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LEADER ATTITUDES AND LEADER STRESS:  
IS THERE A CONNECTION?

by

Earl B. Kaurala

A Dissertation  
Submitted to the  
Faculty of The Graduate College  
in partial fulfillment of the  
requirements for the  
Degree of Doctor of Education  
Department of Educational Leadership

Western Michigan University  
Kalamazoo, Michigan  
August 1996

## LEADER ATTITUDES AND LEADER STRESS: IS THERE A CONNECTION?

Earl B. Kaurala, Ed.D.

Western Michigan University, 1996

In an era of technological innovation, information explosion, and state and national calls for educational reform, it seems important to adopt processes that will allow for rapid diffusion of knowledge and implementation of new technologies into classrooms. The leadership provided by the principal is extremely important to this process. Unfortunately, principals can be overwhelmed by the conflicting expectations that have become associated with their role within the educational community.

The purpose of this study was to investigate the leadership attitudes of Michigan secondary school principals and the relationship of these attitudes to the work-related stress the surveyed principals indicated they experienced. Of the 234 principals surveyed, 207 returned completed survey instruments.

The instruments used in this study were the Tennessee Stress Scale-Revised (TSS-R, McWilliams & Schnorr, 1989), the Leadership Opinion Questionnaire (LOQ, Fleishman, 1989), and a demographic data sheet. The variables for the study included TSS-R total stress scores, TSS-R coping scores, LOQ consideration scores, LOQ structure scores, gender, age, marital status, years of work experience as a principal, level of educational preparation, grade levels for which the principal is

responsible, presence of an assistant principal, environment, athletic classification as an indication of school size, hours worked per week, and principal self-estimate of stress.

The study showed significant relationships between TSS-R total stress levels and the following variables: TSS-R coping levels, LOQ consideration levels, years of work experience as a principal, level of educational preparation, grade levels for which the principal is responsible, presence of an assistant principal, and principal self-estimate of stress.

The findings indicate that principals often do not cope well with their perceived stress and that they are not always able to define the level of stress they are experiencing. Although increased years of experience, advanced educational preparation, and reduced range of responsibilities have a positive impact upon stress levels, the presence of an assistant principal appears to be a somewhat stronger factor in lowered stress levels. Further research, however, will be necessary to establish the exact nature and degree of the relationships found in this study.

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What is a vision of what might be? Is it a wistful morning vapor that dissipates with the rising sun, or is it made of firmer stuff that will harden and strengthen as the heat of the day beats upon it?

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Earl B. Kaurala

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## CHAPTER I

### INTRODUCTION

#### Context of the Problem

Change in education can be incredibly slow to take meaningful effect (Mort & Ross, 1957; Pincus, 1974). In an era of technological innovation, information explosion, and state and national calls and mandates for educational reform, it seems important to adopt processes that will allow for rapid diffusion of knowledge and implementation of new technologies and strategies into classrooms. The leadership provided by the principal is extremely important to this process (W. F. Smith & Andrews, 1989). Joyce, Wolf, and Calhoun (1993) concluded, after a review of studies dealing with school-improvement initiatives, that school administrators must have "broad responsibility for overseeing the health of the organization, making and coordinating initiatives, and governing the cadre (the technical unit that provides support within the organization)" (p. 28). Furthermore, their investigations of previous studies indicated that "integrated organizations, with collaborative social climates, are more healthy to work in and generate more job satisfaction" (Joyce et al., p. 25). This kind of an organizational environment should result in change that is both rapid and lasting. Unfortunately, principals can be overwhelmed by the often conflicting demands and expectations that have become associated with their role within the educational community. The resulting stress can diminish their

effectiveness as leaders.

Bass's (1985) discussion of changes in leader behavior under varying circumstances is relevant to the concept of leadership during times of stress. Bass pointed out the importance of personal characteristics, such as personality and values, and their effect upon leader behavior under changing situations. In his review of the problem, he reported that leaders with authoritarian leanings will continue to be authoritarian despite situational changes and that leaders who follow egalitarian principles will change their style as the situational demand changes. On the other hand, he also reported that

would-be transformational leaders, leaders with vision, willingness to encourage others to look at old problems in new ways, and to hold on to inner convictions despite continuing disappointments, are persons who can withdraw and refocus their energies, who can remain master of their own fate, who have a variety of other strengths and talents which can carry them during the times of troubles and adversities. (Bass, pp. 171-172)

It is precisely this kind of leadership that is needed of a school principal so that the work of teaching and learning can continue during times of changing political climates, conflicting calls for reform, and confusion and uncertainty about best educational practice. The purpose, then, of this study was to investigate the leadership attitudes of Michigan secondary school principals and the relationship of these attitudes to the work-related stress the surveyed principals indicated they experienced.

A discussion of the research questions used to guide this study of leadership attitudes and leader stress is presented in this chapter. The discussion includes definitions of terms as well as implications for significance. This chapter, then, serves as a preliminary review of the



literature and of the concepts which supported the need for a study of this nature.

## Leadership and Stress

### Leadership

In a search for information that would contribute to the formulation of research questions for a proposed study of leadership attitudes and leader stress, it readily became apparent that leaders must be able to create organizational cultures that are conducive to the achievement of goals that have been embraced by both leaders and followers (Bennis, 1989a; Burns, 1978; Yukl, 1989). It also seemed apparent that principles of transformational leadership that contribute to the growth of collaborative cultures will help to mitigate the negative influences of stress by creating a climate mutually satisfying to leaders and followers (Brimm, 1983, Burns, 1978).

Narrowly defined, leadership at the middle management level is often considered to be "supervision." Thought of in the light of current leadership theory, however, supervision is a positive form of leadership which leads to growth and development of the leader, the follower, and the organization. Sergiovanni (1991), for example, suggested that authority for supervision stems from five sources: bureaucratic, psychological, technical-rational, professional, and moral. Although the first three sources are the most commonly held today, Sergiovanni wrote: "If . . . a vision of teaching as collective practice were to emerge, professional and moral authority would be the driving forces for supervisory

practice. . . . Supervision would then emerge from within educators rather than being externally imposed" (p. 205).

It is possible, then, that a leader who bases authority upon professional and moral foundations will also grow and develop from within. Burns (1978) noted that the relationship between the leader and the follower has the potential of raising "the level of human conduct and ethical aspiration of both leader and led, and thus it has a transforming effect on both" (p. 20). Understood in this context, the purpose of educational leadership is to facilitate the creation of an organization that will be conducive to positive change and to growth for both leaders and followers.

Sergiovanni (as cited in Brandt, 1992), in a 1992 interview, commented that "traditional management theory is based on the notion that organizations are managerially tight and culturally loose when it's probably the opposite: they are managerially loose" (p. 48). The culture of successful schools reflects this mix of loosely and tightly structured systems. One writer exhorted principals to be "tight on mission and loose on technical aspects of how to achieve that mission" (Roberts, 1992, p. 93).

The culture which is established reflects the values that hold the individuals in the organization together. When leader and follower have worked together to build a culture so that they are united in mission, the followers will become "purposeful and enterprising in their actions" (Grimmett, Rostad, & Ford, 1992, p. 186). Ultimately, the leader's purpose is to be part of a process that not only allows for change but that naturally brings about desired change.

At this point, then, it is important to define leadership as it was envisioned in this study.

### Definition of Leadership

The process of transformation from one state to another is exceedingly complex. In the words of Burns (1978):

To perceive the working of leadership in social causation as motivational and volitional rather than simply as "economic" or "ideological" or "institutional" is to perceive not a lineal sequence of stimulus-response "sets" or "stages," nor even a network of sequential and cross-cutting forces, but a rich and pulsating stream of leader-followership forces flowing through the whole social process. The living tissue is unimaginably complex. Much that is causal must be inferred, as apparent "leaders" react to anticipated motivations of apparent "followers" before initial action is taken and as followers react in advance to expected leadership actions. The actual interplay and conflict of countless and infinitely varied motive and power bases produce a density of relationship beyond full comprehension, although the hierarchical and developmental organization of motives, values, and purposes imparts some order and direction. (p. 437)

According to Bennis (1989a), "the key aspect of the process insofar as leadership is concerned is the ability of the leader to develop a collaborative relationship with his subordinates" (p. 2). Yukl (1989) affirmed this definition of leadership by stating that leadership is a "group phenomenon involving an influence process whereby intentional influence is exerted by the leader over the followers" (p. 3).

Bass (1985) described a transformational leader as one who is able to motivate followers to do more than they expected to do. His studies among leaders in business, government, education, and industry showed that transformational factors were more highly correlated with "extra effort by subordinates, perceived unit effectiveness, and

subordinate satisfaction" (Bass, p. 32) than were transactional factors.

Rost (1991) proposed a postindustrial definition of leadership. His definition presented leadership and management as two very distinct concepts having differing purposes and, consequently, the definition does not admit to the necessity of either concept being included in the definition of the other. Under this definition, leadership has four essential elements: "(1) a relationship based on influence, (2) leaders and followers develop that relationship, (3) they intend real changes, and (4) they have mutual purposes" (Rost, p. 127). In his analysis of this postindustrial definition of transformative leadership, Rost rejected a moral definition of leadership while including an ethical dimension. His argument was that a moral definition pertains to the content of leadership whereas the definition needs to be more concerned with process, which includes the ethical dimension. He asserted:

What leaders and followers, as well as leadership watchers and commentators, need to know about the ethics of leadership is the centrality of influence in the leadership process and the essentiality of mutual purposes as common purposes. When they have learned that, they can then talk about and encourage good leadership--that which will, according to their moral standards, generate people, groups, organizations, and societies that exude a higher moral purpose. (Rost, 1991, p. 127)

A close reading of the passage quoted leads to an analysis of "their moral standards." Rost's view is that the definition of moral standards varies from leader to leader. What is perfect morality to one leader is immorality to another.

Burns, in the "Foreword" to Rost's (1991) book, suggested that Rost "underestimates the crucial importance" of the variables of values, ethics, and morality in transforming leadership (Rost, p. xii). He also

doubted Rost's grasp of "the great conflict in great leadership" and thought him to be leaning toward "consensus procedures and goals that . . . erode such leadership" (Rost, p. xii). Nonetheless, Burns found Rost's postindustrial concept of leadership to be compelling and worthy of further study.

Finally, Grimmer et al. (1992) showed that transformational supervisory models foster changes in educational practice. The shift in supervisory practice "finds its expression in a culture of collegiality" (Grimmett et al., p. 186).

For the purposes of this study, leadership was considered to be the ability to create an organizational culture conducive to the achievement of educational goals that have been embraced by both leader and follower.

