people decide to enter the teaching profession. Among the reasons they give are "I like working with children," "I like helping others learn and develop," or "I like feeling useful and needed." This concept of service motivates people to choose teaching in spite of the undisputed and highly publicized problems of the profession. Among them are low pay, high stress, and lack of respect given the profession by the public. Having made this informed choice, it is astonishing to note that half of all teachers, some after only one year on the job, would choose another profession if given the chance. Given the magnitude of the problem, it seems important to explore ways to help teachers maintain their primary motivation and to insure their satisfaction with the profession. Perhaps the place to begin this exploration is by looking at the nature of work and by determining what motivates workers, provides job

satisfaction, and buffers job stress, and how all of this is related to teachers.

Review of the Literature

A review of the literature regarding work, teachers' job satisfaction and stress, the relationship between job satisfaction and stress, and the personal variables that may insure job satisfaction and buffer stress is presented. The focus of the review will be on the intrinsic and extrinsic aspects of job satisfaction and how these aspects relate to stress and two personal variables: positive affect and self-management.

Work

Work, by its very nature, dominates our lives. We define ourselves in terms of our work and organize our lives around our work. Our standard of living, self-esteem, health, mobility, schedules, and even our relationships are usually determined by work. We must work to earn money and must maintain a certain level of effectiveness in our work in order to continue working and earning money (Deci & Ryan, 1985). At an even more

fundamental level, Kobasa (1979) stated that humans, even when deprived of nutrients, will work for no other reward than learning more about their environment. This intrinsically motivated work provides satisfaction without boredom or anxiety. Yet, despite the integral part that work plays in our lives, many of us approach it with little enthusiasm, doing the minimum required to just get by. What overrides the intrinsic motivation to work?

Research has revealed that the traditional management practices of organizations fail to provide motivation or job satisfaction. These practices, referred to as management Theory X by McGregor (1960), imply that workers are lazy, indolent, and resistant to change. Therefore it becomes necessary, at every level of the organization, for supervisors to make decisions that subordinates are to carry out. This requires close supervision, careful controls, and a system of performance or task-contingent monetary rewards. McGregor points out that treating workers in this manner is likely to promote a self-fulfilling prophecy. Workers are not lazy, indolent, and resistant to change by nature, so if they behave in this manner it is

solely because they are treated as if they are (Deci & Ryan, 1985).

Turkel (1972) interviewed a wide variety of working people from receptionists to baseball players, from garbage collectors to stock brokers and found that the feeling of being closely watched and controlled is profoundly stressful. Further, this form of supervision reduces intrinsic motivation. These interviews also revealed that many working people feel their efforts, accomplishments, and competencies are unrecognized or criticized. Deci and Ryan (1985) report that negative feedback which implies incompetence (as opposed to negative feedback that facilitates future competence) decreases intrinsic motivation. Most importantly of all, research has consistently found that rewarding workers monetarily on the basis of performance or task completion without positive feedback decreases intrinsic motivation. Deci (1975) strongly suggests that contingency-based monetary rewards (extrinsic reward) adversely affect intrinsic motivation. However, "positive information about one's competence and insufficient extrinsic rewards when the person has chosen to work for those

meager rewards, increase intrinsic motivation" (Deci, 1975, p. 225).

Deci is not implying that workers should not be fairly rewarded or compensated for work. He suggests that in order to attract and keep a worker it is necessary to offer extrinsic rewards in the form of competitive wages and other "comforts." However, while meeting money and comfort needs may reduce job stress for workers, it does not necessarily guarantee that the worker will be motivated to perform well on the job or experience job satisfaction. It is only when these extrinsic rewards are used to convey to workers an appreciation for work well done that intrinsic motivation is maintained or enhanced, thereby ensuring job effectiveness and satisfaction.

Having looked at the nature of work, intrinsic and extrinsic motivation to work, and its relationship to job stress and satisfaction, this review next examines these issues with regard to their implication for the teaching profession. This examination is necessary for understanding the present and planning for the future.

Teachers' Job Satisfaction

A review of the literature covering the past decade revealed some startling facts. For example, when they were asked whether they would enter the teaching profession if they had a chance to do it over again, at least 50% of teachers interviewed said they would not (Lombardi & Donaldson, 1987; Raschke, Dedrick, Strathe, & Hawkes, 1985). There is evidence to indicate that teachers are translating this wishful thinking into action. For instance, a 1986 Harris poll of teachers predicted that 25% of teachers would leave the profession by 1990. Even stronger evidence is supplied by The Carnegie Forum on Education and the Economy (Task Force on Teaching as a Profession, 1986), which increased that prediction to 50% by 1992 (Martinez, 1989). It is estimated that 15% of new teachers leave teaching after their first year, 15% after the second, and 10% leave after the third (Schlechty & Vance, 1983). Most disturbing of all is the fact that about 53% of the most academically able (as defined by college entrance exams and GPA's) are leaving the profession (Frank & Keith, 1984; Schlechty & Vance, 1983).

Job dissatisfaction is reflected not only in the numbers leaving the profession, but also in the magnitude of job dissatisfaction experienced by those who remain. Cunningham (1983) reports that only 12% of elementary and 10% of secondary teachers surveyed agreed strongly with statements regarding looking forward to work each day. In a survey of 339 teachers, 12% reported lessened effort at work, 12% reported non-work, 3% reported absences, and 6% reported turnover intentions (Schwab, Jackson, & Schular, 1986). This demonstrates that many teachers remain in the profession but put forth little or no effort to perform to capacity.

Teachers' Stress

Teaching is generally viewed as a demanding and stressful profession. Popular, professional, and scholarly journals and periodicals have amply documented the existence and sources of this stress. Sutton and Huberty (1984) concluded that the sources of teacher stress may be related to the individual differences in teachers and schools. However, certain sources of stress are mentioned consistently across

studies. Friesen, Prokop, and Sarros (1988) found that "the daily interactions with co-workers and students and the incessant and fragmented demands of teaching often lead to overwhelming pressures and challenges which may lead to stress" (p. 9). Cunningham (1983) in an extensive review of the literature, identified three major causes of teacher stress: (1) the lack of positive school system management and leadership (from the school board to the building principal), (2) the lack of opportunity for input into decision-making, and (3) the lack of professional autonomy and performance recognition.

Wheeler et al. (1982) reported that the most frequently mentioned stressors were excessive time demands, work overload, lack of recognition for success in one's role, decline in public respect for teachers, and the failure of the public to recognize the monetary worth of what the teacher contributes to society. These issues continued to be the most frequently reported stressors by teachers in 1989 (Defrank & Stroup, 1989).

Wheeler et al. (1982) found that teachers use a wide variety of responses in attempting to cope with

their stress. Despite the differences in how they ranked the coping responses and the frequency of the responses, coping patterns were found to be similar. The most frequently utilized coping response was to internalize the stress and become nervous, anxious, depressed, and irritable. Other frequent responses were talking to a colleague, close friend, or family member; participating in alternative activities, relaxing activities, or physical exercise; and thinking rationally through the problem to a conclusion. Other coping responses mentioned in the literature included praying, seeking a change in teaching assignment, returning to school to upgrade education, taking medication, ignoring the problem, complaining, getting professional counseling, yelling at students, overeating, and frequently being absent or tardy. It is important to note that few of the coping responses utilized by teachers deal directly with the stressor. Most responses simply provide an opportunity to temporarily vent frustration or to avoid the problem altogether.

Although teaching has idealistically been viewed as a "labor of love," working in today's schools can be

very costly for teachers. According to the Second Metropolitan Life Survey of the American Teacher (1986), teachers experience stress more often than most other groups of workers. Among teachers, 36% say they experience great distress several times a week or more as part of their teaching job. Another study reports that teachers report 67% of their stress is job related while non-teachers report 35% of their stress is job related (Cox & Brockley, 1984). According to Instructor magazine, 75% of teachers cited stress, tension, and anxiety as the reason for most of their absences from school (Landsmann, 1979). This holds true for both urban and rural teachers and for both regular and special education teachers.

Relationship Between Job Satisfaction and Stress

Studies concerning the relationship between stress and job satisfaction have yielded inconsistent results. Fimian and Santoro (1983) found that while a majority of teachers report high levels of stress they also report enjoyment of their profession and satisfaction with their jobs. Some researchers find that satisfaction with work may serve to buffer the effects

of stress for teachers (Cox & Brockley, 1984). It has been suggested that teachers who are committed to their profession expect to experience stress (DeFrank & Stroup, 1989). Holley and Kirkpatrick (1987) found no relationship between stress and job satisfaction, whereas Cunningham (1983) and Sutton and Huberty (1984) found that as stress increases, job satisfaction decreases.

This inconsistency may be explained in part by the methodology used in the various studies. Beasley (1983) in a summary of empirical research on stress and burnout, identified numerous methodological problems existing in the literature. One of the problems identified by Beasley in the research to date is the diversity of the instruments used to investigate the relationship between job stress and job satisfaction in teachers. In a summary of 11 studies, only three studies used the same instrument to measure stress. All other instruments for stress and job satisfaction were different. Further, half of the instruments employed were adapted or constructed for the particular investigation. According to Beasley, many of the instruments used to assess stress and job satisfaction

in teachers have not been standardized. The use of such a wide diversity of instruments complicates the search for solid, stable relationships and does not allow for the incremental building of knowledge across studies.

Clarification of the relationship between job satisfaction and stress may be achieved by approaching the relationship via the framework of intrinsic and extrinsic reward systems (Holley & Kirkpatrick, 1987). Defrank & Stroup (1989), Galloway (1984), and Holdaway (1978) found that job satisfaction is related to meeting intrinsic needs and stress is related to external factors. Issues likely to affect intrinsic satisfaction in teachers are (a) the opportunity to work autonomously, independently, and consistently with one's moral conscience; (b) the opportunity to help others; (c) feelings of accomplishment; (d) status of teachers in the community; and (e) the number of years of teaching experience. Issues not likely to affect intrinsic satisfaction are policies and practices of the school system, pay, and satisfaction with supervisors (Holley & Kirkpatrick, 1987). Smilansky (1984) found that intrinsic factors such as

satisfaction with achievement, recognition, career orientation, and stimulation were most closely related to job satisfaction whereas extrinsic factors such as societal attitudes, administration, and policy were more closely related to stress.

Delong (1987) reports that students entering the teacher certification programs are motivated by service and that the intrinsic rewards of teaching are an important factor in career selection. "Individuals who are service-oriented are concerned with seeing people change because of their efforts. They want to use their interpersonal and helping skills in the service of others" (Delong, 1987, p. 120). However, over time, many teachers begin to feel used by the system. According to Scriven, "No one goes into the teaching profession for the money. But sensing disrespect of the monetary worth of what the teacher is doing is too much for many teachers to handle" (Scriven, 1975, cited in Cunningham, 1983, p. 42).

Reform movements in education may relieve some of the stressors. Salaries may increase, teacher-pupil ratio may decrease, teachers may gain more control over curriculum, and teacher preparation programs may

improve. However, these reforms involve making changes in the teaching environment and providing extrinsic rewards for teachers. Given that improving the external teaching environment and providing external rewards lessens stress but does not necessarily increase job satisfaction, most attempts at reform may be missing the mark. Certainly, these attempts at reform have received mixed reviews from teachers. The Second Metropolitan Life Survey (1986) revealed that 36% of teachers feel the reforms have a negative effect on the profession and 28% feel that reforms have no effect at all.

In summary, job satisfaction is related to meeting intrinsic or internal needs and stress is related to extrinsic or external factors (Cunningham, 1983; Smilansky, 1984). Therefore, it seems that even when work stress levels are high, increased intrinsic rewards result in greater work involvement and job satisfaction in teachers. Conversely, the lack of intrinsic rewards results in low involvement and job dissatisfaction.

It has been suggested that job satisfaction (intrinsic and extrinsic) and stress are related to

unique (unspecified) individual difference variables (Sutton & Huberty, 1984). A review of the literature revealed several such variables. The two selected for this investigation are positive affect and self-management.

Individual Difference Variables

Positive Affect

Positive affect was selected because it reflects the extent to which one feels satisfaction and active, pleasurable, effective engagement with the environment even in the face of perceived stress and strain (Watson, 1988a). Strong markers of high positive affect are enthusiasm, joy, energy, mental alertness, confidence, and warm, affiliative feelings. High positive affect is characterized by terms such as excited, elated, enthusiastic, peppy, strong, alert, and determined. Low positive affect is characterized by terms such as drowsy, dull, sleepy, tired, depressed, lethargic, and sluggish. The high positive descriptors reflect pleasurable engagement; the low positive affect descriptors reflect the relative absence of pleasurable engagement or a state of

disengagement (Tellegen, 1985). A person high in positive affect can continue to lead an active and interesting life even in the face of perceived stress and strain (Watson & Pennebaker, 1989; Watson, 1988a).

The published literature on the relationship between positive affect and helping behavior was examined by Carlson, Charlin, and Miller (1988). Their analysis revealed that a positive mood increases a person's helpfulness to the extent that being helpful meets the helper's positive reinforcement needs. Studies conducted by Manucia, Baumann, and Cialdini (1984) demonstrated that subjects in a positive mood exhibited helpful behavior for reasons unrelated to mood management. Helpfulness was not used to elevate positive mood but was a side effect of positive affect.

An examination of mood effects on person-perception judgements revealed that subjects in a positive mood formed more favorable impressions of others and made more positive judgements about others (Forgas & Bower, 1987). Further, individuals took more time to process mood-consistent information than mood-inconsistent information. Also, recall and recognition

errors tended to be biased toward mood-consistent information.

Research suggests that positive affect can be developed or enhanced in individuals. Sarason, Potter, and Sarason (1986) found that positive affect can be stimulated in individuals through activities that focus one's attention on pleasant experiences and instances of self-efficacy.

Development of Self-Report Mood Instruments. Over the past decade research has generated an extensive amount of information on self-report mood, and several instruments have been developed, some for clinical use and others for research purposes. According to Tellegen, "The dimensional structure of these instruments has been explored factor-analytically, and ten or so replicable mood dimensions have been identified" (Tellegen, 1985, p. 689). Watson and Tellegen (1985) conducted a review and reanalysis of nine self-report mood factor analyses from eight different studies. This review and reanalysis basically replicated the results of the previous analyses and in addition "showed that the item

intercorrelations were dominated by two large dimensions, Positive Affect and Negative Affect" (Tellegen, 1985, p. 689).

Positive affect and negative affect are not opposites of one another as might be expected. Positive affect and negative affect scales have low or nonsignificant correlations--they are largely independent of one another (Watson & Tellegen, 1985).

Both positive affect and negative affect can be measured as traits or states according to Watson (1988). He describes a trait as a persistent difference in general affective levels and a state as a transient fluctuation in mood. Both state and trait positive affect and state and trait negative affect relate to different personality traits and to different types of variables. For example, positive affect scales correlate strongly with extraversion (Costa & McCrae, 1980) and various measures of social engagement, satisfaction, and frequency of pleasant events (Clark & Watson, 1988). Negative affect is related to measures of perceived stress (Clark & Watson, 1988), and physical symptoms and health complaints (Watson, 1988a). The concept of negative

affect appears to correspond to the personality dimension termed neuroticism (Costa & McCrae, 1980).