### The Effects of Stress

Unfortunately, there are intervening variables which can short-circuit this leadership process. One of those variables is leader stress (Parkay & Rhodes, 1992; Swent, 1983). Granted, stress in many circles has become something of a status symbol; and, as such, has been picked up by the popular media. Writing in Macleans, Gordon (1990) ruminates:

In fact, many people probably like the idea of stress. They think of themselves as stressed people. It means . . . that they are trying hard, that they are fighting the odds. Conversely, if they are not stressed, it means that they are doing something wrong in their lives. It is possible that there are people out there suffering stress from worrying that they are not suffering enough stress. (p. 13)

Nevertheless, "work-related stress can have devastating

consequences and result in job dissatisfaction, emotional and physical exhaustion, and a general inability to cope effectively" (Parkay & Rhodes, 1992, p. 104). An analysis of the literature showed that research has clearly established the presence of this type of stress in the lives of those who are in leadership positions. Although stress can have positive results, such as feelings of accomplishment and of increased energy, its negative effects can be enervating. In order to be effective, for example, a "leader's feelings of self-confidence, competency, or self-efficacy . . . provide . . . the feelings that he or she can be a leader and exert influence" (Hunt, 1991, p. 107).

In synthesizing relevant research, Parkay and Rhodes (1992) found that sources of stress identified by researchers include "those related to time demands; difficulties with teachers, students, parents, and community members; lack of district support; inadequate resources; a high level of visibility; and a generalized feeling of responsibility for a total school program" (p. 104). A preliminary examination of these sources would tend to show that they would arise especially in instances where authority for supervision is based upon bureaucratic, psychological, and technical-rational models. Leadership based upon professional and moral sources would seem to be much more conducive to elimination of the types of stress mentioned previously.

Stress, as defined for this study, is delineated in the next subsection.

### Definition of Stress

Stress has been defined in many ways. A general definition of

stress is "any action or situation that places physical or psychological demands on people" (Brimm, 1983, p. 64). Terms commonly associated with stress include frustration, tension, anxiety, strain, and conflict (Brimm, 1983; Parkay & Rhodes, 1992; Tanner, Schnittjer, & Atkins, 1991).

Parkay and Rhodes (1992) defined stress as "an unacceptable, occasionally extreme, tension between one's image of an ideal situation and one's perception of the way things really are" (p. 105). It is this tension which can cause loss of effectiveness in dealing with the myriad responsibilities leaders face every day. Brimm (1983) asserted that "there is little doubt that worker productivity, as well as a person's physical and mental health, is affected greatly by stress and tension" (p. 64).

Selye (1976) defined stress as "the common denominator of all adaptive reactions in the body" (p. 64), or more precisely, as "the state manifested by a specific syndrome which consists of all the nonspecifically-induced changes within a biologic system" (p. 64).

Monat and Lazarus (1991) summarized the many attempts to provide an adequate definition for the term stress by indicating that among experts in the field there is still much debate about the concept itself. They wrote that "finding consensus among definitions of stress and related concepts (such as frustration, threat, and conflict) is . . . likely to remain a difficult endeavor" (Monat & Lazarus, p. 5).

Finally, the Managerial Stress Cycle proposed by Gmelch (1991) and presented in Chapter II of this study used the following definition of stress: "The anticipation of one's inability to respond adequately to a

perceived demand, accompanied by one's anticipation of negative consequences for an inadequate response" (p. 17). Because of the negative connotations of this definition, Gmelch transformed it into a positive one: "The anticipation of one's ability to respond adequately to a perceived demand: accompanied by our anticipation of a positive consequence for an adequate response" (p. 17). He indicated that "the psychological base of this definition plays a major role in the resilience to, or acceptance of, managerial stress as well as the positive or negative character of stress itself" (Gmelch, p. 17).

For the purposes of this study, then, stress was considered to be the result of any action or situation which has the potential of affecting an individual's health as well as that individual's job performance.

### Significance of the Research Questions

The preliminary analysis of the concepts of leadership and stress revealed that a style of leadership that establishes its authority upon professional and moral sources of authority is to be found in transformational models that build collaborative organizational cultures. In a culture where everyone is working together toward common purposes, many of the sources of stress emphasized by researchers may be eliminated, or at the very least, mitigated.

The purpose of this study was to investigate the leadership attitudes of Michigan secondary school principals and the relationship of these attitudes to the work-related stress the surveyed principals indicated they experienced. According to Yackel (1984), the question of stress and its relationship to leadership among school principals is one



that has not often been investigated. Consequently, not only school administrators but also administrator preparation programs may benefit from this study. To investigate the relationships of leadership attitudes and leader stress three research questions were formulated.

First, the researcher sought to explore the sources and effects of stress, stress reduction techniques, and the principals' level of coping. It seemed obvious that stress was an expected part of the principalship. How, then, do secondary school principals currently employed in Michigan cope with the level of stress they experience? Stress coping strategies, other than those which are physiological, have been shown to be ineffectively used over the long term (Roberson & Matthews, 1988). An investigation of the ability of principals to cope with stress should provide useful information to practicing administrators.

A second question sought to discover whether or not there was a relationship between stress and leadership attitudes by posing the question: What is the relationship of the stress being experienced by Michigan secondary school principals to leadership dimensions of consideration and structure? The discussion in the previous sections of this chapter pointed to the possibility of more productive work environments and of reduced stress levels if collaborative cultures have been established.

A final question was developed to investigate the impacts upon stress from variables other than leadership attitudes. The question asked: How do the variables of gender, age, marital status, years of work experience as a principal, level of educational preparation, grade levels for which the principal is responsible, presence of an assistant principal, environment, athletic classification as an indication of size of

school population, hours worked per week, and principal self-estimate of stress level relate to the stress level experienced by Michigan secondary school principals? The variables included in this part of the study would be used to define the nature of the population sample and to study their effect upon a principal's ability to withstand the forces of stress.

### Conceptual Hypotheses

The following conceptual hypotheses were generated for the research questions presented in the preceding section of this chapter. These questions and hypotheses were used to guide the review of the literature.

Question 1: How do secondary school principals currently employed in Michigan cope with the level of stress they experience? The conceptual hypothesis for this question was developed as: There is a linear relationship between the Michigan secondary school principals' ability to cope and their total stress levels.

Question 2: What is the relationship of the stress being experienced by Michigan secondary school principals to leadership dimensions of consideration and structure? For this question, the conceptual hypotheses were developed as: There is a linear relationship between the stress levels of Michigan secondary school principals and their consideration levels, and there is a linear relationship between the stress levels of Michigan secondary school principals and their structure levels.

Question 3: How do the variables of gender, age, marital status, years of work experience as a principal, level of educational preparation, grade levels for which the principal is responsible, presence of an

assistant principal, environment, athletic classification as an indication of size of school population, hours worked per week, and principal self-estimate of stress level relate to the stress level experienced by Michigan secondary school principals? The first nine hypotheses developed for this question conceptualized a relationship between the stress levels of the Michigan secondary school principals in the study and their gender, age, marital status, years of work experience as a principal, level of educational preparation, grade levels of responsibility, presence of an assistant principal, environment, and athletic classification as an indication of school size. Hypothesis 10 conceptualized a relationship between the stress levels of the principals and hours worked per week. The final conceptual hypothesis was stated as: There is a relationship between stress levels of Michigan secondary school principals and self-estimate of stress level.

### Chapter Summary

The purpose of this study was to investigate the leadership attitudes of Michigan secondary school principals and the relationship of these attitudes to the work-related stress the surveyed principals indicated they experienced. The purpose of this introductory chapter was to present background information to support the need for this study. This preliminary discussion led to a presentation of the research questions and conceptual hypotheses.

The next chapter provides a synthesis of the literature pertinent to both leadership and stress. An interpretive summary after the synthesis brings the two concepts together.

## CHAPTER II

### REVIEW OF RELATED LITERATURE

#### Introduction

The purpose of this study was to investigate the leadership attitudes of Michigan secondary school principals and the relationship of these attitudes to the work-related stress the surveyed principals indicated they experienced. The responses of these practicing principals provided insight into the link between leadership attitudes and the stress levels of principals. The leadership that principals provide is needed to create cultures conducive to purposive change (Patterson, 1993; Selznick, 1957; C. S. Smith & Scott, 1990). A review of literature was undertaken to explore what had been written about the effects of stress upon leadership and about the nature of leadership, especially as it related to having potential for creating cultures that could facilitate change.

#### Principal Stress and Impact Upon Leadership

This investigation began with an examination of the sources and effects of stress, stress reduction techniques, and how well principals cope with stress. The results of this literature search gave credence to the conceptual hypothesis of a relationship between principals' ability to cope with stress and their total stress levels.

### Sources of Stress

A review of the literature pertaining to the development of leadership--and transformational leadership in particular--revealed that effective leadership will create a culture in which responsibility for forward movement is shared. Sources of stress that would tend to make it difficult for principals to work effectively in building such cultures of sharing have been well documented in the literature. The most common sources identified included: (a) constraints to administration, (b) interpersonal/intrapersonal relations, (c) administrative responsibilities, (d) time management, (e) responsibility for people, (f) adult pressure groups, (g) role conflict, (h) role expectations, (i) role ambiguity, and (j) task-based or management-type stressors as opposed to instructional-type stressors (Brimm, 1983; Calabrese, 1976; Foster, 1986/1987; Gazda, 1991; Marshall, 1980/1981; McGowan, 1991/1992; Shelton, 1991; Siler, 1983). Although results of studies dealing with the degree of stress caused by stressors in the lives of principals have not been consistent, Kottkamp and Travlos (1986) affirmed that "because of the principal's hierarchical position, stress is likely to have an organizational dimension as well as a strictly personal one. . . . Debilitating effects of stress on the individual may be translated into larger negative effects for the whole school" (p. 235).

Kottkamp and Travlos (1986) attempted to clarify these stressors by using role theory to group various sources of stress felt by school principals into four types:

- (1) role conflict: perception of incompatible work demands;
- (2) role ambiguity: perception of inadequate information

regarding expectations for his or her work; (3) role overload: perception of more work than the principal can complete in a given time; [and] (4) powerlessness: perception that outcomes being sought by the principal cannot be controlled. (p. 236).

They found that role conflict, role ambiguity, role overload, and powerlessness predict job dissatisfaction. Role conflict and powerlessness were individually significant as predictors of job satisfaction. The variables of role conflict, role overload, and powerlessness were found to be individually significant as predictors of emotional exhaustion (Kottkamp & Travlos, p. 241).

### Stress Reduction Techniques

Because of the impact a principal has upon the school, the importance of strategies to help the principal cope effectively with stress arising from a variety of sources is obviously important. This importance is evidenced in the literature where much has been written about various stress reducing techniques. Swent (1983), in a comparative study of 1,245 school administrators, identified three major categories of stress reducers: (1) physiological, (2) cognitive and psychological, and (3) interpersonal and organizational management skills. Category 1 was most often used (66%) by these administrators, with Category 2 (22%) a distant second, and Category 3 (12%) a far-removed third. Swent concluded that this is not surprising, since it is easier to jog three times a week than to change ingrained patterns of action and of thought.

A more recent study by Tanner et al. (1991) showed very little relationship between use of time management techniques and stress. It must be noted, however, that this study correlated the use of these

techniques to various stress-producing administrative functions. The researchers concluded that practicing time management is irrelevant to stress reduction, even though their study did not consider how effectively these strategies were actually being used. Again, it seems likely that ineffective use of coping strategies was the root of the problem. As noted earlier, changing behavior and ways of thinking is difficult.

Roberson (as cited in Roberson & Matthews, 1988) also found that only 13% of the principals in her study reported using direct coping strategies, defined as "planning ways of dealing with stressful situations" (p. 80). Another 13% of the principals confessed to using destructive coping strategies such as excessive eating and drinking.

Shelton (1991), in a study of Missouri school principals, found that 69% of the respondents reported that they coped effectively with their stress. Destructive coping strategies, however, were used by 13% of the principals and 10% of the assistant principals in the study.

Undoubtedly, many of the possible coping strategies can be useful in the short term. Studies of middle level managers in other fields have shown the efficacy of stress management methods. An experimental study of nurse managers and stress management training, for example, showed that job stress can be significantly reduced through participation in stress management programs (Joecken, 1990). In order to be effective, however, the strategies must be consciously employed until they have been internalized.

### Beyond Coping Strategies to Leadership

Effective methods of dealing with stress are critical to personal

and organizational health. A perceived failure to achieve at expected levels will bring about "feelings of insecurity, hopelessness, or desperation" (Brimm, 1983, p. 64). A leader assailed by these feelings will not be successful in accomplishing personal or organizational goals. On the other hand, a study of self-esteem, role stress, and job satisfaction among marketing managers found that a manager's higher self-esteem resulted in better ability to cope with stressors and to prevent them from creating stress (Howell, Bellenger, & Wilcox, 1987).

Because time management techniques as well as other methods of reducing or coping with stress have had only limited success, it is important for the purposes of this study to look at some fundamental aspects of leadership behaviors and attitudes. As noted previously, stress seems to be most meaningfully impacted in the long term by real changes in behaviors, attitudes, and workplace conditions. Although there has been research interest in exploring the connections between administrator behavior, attitudes and/or workplace conditions, and administrator stress, research findings have been inconclusive.

Yackel (1984) surveyed male principals in K-12 schools in rural Saskatchewan. The purpose of this study was to examine the relationship between leadership style and administrative stress. The study found no relationship between leadership style and sources, frequency, or intensity of administrator stress. Neither did it find any relationship between leadership style and coping mechanisms or their use. The researcher believed that the results of the study may reflect the individual nature of leadership style and stress; the instruments used in the study; or perhaps, even the time of year when the study was conducted (June).



Sarros and Friesen (1987) reported on the results of a study which involved 763 teachers and administrators in a large western Canadian school district. The study had three purposes which were to study (1) the nature of administrator burnout, (2) the job factors which might predict burnout, and (3) work conditions that administrators felt led to burnout. The findings revealed that interpersonal relationships were

viewed as major contributors to all three dimensions of burnout. Thirty-eight percent of administrators claimed these relationships contributed to feelings of Depersonalization burnout. A further 26% claimed interpersonal relationships led to Emotional Exhaustion burnout, and 18% identified Personal Accomplishment burnout as a result of unsatisfactory interpersonal relationships. (Sarros & Friesen, p. 169)

Further, the quality and intensity of interpersonal relationships was affected by "the conflict caused by differences in ideologies and values between administrators and their staffs" (Sarros & Friesen, p. 172).

Kottkamp and Travlos (1986) investigated the issue of thrust leadership behavior among 74 New Jersey high school principals. The study examined the relationships among role related stressors, job satisfaction, emotional exhaustion, and thrust. Thrust was defined as:

a dynamic behavior of the principal characterized by efforts to "move the organization." Though "starkly task-oriented" this behavior is not marked by close supervision. Rather, the principal asks no more of teachers than he or she is willing to give and leads through active personal example and modeling of desired behavior. (Kottkamp & Travlos, p. 237)

The findings indicated little relationship between thrust behavior and the variables of job stressors, job satisfaction, and emotional exhaustion. The researchers concluded that response bias or method bias may have contributed to the findings. Also, they wrote: "The operation for thrust

may not be a sensitive measure of principal behavior" (Kottkamp & Travlos, p. 245).

Carr (1994) reported on an Australian stratified random sampling of 94 public school administrators. The report outlined the pressures created by school restructuring efforts that emphasize vocational education, efficiency, and privatization. Thirty-seven percent of those surveyed had anxiety and/or depression scores higher than expected. Demographic factors had no apparent effect upon anxiety or depression levels. Eighty-one percent of the factors contributing to anxiety and/or depression were work related. In the discussion preceding and following the report of the actual study, Carr pointed out that a culture of managerialism has been forced upon school administrators by policy makers. Consequently, "the public school principal becomes an implementor of policy and often an apologist for the government with this technical orientation providing the rationale for why managerial considerations rather than educational ones must take precedence" (Carr, p. 349). Carr suggested that a major implication of the study is that public school principals do not need to be engaged in some kind of adjustment therapy to help mitigate their stress but that, rather, it is the work environment that needs to be adjusted.

This suggestion, as well, underscores the importance of going beyond coping strategies to issues perhaps more fundamental to lessened leader stress. The next section includes a discussion of issues relevant to the second research question, which dealt with leader attitudes and their relationship to stress levels.

### Transforming Leadership and Its Potential for Lessened Stress

If, as has been argued, principal stress has organizational repercussions and, if, as Carr (1994) asserted, workplace environments have impacts upon principal stress, what kind of leadership has the potential for lessening the severity of workplace stress? Research Question 2 speculated about the relationship between the stress principals experienced and the leadership dimensions of consideration and structure. The investigation of this question began with an exploration of transformational leadership and its potential for reducing principal stress through the creation of collaborative work environments. This investigation also gave credence to the conceptual hypothesis that there was a relationship between the leadership attitudes of consideration and structure and the level of stress experienced by the principals who were part of this study.

This section reports on the literature review pertinent to transformational leadership. Included in this report are the ability of this type of leadership to allow for personal growth and, also, the transformational characteristics of empowerment and trust that are necessary to establishing collaborative environments and, consequently, to lessened leader stress. This section also reports on a second concern of this portion of the literature review; specifically, is there evidence that collaborative environments are truly conducive not only to change but also to enhanced school effectiveness? Finally, this section concludes with a report on the importance of principal leadership in instituting a climate receptive to change as opposed to the use of extrinsic motivational systems to promote change.

### Transformational Leadership

In analyzing the ability of transformational leadership to change both the followers and the leader, Burns (1978) wrote:

The transforming leader recognizes and exploits an existing need or demand of a potential follower. But, beyond that, the transforming leader looks for potential motives in followers, seeks to satisfy higher needs, and engages the full person of the follower. The result of transforming leadership is a relationship of mutual stimulation and elevation that converts followers into leaders and may convert leaders into moral agents. (p. 4)

Writing about transforming leadership in another passage, he added:

The premise is that, whatever the separate interests persons might hold, they are presently or potentially united in the pursuit of higher goals, the realization of which is tested by the achievement of significant change that represents the collective or pooled interests of leaders and followers. (Burns, pp. 425-426)

Bass (1985) acknowledged the potential effectiveness of transactional leadership in accomplishing specific purposes. His thesis is, however, that a transformational component will result in the followers performing beyond their own expectations. A good deal of the power in transformational leadership, according to Bass, is found in the inspiring behaviors of the transformative leader. In fact, Bass asserted that "charisma is a necessary ingredient of transformational leadership," adding, however, that charisma is not "by itself . . . sufficient to account for the transformational process" (p. 31). He cautioned, as well, that "the extent to which followers are ready to endow leaders with charisma depends on the personality of the followers as much as on their leaders" (Bass, p. 36). Finally, his analysis of quantitative studies of the transactional and transformative scores of leaders led Bass to

conclude that transformational leadership contributes to "extra effort, effectiveness, and satisfaction with the leader as well as to appraised subordinate performance beyond expectations that are attributable to transactional leadership" (p. 229).

Yukl (1989) summarized the research and thinking relative to transformational leadership with these words: "In general, transformational leaders formulate a vision, develop commitment to it among internal and external stakeholders, implement strategies to accomplish the vision, and embed the new values and assumptions in the culture of the organization" (pp. 230-231).

#### Growth As a Core Value

An examination of the development in the thinking about leadership clearly shows that a core leadership value is growth on the part of both leader and follower. This value is based upon the belief that growth is possible and that professional and personal growth can become a norm in the organization.

A contributing factor to the establishment of this norm is the belief that "leadership empowers the work force" (Bennis, 1989b, p. 23). Bennis, in his descriptive analysis of leadership found that empowerment has four themes: (1) "People feel significant," (2) "learning and competence matter;" (3) "people are part of a community;" and (4) "work is exciting" (p. 23).

Empowerment, in turn, builds trust and allows for risk taking or experimentation. Shared values, a shared sense of purpose, and mutual respect are central to this process. Lao Tzu (as cited in McCollum, 1995)

wrote: "Fail to honor people, they fail to honor you" (p. 242). St. Paul, the New Testament apostle and missionary, rejoiced that the gospel message had been entrusted to him. He exclaimed: "And I thank Christ Jesus our Lord, who hath enabled me, for that he counted me faithful, putting me into the ministry" (1 Tim. 1:12). Because of the trust relationship that had been created, Paul underwent heavy trials without losing heart or confidence. Senge (1995) wrote that rather than losing personal uniqueness, a follower in this kind of relationship actually becomes more deeply aware of his own personal sense of vision and that he, in fact, grows in personal uniqueness (p. 230).

If the educational leaders have fully revealed themselves and their intentions and if they are honest in their relationships, trust will follow. Trust will lead to growth because followers will dare to step unto untrodden ground knowing that their confidence has not been misplaced. "Teachers learn from taking risks and demonstrating new ideas. The value here is that taking risks is preferred over the stagnation resulting from the isolationist, avoidance tendencies shown by teachers in typical school cultures" (Grimmett et al., 1992, p. 189).

The sense of belonging that will be created by conditions of trust and mutual respect is important to the furtherance of the mission that has been established. Kelley (1992) included Pat Riley's response when he was questioned why his successful Los Angeles Lakers worked so hard: "The game is about the primal instinct to be part of something" (Kelley, p. 70). Sergiovanni (1991) clarified this longing for collegiality aptly by stating:

Contrived collegiality is certainly better than no collegiality, but it is still not the same as the real thing. . . . The real thing, by contrast, is connected to the existence of a set of norms and values that defines the faculty as a community of like-minded people who are bonded together in a common commitment. Because of shared work goals and common work identity, they feel obligated to work together for the common good. The source for such collegiality rests in professional and moral authority. (p. 213)

When both leader and follower are acting under this kind of authority, common purposes and mutual growth will occur. At the root of this occurrence is a leader who has enabled the development of a culture of collective, collaborative practice.