Positive Affect and its Relationship to Job Satisfaction. Morgan and Krehbiel (1985) found that teachers who resigned their positions due to job difficulties showed higher levels of tension, anger, anxiety, and depression (as measured on the Profile of Mood States) than did teachers working in the same environment who reported job satisfaction and intentions to remain in the profession. These findings indicate that certain personality characteristics may be more adaptive in teaching than others. A survey investigating the impact of teachers' personal lives (including personal traits and experiences) on their professional lives reveals that "teachers...viewed interactions with students and colleagues at school as opportunities for giving expression to positive personal qualities" (Pajak & Blase, 1989, p. 292). Although positive affect hasn't been directly studied in relation to teachers, the descriptors of positive affect--active, enthusiastic, excited, elated, peppy,

strong, warmhearted, and happy--are also the descriptors of teachers who report job satisfaction.

Lachman and Diamant (1987) suggest that teachers' perceptions of their work environment lead to an affective reaction to the job. Smilansky (1984), drawing from work by Dreeban (1973) and Lortie (1975), concluded that, "The special affective characteristics of the (teaching) profession exert pressure towards presenting an understanding, supportive, and optimistic appearance without the legitimacy to show the negative consequences of continuous exposure to the public eye" (p. 85). Holley and Kirkpatrick (1987) found that teachers who are intrinsically satisfied are those who experience feelings of involvement, effectiveness, and helpfulness. Because positive affect is positively related to involvement, effectiveness, and helpfulness, a conceptual link can be made between it and intrinsic satisfaction. This "overlapping" or similarity of characteristics seems to indicate that those high in positive effect are also those who are intrinsically satisfied.

A study to determine the reasons why people vary in their satisfaction with various life domains,

including work, revealed that positive affect strongly predicted satisfaction across most domains (Emmons, 1983). As part of the Normative Aging Study (a longitudinal study of health and aging), the predictive relations between personality measures and levels of subjective well-being was examined by comparing initial results with results obtained from the same sample 10 years later. It was determined that "knowing an individual's level of positive affect allows a prediction of how happy the person will be 10 years later" (Costa & McCrae, 1980, p. 246).

Research using factor-analytic techniques has shown that positive affect and extraversion share a common mood-personality space (Costa & McCrae, 1980; Diener & Emmons, 1985; Meyer & Shack, 1989). According to Costa and McCrae (1980), positive affect is directly related to extraversion and contributes to a sense of well-being, life satisfaction, and global happiness.

Positive Affect and its Relationship to Stress.

Studies indicate that positive affect is not related to perceived stress, poor coping, health complaints, or frequency of unpleasant events (Watson & Clark, 1984;

Watson, 1988). Persons high in positive affect continue to lead active, interesting lives despite stress and strain.

Positive affect is related to frequency of pleasant events and social activities (Clark & Watson, 1988; Watson 1988a). All major types of social activity are associated with positive affect. Physical activities, traveling, and sightseeing are especially associated with heightened positive affect (Clark & Watson, 1988). Teachers identified similar activities as being important. Activities and hobbies such as sports, dance, travel, and sightseeing were cited by teachers as being important to their professional lives as well and as important activities for stress reduction. According to Pajak and Blase (1989), "Teachers reported feelings of enjoyment, excitement, and personal growth, first from the experience itself, and a second time from sharing the experience with students" (p.299).

Conclusions from Research. While positive affect has not been studied in relation to teachers, the terms that describe the personality characteristics of

teachers who report job satisfaction are very similar to those that describe individuals high in positive affect. Another commonality between teachers who report job satisfaction and individuals high in positive affect is social activity. Satisfied teachers view social activity, especially active social events, as making an important contribution to their professional lives. Positive affect is highly correlated with social activity.

Positive affect is related to extraversion, satisfaction, and subjective well-being. Individuals high in positive affect tend to form positive impressions of others and to make positive judgements about others. Positive affect is associated with helping others. For individuals high in positive affect, increases in stress and strain do not necessarily diminish feelings of energy, excitement, and enthusiasm. Despite the enormous amount of research on affect, the positive affect mood dimension has received relatively little attention, especially when compared with negative affect. Positive affect would seem to be an important dimension to study in

relation to many areas of health psychology, occupation and career development, and education.

Self-Management

The second variable selected for this study is self-management. It is a frequently recommended topic (by teachers and researchers) for preservice and inservice training for teachers, especially in the areas of stress management, time management, and nutrition and exercise self-management (Cunningham, 1983; Gold, 1989; Martinez, 1989; Morgan & Krehbiel, 1985; Pajak & Blase, 1989; Raschke et al., 1985; Slife, 1988). However, according to studies completed by Beasley (1983) and Wheeler et al. (1982), these self-management practices are under-utilized by teachers despite the fact that years of research has demonstrated the ability of self-management practices to reduce or buffer stress and increase job satisfaction.

Over the past several decades, through the combined efforts of psychologists and scientists in medicine and biology, the complex links between behavior and health have become more clearly

understood. An example of one such well known link and one of the earliest studied is the psychophysiological reaction to stressful experience. Bringing the principles of learning and of human relations to bear on issues of physical and mental health and wellness has led to the development of techniques for self-applied behavior change or self-management. Simply stated, self-management is any response made by an individual to alter the probability of a targeted personal consequence.

Self-management has been described as a combination of traditional behavioral modification procedures (monitoring overt behavior, changing setting conditions, and applying contingent rewards) and cognitive approaches such as self-talk, imagery, meditation, and relaxation. "Self-management generally involves the gradual withdrawal of external reinforcers for behavior, changing the reinforcement to internal cues for eliciting previously learned behavior" (Solomon & Maccoby, 1984, p. 211). Self-management is necessary not only in acquiring needed skills, but also in the maintenance and use of these skills.

We assume that if people are given the necessary information and encouragement about how to effectively care for their own health, they will do so. However, some individuals may simply not have the necessary, basic skills to behave in a personally responsible manner. Mahoney and Thoresen (1974) point out that "people need to be taught how to be more caring and more responsible for their own health and well-being, especially when the social environment commonly promotes irresponsibility or nonhealthy behavior" (p. 300). Thoresen and Mahoney (1978) state that attention should be given to the abilities and skills that an individual needs to perform certain tasks with sufficient levels of energy and enthusiasm to successfully accomplish those tasks. Therefore, comprehensive self-management involves not only behavior modification procedures and cognitive approaches, it involves learning how to care about and assume responsibility for one's own health and well-being. Williams and Long (1991) suggest that the place to begin this process is to identify important areas of your life, choose appropriate goals for each area, assess where you stand relative to those goals, and

develop strategies for reaching them. After this assessment is completed and goals have been set, a self-management intervention can then be put into place.

Self-management skills and procedures include time management, stress management, safety management, and self-evaluation management. Also included are exercise, nutrition, and weight management. Self-management skills and procedures are necessary for smoking prevention and cessation and for alcoholism prevention. Self-management practices are often used in the prevention and control of stress-related diseases such as hypertension. Although the previously identified problems are the most frequently discussed self-management areas, the skills can be applied to almost any area of life. Through use of self-management skills and procedures, one's beliefs, emotional reactions, and behaviors can be modified to promote a sense of well-being (Williams & Long, 1991). It is understandable that self-management would be a frequently suggested topic (by teachers and researchers) for inservice training to reduce stress

and increase job satisfaction (Cunningham, 1983; Raschke et al., 1985).

Instruments for Measuring Self Management.

Despite the enormous amount of work in the area of self-management, few instruments have been developed to assess the tendency of individuals to apply self-management practices and the long term efficacy of these practices. Two of these instruments are Rosenbaum's Self-Control Schedule (SCS) (Rosenbaum, 1980) and Life Style Approaches (LSA) (Williams, Moore, Pettibone, & Thomas, 1991). Both are based on theories of self-control (Thoresen & Mahoney, 1974), coping (Lazarus, 1966), and self-efficacy (Bandura, 1977).

The SCS was developed to measure the inclination of individuals to use self-management techniques (self-controlling behaviors) to solve ordinary behavioral problems. The self-controlling behaviors were essentially of a cognitive nature and were classified according to the following: (1) use of self-statements to control emotional and physiological responses, (2) application of problem solving techniques, (3) the

ability to delay immediate gratification, and (4) perceived self-efficacy.

The second instrument developed to assess self-management, the LSA, was based on the Williams-Long self-management model (1991) and includes a variety of cognitive and behavioral strategies. In addition to assessing the tendency of individuals to use self-management practices and their long-term efficacy, Williams and Long have explored the relationship between self-management practices and physical and psychological health. According to Williams et al., 1991, "If the application of self-management practices in one's daily life is truly efficacious, their application should contribute to the physical and psychological quality of life" (p. 5). Further, a general measure of self-management should correlate positively with positive health indicators and negatively with negative health indicators. The LSA will be discussed further in the methods section of this paper.

Self-Management and its Relationship to Job Satisfaction. Pajak and Blase (1989) examined the

relationship between teachers' personal and professional lives. In general, teachers who experience satisfaction in their personal lives feel this satisfaction has a positive effect on their professional lives. Of the teachers surveyed, 71% viewed various aspects of their personal lives such as parenthood, marriage, personal traits, personal interests, spiritual beliefs, and personal experiences, as having a positive influence on their professional lives. The result of this study supports the findings of earlier work in this area by Krupp (1986), Lowther, Gill, Coppard, and Tank (1983), Peterson (1964), and Sullivan (1987).

More direct evidence of the positive relationship between general life satisfaction and job satisfaction is provided by Smilansky (1984). In a study involving 36 teachers, a significant positive correlation was found between general life satisfaction and job satisfaction. Therefore, it seems reasonable to assume that increasing satisfaction would in turn increase job satisfaction. However, the results of this study should be reviewed with caution due to the small sample size.

Self-management practices have been shown to contribute to general life satisfaction and job effectiveness and satisfaction. Worksite wellness programs offer instruction and assistance in a variety of self-management practices. According to Feldman (1984) the benefits of such programs include increased job satisfaction, job effectiveness, and an improved sense of well-being, in addition to reduced stress and higher levels of wellness. Nathan (1984) in a report on the worksite wellness program of a major corporation found increased levels of a general sense of well-being, improved personal relations, commitment to the organization, and job involvement in employees who participated. Results were maintained at the 1-year and 2-year follow-ups.

Self-Management and its Relationship to Stress.

Stress is an inevitable part of work life. Some people thrive on meeting the demands and challenges of work, while others may experience a very different reaction. They develop chronic feelings of frustration, emotional exhaustion, and fatigue; may become withdrawn and detached; and may experience a loss of feelings of

accomplishment on the job. Fortunately, several stress-management techniques are available for reducing the adverse effects of stress.

Stress-management "packages" include various combinations of health education, training that is directed toward assessment and modification of cognitive appraisals, breathing exercises, deep muscle relaxation, meditation, and biofeedback. The cue for implementing a self-management technique is any feeling of anxiety or symptom of physiological response to stress. In healthy people, these techniques for stress management and reduction serve to prevent or reduce the impact of stress-related disease. For those already suffering from stress-related disease, the techniques not only reduce stress levels, they have been shown to reduce the symptoms associated with disease. These techniques have been used for a number of years and in many settings.

The effects of three stress-management packages were studied by Carrington et al. (1980). The subjects were 154 telephone company employee volunteers, self-selected on the basis of perceived stress. None of the volunteers had previous experience in any of the

stress-management techniques used in the study. Pre- and post-test scores on a measure of distress revealed significant stress reduction over a 5 1/2 month period.

In a study of 20 hypertensive patients (controlled on hypertensive drugs), Patel (1975) demonstrated that use of stress-management techniques not only significantly reduced blood pressure, but led to a reduction in drug use in twelve patients--averaging 44% of the total drugs for the group. The control group showed no improvement in blood pressure or drug use. Results were maintained at a one year follow-up. Patel (1984) and Patel, Marmont, and Terry (1981) conducted a large-scale, randomized, controlled study of approximately 200 people who were identified as being at risk for coronary heart disease, but not on medication. Implementation of stress-management techniques resulted in highly significant reductions in blood pressure over an 8-month follow-up.

While stress-management techniques address stress prevention and reduction directly, self-management in other areas of life management may serve as a stress buffer. Three of these additional areas are exercise, nutrition, and time management.

In a study of exercise and older people (Tredway, 1978), exercisers reported fewer feelings of tension, depression, and anxiety than the nonexercisers. Further, exercisers reported an increase in feelings of well-being, a more positive self-image, a more positive attitude toward work, and increased ability to cope with stress and tension.

In an analysis of 14 studies on the effects of exercise on depression, anxiety, mood, tension, and well-being, Sims (1984) (cited in Tredway, 1978) found improvement reported in all studies except one. According to Sims, "The role of exercise in the prevention or treatment of clinical depression is very viable because of its active nature, which provides side benefits in the form of enhanced body image (weight loss, increased strength, and fitness), with an apparent increase in feelings of self worth" (p. 496).

Woods and Birren (1984) report that diet and nutrient needs are affected by stress. One consequence of the body's response to stress is the depletion of nutrients, followed by a physiological increase in the requirements for nutrients to facilitate recovery and make up for losses. Therefore, self-management in the

area of nutrition is vitally important to buffer the effects of stress.

Time management is another important stress buffer, especially for individuals who have a chronic sense of time urgency and who are impatient, ambitious and hard driving. For nearly a century, these characteristics have been known to be linked to heart disease. Later work by cardiologists Friedman and Rosenman (1974) (cited in Everly 1984) linked these characteristics, which they labeled the Type A personality, with coronary heart disease. Everly (1984) states that time management is "the potentially most effective behavioral risk reduction and health-enhancing strategy, because even the potentially most effective behavioral risk reduction and health enhancing strategies will be impotent unless individuals perceive that they have time to employ them" (p. 366).

Time-management strategies have been studied in relation to heart disease. While individuals who used these techniques demonstrated reduced cardiovascular and electromyographic indices of stress arousal, the degree to which the time-management strategies affected

the outcome has not been established (Bhalla, 1980) (cited in Everly, 1984). In other studies, time-management strategies did increase the amount of time available to participants, thus freeing them to practice health enhancing behaviors (Radar & Schabacker, 1980) (cited in Everly, 1984).

Conclusions from Research. While self-management is recommended for teachers as a stress-reduction technique and has demonstrated effectiveness in this area, it has not been studied in relation to teachers' job satisfaction. Self-management practices have been shown to contribute to general life satisfaction and job effectiveness and satisfaction as demonstrated by worksite wellness programs. In addition to the proven stress reduction capability of self-management, the techniques reduce symptoms associated with disease for those already suffering from stress-related diseases. Added benefits of self-management practices are increased feelings of self-worth and well-being as well as the development of a more positive self-image. Many teachers report a lack of these feelings in their

personal and professional lives. Self-management may be one way to develop or enhance these feelings.

Statement of the Problem

This review of the literature strongly supports the low levels of job satisfaction reported by teachers in recent polls and surveys. The most frequently cited reason for this dissatisfaction is stress. However, there are confusing and conflicting results among studies concerning the relationship between job satisfaction and stress. This discrepancy might be due in part to the variety of methods for measuring and defining teacher stress, job satisfaction, and coping responses. In this same vein, a summary of empirical research on the stress and burnout of teachers revealed numerous methodological problems (e.g., the diversity of instruments used to investigate the relationship between job stress and satisfaction, use of adapted or constructed instruments, use of non-standardized instruments).

A review of the literature also revealed that job satisfaction is related to intrinsic reward and stress is related to extrinsic reward. Recent reforms in

education have been instituted to address the issues of job satisfaction and stress. These reforms involve making changes in the teachers' external environment and offering extrinsic rewards. However, these reforms have received mixed reviews from teachers. Given that extrinsic rewards reduce stress and intrinsic rewards increase job satisfaction, current reforms may be missing the mark. Therefore, it would seem important to further explore the relationship between job satisfaction and stress via the framework of intrinsic and extrinsic reward systems.

Another possible explanation for discrepancies in the studies of stress and job satisfaction is that job satisfaction and stress are related to certain individual difference variables. Among these variables are positive affect and self-management. Both variables are theoretically and empirically related to job satisfaction and stress. Research also shows that both can be developed and enhanced in individuals. Given that these variables may ensure successful coping and job satisfaction it seems important that the relationship between job satisfaction, stress and individual difference variables be explored.

This study was designed to accomplish three main goals. The first goal of this study was to establish a solid basis for analysis through the use of proven, standardized instruments. The instruments used in the study to assess intrinsic and extrinsic job satisfaction and stress have well established psychometric qualities and have been used with a variety of occupational groups. Theoretically, the use of a standard measure should form a solid basis for analysis. This solid basis will serve to better clarify the relationship between stress and job satisfaction, which was the second goal of this study. The stress and job satisfaction relationship was examined within the framework of the intrinsic and extrinsic reward system. The third goal of this study was to explore the relationship between certain personal variables, stress, and job satisfaction. Although there is a paucity of research in this area, it was anticipated that teachers who have high levels of positive affect and self-management would report high levels of job satisfaction.

It is known that current reforms in education offer extrinsic rewards and in turn reduce stress in

teachers. It is also known that intrinsic reward and motivation increase job satisfaction, which in turn may buffer the effects of stress. What is not known and what this study attempts to demonstrate, thereby filling a gap in the research, is what might induce or enhance the ability of teachers to be intrinsically motivated and to experience intrinsic rewards. If in fact, positive affect and self-management are positively related to intrinsic motivation and reward, it seems important that they be considered a part of preservice and inservice training for teachers.

The primary hypothesis tested in this study is that positive affect and self-management are positively related to intrinsic job satisfaction despite high stress levels. The secondary hypothesis is that positive affect and self-management are more strongly related to intrinsic job satisfaction than extrinsic job satisfaction. Further, it is predicted that stress and extrinsic job satisfaction are more strongly related than stress and intrinsic job satisfaction.

CHAPTER II

METHODOLOGY

Presented in this chapter is a description of the subjects and the methodological techniques applied in the study. Also presented is a review of the psychometric properties of the instruments used in the study.

Subjects

A total of 110 full-time public school teachers (84 females, 26 males) volunteered to participated in the study. Of the total group, 43 are special education teachers who taught in a special education day school during the regular school year or the summer program. The remainder are teachers who attended classes during summer semester, 1991, at a large state university in the southeast. The teachers who volunteered to participate in the study were asked to complete a survey. One group ($n = 18$) was given extra credit for their participation. The 43 teachers from

The remainder of the subjects (those attending summer classes) completed the survey in class.

Instruments

The following instruments were included in the test battery: (1) the Personal and Professional Inventory (PPI) (Fimian, 1984), (2) the Minnesota Satisfaction Questionnaire, short form (MSQ) (Weiss, Dawis, England, & Lofquist, 1967), (3) the Perceived Stress Scale (PSS) (Cohen, Kamarack, & Mermelstein, 1983), (4) the Positive Temperament Survey (PTS) (Watson & Clark, in press), and (5) the Life Style Approaches questionnaire (LSA) (Williams, Moore, Pettibone, & Thomas, 1991). The 5-part survey instrument consists of 94 questions and requires about 30 minutes to complete. A copy of the instrument is provided in Appendix A.

Personal and Professional Inventory

The first of the five parts, the PPI, is a subscale of the Teacher Stress Inventory. It was used to gather demographic information (questions 1-10) and

information regarding the individual's perceptions of his or her present teaching position (questions 11-18). This information was used to describe the sample.

Minnesota Satisfaction Questionnaire

The second part of the survey instrument, the MSQ short form, measures the subject's degree of job satisfaction. This questionnaire was developed from The Minnesota Studies in Vocational Rehabilitation (also known as the Work Adjustment Project), a series of research studies conducted on the general problems of adjustment to work. The MSQ is built on the theory that an employee's job satisfaction is a function of the correspondence between the employee's vocational needs and the reinforcers available from the job (Weiss et al., 1967).

The total of the 20 items in this scale is taken as an index of General Satisfaction. Response choices are weighted from one through five, in a Likert manner, one being very dissatisfied and five being very satisfied. Factor analysis of responses from 1460 subjects indicated the presence of two main components representing Intrinsic and Extrinsic Satisfaction.

Separate scores may be computed for these two components. The possible range of scores is between 20 and 100 for General Satisfaction, 12 and 60 for Intrinsic Satisfaction, and 6 and 30 for Extrinsic Satisfaction.

Weiss et al. (1967) reported Hoyt internal reliability coefficients for the subscales and overall scale for a number of samples. The coefficients for Intrinsic Satisfaction range from .83 to .91; for Extrinsic Satisfaction .78 to .82; and for General Satisfaction .87 to .93. The correlations between Intrinsic and Extrinsic Satisfaction range from .52 to .68, with an overall value of .60. Test-retest reliability was reported as .89 across one week and .70 across one year.

Perceived Stress Scale

The second section of the survey instrument, the PSS, measured stress. Stress here is defined as the degree to which respondents find their lives to be unpredictable, uncontrollable, and overloading. The PSS is a 14-item 5 point Likert-type scale ranging from 0 to 4, 0 being never and 4 being very often. Seven

items are worded in a positive direction and seven in a negative direction with the total score being derived by reversing the scores on the positive items and adding them to the negative item scores. The range of possible scores is 0-56.

Internal consistency reliabilities reported by Cohen et al. (1983) collected in three samples were .84 ($N = 332$), .85 ($N = 114$), and .86 ($N = 64$). Test-retest reliability over two days was .85 and over six weeks was .55. Cohen (1986) reports that for a state measure correlations should be much higher for short retest intervals than for longer ones. With respect to validity, the PSS correlates moderately with Life Events scores, but is a better predictor of both depressive and physical symptomology than the Life Events scores.

Positive Temperament Survey

The third section of the survey was the Positive Temperament Survey (PTS). The 26-item PTS is used to measure Positive Affect (PA), a personality variable that reflects the extent to which one feels satisfaction and active, pleasurable, effective

engagement with the environment even in the face of perceived stress and strain. The PTS, a subscale of the General Temperament Survey, consists of three factor-analytically derived subscales. They are Positive Affect (PA), 12 items; Energy (E), 11 items; and Non-specific Positive Temperament (PT), 3 items. Response choices are true (if true or mostly true) and false (if false or mostly false).

Watson and Clark (in press) reported internal consistency reliabilities ranging from .81 to .89 across three student samples ($N_s = 532, 225, 334$). Positive affect is a normally distributed dimension (Costa & McCrae, 1980; Watson, 1988b; Watson, Clark, & Tellegen, 1988). Test-retest reliabilities reported by Watson and Clark (in press) collected in two samples ($n = 170, n = 196$) over 2 months were .86 and .72 respectively. Watson and Clark (in press) report that Positive Temperament is strongly correlated (.87) with measures of extraversion and with other measures of positive affect, thus supporting concurrent and convergent validity.

Life Style Approaches

The last section of the test battery was the LSA. This instrument assesses the degree to which subjects report identifying, applying, and achieving important goals through various self-management practices. The relationship between self-management and psychological health was examined in a sample that included a substantial percentage of teacher education students (Williams et al., 1991). Strategies derived from a self-management model (Williams & Long, 1991) were included in a 48-item self-report measure of self-management. The subjects were asked to indicate the degree to which each strategy was characteristic of the way they typically managed their lives. The 48 items were reduced to a 16-item four factor instrument through factor analyses and validity assessments. The four factors are: (1) performance focus and efficiency, (2) goal-directedness, (3) timeliness of task accomplishment, and (4) organization of physical space. Response choices for this 16-item instrument are A through E in a Likert manner, A being very different from me and E being very similar to me.

The concurrent validity of the LSA was demonstrated by its positive correlation with positive health indicators (Self-Efficacy .69, Life Satisfaction .40, Purpose in Life .49, Optimism .46, and Health Habits .32, all significant at the .0001 level, $n_s = 726$ to 735) and its negative correlation with negative health indicators (External Locus of Control $-.32$ and Stress $-.46$, significant at the .0001 level, $n = 537$ and $n = 724$ respectively). Discriminant validity of the LSA was demonstrated by its minimal relationship with demographic and religiosity measures. Internal consistency coefficients (Cronbach's alpha) ranged from .64 to .71 and .80 across the 16 items. All of the LSA Factors except one (verbal support for self-management) were significantly correlated with the Marlowe-Crowne (Crowne & Marlowe, 1960). Because of the correlations between the LSA scores and the Marlowe-Crowne, the correlations were computed between the LSA scores and the comparison variables with the Marlowe-Crowne scores partialled out. With the Marlowe-Crowne scores partialled out, the correlations approximated the original r_s between the LSA and the comparison variables.

Procedures

This was a descriptive study with intrinsic and extrinsic job satisfaction designated as the dependent variables. Stress, positive affect, self-management, and various demographic and job-related variables were designated as the independent variables. The major focus of the statistical analysis was to determine whether individuals high in positive affect and self-management were also high in intrinsic job satisfaction. Pearson's Product Moment correlation was used to determine whether a significant positive relationship exists between intrinsic job satisfaction and the personal variables positive affect and self-management and, further, whether a significant negative relationship exists between intrinsic job satisfaction and stress. Regression analyses were conducted to determine the relative contribution of each variable to intrinsic and extrinsic job satisfaction.

CHAPTER III

RESULTS

This chapter reports the results in three sections. The first is a description of the sample including demographic and job-related information, questionnaire scores (distributions, ranges, means, and standard deviations) and a comparison of the teachers' scores with available normative data. The second section reports the results of the data analyses exploring the relationships among the variables of intrinsic and extrinsic job satisfaction, stress, positive affect, and self-management. The analyses include correlation, multiple regression, and analysis of variance. The third section contains analyses of sample subgroups.

Demographic and Job Related Information

Of the 150 questionnaires distributed, 110 were returned. This sample size would permit 80 percent power as recommended by Cohen (1969). The respondents were predominantly female ($n=84$, 75%), conforming to

the typical 80/20 split between females and males in education. Of the 110 respondents, 88 were in the 30 to 50 age bracket, with approximately half ($n=46$) being 30 to 39 years old and 42 being 40 to 49 years old. Of the teachers, 52 had between 1 and 10 years experience and 58 had more than 10 years experience. This sample of teachers is fairly evenly distributed across levels of education, grade levels taught, and types of job sites as can be seen in Table 1.¹

Comparisons with Other Groups

Frequency distributions of the participants' scores on all measures used in this study revealed normal distributions (see Figure 1).² Means and standard deviations were calculated for each of the variables (see Table 2) and then compared to available means from other studies.

The Minnesota Satisfaction Questionnaire (MSQ), a measure of job satisfaction, has three subscales. The range for the MSQ General subscale is 20 to 100, for the Intrinsic subscale 12 to 60, and 6 to 30 for the

¹All tables may be found in Appendix B.

²All figures may be found in Appendix C.

Extrinsic subscale (see Table 2). The range in this sample for General satisfaction was 33 to 98, for Intrinsic 24 to 60, and for Extrinsic 6 to 28. Mean scores of the respondents were on the high end of the General and Intrinsic subscales and in the moderate range of the Extrinsic subscale. When compared with a group of home economics teachers ($N=100$) (Holley & Kirkpatrick, 1987), the participants in this study were lower in general and extrinsic job satisfaction (68.9, SD 11.9 vs 70.40, SD 15.9 and 16.23, SD 4.69 vs 18.16, SD 5.34 respectively) and nearly the same in intrinsic job satisfaction (45.76, SD 7.56 vs 45.14, SD 10.50).

The possible scores on the Perceived Stress Scale (PSS), a measure of the perception of stress, range from 0 to 56. The range for this sample was 7 to 55. The respondents' mean stress scores (females 28.29, SD 9.00; males 24.04, SD 8.73; total 27.28, SD 9.08) were in the moderate range. This sample of teachers demonstrated higher total levels of stress than two college samples and a smoking cessation group (Cohen et al., 1983). It is interesting to note that the female teachers' stress scores are higher than those of the smoking cessation group (females 25.6, SD 8.24; males

24.0, SD 7.80). When compared to two large groups of women (M=25.5, SD=8.05, N=496) (Thomas and Williams, 1991) and (M=25.1, SD=8.5, N=58) (Thomas, in press), the female teachers' scores were just slightly higher.

The Positive Temperament Scale (PTS), a measure of positive affect, has a range of possible scores from 3 to 26. For this sample the range was 10 to 26, with the mean score (total 20.90, SD 3.79; female 21.46, SD 2.57; male 19.08, SD 3.96) falling in the high range. Normative data for the PTS is available only for student samples (N=600, 332, 430) (Clark & Watson, 1990). Females' scores from all three samples were slightly higher than the males' scores. It is interesting to note that the female teachers in this study had almost identical mean scores (20.90, SD 3.79) to those of the female students (21.50, SD 4.70; 20.30, SD 5.70; 21.10, SD 4.60) and the male teachers had scores almost identical to the male students (19.5, SD 5.40; 19.5, SD 4.50; 19.9, SD 4.60).

The range of possible scores on the Life Style Approaches (LSA), a measure of self-management practices, is 0 to 64. The teachers' scores ranged from 20 to 63. The mean score (44.20, SD 10.43) was in

the moderate to high range. In the area of self-management, the teachers in this study scored slightly higher (44.20, SD 10.43) than a student and adult sample (N=735) (males 40.44, SD 8.88; females 42.89, SD 9.90) (Williams et al., 1991).

Correlations

The principal hypothesis tested was that positive affect and self-management would be positively related to intrinsic job satisfaction levels. In an effort to better understand the relationship between stress and job satisfaction, this relationship was studied via the intrinsic and extrinsic job satisfaction framework. Thus, the secondary hypothesis tested was that stress would be more strongly related to extrinsic than to intrinsic job satisfaction, whereas positive affect and self-management would be more strongly related to intrinsic than to extrinsic job satisfaction (see Table 3).

Analysis revealed a weak correlation between intrinsic job satisfaction and positive affect ($r = -.18$, $p < .05$) and no correlation between intrinsic job satisfaction and self-management. In fact, other than

the weak relationship between positive affect and intrinsic job satisfaction, positive affect and self-management were not related to any of the job satisfaction subscales (see Table 3). Stress, however, was negatively correlated with both intrinsic ($r = -.40$, $p < .0001$) and general job satisfaction ($r = -.31$, $p < .0008$) but not to extrinsic job satisfaction ($r = -.15$, $p < .13$). Self-management and stress showed a negative correlation ($r = -.39$, $p < .0001$), and self-management and positive affect were positively related ($r = .28$, $p < .01$) as expected. Based on correlational analysis, it would seem that neither the primary nor the secondary hypothesis was supported.