#### Effectiveness as a Function of Collaboration

The question, of course, that must be answered deals with the effectiveness of collaborative models as related to enhanced student achievement. The literature reviewed to this point dealt with leadership styles that have the potential of building work climates conducive to positive teacher and principal interactions. A personally satisfying work place will, as a matter of course, not lead to debilitating stress for either leader or follower. In an educational setting, however, one expects more than worker happiness. The various reform movements referred to in Chapter I as well as the professional ethics of principals and teachers demand that student achievement be positively affected by what happens in the school and in the individual classrooms.

#### Difficulty of Defining Effectiveness

Unfortunately, research into what makes a particular school effective has been clouded by uncertainty over the definition of effectiveness

and by misapplications of the results of school effectiveness research. Purkey and Smith (1983) undertook a comprehensive survey of school effectiveness studies. They found many points of agreement among the various studies, but they also found effectiveness characteristics that were peculiar to some studies but not to others. Then, too, they also discovered that schools seemed to leap into adopting various characteristics without any regard to the possibility that a method that worked under one set of circumstances may not work in another. These researchers preferred to think of the identified effectiveness characteristics as being "seeds for school improvement that can be sown elsewhere" (Purkey & Smith, p. 439).

#### Contributions of School Culture to Effectiveness

These concerns aside, there appears to be evidence that school culture characterizes academically effective schools. In such schools, "a structure, process, and climate of values and norms emphasize successful teaching and learning" (Purkey & Smith, 1983, p. 442). Purkey and Smith concluded that how consensus is built is the key to improving schools. Their studies led them to believe that two groups of variables play a critical role in the process of building the culture and climate necessary for academic effectiveness.

The first group is composed of organizational and structural variables that can be manipulated by administrative and bureaucratic means. These variables are necessary to the development of the second group. The variables in the first group are (a) "school-site management," (b) "instructional leadership," (c) "staff stability," (d) "curriculum articulation



and organization," (e) schoolwide staff development," (f) "parental involvement and support," (g) "schoolwide recognition of academic success," (h) "maximized learning time," and (i) "district support" (Purkey & Smith, 1983, pp. 443-444).

School culture and climate, according to Purkey and Smith (1983), is central to whether a school is effective in achieving its stated goals, whatever the nature of those goals might be. The elements of a school culture that has the potential for such effectiveness include (a) "collaborative planning and collegial relationships," (b) "sense of community," (c) "clear goals and high expectations commonly shared," and (d) "order and discipline" (Purkey & Smith, p. 445). The power of the culture defined by the variables in both groups is that the culture developed is not "directly susceptible to bureaucratic manipulation" (Purkey & Smith, p. 443).

Little and Bird (1984) reported results of a study undertaken to determine the influence secondary school principals have upon teaching and learning. This ethnographic study of four high schools and one junior high school led Little and Bird to conclude that the way the school was organized was pertinent to the improvement of curriculum and instruction within that school. Speaking of schools that exemplified characteristics of success, they wrote: "These are schools in which a pattern of principles and priorities is clear, and in which academic and other gains appear to have followed from administrators' and teachers' work with one another" (Little & Bird, p. 25).

Little (1982) reported on workplace conditions of school success as illuminated by a study of four successful and two unsuccessful

schools. She found that schools best able to adapt to change and most often deemed successful were those that sustained "sharing expectations (norms) both for extensive collegial work and for analysis and evaluation of an experimentation with their practices" (p. 338) and in which, consequently, continuous improvement was undertaken by mutual agreement.

Paredes (1993) reported on a study that corroborated the importance of school climate issues to student persistence to stay in school. Teachers and students in 10 Austin, Texas, schools were surveyed to investigate three factors of school climate: teachers as professionals, goals for student learning, and school discipline and management. Teachers' expectations for student success and teachers' instructional goals were related to higher achievement and lower dropout rates. These findings indicated the importance of school climate as a variable in school improvement.

#### Leadership That Unifies and Mobilizes for Success

Leadership of the principal appeared to be crucial to creating effective school cultures and climates. The studies reviewed in the earlier part of this chapter indicated that leadership founded upon transactional practices is not able to sustain continued growth and development and that it would not promote long-term positive change. At this point, then, it seems important to consider various motivational strategies that might be a part of transformative leadership that would lead to heightened teacher performance and student achievement and to lessened principal stress.

In a study of merit pay systems and their effects upon schools, Bacharach, Lipsky, Shedd, and Wood (1984) noted that these systems overly emphasized extrinsic rewards as teacher motivators. Although monetary incentives have their purposes, most attention in effective schools, according to Bacharach et al., was given to processes that moved the locus of responsibility for coordination of teaching and learning from the administrator to the teacher. In a collaborative, collegial culture teachers had grown to realize that "their responsibility is to their school and its students, not to the principal and their 'own' students" (Bacharach et al., p. 62).

The idea that good performance is self-rewarding and motivating in itself was a theme central to Rosenholtz's (1989) theoretical framework for the definition of workplace commitment. The perennial and perplexing problem of how to unify commitment so that teachers are working toward the same instructional goals was studied by Rosenholtz and her colleagues in a study of eight Tennessee school districts. A study of the data revealed that task autonomy and discretion had a moderately strong correlation to teacher commitment as did teacher psychic rewards and learning opportunities. Rosenholtz concluded:

When principals relinquish their need to control, trusting faculty with discretionary decisions, decisions that may result in greater performance fulfillment, teachers tend to become more unstinting contributors to the workplace. Teachers' psychic rewards also contribute in an equally meaningful way to their workplace commitment. Indeed . . . their sense of pride in success not only enhances their commitment but also the amount of effort they are willing to put forth in future planning. Finally, although to a somewhat lesser extent, teachers' learning opportunities show a significant independent effect on teacher commitment, underscoring the likely importance of new work challenges in combating workplace alienation and boredom and in

increasing their sense of control over their professional environment. (pp. 144-147)

Teacher motivation, then, is more a factor of intrinsic reward systems than of extrinsic systems. A leader who is able to generate enthusiasm and commitment among the members of the school staff will have a greater likelihood of seeing increased achievement of school goals. The kind of leadership that unifies and mobilizes followers will result in positive benefits to the entire school community.

### Effective Leader Behavior: Structure and Consideration

As a result of the many reports of the success of collaboration in promoting effective change, education reform efforts have urged the use of shared decision making as part of school governance structures. Recent studies, however, have tended to show that "when it comes to making significant changes in practice, it is the principal's leadership and vision that most often provide the essential push" (Miller, 1995, p. 1). The following paragraphs discuss two leadership studies that have had a continuing impact upon leadership theory and practice. These studies support the focus of the second research question upon consideration and structure as important leadership attitudes.

The Michigan leadership studies (as cited in Yukl, 1989) revealed that managerial task-oriented behavior and relationship-oriented behavior along with participative leadership were the types of leadership behavior associated with positive work-group productivity. Task-oriented behavior pertained to leader involvement with planning and scheduling, providing necessary resources to get a task accomplished, and leading followers in

establishing high but attainable performance goals. Relationship-oriented behavior was demonstrated in the manager's

showing trust and confidence, acting friendly and considerate, trying to understand subordinate problems, helping to develop subordinates and further their careers, keeping subordinates informed, showing appreciation for subordinates' ideas, and providing recognition for subordinate contributions and accomplishments. Moreover, effective managers tended to use general supervision rather than close supervision. (Yukl, p. 83)

Finally, Yukl related that studies by the University of Michigan tended to show that greater satisfaction and higher performance were shown by subordinates who had participated in decision-making processes. Other studies, however, while supporting greater satisfaction and performance levels among followers who worked under participative leaders, showed that satisfaction and performance improved under leaders who exhibited higher levels of task-oriented and relationship-oriented behaviors than under leaders who scored at lower levels in these behaviors (Yukl, 1989).

The task- and relationship-oriented behaviors corresponded to the structure and consideration dimensions analyzed in the Ohio leadership studies (as cited in Yukl, 1989). In these studies consideration is defined as "the degree to which a leader acts in a friendly and supportive manner, shows concern for subordinates, and looks out for their welfare" (Yukl, 1989, p. 75). Initiating structure is defined as "the degree to which a leader defines and structures his or her own role and the roles of subordinates toward attainment of the groups' formal goals" (Yukl, 1989, p. 75).

As studied by Fleishman and Harris (1962), subordinates were

more satisfied under the leadership of managers who were relatively high in consideration. In fact, structuring behavior did not create negative effects upon follower satisfaction if moderate to high levels of consideration were present.

Leaders who are acting on the basis of a philosophy of leadership rooted in transformational principles will display the characteristics of consideration and initiating structure. As noted earlier, the transformational leader is one who is able to create a climate of true collaboration and collegiality based upon mutual trust. As leader and follower work to promote mutually established goals, the transformative leader will continue to keep a sharp focus upon both the vision and the mission of the organization. This leader, who has been involved in creating a collaborative environment, will also suffer fewer negative effects of stress.

The discussion in the previous sections emphasized that change of any kind is extremely difficult. A stressed-out leader is not going to be able to bring about personal change or growth; neither will such a leader be able to create an atmosphere in which followers will flourish and where mutually established organizational aims will be accomplished.

### **The Influence of Demographic Variables**

The measurable effects of this environment in a school situation upon the stress experienced by the principal have not, however, been satisfactorily established. Studies of the relationship between leadership style or behavior examined in the literature review tend to show little relationship. Researchers have suggested many reasons for these results--for example, research methods, testing instruments, and even

time of year. Another consideration, of course, is the effect of various demographic variables upon both leadership and stress. The final research question asked how the variables of gender, age, marital status, years of work experience as a principal, level of educational preparation, grade levels for which the principal is responsible, presence of an assistant principal, environment, athletic classification as an indication of size of the school population, hours worked per week, and principal self-estimate of stress related to the stress level experienced by Michigan secondary school principals.

Research studies have pointed to the influence of personal and environmental variables upon the stress experienced by school administrators. Calabrese (1976), for example, found that the size and location of the school and years of principal experience had implications for the use of the coping strategy of time management. Siler (1983) discovered that experience and social support from family, friends, and colleagues were important to reducing stress and increasing ability to cope. Kottkamp and Travlos (1986) studied the effects of age upon perceived stress. In their analysis of other studies, they found conflicting results reported: lowered stress with advancing age and increased stress with age in boundary spanning positions and among high level executives as well as increased stress from mid-life changes in the first half of the fourth decade of life. In their own study of stressors, emotional exhaustion, and thrust behavior, only 40-46-year-old principals manifested predicted relationships. On the other hand, age, experience, and education were not found to be moderators of stress among marketing managers in a study reported by Howell et al. (1987). Cooper (1988)

reported that the origin of 8 out of 10 of the top 10 stressors were to be found in the day-to-day administrative duties of the principal. Roberson and Matthews (1988) also discovered that principal work load had great influence upon stress levels. Washington (1980) reported that urban principals perceived their jobs to be more stressful than those of other professionals. Fong and Amatea (1992) found that single professional women had higher levels of stress symptoms than married women who were also parents. Gadzella, Ginther, and Bryant (1990) learned that married professionals of both sexes had significantly higher scores on coping mechanisms than did single subjects. E. Smith (1995) reported finding in a study of university faculty higher stress among women than among men. Schnorr and McWilliams (1989), however, noted that the stress experienced by women in professional and managerial roles was not remarkably different from the stress experienced by men in those positions. Finally, Gmelch (1991) concluded, after analyzing the results of several studies, that "the evidence that either men or women experience more stress is inconclusive and does not prove to be a productive or functional line of inquiry for applied research" (p. 4).