Regression Analysis

In order to investigate the variables that might best predict intrinsic job satisfaction, forced multiple regression analyses were done (see Table 4). Independent variables included in the regression for the first analysis were positive affect, stress, and positive affect X stress, and for the second analysis, self-management, stress, and self-management X stress. The positive affect X stress and self-management X

stress variables were included to determine if there was an interaction between either of the two.

The stress, positive affect, and positive affect X stress regression model was significant ($R=.46$, $F=9.534$, $p<.0001$) with the positive affect X stress variable generating a beta weight of $-.406$ ($p<.04$), indicating that some combination of positive affect and stress was the best predictor of intrinsic job satisfaction. To determine how the two variables positive affect and stress combine in predicting intrinsic job satisfaction, the teachers' intrinsic job satisfaction scores on stress and positive affect were first divided (based on median splits) into high and low stress groups and high and low positive affect groups. Then another analysis was conducted to explore the nature of the linkage between these variables and intrinsic job satisfaction.

A table of means illustrating the stress by positive affect relationship with corresponding means on the dependent variable, intrinsic job satisfaction, for each of the four combinations of the two factors, positive affect and stress, is presented in Figure 2. The means on intrinsic job satisfaction for the four

levels of positive affect and stress demonstrate that for this sample of teachers, the most intrinsically satisfied teachers were those who are high in positive affect and low in stress and the least intrinsically satisfied were those high in stress but low in positive affect. An interaction exists when the difference in row means is not the same across all levels of the column factor and vice versa (see Figure 2). The differences in the means for both rows (-2.45 and 1.89) and columns (4.45 and 5.00) signify some degree of interaction. There seems to be a differential effect of stress on job satisfaction depending on the level of positive affect. Low stress is predictive of high satisfaction only if accompanied by high positive affect. High stress is deleterious only if accompanied by low positive affect. This statement could also be made for positive affect as influenced by stress.

A two-way analysis of variance was performed to determine whether the interaction between positive affect and stress for predicting intrinsic job satisfaction was significant. The results of the two-way ANOVA indicated the interaction was not significant. However, the main effects of both

positive affect and stress were significant ($p < .05$ and $p < .001$, respectively) (see Table 5). While the interaction was not significant, analysis does indicate the presence of some degree of interaction that should be considered when interpreting the main effects, especially in any further studies of the relationship between job satisfaction, stress, and personal variables.

The stress, self-management, and self-management X stress regression model was significant ($R = .43$, $F = 7.93$, $p < .001$). Because stress (and not stress X self-management) was the strongest predictor of intrinsic job satisfaction generating a beta weight of $-.266$ ($F = 1.05$, $p = .31$), further analysis was not conducted.

Post-hoc Within Sample Analyses

Due to the fairly even distribution of the sample across several of the demographic and job-related items included in the questionnaire, comparisons were made between subgroups based on age, experience, educational level, work site, grade level taught, stress workshop attendance, and intention to change jobs.

Independent groups t-tests were run between various subgroups of the sample and each of the study variables (see Table 6). Age was divided into four subgroups--20's, 30's, 40's, and 50+. The 20 year olds ($\bar{M}=18.19$) were significantly higher on extrinsic job satisfaction than the 30 year olds ($\bar{M}=15.48$) ($t=-1.96$, $p<.05$). The 20 year olds ($\bar{M}=48.69$) were significantly higher than both the 40 year olds ($\bar{M}=43.19$) ($t=1.97$, $p<.05$) and the 50+ year olds ($\bar{M}=40.00$) ($t=2.31$, $p=.03$) on self-management.

In this sample of teachers, 51 had under 10 years experience and 59 had over 10 years. These two groups were compared along the seven study variables. The only significant difference between these two groups was on extrinsic satisfaction ($t=2.68$, $p=.008$), the under 10 years group (17.49) reporting greater extrinsic job satisfaction than the over 10 years group (15.15). There was no difference among the teachers in terms of teaching site and educational levels. Gender, however, appeared to make a difference in levels of stress ($t=2.12$, $p=.04$) and positive affect ($t=2.90$, $p<.05$), with females being significantly higher on both variables.

When asked if they would take another job if the opportunity arose, 67 said yes and 43 said no. The "yes" group were lower on all three job satisfaction scales than the "no" group as expected. These differences were statistically significant (General $t=-4.05$, $p<.001$; Intrinsic $t=3.87$, $p=.0002$; and Extrinsic $t=2.51$, $p<.01$). The "yes" and "no" groups were not significantly different on levels of stress, self-management, or positive affect. Another interesting finding concerns whether or not attending stress workshops (classes, inservice, etc.) lowers stress levels. In this sample of teachers, 56 had attended a stress workshop and 54 had not. Surprisingly, results of the t-tests reveal no significant differences in the two groups on any of the study variables.

CHAPTER IV

DISCUSSION

This study was designed to accomplish three main goals. The first goal was to establish a solid basis for the analysis of the relationship between job satisfaction and stress through use of well established, standardized instruments that had been developed for general, not specific groups. Theoretically, the use of standardized instruments should form a solid basis for analysis and allow for the incremental building of knowledge across studies. The second goal of the study was to clarify the relationship between job satisfaction and stress. Although this relationship has been studied extensively over the years, the results have been inconsistent. Clarification of this relationship was approached via the framework of intrinsic and extrinsic reward systems. The third goal of this study was to explore the relationship between job satisfaction, stress, and the personal variables, positive affect and self-management. Even though there is a paucity of research

in this area, a thorough review of the literature suggests a theoretical basis for postulating that certain personal characteristics contribute to inducing or enhancing the ability to be intrinsically rewarded or motivated regardless of stress levels. Chapter IV evaluates the findings of this study in terms of each of these three goals.

Findings Related to the Goals of the Study

Comparisons Across Studies

The results of this study support, in part, earlier studies reporting that over 50% of teachers would change jobs if the opportunity arose, despite the fact that many of them find teaching to be a satisfying experience. Of the 110 respondents in this study, 15 (13.6%) had general scores indicating they felt satisfied or very satisfied in their jobs, while only 2 (1.8%) had scores indicating they felt dissatisfied or very dissatisfied in their jobs. The majority, 93 (84.5%), had general scores indicating an overall indecision about whether they were satisfied. However, when asked whether they would take another job if given

the opportunity, the decision seemed clearer, 67 teachers (61%) answered yes. According to Hoppock (1935) very few respondents, less than 15%, ever use the dissatisfied or very dissatisfied classifications. This characteristic is consistent with the results of job satisfaction research, a finding that has been repeatedly confirmed over the past 50 years.

Another way of examining job satisfaction is to compare mean scores from this study with those of other studies. When compared with a group of home economics teachers, the respondents in this study scored only slightly lower in general (68.9 vs 70.4) and extrinsic job satisfaction (16.23 vs 18.10) and nearly the same in intrinsic job satisfaction (45.76 vs 45.10). The home economics teachers were generally older, with more teaching experience, and were better educated (over half held advanced degrees) than the respondents in this study. The majority of the home economics teachers held the same teaching position throughout their careers, with 85% of their students being female. The respondents in the present study report working in a wide variety of positions with an equally varied student population. Despite the differences in the

teaching sites, types of students, age, and educational levels of the teachers, the teachers in these two studies reported very similar levels of job satisfaction.

When compared with police officers (58.8), the respondents' mean scores (68.9) were higher, but when compared to social workers respondents' scores (83.22) were lower (Cook et al., 1980). This is surprising because all three professions are considered to be among the "helping professions" (characteristically, salaries are low, there is little opportunity for input, and respect and community support are minimal at best). Therefore, it seems surprising that there is such a disparity in the mean scores. What is not surprising, however, is that insurance company executives (71.79), scientists and engineers (79.5) are more satisfied with their jobs than teachers (Cook et al., 1980). Research has established that rewards such as a sizable salary, a well defined career hierarchy, the opportunity for input, a measure of job control, and respect from supervisors increase job satisfaction. With few exceptions, the executives, scientists, and engineers enjoy most, if not all, of these incentives.

Perhaps because teaching has been traditionally viewed as "women's work" and because women constitute the majority of teachers, the profession is vulnerable to hierarchical control and low salary, job control, and respect. These conditions not only lower job satisfaction, they probably account for much of the stress in teachers' lives.

The PSS is a global measure of the degree to which situations in one's life are found to be unpredictable, uncontrollable, and overloading. The PSS was built upon the premise that "stressor effects occur only when both the situation is appraised as threatening or otherwise demanding and insufficient resources are available to cope with the situation" (Cohen et al., 1983, p. 386). Unlike event specific or occupation specific measures of stress, the PSS is responsive to chronic stress that comes from ongoing life circumstances, to stress from apprehension concerning future events, to stress from events not listed on a particular life-events scale, and to reactions to the specific events included on any scale (Cohen et al., 1983). For these reasons the PSS seems a particularly good choice for measuring teacher stress whether for

purposes of comparing teachers to teachers or teachers with other groups.

This study of teachers and stress supported the findings of similar studies. The Metropolitan Life Survey of the American Teacher reported 36% of teachers experience great stress once a week or more as part of their job, compared to 27% of the general adult population who report job stress. When the teachers in this study were asked to what degree they found their job stressful(a question in the Personal and Professional Inventory), the majority reported moderate to very high stress levels, with approximately 30% reporting moderate levels and 60% reporting high to very high levels. Scores on the Perceived Stress Scale however, were in the moderate range. It has been demonstrated that generally, female teachers try to integrate their personal and professional lives (Lightfoot, 1983). Therefore, it seems important to compare stress levels of teachers with other general groups, not just other professional groups. When compared with other groups in Cohen's normative sample, female respondents in this study had slightly higher stress scores than any of the student groups but were

about the same as the adult female group and slightly higher than the females in a smoking cessation group.

The male teachers in the present study reported slightly higher stress levels than Cohen's student comparison groups and similar levels to the male smoking cessation group, with all male stress levels being slightly lower than levels reported by all female groups except one. While the differences between stress levels for males and females were consistent across groups, these differences were small. This difference in stress levels between males and females may actually reflect teaching specialization differences or differences in work or career orientations. The only other factor that might account for group differences in stress levels is age. The differences in scores across age groups could be accounted for by the differences in the role of life events in determining stress levels for different age groups. Chronic stress probably comes with increased age and life experience.

The instruments used to explore job satisfaction, the Minnesota Satisfaction Questionnaire (MSQ) short form, and stress, the Perceived Stress Scale (PSS),

were chosen for this study because of their well established psychometric properties and extensive usage in published research. Further, these instruments were chosen because they were developed to be used across various occupational and situational groups and not created for a specific or unique group. Information gathered through such instruments of this type can be generalized to or compared with information from other groups. This "pooling" of information may offer suggestions for whether certain changes or reforms in education might be effective.

The MSQ was especially appropriate for this study, because it not only allows for comparisons between teachers and other occupational groups, but also affords an assessment of the extent to which the work environment meets the individual's vocational needs or preference for reinforcers. It is necessary to compare levels of job satisfaction among occupational groups in order to gain perspective. It is through this perspective that the nature and extent of the "job-related" problems in education might be determined. It is also useful to know to what extent the work

environment meets teachers' needs, especially when planning for changes or reforms in education.

The Relationship Between Job Satisfaction,
Stress, Positive Affect, and Self-Management

The findings of this study support the view that the relationship between job satisfaction and stress is not a simple, direct one. Through an examination of the relationships among the variables intrinsic and extrinsic job satisfaction, stress, positive affect and self-management, a link was established between job satisfaction and stress.

Extrinsic job satisfaction was not related to stress (or any of the study variables except, of course, intrinsic job satisfaction). This finding does not support the generally accepted view that teacher stress is related to extrinsic satisfaction. This is surprising because the questions on the extrinsic scale relate to perceptions about supervisors, pay and advancement issues, and system policies--the very issues teachers cite as being both frequent and major stressors.

The results of this study indicate a fairly strong negative relationship between stress and intrinsic satisfaction in teachers. Therefore, it would seem that stress for this group of teachers is related to intrinsic rewards and not to extrinsic reward or external conditions, as hypothesized. This could account for the failure of education reform movements to win the approval of the majority of teachers.

Although there seems to be a link between job satisfaction and stress via intrinsic satisfaction, the complete delineation of this connection has proven to somewhat elusive. Another link suggested by the literature was that job satisfaction and stress may be related to certain individual difference variables.

The two individual difference variables chosen for this study, positive affect and self-management, demonstrated extremely weak or no correlations with the job satisfaction measures. Self-management was negatively correlated with stress, but positive affect was not correlated with stress. Further analyses revealed, however, that stress had a differential effect on intrinsic job satisfaction, depending on levels of positive affect (such was not found to be

true for self-management). The most intrinsically satisfied teachers were those who were low in stress and high in positive affect. The least intrinsically satisfied teachers were those high in stress and low in positive affect. Although the differences were not statistically significant, there was a trend for low stress to be predictive of job satisfaction only if positive affect is high, and high stress to be detrimental to job satisfaction only when positive affect levels are low. Results indicate that perhaps educational reforms can lower job stress by insuring that intrinsic needs are met, or can enhance intrinsic job satisfaction by lowering stress.

General Conclusions

This use of instruments that are not occupation specific generated some interesting information. Results of the MSQ revealed that only 15.4% of the respondents were dissatisfied or very dissatisfied with their teaching jobs. The majority, 84.5%, were undecided about whether they were satisfied or unsatisfied. Perhaps this indecision is related to the

widespread attention the "crisis in education" is receiving; teachers are unsure not only about the future, but about the present. Most teachers are genuinely concerned about their students, and want them to experience success and be competitive with other students around the world. Although a teacher may see the growth and learning of the students in his or her own classroom, there is little validation from outside the classroom regarding that growth. It is difficult to feel good about one's accomplishments and to maintain motivation when the feedback is negative, when the majority of the focus is on what is wrong in education. This is not to say that there aren't major problems in education. What it does say is that perhaps one way to alleviate some of the problems is by meeting the teachers' intrinsic needs.

Meeting intrinsic needs may also be related to lower stress levels. Although results of the PSS indicated that teachers' stress levels are not appreciably higher than most other adults' stress levels (five points at most), stress is a fact of life in the classroom and is cited by many as the reason for job dissatisfaction. For this sample of teachers,

there appeared to be a degree of interaction between stress and positive affect in terms of intrinsic job satisfaction. High stress was deleterious to teachers' intrinsic job satisfaction only if positive affect levels were low. Results of this study also revealed that teachers who practiced self-management (as measured by the LSA) had lower stress levels. It would seem that developing and maintaining high levels of self-management and positive affect are ways of coping with the inevitable stress of the classroom.

Implications for Future Research

Recently, Pajak and Blase commented that "the perceptions and voices of teachers...are noticeably absent from the debate concerning the restructuring of rewards and working conditions in schools" (1989, p. 284). Two-thirds of all teachers report having no opportunity for participation in the formulation of reforms and almost three-fourths of all teachers feel that reforms reflect the views of administrators and not teachers. It seems important to focus research efforts on the teacher, to identify ways of sustaining the intrinsic motivation that nearly all teachers bring

to the profession. It seems important to find ways of identifying, developing, and nourishing those characteristics in teachers that will enable productive, effective involvement in teaching.