These and other studies pointed to the existence of factors that could have an important impact upon the leadership abilities of school principals. The impact, however, of these variables has been unclear. For that reason, the work of Gmelch (1991) was particularly helpful in understanding why the findings of the effect of demographic variables upon stress may be so inconclusive.

Gmelch (1991), as a result of his studies of stress, suggested in his presentation of the Managerial Stress Cycle that the so-called



secondary filters of the stress cycle moderate each stage of the stress cycle. The four stages of the cycle are composed of (1) stressors, (2) perception of these stressors, (3) responses, and (4) consequences of the responses. The filters include demographic considerations as well as the individual's personality and predisposition. Consequently, the attitude of the leader may significantly filter perceptions of stress and may determine resultant responses and consequences.

Taken as a whole, the various studies of stress appeared to give credence to the conceptual hypothesis of a relationship between the various demographic variables posed in the third research question and the level of stress experienced by Michigan secondary school principals.

### Chapter Summary

Stress is, indeed, a fact of life in the principalship. Stress has been shown to be an intervening variable that can make it difficult or even impossible for the leader to create a culture conducive to the achievement of goals embraced by both leader and follower. Principles of leadership that contribute to the growth of collaborative cultures should help to mitigate the negative influences of stress and should serve to create a climate where the positive aspects of stress are much in evidence.

A leader with an orientation toward building a collaborative culture will be a leader who is not suffering from the ill effects of negative stress. The literature survey indicated that many of the stress-producing factors are role related. The time, clearly, has come for a redefinition of the role of the leader. A transformational leader is one who is self-confident and assured because everyone is working together toward the

achievement of mutually established goals. The leader no longer must be "a cut above" everyone else in the organization; rather all in the organization are partners working toward a common end.

Such an environment is liberating to both leader and follower. The leader, for example, will spend less time being a watchdog and more time in such satisfying pursuits as team-building and community outreach. Followers will be free to work toward accomplishing personal and organizational goals without intensely bureaucratic considerations and restrictions.

The purpose of this study was to investigate the leadership attitudes of Michigan's secondary school principals and the relationship of these attitudes to the work-related stress they experienced. This chapter has reviewed pertinent analyses and research studies that have dealt with leadership, stress, and the relationship between leadership and stress. Chapter III presents the research methodology used for the present study.

## CHAPTER III

### METHODOLOGY AND INSTRUMENTATION

#### Introduction

The purpose of this study was to investigate the leadership attitudes of Michigan secondary school principals and the relationship of these attitudes to the work-related stress the surveyed principals indicated they experienced. The technique of survey research was used to collect data to search for answers to the research questions. Specifically, the study sought to examine (a) how secondary school principals coped with the level of stress they experienced; (b) the relationships between the stress levels of these principals and their consideration and structure levels; and (c) how the variables of gender, age, marital status, years of work experience as a principal, level of educational preparation, grade levels for which the principal is responsible, presence of an assistant principal, environment, athletic classification as an indication of size of school population, hours worked per week, and principal self-estimate of stress level related to the stress levels experienced by Michigan secondary school principals. This chapter presents the methods used in the study.

#### Subjects in the Study

The subjects for this study were randomly selected from the target population of 590 secondary school principals who were

employed as principals in one of the public high schools in Michigan during the school year 1993-94. Secondary school principals' names were obtained from the Michigan Education Directory 1993 (Michigan Education Directory, Inc., 1993), which lists all public school principals in Michigan for the academic school year of publication. For each district in the state, the directory lists the elementary, middle, and secondary schools with the names of their principals. Secondary principals were considered to be principals in buildings designated in the directory as housing pupils in Grades 7-12 or some combination of these grades. All of the names of the secondary principals were numbered; and using a table of random numbers, a sample of 234 principals was selected.

In determining an appropriate sample size, the "Table for Determining Needed Size of a Randomly Chosen Sample From a Given Finite Population of  $N$  Cases Such That the Sample Proportion  $p$  Will Be Within  $\pm .05$  of the Population Proportion  $p$  With a 95 Percent Level of Confidence" in Isaac and Michael (1981, p. 193) revealed that an  $N$  of 600 needs an  $s$  of 234. This represents 39% of the population. The sample figure of 234 from an  $N$  of 590 represents 39.66% of the population.

### Instrumentation

Three instruments were used to collect data for this study: (1) the Leadership Opinion Questionnaire (LOQ, Fleishman, 1989), (2) the Tennessee Stress Scale-Revised (TSS-R, McWilliams & Schnorr, 1989), and (3) a demographic data sheet. Each of these instruments is discussed in this section.

The Leadership Opinion Questionnaire, developed by Fleishman

(1989) is a 40-item questionnaire in Likert-type scale. The LOQ was chosen because it measures the leadership dimensions of consideration and structure which reflect leadership attitudes pertinent to building a collaborative culture oriented toward accomplishing definite goals.

The Examiner's Manual (Fleishman, 1989) for the LOQ includes the following information about these dimensions:

Consideration (C) reflects the extent to which an individual is likely to have job relationships with subordinates characterized by mutual trust, respect for their ideas, consideration of their feelings, and a certain warmth between the individual and them. A high score is indicative of a climate of good rapport and two-way communication. A low score indicates the individual is likely to be more impersonal in relations with group members.

Structure (S) reflects the extent to which an individual is likely to define and structure his or her own role and those of subordinates toward goal attainment. A high score on this dimension characterizes individuals who play a very active role in directing group activities through planning, communicating information, scheduling, criticizing, trying out new ideas, and so forth. A low score indicates the individual is likely to be relatively inactive in giving direction in these ways.

An important research finding is that these dimensions are independent. This means that supervisors may be high on both dimensions, low on both, or high on one and low on the other. (Fleishman, 1989, p. 1)

Internal consistency reliabilities of the LOQ have been determined using split-half and test-retest methods. Reliability estimates in various studies have ranged from .62 to .89 (Fleishman, 1989). Gibb (1972) questioned the direct validities of the LOQ scores to criterion performance but pointed out that Fleishman and others have emphasized the contingent significance of other variables to the relationships between leader attitudes and behavior and the effectiveness of leadership. Kirchner (1965) concluded that the LOQ presented good evidence of

validity and that it was more suitable for research and training activities than as an instrument for evaluating supervisory performance.

The researcher was given permission by London House, a division of Macmillan/McGraw-Hill, to purchase the Leadership Opinion Questionnaire (LOQ) for dissertation research. A discount of 10% was promised upon receipt of an overview of the research results and of the LOQ scores for normative purposes. The LOQ contains 40 statements. Each statement is followed by five choices. To score, the response sheet is literally taken apart, as the questions are on two sheets of paper separated by a carbon sheet. Each of the five possible responses for each item is numbered 0-5, and each item is designated as belonging to either the consideration or structure dimension. The scorer must tally the scores for each dimension. Tables of norms for various professions are given in the Examiner's Manual (Fleishman, 1989). For the purposes of this study, raw scores were used for the analysis of the results.

The Tennessee Stress Scale-Revised (TSS-R), developed by McWilliams and Schnorr (1989), measures work-related stress in three areas: stress producers, stress coping mechanisms, and stress symptoms. The TSS-R was developed to measure stress among professionals in many fields. Normative characteristics for educational professionals are available. Reliability tests, as reported by McWilliams and Schnorr indicate a .88 test-retest reliability. McWilliams and Schnorr, in assessing the validity of their instrument, found that all variables correlated strongly with the Eysenck Personality Inventory Neuroticism scale (.89), with the Eysenck Personality Questionnaire Neuroticism scale (.83 to .89), and with the Psychoticism scale of the Eysenck Personality

Questionnaire (.81 to .89).

The TSS-R is composed of 60 items. Items 1-20 refer to stress producers, Items 21-40 to stress coping mechanisms, and Items 41-60 to stress symptoms. The subscores are added to obtain the total score. Responses are in a yes/no format. Directions for scoring indicate which items receive a score of 1 and which items receive a 0.

To collect demographic data on variables that were thought to have a bearing upon the stress levels of principals, the researcher created a one-page personal data sheet which was attached to the TSS-R. Demographic information requested included gender, age, years of work experience as a principal, level of educational preparation, grade levels for which the principal is responsible, presence of an assistant principal, environment, and athletic classification as an indication of size of school population. Information gleaned from the TSS-R itself included hours worked per week, marital status, and personal estimate of stress.

### Procedures

After protocol clearance had been received from the Human Subjects Institutional Review Board (Appendix A), the survey instruments were sent out with a cover letter to each of the principals in the study. One hundred and sixty-four responses (70%) were received. A second cover letter and a new set of materials were sent to principals who had not responded a month after the first materials had been sent. Included in the packet was a fresh, \$1 "for a cup of coffee" on the researcher. By the time another month had gone by, 207 responses (representing 88.46% of the sample) had been received. One of the

group of nonresponders returned the material with a note stating he or she did not wish to participate, and another nonrespondent had retired. The remaining 25 nonrespondents remain anonymous.

Return envelopes were numbered to keep track of respondents. As envelopes were received, the completed survey forms were taken out and given numbers. This new number became the ID number used in the final tallying and data entry. After 207 responses had been received, the forms were scored. Scores were then placed upon individual tally sheets.

### Method of Data Analysis

The information collected and tallied was coded, put into a Statistical Package for Social Sciences (SPSS) data set, and entered into a mainframe computer for analysis with appropriate statistical procedures. The SPSS computer program (Norusis, 1990b) was used to carry out the procedures. An alpha level of .05 was used to test all of the null hypotheses. Listed below are the research questions used with the hypotheses proposed to answer the questions.

Question 1: How do secondary school principals currently employed in Michigan cope with the level of stress they experience? The conceptual hypothesis for this question was developed as: There is a linear relationship between the Michigan secondary school principals' ability to cope and their total stress levels. "Ability to cope" was operationalized as the coping score from the Coping subsection of the Tennessee Stress Scale-Revised and "total stress level" as the composite score for total stress on the Tennessee Stress Scale-Revised. The SPSS procedure for correlations was used to test the null hypothesis that the



Pearson correlation coefficient would be zero.