These goals may be accomplished through finding the similarities between teachers and other occupational groups in terms of job satisfaction and stress. Business and industry have made great efforts to meet the needs of their employees through programs such as employee assistance, and there are indications that the programs have enjoyed some success. This is not an endorsement of a particular program, but rather, underscores the point that focusing on the needs of the individual worker is important. In education, focusing on the individual worker, the teacher, may be vital to the success or failure of reform.

REFERENCES

References

- Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. Psychological Review, 84, 191-215.
- Beasley, C. R. (1983, April). On-the-job stress and burnout: Contributing factors and environmental alternatives in educational settings. Paper presented at the Annual Meeting of the American Educational Research Association, Montreal, Canada.
- Carlson, M., Charlin, V., & Miller, N. (1988). Positive mood and helping behavior: A test of six hypotheses. Journal of Personality and Social Psychology, 55, 211-299.
- Carrington, P., Collings, G. H., Collings, G. H., Jr., Benson, H., Robinson, H., Wood, L. W., Leher, P. M., Wollfolk, R. L., & Cole, J. W. (1980). The use of meditation relaxation techniques for the management of stress in a working population. Journal of Occupational Medicine, 22, 221-231.

- Clark, L. A., & Watson, D. (1990). The General Temperament Survey. Unpublished manuscript, Southern Methodist University, Dallas, TX.
- Clark, L. A., & Watson, D. (1988). Mood and the mundane: Relations between daily life and events and self-reported mood. Journal of Personality and Psychology, 54, 296-308.
- Cohen, S. (1986). Contrasting the hassles scale and the perceived stress scale: Who's really measuring appraised stress? American Psychologist, 41, 716-718.
- Cohen, J. (1969). Statistical power analysis for the behavioral sciences. New York: Academic Press.
- Cohen, S., Kamarack, T., & Mermelstein, R. (1983). A global measure of perceived stress. Journal of Health and Social Behavior, 24, 385-396.
- Cook, J. D., Hepworth, S. J., Wall, T. D., & Warr, P. B. (1981). The experience of work. New York: Academic Press.
- Costa, P. T., & McCrae, R. R. (1980). Influence of extraversion and neuroticism on subjective wellbeing: Happy and unhappy people. Journal of Personality and Social Psychology, 38, 668-678.

- Cox, T., & Brockley, T. (1984). The experience and effects of stress in teachers. British Educational Research Journal, 10, 83-87.
- Crowne, D. P., & Marlowe, D. (1960). A new scale of social desirability independent of psychopathology. Journal of Consulting Psychology, 24, 349-354.
- Cunningham, W. G. (1983). Teacher burnout - Solutions for the 1980's: A review of the literature. The Urban Review, 15, 37-51.
- Deci, E. L. (1975). Intrinsic motivation. New York: Plenum Press.
- Deci, E. L., & Ryan, R. M. (1985). Intrinsic motivation and determination in human behavior. New York: Plenum Press.
- Defrank, R. S., & Stroup, C. A. (1989). Teacher stress and health: Examination of a model. Journal of Psychomatic Research, 33, 99-109.
- Delong, T. J. (1987). Teachers and their careers: Why do they choose teaching? Journal of Career Development, 14, 118-125.

- Diener, A., & Emmons, R. A. (1985). The independence of positive and negative affect. Journal of Personality and Social Psychology, 47, 1105-1117.
- Emmons, R. A. (1983). Factors predicting satisfaction judgements: A comparative examination. Paper presented at the Annual Meeting of Midwestern Psychological Association, Chicago, IL.
- Everly, G. S., Jr. (1984). Time management: A behavioral strategy for disease prevention and health enhancement. In J. D. Matarazzo, S. M. Weiss, J. A. Herd, N. E. Miller, & S. M. Weiss (Eds.), Behavioral health (pp. 363-370). New York: Wiley-Interscience.
- Feldman, R. H. L. (1984). Evaluating health promotion in the workplace. In J. D. Matarazzo, S. M. Weiss, J. A. Herd, N. E. Miller, & S. M. Weiss (Eds.), Behavioral health (pp. 1087-1093). New York: Wiley-Interscience.
- Fimian, M. J. (1984). The development of an instrument to measure occupational stress in teachers of exceptional students. Techniques: A Journal of Remedial Educational and Counseling, 1, 270-285.

- Fimian, M. J., & Santoro, T. M. (1983). Sources and manifestations of occupational stress as reported by full time special educational teachers. Exceptional Children, 49, 540-543.
- Forgas, J. P., & Bower, G. H. (1987). Mood effects on person-perception judgements. Journal of Personality and Social Psychology, 53, 53-60.
- Frank, A. R., & Keith, T. Z. (1984). Academic abilities of persons entering and remaining in special education. Exceptional Children, 51, 76-77.
- Friesen, D., Prokop, C. M., & Sarros, J. C. (1988). Why teachers burn out. Educational Research Quarterly, 12, 9-17.
- Galloway, D. (1984). Mental health, absences from work, stress, and satisfaction in a sample of New Zealand elementary school teachers. Australian and New Zealand Journal of Psychiatry, 18, 359-363.
- Gold, Y. (1989). Reducing stress and burnout through induction programs. Action in Teacher Education, 11, 1989.

- Holdaway, E. A. (1978). Facet and overall satisfaction of teachers. Education Administration, 14, 30-47.
- Holley, C. S., & Kirkpatrick, S. W. (1987). Job satisfaction and stress of home economics teachers. Home Economics Research Journal, 16, 109-119.
- Hoppock, R. (1935). Job Satisfaction. New York: Harper.
- Kobasa, S. C. (1979). Stressful life events, personality, and health: An inquiry into hardiness. Journal of Personality and Social Psychology, 37, 1-11.
- Krupp, J. A. (1986, April). Understanding and motivating personnel in the second half of life. Paper presented at the annual meeting of the American Educational Research Association, San Francisco.
- Lachman, R., & Diamant, E. (1987). Withdrawal and restraining factors in teachers' turnover intentions. Journal of Occupational Behavior, 8, 219-232.

- Landsmann, L. (1979). Special Report: Teacher Burnout. Instructor, 88(1).
- Lazarus, R. (1966). Psychological stress and the coping process. New York: McGraw Hill.
- Lightfoot, S. L. (1983). The lives of teachers. In L. S. Shulman & G. Sykes (Eds.), Handbook of teaching and policy (pp. 241-260). New York: Longman.
- Lombardi, T. P., & Donaldson, J. K. (1987). Rural Special Education teachers respond: Satisfaction with jobs and training programs. Rural Special Education Quarterly, 7, 29-36.
- Lowther, M., Gill, S. J., Coppard, L., & Tank, R., (1983, April). The quality of teachers' workplace: A multisurvey, comparative study. Paper presented at the annual meeting of the American Educational Research Association, Montreal, Canada.
- Maddi, S. R., & Kobasa, S. C. (1985). Intrinsic motivation and health. In Hy I. Day (Ed.), Advances in intrinsic motivation and aesthetics (pp. 299-321). New York: Plenum Press.

- Mahoney, M. J., & Thoresen, C. E. (1974). Self control: Power to the people. Cambridge, Mass: Ballinger.
- Manucia, G. K., Baumann, D. J., & Cialdini, R. B. (1984). Mood influences on helping: Direct effects or side effects. Journal of Personality and Social Psychology, 46, 357-364.
- Martinez, J. G. R. (1989). Cooling off before burning out. Academic Therapy, 24, 271-284.
- Maslach, C. (1976). Burned-out. Human Behavior, 5, 18-22.
- McGregor, D. (1960). The human side of enterprise. New York: McGraw-Hill.
- Meyer, G. J., & Shack, J. R. (1989). Structural convergence of mood and personality: Evidence for old and new directions. Journal of Personality and Social Psychology, 57, 691-706.
- Moracco, J. C., D'Arienzo, R. V., & Danford, D. (1983). Comparison of perceived occupational stress between teachers who are contented and discontented in their career choices. Vocational Guidance Quarterly, 32, 44-51.

- Morgan, S. R., & Krehbiel, R. (1985). The psychological condition of burned-out teachers with a non-humanistic orientation. Journal of Humanistic Education and Development, 24, 59-67.
- Nathan, P. E. (1984). The worksite as a setting for health promotion and positive lifestyle change. In J. D. Matarazzo, S. M. Weiss, J. A. Herd, N. E. Miller, & S. M. Weiss (Eds.), Behavioral health (pp. 1061-1063). New York: Wiley-Interscience.
- Pajak, E., & Blase, J. J. (1989). The impact of teachers' personal lives on professional role enactment: A qualitative analysis. American Educational Research Journal, 26, 283-310.
- Patel, C. (1975). Yoga and biofeedback and the management of hypertension. Journal of Psychosomatic Research, 19, 355-360.
- Patel, C. (1984). A relaxation-centered behavioral package for reducing hypertension. In J. D. Matarazzo, S. M. Weiss, J. A. Herd, N. E. Miller, & S. M. Weiss (Eds.), Behavioral health (pp. 846-861). New York: Wiley-Interscience.

Patel, C., Marmount, M. M., & Terry, D. J. (1981).

Controlled trial of biofeedback-aided behavioral methods in reducing mild hypertension. British Medical Journal, 282, 2005-2008.

Peterson, W. (1964). Age, teacher's role, and the institutional setting. In B. J. Biddle & W. J. Ellens (Eds.), Contemporary research on teacher effectiveness (pp. 264-315). New York: Holt, Rinehart, and Winston.

Raschke, D. B., Dedrick, C. V., Strathe, M., & Hawkes, R. R. (1985). Teacher stress: The elementary teacher's perspective. The Elementary School Journal, 85, 546-559.

Rosenbaum, M. (1980). A schedule for assessing self control behaviors: Preliminary findings. Behavior Therapy, 11, 109-121.

Sarason, I. G., Potter, E. H., & Sarason, B. R. (1986). Recording and recall of personal events: Events on cognitions and behavior. Journal of Personality and Social Psychology, 51(2), 347-356.

- Schlechty, R., & Vance, J. (1983). Recruitment, selection, and retention: The shape of the teaching force. The Elementary School Journal, 83, 469-487.
- Schwab, R. L., Jackson, S. E., & Schular, R. S. (1986). Educator burnout: Sources and consequences. Educational Research Quarterly, 10, 16-33.
- Second Metropolitan Life Survey of The American Teacher (1986). The impact of educational reforms: An interim report from the field. (Eric Document & Reproduction Service No. ED 239 471).
- Sime, W. E. (1984). Psychological benefits of exercise training in the healthy individual. In J. D. Matarazzo, S. M. Weiss, J. A. Herd, N. E. Miller, & S. M. Weiss (Eds.), Behavioral health (488-508). New York: Wiley-Interscience.
- Slife, B. D. (1988). Coping strategies for teachers. Academic Therapy, 24, 1988.
- Smilansky, J. (1984). External and internal correlates of teachers' satisfaction and willingness to report stress. British Journal of Educational Research, 54, 84-92.

- Solomon, D. S., & Maccoby, N. (1984). Communication as a model for health enhancement. In J. D. Matarazzo, S. M. Weiss, J. A. Herd, N. E. Miller, & S. M. Weiss (Eds.), Behavioral health (pp. 209-211). New York: Wiley-Interscience.
- Sullivan, J. S. (1987, April). The inner fraternity? A study of career development in mature teachers. Paper presented at the annual meeting of the American Educational Research Association, Washington, D.C.
- Sutton, G. W., & Huberty, T. (1984). An evaluation of teacher stress and job satisfaction. Education, 105, 189-192.
- Task Force on Teaching as a Profession. (1986). A nation prepared: Teachers for the 21st century. Washington, D. C.: Carnegie Forum on Education and the Economy.
- Tellegen, A. (1985). Structures of mood and personality and their relevance to assessing anxiety, with an emphasis on self-report. In A. H. Tuma & J. D. Maser (Eds.), Anxiety and the anxiety disorders (pp. 681-706). Hillsdale, NJ: Erlbaum.

- Thomas, S. (in press). Women and anger. New York: Springer Publishing.
- Thomas, S. P., & Williams, R. L. (1991). Perceived stress, Trait Anger, Modes of Anger Expression, and Health Status of College Men and Women. Nursing Research, 40, 303-307.
- Thoresen, C. E., & Mahoney, M. J. (1978). Behavioral self-control. New York: Holt, Rinehart, & Winston.
- Tredway, V. A. (1978, August). Mood effects of exercise programs for older adults. Paper presented at the annual meeting of the American Psychological Association, Toronto.
- Turkel, S. (1972). Working. New York: Pantheon.
- Watson, D. (1988a). The vicissitudes of mood measurement: Effects of varying descriptors, time frames, and response formats on measures of positive and negative affect. Journal of Personality and Social Psychology, 55(1), 128-141.

- Watson, D. (1988b). Intraindividual and interindividual analyses of positive and negative affect: Their relation to health complaints, perceived stress, and daily activities. Journal of Personality and Social Psychology, 54, 1020-1030.
- Watson, D., & Clark, L. A. (In press). On traits and temperament: General and specific factors of emotional experience and their relation to the five-factor model. Journal of Personality.
- Watson, D., & Clark, L. A. (1984). Negative affectivity: The disposition to experience aversive emotional states. Psychological Bulletin, 96, 465-490.
- Watson, D., Clark, L. A., & Tellegen, A. (1988). Development and validation of brief measures of positive and negative affect: The PANAS scales. Journal of Personality and Social Psychology, 54, 1063-1070.
- Watson, D., & Pennebaker, J. (1989). Health complaints, stress, and distress: Exploring the central role of negative affectivity. Psychological Review, 96, 234-254.

- Watson, D., & Tellegen, A. (1985). Toward a consensual structure of mood. Psychological Bulletin, 98, 219-235.
- Weiss, B. J., Dawis, R. V., England, G. W., & Lofquist, L. H. (1967). Manual for the Minnesota Satisfaction Questionnaire. Minnesota Studies in Vocational Rehabilitation, XXII.
- Wheeler, L. J. (1982) and Others. Stress and coping: A comparison of regular and special educators. (Report No. EC192124). Texas (ERIC Document Reproduction Service No. ED 280 223).
- Williams, R. L., & Long, J. D. (1991). Manage Your Life. Boston: Houghton Mifflin.
- Williams, R. L., Moore, C. A., Pettibone, T. J., & Thomas, S. J. (1991, March). Self-report Scale of Self-Management Practices. Paper presented at the meeting of the Society of Behavioral Medicine, Washington, D.C.
- Woods, A. M., & Birren, J. E. (1984). Late adulthood and aging. In J. D. Matarazzo, S. M. Weiss, J. A. Herd, N. E. Miller, & S. M. Weiss (Eds.), Behavioral health, (pp. 863-880). New York: Wiley-Interscience.

APPENDICES

APPENDIX A

Survey Instruments

In this section we would like to know about you, your previous education, and your teaching experience. Then, we would like to find out about your present position and your perceptions of your present position. Please read each statement or question carefully and respond by marking or providing the most appropriate answer, as indicated. All of your responses will be kept confidential.