Question 2: What is the relationship of the stress being experienced by Michigan secondary school principals to leadership dimensions of consideration and structure? Two conceptual hypotheses were developed for this question. The first conceptual hypothesis was that there is a linear relationship between the stress levels of Michigan secondary school principals and their consideration levels. The second was that there is a linear relationship between the stress levels of Michigan secondary school principals and their structure scores. The independent variable "stress level" was operationalized as the total stress score on the Tennessee Stress Scale-Revised. The dependent variable consideration was operationalized as the consideration score on the Leadership Opinion Questionnaire. The dependent variable structure was operationalized as the structure score on the Leadership Opinion Questionnaire. The SPSS procedure for correlations was used to test the null hypotheses that the Pearson correlation coefficient would be zero for each case.

Question 3: How do the variables of gender, age, marital status, years of work experience as a principal, level of educational preparation, grade levels for which the principal is responsible, presence of an assistant principal, environment, athletic classification as an indication of size of school population, hours worked per week, and principal self-estimate of stress level relate to the stress level experienced by Michigan secondary school principals? The 11 conceptual hypotheses with the operationalized variables and null hypotheses are listed below. The variable of stress level in each hypothesis was operationalized as the total stress

score on the Tennessee Stress Scale-Revised. One-way analysis of variance was used to test Hypotheses 1-9.

Hypothesis 1: There is a relationship between the stress levels of Michigan secondary school principals and the principals' gender. Gender was operationalized as either female or male as recorded on the demographic data sheet created by the researcher. The null hypothesis tested was that the mean total stress score on the TSS-R is equal for female and male.

Hypothesis 2: There is a relationship between the stress levels of Michigan secondary school principals and their age. Age was operationalized as one of the eight age categories indicated by the respondent on the demographic data sheet. The eight age categories were 25-30, 31-35, 36-40, 41-45, 46-50, 51-55, 56-60, and 61-65. The null hypothesis tested was that the mean total stress score on the TSS-R is equal for all age categories.

Hypothesis 3: There is a relationship between the stress levels of Michigan secondary school principals and their marital status. Marital status was operationalized as one of the four categories indicated by the respondent on the demographic data sheet. The categories were single, married, other, and no response. The null hypothesis tested was that the mean total stress score on the TSS-R is equal for all marital categories.

Hypothesis 4: There is a relationship between the stress levels of Michigan secondary school principals and their years of work experience as a principal. Years of work experience as a principal was operationalized as one of the seven categories of work experience as indicated by the respondent on the demographic data sheet. The categories were 1-5,

6-10, 11-15, 16-20, 21-25, 26-30, and 31-50. The null hypothesis was that the mean total stress score on the TSS-R is equal across all categories of work experience.

Hypothesis 5: There is a relationship between the stress levels of Michigan secondary school principals and their level of educational preparation. Level of educational preparation was operationalized as one of the five categories of educational preparation as indicated by the respondent on the demographic data sheet. The categories were bachelor of arts, master of arts, specialist, doctorate, other, and no response. The null hypothesis was that the mean total stress score on the TSS-R is equal for all categories of educational preparation.

Hypothesis 6: There is a relationship between the stress levels of Michigan secondary school principals and the grade levels for which the principal is responsible. Grade levels for which the principal is responsible was operationalized as one of four categories indicated by the respondent on the demographic data sheet. The categories were 7-12, 9-12, 10-12, and other. The null hypothesis was that the mean total stress score on the TSS-R is equal across all grade levels of responsibility.

Hypothesis 7: There is a relationship between the stress levels of Michigan secondary school principals and the presence of an assistant principal. Presence of an assistant principal was operationalized as one of three categories indicated by the respondent on the demographic data sheet. The categories were yes, no, and no response. The null hypothesis was that the mean total stress score on the TSS-R is equal for all categories of response.

Hypothesis 8: There is a relationship between the stress levels of

Michigan secondary school principals and the environment. Environment was operationalized as one of four categories (urban, suburban, rural, and other) as indicated by the respondent on the demographic data sheet. The null hypothesis was that the mean total stress score on the TSS-R is equal for all categories of environment.

Hypothesis 9: There is a relationship between the stress levels of Michigan secondary school principals and athletic classification as an indication of size of school population. Athletic classification was operationalized as one of five categories (A, B, C, D, and no response) as indicated by the respondent on the demographic data sheet. The null hypothesis was that the mean total stress score on the TSS-R is equal for all categories of athletic classification.

Hypothesis 10: There is a linear relationship between the stress levels of Michigan secondary school principals and hours worked per week. Hours worked per week was operationalized as the average hours worked per week indicated by the respondent on the TSS-R. The SPSS procedure for correlations was used to test the null hypothesis that the Pearson correlation coefficient is zero.

Hypothesis 11: There is a relationship between the stress levels of Michigan secondary school principals and self-estimate of stress level. Self-estimate of stress level was operationalized as either mild, moderate, severe, or no response as indicated by the respondent on the TSS-R. The operationalized hypothesis was that the observed percentage of principals in each of the categories of mild, moderate, severe, or no response would be different from the expected percentage of principals in each of the categories. The null hypothesis tested was that the

observed percentage would not be different from the expected percentage. A chi-square test for independent proportions was used to test this hypothesis.

### Chapter Summary

This chapter presented a discussion of the methods used to carry out this research project. The population from which the sample was selected, the instruments and procedures used to collect data from the population sample, and the methods of analyzing the data collected were included. The next chapter contains a discussion of the results of the data analysis.

## CHAPTER IV

### PRESENTATION OF DATA

#### Introduction

The purpose of this study was to investigate the leadership attitudes of Michigan secondary school principals and the relationship of these attitudes to the work-related stress the surveyed principals indicated they experienced. The study also identified various demographic features and related them to the work-related stress reported by these principals. Presented first in this chapter are the demographic data collected for each category of respondent response. Then, the results of the data analysis as they pertain to the research questions and hypotheses of the study are presented. The chapter concludes with a summary.

The survey instruments used for this study were (a) the Leadership Opinion Questionnaire (LOQ, Fleishman, 1989), (b) the Tennessee Stress Scale-Revised (TSS-R, McWilliams & Schnorr, 1989), and (c) a demographic data sheet. The survey was sent out to 234 Michigan secondary school principals. A total of 207 principals, 88% of those surveyed, returned completed surveys. A comparison of respondents and nonrespondents, as based upon information available in the Michigan Education Directory 1993 (Michigan Education Directory, Inc., 1993), did not indicate any readily apparent differences between the two groups.

## Demographic Profile

### Personal Information

Information of a personal nature that might have some bearing upon general stress levels was gathered as part of the demographic profile. Respondents were asked to indicate their gender, age, marital status, and an estimate of the level of their work-related stress. The percentages for each category of information are compiled in Table 1. An examination of these figures gives insight into the nature of those who participated in the study.

Table 1  
Michigan Secondary School Principals:  
Profile of Personal Information

Category	%	<u>n</u>
<u>Gender</u>		
Female	8.7	18
Male	91.3	189
<u>Age</u>		
25-30	0.5	1
31-35	1.4	3
36-40	8.7	18
41-45	25.6	53
46-50	32.4	67
51-55	19.3	40

Table 1--Continued

Category	%	<u>n</u>
<u>Age (Continued)</u>		
56-60	9.2	19
61-65	2.9	6
<u>Marital status</u>		
Single	9.2	19
Married	71.5	148
Other	0.5	1
No response	18.8	39
<u>Estimate of stress</u>		
Mild	11.6	24
Moderate	55.1	114
Severe	19.3	40
No response	14.0	29

Of the 207 respondents, 91.3% were male and 8.7% were female, reflecting the nature of the population of school principals by gender. Nationally, 10% of the high school principalships are held by women (Heller, Woodworth, Jacobsen, & Conway, 1991). Although the Michigan Education Directory 1993 (Michigan Education Directory, Inc., 1993) information was unclear as to principal gender, an examination of available information appeared to show that male principals vastly outnumber their female counterparts. Unfortunately, inquiries about the gender distribution of Michigan secondary school principals at the state



of Michigan level were not fruitful.

Information about the age of the respondents were gathered in eight categories, ranging from 25 to 65. The age group of 41-55 accounted for 77.3% of the principals, with the greatest concentration being in the 46-50-years-old range (32.4%). As might be expected, only 1.9% of the principals responding were in the 25-35-years-old age group.

Slightly over 70% of the principals reported that they were presently married. A total of 39 principals, or 18.8% of those surveyed, chose not to respond to this item.

The principals surveyed were asked to estimate their stress as to whether they considered their work-related stress to be in one of three categories: mild, moderate, or severe. Slightly over 74% reported moderate to severe stress levels.

### Work-Related Information

Work-related information useful in describing characteristics of the sample respondents included the following categories: (a) years of work experience as a principal, (b) level of educational preparation, (c) grade levels for which the principal is responsible, (d) presence of an assistant principal, (e) environment, (f) athletic classification as an indication of size of school population, and (g) hours worked per week. The percentages for each category of responses are compiled in Table 2. An examination of these figures helps to clarify the nature of those principals who responded to the survey instruments.

Table 2  
Michigan Secondary School Principals:  
Profile of Work-Related Information

Category	%	<u>n</u>
<u>Years of experience as principal</u>		
1-5	27.1	56
6-10	30.9	64
11-15	10.6	22
16-20	13.0	27
21-25	10.6	22
26-30	5.8	12
31-50	1.9	4
<u>Educational preparation</u>		
Bachelor's	0.5	1
Master's	60.4	125
Specialist	28.0	58
Doctorate	10.1	21
Other	0.5	1
No response	0.5	1
<u>Grade level of responsibility</u>		
Grades 7-12	23.2	48
Grades 9-12	70.5	146
Grades 10-12	3.9	8
Other	2.4	5

Table 2--Continued

Category	%	<u>n</u>
<u>Assistant principal</u>		
Yes	68.6	142
No	30.9	64
No response	0.5	1
<u>Environment</u>		
Urban	12.6	26
Suburban	30.9	64
Rural	55.1	114
No response	1.4	3
<u>Athletic classification</u>		
Class A	24.6	51
Class B	27.1	56
Class C	27.5	57
Class D	16.9	35
No response	3.9	8
<u>Hours worked per week</u>		
40-48	8.2	17
50-60	67.6	140
62-90	12.6	26
No response	11.6	24

Fifty-eight percent of the principals surveyed have served as principals for 10 years or fewer. After the 10th year, principals were quite

evenly divided among the years-of-experience categories 11-15, 16-20, and 21-25 (10.6%, 13.0%, and 10.6%, respectively). Only 7.7% have been in the principalship for more than 25 years.

In the area of educational preparation, most principals in the survey sample had master's degrees (60.4%). Only one principal had just a bachelor's degree. Other respondents had doctorates (28%), another unspecified kind of degree (0.5%), or did not respond (0.5%).

The most common grade level of responsibility configuration was the Grades 9-12 category (70.5%). The next largest category was Grades 7-12, with 23.2%. The other category had 5 respondents. These principals, judging from comments written in the margins, were principals with other kinds of grade level configurations, such as 8-12, for example.