1. Your sex:
(1) Male _____
(2) Female _____
2. Your age:
(1) 20-29 _____
(2) 30-39 _____
(3) 40-49 _____
(4) 50 or over _____
3. Your length of teaching experience:
(1) 1 year _____
(2) 2-3 years _____
(3) 4-5 years _____
(4) 6-7 years _____
(5) 8-9 years _____
(6) 10 years or over _____
4. Your highest level of educational achievement:
(1) BA (BS) _____
(2) BA+ (BS+) _____
(3) MA (MS) _____
(4) MA+ (MS+) _____
(5) PhD (EdD) _____
5. Have you attended any workshops, classes, or in-service programs on teacher stress prior to answering this survey?
(1) Yes _____
(2) No _____
6. Your type of site:
(1) Rural _____
(2) Suburban _____
(3) Urban _____
(4) Other (specify) _____
7. Your level of teaching:
(1) Preschool/Kdg _____
(2) Grades 1-4 _____
(3) Grades 5-8 _____
(4) High School _____
(5) Other _____
8. How many students, total, do you teach each day?
(1) 2-4 _____
(2) 5-7 _____
(3) 8-10 _____
(4) 11-13 _____
(5) 14-16 _____
(6) 17-19 _____
(7) 20 or over _____
9. With what type of student(s) do you work?
(1) Nonhandicapped _____
(2) Mentally retarded _____
(3) Behav. Disordered _____
(4) Learning Disabled _____
(5) Cross/Multicategory _____
10. Your type of classroom:
(1) Self-contained _____
(2) Resource _____
(3) Regular _____
(4) Vocational _____
(5) Other _____
11. How many hours per day do you work, including preparation? _____ Hours
12. In your estimation, did your previous training adequately prepare you for teaching? (1) Yes (2) No

13. Have your views of teaching become negative since you began teaching?
(1) Yes (2) No
14. Does your supervisory or administrative staff take an active and supportive role in helping you deal with on-the-job stress?
(1) Yes (2) No
15. Do you and your peers provide mental and/or emotional support to one another when needed? (1) Yes (2) No
16. Would you take another job, if the opportunity arose?
(1) Yes (2) No
17. To what degree are you satisfied with your job?
- | | | | | |
|-------------|---|------------|---|-----------|
| 1 | 2 | 3 | 4 | 5 |
| Very little | | Moderately | | Very Much |
18. To what degree do you find your job stressful?
- | | | | | |
|-------------|---|------------|---|-----------|
| 1 | 2 | 3 | 4 | 5 |
| Very little | | Moderately | | Very Much |

Instructions: Indicate your answer for each item by placing the appropriate number in the blank before that item.

- (1) Very dissatisfied
(2) Dissatisfied
(3) I can't decide whether I'm satisfied or dissatisfied
(4) Satisfied
(5) Very satisfied

In my present job, this is how I feel about:

- ____ 19. Being able to keep busy all the time.
- ____ 20. The chance to work alone on the job.
- ____ 21. The chance to do different things from time to time.
- ____ 22. The chance to be "somebody" in the community.
- ____ 23. The way my principal relates to the faculty.
- ____ 24. The competence of my supervisor in making decisions.
- ____ 25. Being able to do things that don't go against my conscience.

- (1) Very dissatisfied
- (2) Dissatisfied
- (3) I can't decide whether I'm satisfied or dissatisfied
- (4) Satisfied
- (5) Very satisfied

- _____ 26. The way my job provides for steady employment.
- _____ 27. The chance to do things for other people.
- _____ 28. The chance to tell people about what I do.
- _____ 29. The chance to do something that makes use of my abilities.
- _____ 30. The way system policies are put into practice.
- _____ 31. My pay and the amount of work that I do.
- _____ 32. The chances for advancement.
- _____ 33. The freedom to use my own judgement.
- _____ 34. The chance to try my own methods of doing the job.
- _____ 35. The working conditions.
- _____ 36. The way my co-workers get along with each other.
- _____ 37. The praise I get for doing a good job.
- _____ 38. The feeling of accomplishment I get from the job.

The questions in this scale ask you about your feelings and thoughts during the last month. In each case, you will be asked to indicate how often you felt or thought a certain way. Although some of the questions are similar, there are differences between them and you should treat each one as a separate question. The best approach is to answer each question fairly quickly. That is, don't try to count up the number of times you felt a particular way, but rather indicate the alternative that seems like a reasonable estimate.

For each question choose from the following alternatives:

- 0 never
- 1 almost never
- 2 sometimes
- 3 fairly often
- 4 very often

- ___ 39. In the last month, how often have you been upset because of something that happened unexpectedly?
- ___ 40. In the last month, how often have you felt that you were unable to control the important things in your life?
- ___ 41. In the last month, how often have you felt nervous and "stressed"?
- ___ 42. In the last month, how often have you dealt successfully with irritating life hassles?
- ___ 43. In the last month, how often have you felt that you were effectively coping with important changes that were occurring in your life?
- ___ 44. In the last month, how often have you felt confident about your ability to handle your personal problems?
- ___ 45. In the last month, how often have you felt that things were going your way?
- ___ 46. In the last month, how often have you found that you could not cope with all the things that you had to do?
- ___ 47. In the last month, how often have you been able to control irritations in your life?
- ___ 48. In the last month, how often have you felt that you were on top of things?
- ___ 49. In the last month, how often have you been angered because of things that happened that were outside of your control?
- ___ 50. In the last month, how often have you found yourself thinking about things you have to accomplish?
- ___ 51. In the last month, how often have you been able to control the way you spend your time?
- ___ 52. In the last month, how often have you felt difficulties were piling up so high that you could not overcome them?

Listed below are a series of statements a person might use to describe his/her attitudes, feelings interests, and other characteristics. Read each statement and decide how well it describes you. If the statement is TRUE or MOSTLY TRUE write "T" in the space in front of that item. If it is FALSE or MOSTLY FALSE, write "F" in the space. There are no right or wrong answers, and no trick questions.

Please answer every statement, even if you are not completely sure of your answer. Read each statement carefully, but don't spend too much time deciding on the answer.

- ___ 53. I have the ability to approach tasks in such a way that they become interesting or fun.
- ___ 54. I sometimes rush from one activity to another without pausing for a rest.
- ___ 55. I lead an active life.
- ___ 56. I lead a very interesting life.
- ___ 57. I get excited when I think about the future.
- ___ 58. People would describe me as a pretty enthusiastic person.
- ___ 59. I can easily find ways to liven up a dull day.
- ___ 60. In my life, interesting and exciting things happen every day.
- ___ 61. Other people sometimes have trouble keeping up with the pace I set.
- ___ 62. I live a very full life.
- ___ 63. I am usually alert and attentive.
- ___ 64. I can make a game out of something that others consider work.
- ___ 65. It takes a lot to get me excited.
- ___ 66. I can work hard, and for a long time, without feeling tired.
- ___ 67. My pace is usually quick and lively.
- ___ 68. Most days I have a lot of "pep" or vigor.
- ___ 69. People would describe me as a pretty energetic person.
- ___ 70. In my life, I would rather try to do too much than too little.
- ___ 71. I get pretty excited when I'm starting a new project.
- ___ 72. I like to stir up some excitement when things are getting dull.

- ____ 73. I am often playful around other people.
- ____ 74. I am sometimes "on the go" so much that I wear myself out.
- ____ 75. I have more energy than most of the people I know.
- ____ 76. I often feel lively and cheerful for no particular reason.
- ____ 77. People sometimes tell me to slow down and "take it easy."
- ____ 78. I am usually enthusiastic about the things I do.

Instructions: For each of the following items, indicate how different or similar that item is to your life style. Use the following scale:

- A Very different from me
- B Somewhat different from me
- C Uncertain
- D Somewhat similar to me
- E Very similar to me

Simply indicate you answer for each item by placing the appropriate letter in the blank before that item.

- ____ 79. In most situations, I have a clear sense of what behaviors would be right or wrong for me.
- ____ 80. When confronted with many different things to do, I have difficulty deciding what is most important to do.
- ____ 81. After making a decision about what is most important to do at any given time, I easily get sidetracked from that activity.
- ____ 82. Once I decide what is most important to do at any given time, I start on that task right away.
- ____ 83. I have difficulty judging how long it will take me to complete a task.
- ____ 84. I keep my work space well-organized.
- ____ 85. I have a clear sense of what I most want to experience in my life.
- ____ 86. I complete tasks at the time I say I'm going to complete them.
- ____ 87. I'm confused as to the kind of personal qualities I want to develop in my life.
- ____ 88. I have difficulty matching various tasks with my energy level.

- A** Very different from me
- B** Somewhat different from me
- C** Uncertain
- D** Somewhat similar to me
- E** Very similar to me

- ___ 89. I subdivide big tasks into a series of smaller tasks.
- ___ 90. I have little ideas as to what I most want to achieve in my life.
- ___ 91. I actively work to make the place where I spend a lot of time more attractive.
- ___ 92. I complete major tasks well in advance of deadlines.
- ___ 93. When I deviate from my selected goal, I have a hard time getting back on track.
- ___ 94. My living space is quite messy.

APPENDIX B

Table 1

Demographic and Job Related Information

Total Sample:	110
Sex: Male	26
Female	84
Age: 20 - 29 years	16
30 - 39 years	46
40 - 49 years	42
50+ years	6
Experience:	
1 - 10 years	51
10+ years	59
Level taught:	
PreSchool - 4	22
5 - 8	29
High School	37
Other	22
Teaching Site:	
Rural	48
Suburban	24
Urban	30
Other	8
Number of Students:	
1 - 20	23
20 +	87
Educational Levels:	
BA/BS	66
MA/MS; Ph.D./Ed.D.	44
Take another job?	
Yes	67
No	43
Stress Workshop?	
Yes	56
No	54

Table 2

Descriptive Data For The 7 Study Variables

Variable	N	Mean	Standard Deviation	Variance	Standard Error	Minimum
Job Satisfaction						
General	110	68.909	11.900	141.606	1.135	33.000
Intrinsic	110	45.764	7.565	57.228	0.721	24.000
Extrinsic	110	16.236	4.692	22.017	0.447	6.000
Stress	110	27.282	9.081	82.461	0.866	7.000
Positive Affect (PA)	110	20.900	3.785	14.329	0.361	10.000
Self-Management (SM)	110	44.200	10.436	108.914	0.995	20.000
PA X Stress	110	571.709	232.197	53915.621	22.139	126.000
SM X Stress	110	1180.445	440.158	193739.281	41.967	310.000
Variable	Maximum	Skewness	Kurtosis	Possible Range		
Job Satisfaction						
General	98.000	-0.406	0.403	20 - 100		
Intrinsic	60.000	-0.774	0.656	12 - 60		
Extrinsic	28.000	0.040	-0.396	6 - 30		
Stress	55.000	0.368	0.275	0 - 56		
Positive Affect (PA)	26.000	-0.724	0.029	3 - 26		
Self-Management (SM)	63.000	-0.297	-0.722	0 - 64		
PA X Stress	1326.000	0.750	0.903			
SM X Stress	2800.000	0.889	1.18			

Table 3

Correlation Matrix

	General	Intrinsic	Extrinsic	Stress	Positive Affect	Self-Management	PA X Stress	SM X Stress
General	-	.89***	.79***	-.31***	.17	-.04	-.23**	-.35***
Intrinsic		-	.49***	-.40***	.18*	.04	-.32***	-.38**
Extrinsic			-	-.15	.11	-.15	-.06	-.25**
Stress				-	-.12	-.39***	.76***	.67***
Positive Affect (PA)					-	.28**	.38***	.11
Self-Management (SM)						-	-.15	.34***
PA X Stress							-	.69***

*p<.05

**p<.01

***p<.001

Table 4

Beta Weights and Multiple Correlation Coefficients for the Criterion Variable

Criterion Variable	<u>Beta Weights For Predictors</u>			
	Multiple Correlation	Positive Affect (PA)	Stress	PA X Stress
Intrinsic Job Satisfaction	0.4610***	0.332	-0.053**	-0.406*

Criterion Variable	<u>Beta Weights For Predictors</u>			
	Multiple Correlation	Self Management (SM)	Stress	SM X Stress
Intrinsic Job Satisfaction	0.4282***	-0.001	-0.266	-0.20

*p<.05

**p<.01

***p<.001

Table 5

Summary Table For Two-Way Analysis of Variance

Source	df	SS	MSS	F
Positive Affect	1	212.2789	212.2789	4.140*
Stress	1	588.0211	588.0211	11.467**
Interaction	1	2.0113	2.0113	0.039 n.s.
Within	106	5435.5439	51.2787	
Total	109	6237.8552		

* $p < .05$
** $p < .001$

Table 6

Post-hoc Within Sample t-Test Results

Groups	Variable	M	SD	t
20 year olds	Extrinsic Job Satisfaction And Age	18.19	4.26	
30 year olds		15.48	4.92	1.96*
20 year olds	Self-Management And Age	48.69	6.84	
40 year olds		43.19	10.30	1.97*
20 year olds	Self-Management And Age	48.69	6.84	
50 year olds		40.00	10.30	2.31*
>10 yrs exp.	Extrinsic Job Satisfaction And Experience	17.49	4.17	
<10 yrs exp.		15.15	4.88	2.68*
Females	Stress And Gender	28.29	9.00	
Males		24.04	8.73	2.12*
Females	Positive Affect And Gender	21.46	3.57	
Males		19.08	3.96	2.90*