Slightly more than 68% of the principals reported having at least one assistant principal. Sixty-four of the respondents (30.9%) had no assistant, and only one principal did not respond to this question.

In response to the item requesting information about the residential environment, whether rural, urban, or suburban, 55.1% of the principals stated that they worked in a rural environment. Urban and suburban environments accounted for 43.5% of the sample. It must be noted that these percentages are most likely unreliable. Again, judging by comments written by respondents, many of them had problems deciding upon the exact nature of the environment. A small city in a predominantly rural area, for instance, will hardly compare with a large metropolitan area such as Greater Detroit. The information gleaned from responses to the section on athletic classification gives a clearer and more reliable

picture of school size as well as some indication of the actual residential environment. Smaller schools will naturally, tend to be from more rural areas--although, this is not, of course, always the case.

Athletic classifications are an excellent indication of school size. The number of students enrolled in the secondary school determines the athletic classification. The numbers allowed vary somewhat from year to year, but the concept remains the same: a Class A school is considerably larger in student population than a Class D school, and so on. A Class A school will have at least 942 students, a Class B school will have no more than 941 students and no fewer than 497, a Class C school will have from 256 to 496 students, and a Class D school will have 255 or fewer students. The principals surveyed were quite evenly distributed among the top three classifications: 24.6%, 27.1%, and 27.5%, respectively. Only 3.9%, or 8 principals, did not respond. Marginal comments lead one to believe that these principals may come from larger high schools with full-scale athletic departments since some of these principals indicated they did not know their athletic classification. Another issue here, of course, is the fact that there is some variation in classification according to sports. Much of this depends upon availability of teams for competition as well as upon joint sports ventures.

As expected, principals put in a lot of time on the job. The principals reported their hours with actual figures rather than by category. Computed in this way, the mean for hours worked was 56.34 hours per week. Divided by categories, 76.5% of the principals who reported a figure worked between 50 and 60 hours per week. Another 14.2% work from 62 to 90 hours per week. Only 9% reported working fewer than 50

hours a week. Twenty-four principals (11.6% of the total sample responding) did not report any figures.

### Research Question 1: Stress and the Principals' Ability to Cope

The first research question focused upon the coping levels of the secondary school principals and their relationship to the stress levels of those principals. The conceptual hypothesis for this question proposed a linear relationship between the Michigan secondary school principals' ability to cope and their total stress levels. Ability to cope was operationalized as the coping score from the Coping subsection of the Tennessee Stress Scale-Revised and the total stress level as the composite score for total stress on the Tennessee Stress Scale-Revised. The SPSS procedure for correlations was used to test the null hypothesis that the Pearson correlation coefficient would be zero.

The results of the correlations procedure showed a positive linear relationship (see Table 3). The magnitude of the relationship is demonstrated by the correlation coefficient of .8363 ( $p = .01$ ). Consequently, the null hypothesis that the correlation coefficient would be zero was rejected. The conceptual hypothesis of a linear relationship between the Michigan secondary school principals' ability to cope and their total stress levels is supported by this study. The practical significance is that principals with high stress levels also have scores indicating that they have less ability to cope with the stress being experienced.

Table 3  
Pearson Correlation Coefficients Between TSS-R Total Stress  
and Coping, LOQC, LOQS, and Hours Worked Per Week  
(N = 207)

Variable	Total stress	Mean	<u>SD</u>
Total stress		19.87	9.08
Coping	.8363*	7.33	3.59
LOQC	-.2817**	58.28	5.43
LOQS	.0524	44.38	6.70
Hours worked	.0819	56.34	7.87

Note. LOQC = consideration scores on the LOQ. LOQS = structure scores on the LOQ.

\*p = .01--hypothesis rejected. \*\*p = .05--hypothesis rejected.

#### Research Question 2: Stress and Leadership Dimensions

The second research question centered on the relationship of the stress being experienced by Michigan secondary school principals to leadership dimensions of consideration and structure. Two conceptual hypotheses were developed for this question. The first conceptual hypothesis was that there is a linear relationship between the stress levels of Michigan secondary school principals and their consideration levels. This hypothesis was operationalized as: The Pearson correlation coefficient between the total stress scores on the Tennessee Stress Scale-Revised and the consideration scores on the Leadership Opinion Questionnaire will not be equal to zero. The null hypothesis was that the Pearson correlation coefficient would be equal to zero.

The results of the correlations procedure showed a negative linear relationship with a magnitude of  $-.2817$  ( $p = .01$ ). The null hypothesis was rejected (see Table 3). Although the conceptual hypothesis received support in this study, the results are to be accepted with caution. The linear relationship is in the anticipated direction, and the correlation does show a "definite but small relationship" (Williams, 1992, p. 137); but the practical significance of such a relationship needs further exploration.

The second conceptual hypothesis for this research question was that there is a linear relationship between the stress levels of Michigan secondary school principals and their structure scores. This hypothesis was operationalized as: The Pearson correlation coefficient between the total stress scores on the Tennessee Stress Scale-Revised and the structure scores on the Leadership Opinion Questionnaire will not be equal to zero. The null hypothesis was that the Pearson correlation coefficient would be zero.

The results of the correlations procedure showed a positive linear relationship with a correlation coefficient of  $.0524$ . The correlation coefficient was not significant at  $p = .05$ ; consequently, the null hypothesis was not rejected (see Table 3).

### Research Question 3: Stress and Personal and Environmental Variables

The third question pondered the relationship of the variables of gender, age, marital status, years of work experience as a principal, level of educational preparation, grade levels for which the principal is responsible, presence of an assistant principal, environment, athletic classification as an indication of size of school population, hours worked per



week, and principal self-estimate of stress level to the stress level experienced by Michigan secondary school principals. Eleven hypotheses were developed for this question.

#### Hypothesis 1: Gender

The conceptual hypothesis of a relationship between the stress levels of Michigan secondary school principals and the principals' gender was operationalized as: The mean total stress score on the Tennessee Stress Scale-Revised will differ by gender, either female or male, as indicated by the respondents on the demographic data sheet. One-way analysis of variance (ANOVA) was used to test the null hypothesis: The mean total stress score on the TSS-R is equal for female and male.

The mean total stress scores for females and males were almost identical. A probability of .7942 was obtained; consequently, the null hypothesis was not rejected. Table 4 summarizes the means and standard deviations for this hypothesis.

Table 4  
TSS-R Total Stress Score Means and  
Standard Deviations by Gender

Gender	No.	Mean	<u>SD</u>
Female	18	19.33	9.44
Male	188	19.92	9.07
Total	206	19.86	9.08

Note.  $p = .7942$ --null hypothesis not rejected.

### Hypothesis 2: Age

The conceptual hypothesis of a relationship between the stress levels of Michigan secondary school principals and the principals' age was operationalized as: The mean total stress score on the Tennessee Stress Scale-Revised will be different for each of the eight age categories on the demographic data sheet. One-way ANOVA was used to test the null hypothesis: The mean total stress score on the TSS-R is equal across age groups. Although group means for the age categories differed, the  $F$  probability was .1883. The null hypothesis could not be rejected. Table 5 summarizes the means and standard deviations for this hypothesis.

Table 5  
TSS-R Total Stress Score Means and  
Standard Deviations by Age

Age	No.	Mean	<u>SD</u>
25-30	1	24.00	
31-35	3	19.00	7.21
36-40	18	18.66	6.88
41-45	53	21.05	9.09
46-50	67	21.65	9.51
51-55	40	18.17	9.39
56-60	18	15.88	7.94
61-65	6	16.00	8.89
Total	206	19.86	9.08

Note.  $p = .1883$ --null hypothesis not rejected.

### Hypothesis 3: Marital Status

The conceptual hypothesis of a relationship between the stress levels of Michigan secondary school principals and their marital status was operationalized as: The mean total stress score on the TSS-R will differ for single, married, other, and no response groups as indicated on the demographic data sheet. One-way ANOVA was used to test the null hypothesis: The mean total stress score will be equal for all categories of marital status. The null hypothesis was not rejected as the .6058 probability did not meet the established criterion for rejection. Table 6 summarizes the means and standard deviations for this hypothesis.

Table 6  
TSS-R Total Stress Score Means and Standard Deviations  
by Marital Status

Marital Status	No.	Mean	<u>SD</u>
Single	19	17.21	8.49
Married	147	20.18	8.84
Other	1	18.00	
No response	39	20.02	10.32
Total	206	19.86	9.08

Note.  $p = .6058$ --null hypothesis not rejected.

### Hypothesis 4: Years of Work Experience

The conceptual hypothesis of a relationship between the stress

levels of Michigan secondary school principals and their years of work experience as a principal was operationalized as: The mean total stress score means on the TSS-R will differ across the seven years-of-experience groups as indicated on the demographic data sheet. One-way ANOVA was used to test the null hypothesis: The mean total stress score will be equal for all years-of-experience groups.

The null hypothesis was rejected. The observed significance level of .0055 indicated that the mean scores for total stress did differ among the experience groups (see Table 7). The hypothesis of a relationship between stress levels and years of experience received support. Further analysis using least significant differences (LSD) procedures (see Table 14) demonstrated differences among the following pairs of groups: (a) 6-10 and 31-50 years of experience, (b) 6-10 and 26-30 years, (c) 6-10 and 21-25 years, (d) 11-15 and 26-30 years, and (e) 11-15 and 21-25 years of experience. The highest means for total stress occurred in the 6-10 and 11-15 years-of-experience groups, not in the group with the least experience (years 1-5).

#### Hypothesis 5: Level of Educational Preparation

The conceptual hypothesis of a relationship between the stress levels of Michigan secondary school principals and their level of educational preparation was operationalized as: The total stress score means on the TSS-R will be different for the levels of educational preparation as indicated on the demographic data sheet. One-way ANOVA was used to test the null hypothesis: The mean total stress score is equal for all levels of educational preparation.

Table 7

TSS-R Total Stress Score Means and Standard Deviations  
by Years of Experience as a Principal

Years	No.	Mean	<u>SD</u>
1-5	56	19.46	7.20
6-10	64	22.48	9.66
11-15	22	22.13	10.72
16-20	27	19.22	9.12
21-25	21	16.09	6.28
26-30	12	14.08	9.92
31-50	4	12.75	9.17
Total	206	19.86	9.08

Note.  $p = .0055$ --null hypothesis rejected.

The null hypothesis was rejected. The observed significance level of .0406 indicated that the means for the various levels did differ. The conceptual hypothesis of a relationship between mean stress scores and level of educational preparation was supported by the findings (see Table 8). These findings, however, must be accepted with caution because of the low Cochran's  $C$  (.203,  $p = .375$ ). Further analysis using LSD procedures found the following pairs of groups significantly different at  $p = .05$ : (a) master of arts and doctorate and (b) master of arts and specialist (see Table 14).

Table 8  
TSS-R Total Stress Score Means and Standard Deviations  
by Level of Educational Preparation

Preparation	No.	Mean	<u>SD</u>
B.A.	1	17.00	
M.A.	125	21.35	8.50
Specialist	57	18.47	9.56
Doctorate	21	15.80	9.69
Total	206	19.86	9.08

Note.  $p = .0406$ --null hypothesis rejected.