*p<.05

APPENDIX C

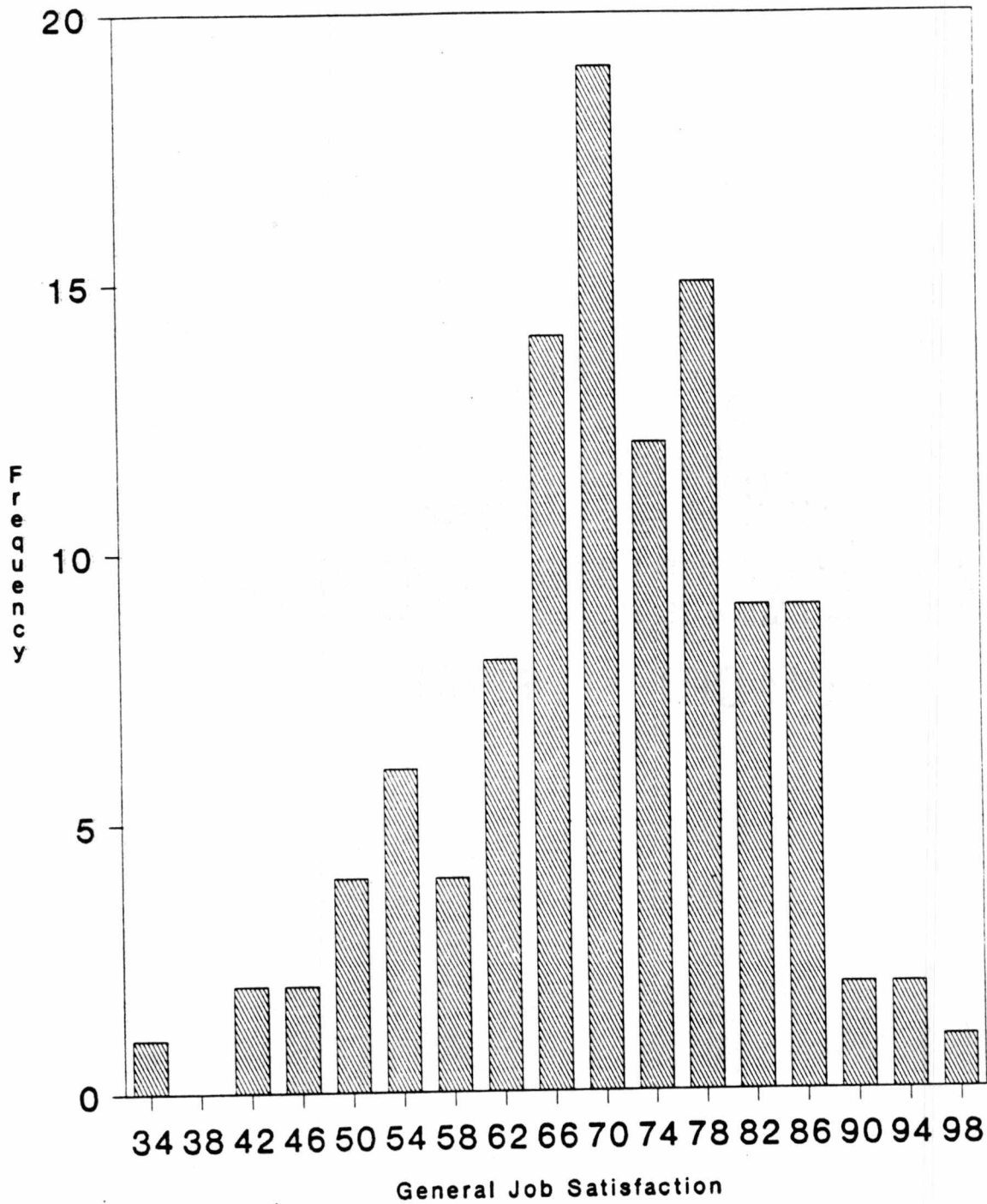


Figure 1: Frequency distribution General Job Satisfaction

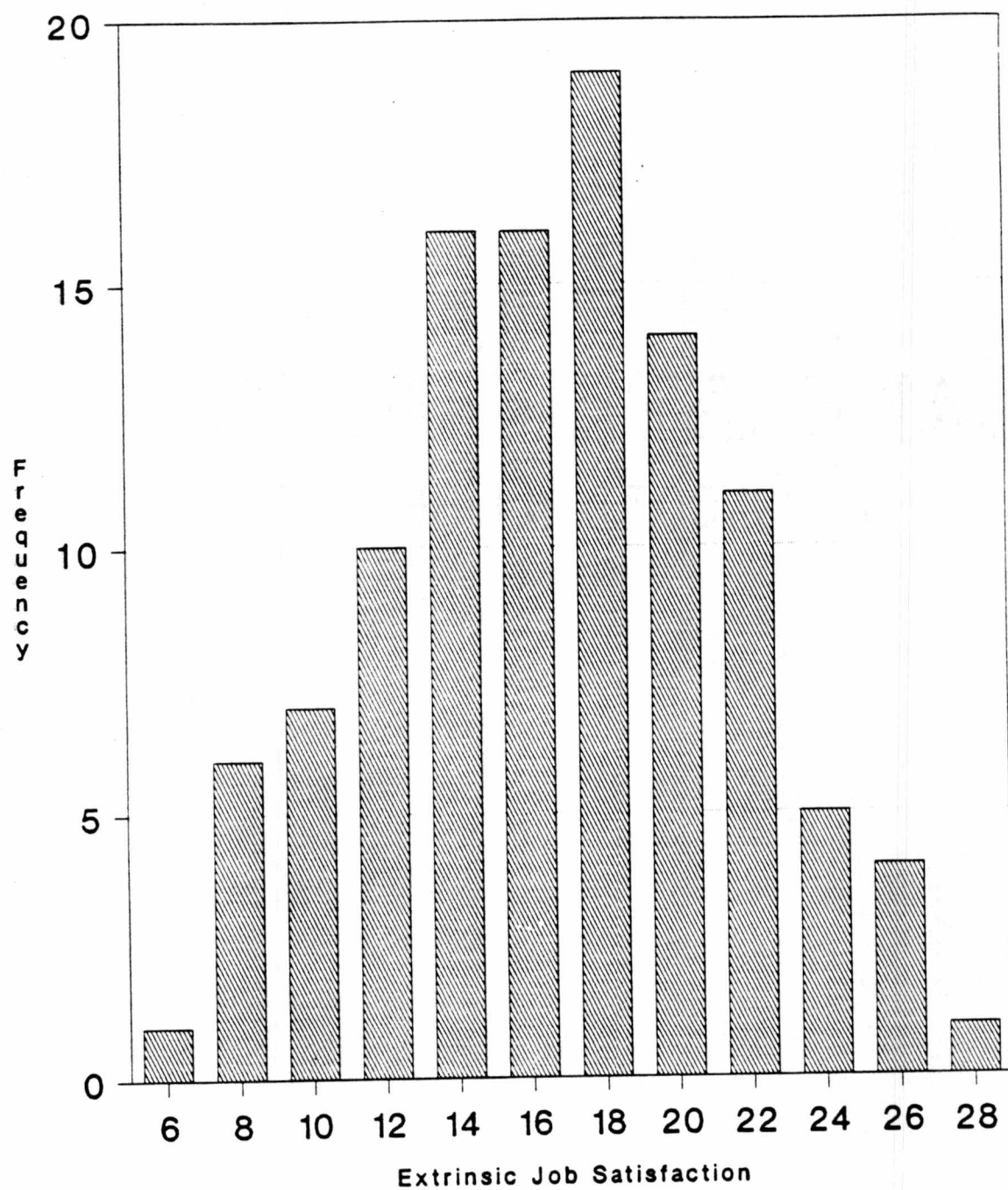


Figure 1 (continued): Frequency distribution Extrinsic Job Satisfaction

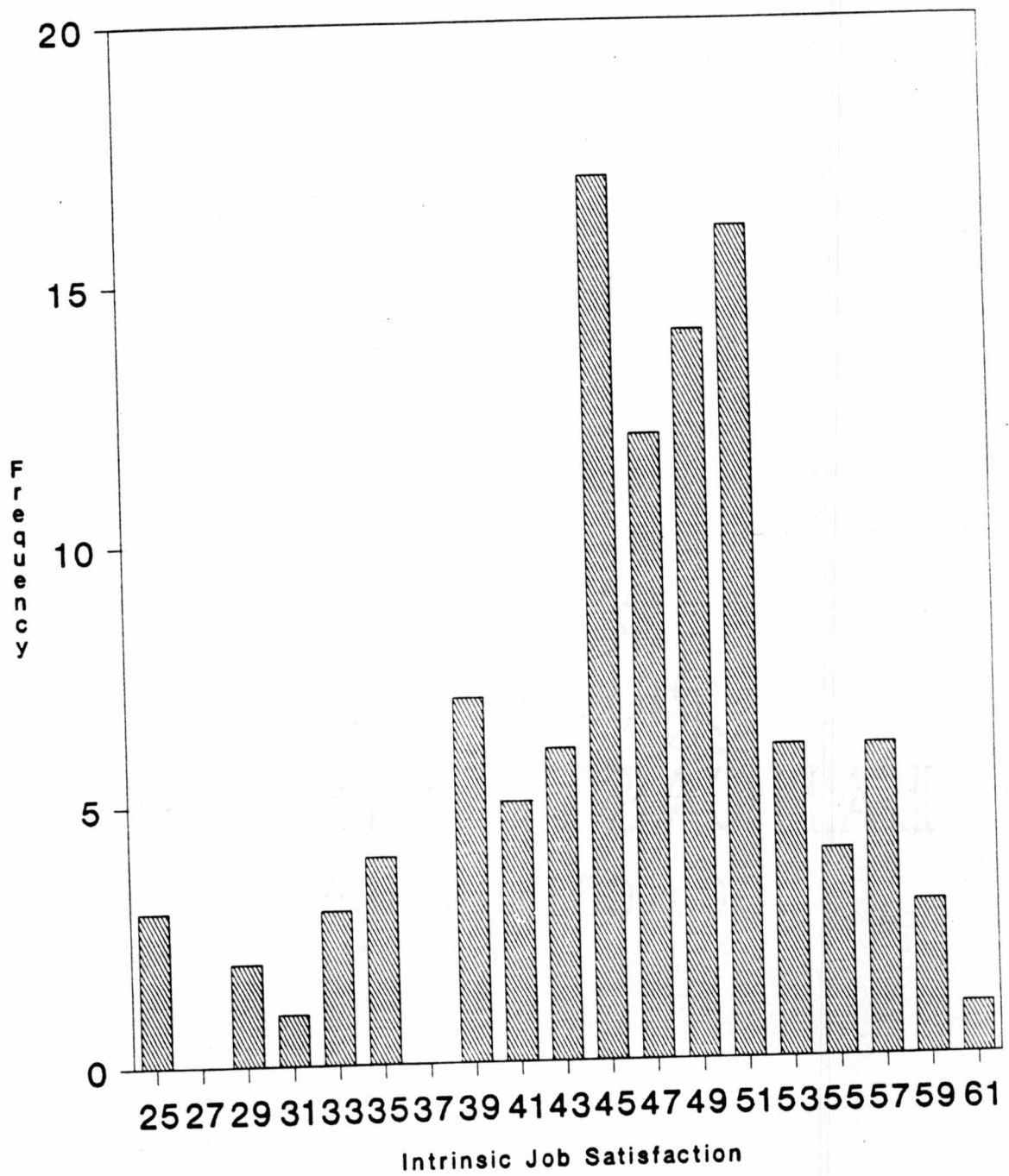


Figure 1 (continued): Frequency distribution Intrinsic Job Satisfaction

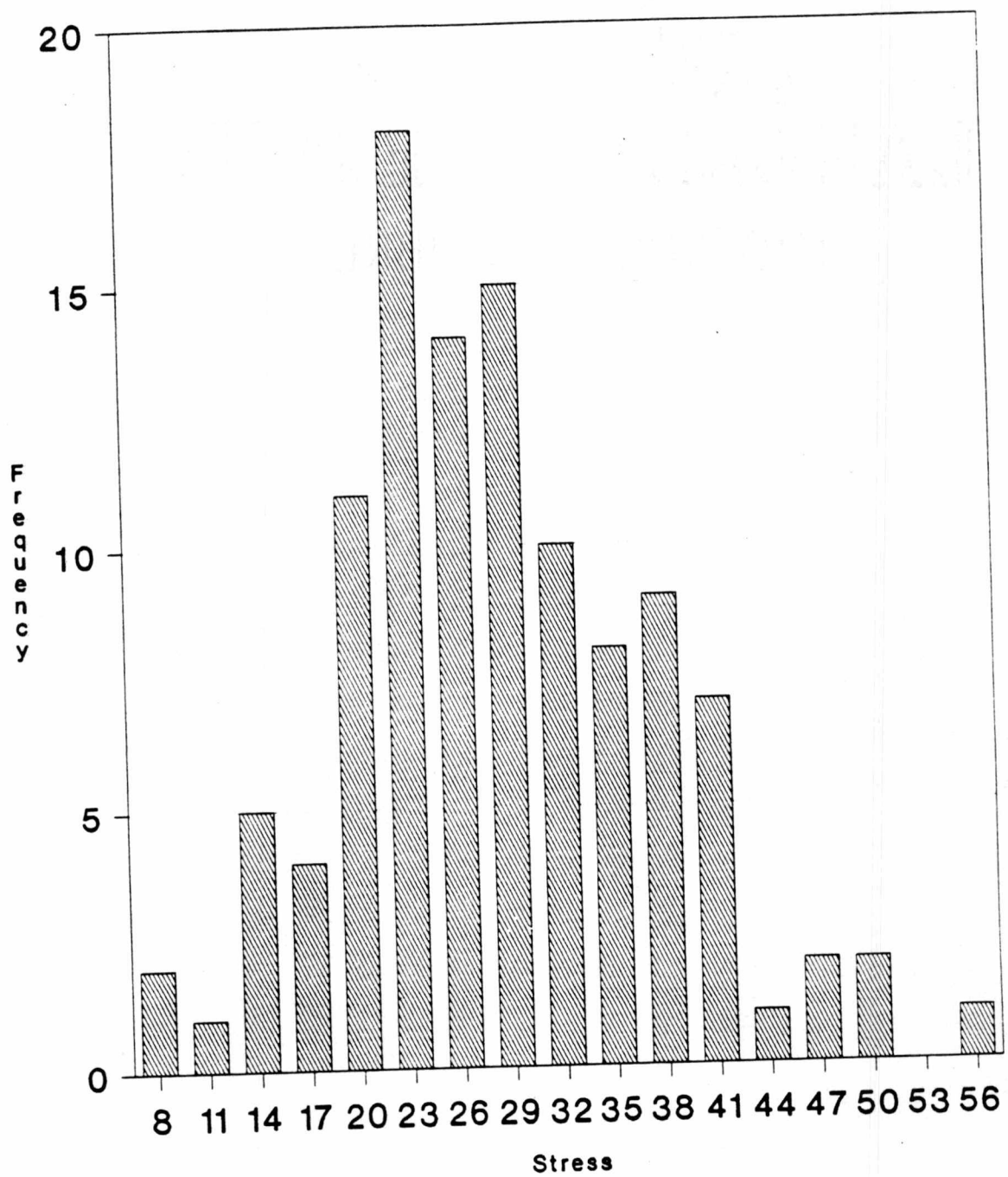


Figure 1 (continued): Frequency distribution Stress

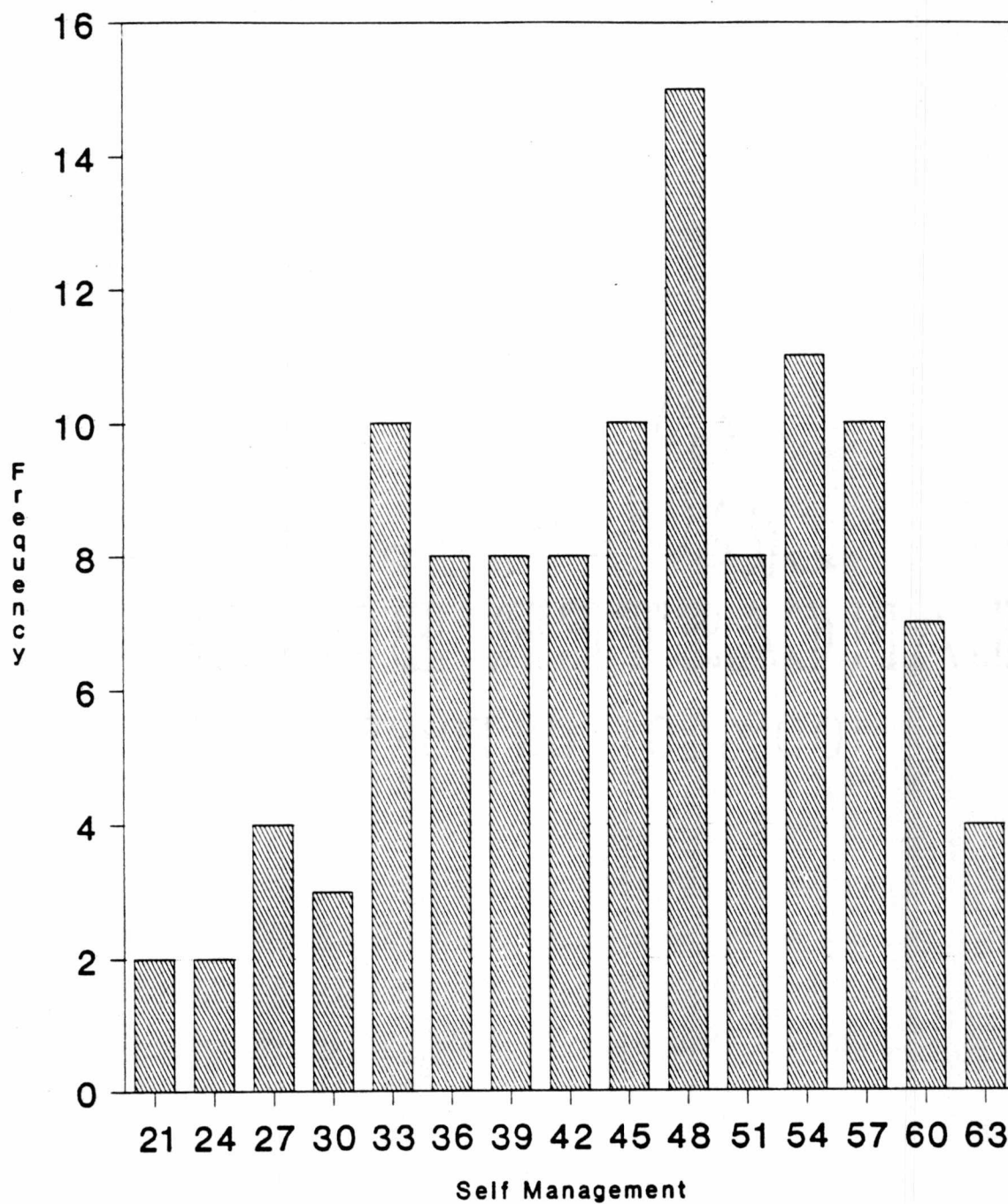


Figure 1 (continued): Frequency distribution Self Management

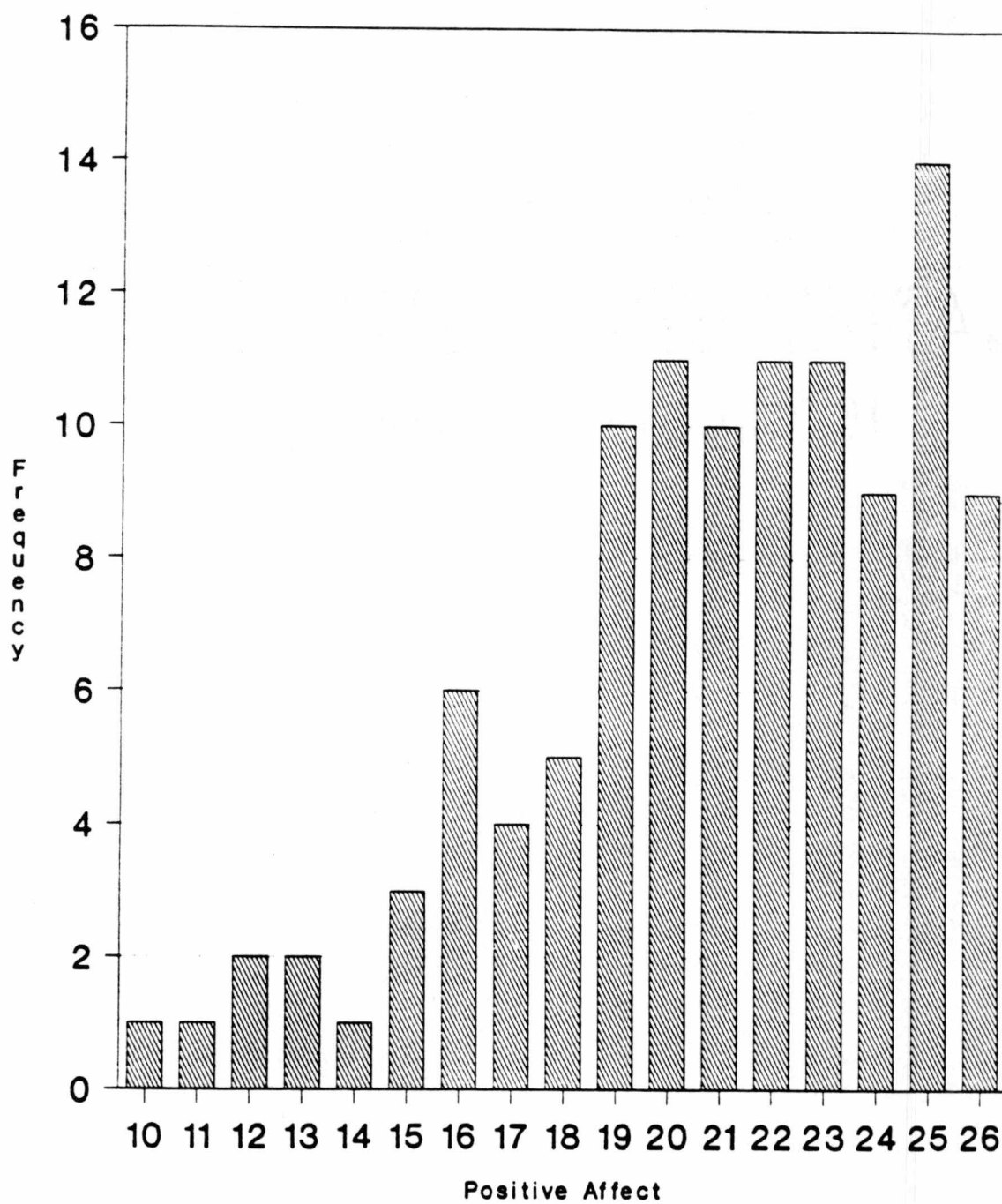
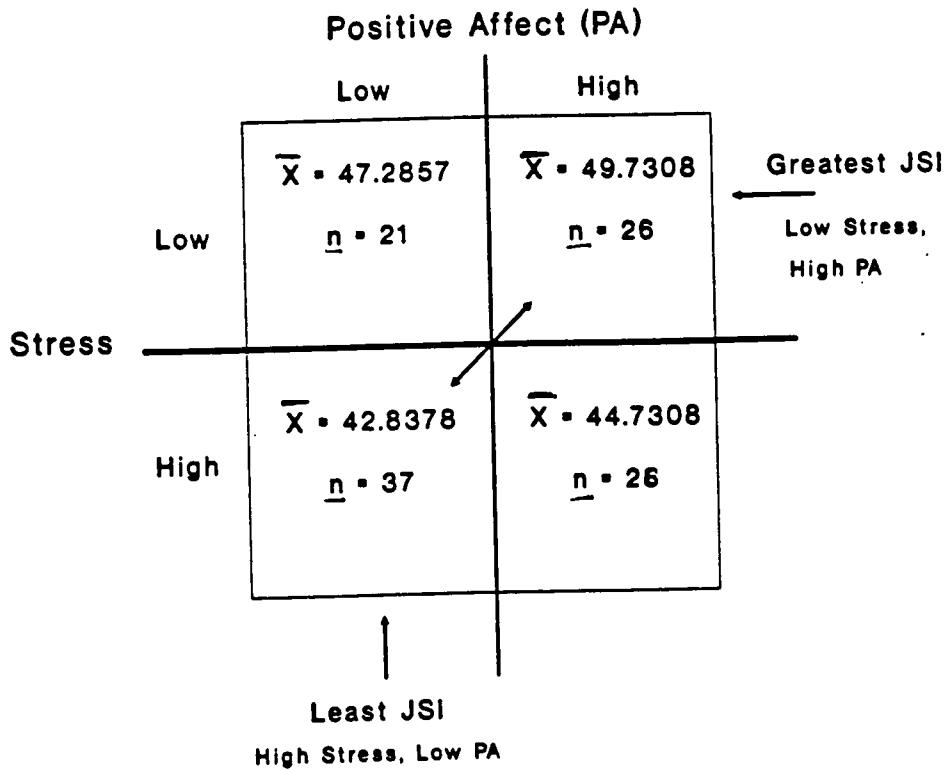


Figure 1 (continued): Frequency distribution Positive Affect

Table of Means



Dependent Variable - Intrinsic Job Satisfaction (JSI)

Figure 2

Table of Means Illustrating The Stress X Positive Affect Relationship With Means On The Dependent Variable, Intrinsic Job Satisfaction

APPENDIX D



**Knox County
Department of Public Instruction**

EARL F. HOFFMEISTER, SUPERINTENDENT

May 16, 1991

Ms. Sharon L. Barkdoll
College of Education, UTK
108 Claxton Education Building
Knoxville, Tennessee 37996

Dear Ms. Barkdoll:

You are granted permission to contact appropriate building-level administrators concerning the conduct of your proposed research study entitled, "Positive Affect, Self-Management, and Stress as They Relate to Teachers' Intrinsic and Extrinsic Job Satisfaction." In the Knox County Schools final approval of any research study is contingent upon acceptance by the principal(s) at the site(s) where the study will be conducted.

In all research studies names of individuals, groups, or schools may not appear in the text of the study unless specific permission has been granted through this office. The principal researcher is required to furnish this office with one copy of the completed research document.

Good luck with your study. Do not hesitate to contact me if you need further assistance or clarification.

Yours truly,

Samuel E. Bratton, Jr.

Samuel E. Bratton, Jr., Coordinator
Research and Evaluation
Telephone: (615) 521-2194

Project No. 132

400 West Main Avenue, P.O. Box 2188, Knoxville, TN. 37901-2188 (615) 521-2415

FORM A

(This form is Federally
auditable and must be
TYPED.)

Certification of Exemption from Review by Full Committee
for Research Involving Human Subjects

CRF # 3543A

Date received in RA

MAY 20 1991

- A. PRINCIPAL INVESTIGATOR(s) and/or CO-PI(s): (For student projects, list both the student and the advisor.)
Sharon L. Barkdoll (student) Dr. Robert L. Williams, advisor
- B. DEPARTMENT:
Educational & Counseling Psychology
- C. COMPLETE MAILING ADDRESS AND PHONE NUMBER OF PI(s) and CO-PI(s):
Sharon L. Barkdoll (ph# 688-1743) Dr. R. L. Williams (ph#9745134)
129 Evergreen Ln., Knoxville, TN 37918 212 Claxton Ed. Bldg., Rm 113
Knoxville, TN 37996-3400
- D. TITLE OF PROJECT:
Positive Affect; Self-Management, and Stress
as they Relate to Teachers' Intrinsic and
Extrinsic Job Satisfaction
- E. EXTERNAL FUNDING AGENCY AND ID NUMBER (if applicable):
- F. GRANT SUBMISSION DEADLINE (if applicable):
- G. STARTING DATE: Upon certification by Coordinator of Compliances. (NO RESEARCH MAY BE INITIATED UNTIL
as soon as certification is granted CERTIFICATION IS GRANTED.)
- H. ESTIMATED COMPLETION DATE (Include all aspects of research and final write-up.):
12-91
- I. Objective(s) of Project (Use additional page, if needed.):

See Attached

II. Subjects (Use additional page, if needed.):

See Attached

III. Methods or Procedures (Use additional page, if needed.):

See Attached

IV. CATEGORY(s) FOR EXEMPT RESEARCH PER 45 CFR 46 (see reverse side for categories): 3

CERTIFICATION: The research described herein is in compliance with 45 CFR 46 101(b) and presents subjects with no more than minimal risk as defined by applicable regulations.

Principal Investigator	<u>Sharon Barkdoll</u>	<u>Sharon Barkdoll</u>	Date <u>5-16-91</u>
Advisor	<u>Robert L. Williams</u>	<u>Robert L. Williams</u>	Date <u>5-16-91</u>
Dept. Review	<u>Mark Hader (BX)</u>	<u>Mark Hader</u>	Date <u>5-16-91</u>
Comm. Chair	<u>R. Stone McCallum</u>	<u>R. Stone McCallum</u>	Date <u>5-16-91</u>
Dept. Head	<u>R. Stone McCallum</u>	<u>R. Stone McCallum</u>	Date <u>5-16-91</u>
APPROVED:	Edith M. Szathmari Coordinator of Compliances Research Administration	<u>Edith M. Szathmari</u>	Date <u>5-20-91</u>

Rev. 10/90

THE UNIVERSITY OF TENNESSEE
KNOXVILLE



CRP #: 3543 A

DATE: 05/21/91

Title: Positive Affect, Self-Management, and Stress as They Relate to Teachers' Intrinsic and Extrinsic Job Satisfaction

Research
Administration

Barkdoll, Sharon L.
Ed. & Counseling Psychology
129 Evergreen Lane
Knoxville, TN 37918

Williams, Dr. Robert L.
Ed. & Counseling Psychology
113 Claxton Ed. Bldg.
Campus

Compliance

Grants &

Contracts

Personnel

Development

Services

The project listed above has been certified exempt from review by the Committee on Research Participation and is approved.

This certification is for a period ending one year from the date of this letter. Please make timely submission of renewal or prompt notification of project termination (see item #2 below).

The responsibilities of the project director include the following:

1. Prior approval from the Coordinator of Compliances must be obtained before any changes in the project are instituted.
2. Submission of a Form D to request renewal, report changes during the approval period, or report termination of the project.

We wish you success in your research endeavors.

Sincerely,

Edith M. Szathmary
Coordinator of Compliances

cc: Dr. Steve McCallum
108 Claxton Ed. Bldg.

Attachment: Copy of Form A

NOTE: Approval applies to Knox County Schools only. When consent letter from Tusculum College is received, your research can be extended to that institution by letter from this office.

404 Andri Hall Tower Knoxville Tennessee 37996-0140 (615) 974-3480 FAX (615) 974-2825

Knox County Schools
Permission to Conduct Research

Date: May 16, 1991

Subject: Stress and Teachers' Job Satisfaction

Researcher(s): Ms. Sharon L. Barkdoll

To: Selected Principals

Ms. Sharon L. Barkdoll has received permission to contact you concerning her research study entitled, "Positive Affect, Self-Management, and Stress as They Relate to Teachers' Intrinsic and Extrinsic Job Satisfaction." Although this study has been approved at the Central Office level, it is our policy to allow the building-level administrator the right to accept or reject a given research project for his/her school or administrative unit. If you have questions or concerns about this project, telephone me at 521-2194. Thank you for your careful consideration of this study.

Samuel E. Bratton, Jr.

Samuel E. Bratton, Jr.
Coordinator
Research and Evaluation

Project No. 132

OK
To
Principal

VITA

Sharon Lunceford Barkdoll was born in New York state, is married and has two children. She attended the University of South Carolina and completed a Bachelor's degree in Education at the University of Tennessee and began a career in special education, teaching at a school for handicapped children.

After teaching for 10 years, Mrs. Barkdoll returned to the University of Tennessee to pursue a graduate degree in Education. She completed requirements for a Ph.D. in November, 1991.