#### Hypothesis 6: Grade Levels of Responsibility

The conceptual hypothesis of a relationship between the stress levels of Michigan secondary school principals and the grade level for which the principal is responsible was operationalized as: The total stress score means on the TSS-R will differ by grade level of responsibility as indicated on the demographic data sheet. One-way ANOVA was used to test the null hypothesis: The total stress score means will be equal for the categories of grade level of responsibility.

The ANOVA produced an  $F$  probability of .0168. LSD procedures showed that principals with grade levels of responsibility 7-12 and 9-12 had significantly higher mean stress scores than principals responsible for Grades 10-12 (see Table 14). This finding, however, must be accepted with caution because of the very low Cochran's  $C$  score (.329,

$p = .155$ ). The null hypothesis was rejected because the  $p = .0168$  is considerably lower than the alpha .05 established for rejection. Means and standard deviations are summarized in Table 9.

Table 9  
TSS-R Total Stress Score Means and Standard Deviations  
by Grade Levels of Responsibility

Grade level	No.	Mean	<u>SD</u>
7-12	48	22.43	8.41
9-12	145	19.55	9.23
10-12	8	12.50	5.15
Other	5	16.20	8.75
Total	206	19.86	9.08

Note.  $p = .0168$ --null hypothesis rejected.

#### Hypothesis 7: Assistant Principal

The conceptual hypothesis of a relationship between the stress levels of Michigan secondary school principals and the presence of an assistant principal was operationalized as: The total stress score means on the TSS-R will differ according to the category of response (yes, no, or no response) as indicated on the demographic data sheet. The null hypothesis was that the mean total stress score on the TSS-R is equal for all categories of response.

The null hypothesis was rejected at  $p = .011$ . LSD procedures

indicated that there was a significant difference between the yes and no categories of response (see Table 14). Although the conceptual hypothesis of a relationship between total stress and the presence of an assistant principal is supported, the findings need to be accepted with caution because of the low Cochran's  $Q$  (.513,  $p = .79$ ). Table 10 summarizes the means and standard deviations for this hypothesis.

Table 10  
TSS-R Total Stress Score Means and Standard Deviations  
by Presence of an Assistant Principal

Assistant principal	No.	Mean	<u>SD</u>
Yes	142	18.85	9.00
No	63	22.38	8.77
No response	1	6.00	
Total	206	19.86	9.08

Note.  $p = .011$ --null hypothesis rejected.

#### Hypothesis 8: Environment

The conceptual hypothesis of a relationship between the stress levels of Michigan secondary school principals and environment was operationalized as: The total stress score mean on the TSS-R will differ across the environment categories (urban, suburban, rural, and other) as indicated on the demographic data sheet. One-way ANOVA was used to test the null hypothesis: The TSS-R total stress score mean is equal



across all of the environment categories.

The  $F$  probability of .1142 exceeded alpha .05; consequently, the null hypothesis could not be rejected. The means and standard deviations for this hypothesis are summarized in Table 11.

Table 11  
TSS-R Total Stress Score Means and Standard  
Deviations by Environment

Environment	No.	Mean	<u>SD</u>
Urban	26	17.73	9.23
Suburban	64	18.81	8.91
Rural	113	20.73	9.02
No response	3	28.33	9.29
Total	206	19.86	9.08

Note.  $p = .1142$ --null hypothesis not rejected.

#### Hypothesis 9: Athletic Classification

The conceptual hypothesis of a relationship between the stress levels of Michigan secondary school principals and athletic classification as an indication of size of school population was operationalized as: The TSS-R total stress score mean for Michigan secondary school principals will differ by category of athletic classification (A, B, C, D, and no response) as indicated on the demographic data sheet. One-way ANOVA was used to test the null hypothesis: The TSS-R stress score mean will be equal for all categories of athletic classification.

Although there were slight differences among the mean total stress scores, the ANOVA produced an  $F$  probability of .0572. The null hypothesis was not rejected. An interesting trend in the total stress means, however, was that principals in the smaller schools (Classes C and D), as identified by athletic classification, had somewhat higher total stress score means. Table 12 summarizes the means and standard deviations.

Table 12  
TSS-R Total Stress Score Means and Standard Deviations  
by Athletic Classification

Classification	No.	Mean	<u>SD</u>
Class A	51	19.25	8.49
Class B	56	18.48	9.36
Class C	57	21.73	9.63
Class D	34	21.47	8.22
No response	8	13.37	6.69
Total	206	19.86	9.08

Note.  $p = .0572$ --null hypothesis not rejected.

#### Hypothesis 10: Hours Worked Per Week

The conceptual hypothesis of a linear relationship between the stress levels of Michigan secondary school principals and the hours worked per week was operationalized as: The Pearson correlation coefficient between the total stress scores on the TSS-R and the hours

worked per week as indicated on the TSS-R will not be equal to zero. The null hypothesis was that the Pearson correlation coefficient would be equal to zero.

The correlations procedure resulted in a correlation coefficient of .0819 (see Table 3). This finding lacked significance at the level of .05 established for rejection; therefore, the null hypothesis was not rejected.

#### Hypothesis 11: Self-Estimate of Stress Level

The conceptual hypothesis of a relationship between the stress levels of Michigan secondary school principals and their self-estimate of stress level was operationalized as: The observed percentage of principals in each of the categories of mild, moderate, severe, or no response will be different from the expected percentage of principals in each of the categories. A chi-square test for independent proportions was used to test the hypothesis: The observed percentage of principals in each category will not be different from the expected percentage.

The observed significance level of the Pearson chi-square was .00037, well within the alpha .05 set for rejection of the null hypothesis (see Table 13). The low probability indicates that it is unlikely that the variables of total stress and self-estimate of total stress are independent (Norusis, 1990a). Therefore, the conceptual hypothesis of a relationship between these variables is supported. In addition, an examination of the frequencies reveals that 62.5% of those who were in the mild category on the TSS-R placed themselves in the mild category whereas only 32.5% of those in the TSS-R severe category placed themselves in the

severe category. Likewise, 34.2% of those in the moderate category thought their stress level mild and 14.0% thought their stress level severe. It appears that total stress level does play a role in how accurately these principals estimated their stress levels. More study, of course, is needed to define the exact nature of the relationship between these variables.

Table 13  
TSS-R Total Stress by Self-Estimate of Stress Percentages

Total TSS-R stress	Self-estimate of stress							
	Mild ( <u>n</u> = 24)		Moderate ( <u>n</u> = 114)		Severe ( <u>n</u> = 40)		No response ( <u>n</u> = 29)	
	<u>f</u>	%	<u>f</u>	%	<u>f</u>	%	<u>f</u>	%
Mild ( <u>n</u> = 71)	15	62.5	39	34.2	5	12.5	12	41.4
Moderate ( <u>n</u> = 100)	9	37.5	59	51.8	22	55.0	10	34.5
Severe ( <u>n</u> = 36)			16	14.0	13	32.5	7	24.1

Note. Chi square = 24.831; df = 6, p = .00037.

### Summary

Demographic data believed to be pertinent to the purposes of this study were first presented in this chapter. Next, the data collected by the survey instruments were analyzed and the results were presented.

(Table 14 contains pairs of groups significantly different.) The findings showed that the variables of coping, LOQ consideration, years of experience as a principal, level of educational preparation, grade levels of responsibility, presence of an assistant principal, and self-estimate of stress were related to principals' total stress levels. These findings are discussed in Chapter V, which also contains conclusions and recommendations for future study.

Table 14  
Pairs of Groups Significantly Different  
(LSD Procedure)

Variable	Group		
<u>Years of experience</u>	31-50	26-30	21-25
6-10	*	*	*
11-15		*	*
<u>Educational preparation</u>	Doctorate	Specialist	
Master's	*	*	
<u>Grade level of responsibility</u>	10-12		
9-12	*		
7-12	*		
<u>Presence of an assistant principal</u>	Yes		
No	*		

\*Pairs significantly different at  $p = .05$ .

## CHAPTER V

### CONCLUSIONS AND RECOMMENDATIONS

#### Introduction

The purpose of this study was to investigate the leadership attitudes of Michigan secondary school principals and the relationship of these attitudes to the work-related stress the surveyed principals indicated they experienced. Eighty-eight percent of the 234 principals surveyed returned completed survey instruments. The instruments used in this study were the Tennessee Stress Scale-Revised (TSS-R, McWilliams & Schnorr, 1989), the Leadership Opinion Questionnaire (LOQ, Fleishman, 1989), and a demographic data sheet.

The data received were coded and entered into a main frame computer at Northern Michigan University using the Statistical Package for Social Science (SPSS-X, Norusis, 1990b). Correlations, one-way analysis of variance, and chi square were the statistical procedures used to test the null hypotheses. Hypotheses were rejected at the .05 confidence level.

Conceptual hypotheses for relationships between principal TSS-R stress levels and TSS-R coping levels and between principal TSS-R stress levels and LOQ consideration levels received support in this study. Other relationships supported included those between principal stress levels and years of experience, level of educational preparation, grade levels of responsibility, presence of an assistant principal, and self-estimate of

stress. Relationships that were not supported by the findings included those between principal TSS-R stress levels and LOQ structure levels, gender, age, marital status, environment, athletic classification as an indication of school size, and hours worked per week. Conclusions and recommendations emanating from the analysis of the findings are developed in greater detail in the next sections of this chapter.

## Conclusions

### Research Question 1

The first research question centered upon the stress coping ability of Michigan secondary school principals. A correlation coefficient of .836 indicated a strong relationship between total TSS-R stress levels and TSS-R coping levels (Williams, 1992). The practical significance of the positive linear relationship established by the statistical procedure is that principals with elevated stress levels do not cope well with the stress they are experiencing. This finding is supported in the literature (Swent, 1983); however, studies of coping ability among school administrators have shown mixed results. Shelton (1991) found that 69% of surveyed principals reported using coping strategies. Direct coping strategies were used, however, by only 13% of the principals studied by Roberson (as cited in Roberson & Matthews, 1988). A study by Tanner et al. (1991) found little relationship between time management techniques and stress.

A practical conclusion that can be drawn from an analysis of these various studies is that school principals need to be aware of both

general stress levels and of their ability to cope successfully with the stress they are experiencing. Further study of successful coping needs to be done because of the sometimes conflicting results of previous studies.

### Research Question 2

The second research question pondered the relationship between principal stress levels and the leadership dimensions of consideration and structure. The conceptual hypothesis of a relationship between principal stress levels and LOQ consideration levels received some support. The linear relationship ( $-.2817, p = .01$ ) was in the anticipated direction, but the significance of such a small correlation coefficient may be more theoretical than practical. Further examination, for instance, needs to be done to determine whether principals with relatively high consideration scores have lower stress levels than do principals who have relatively high structure scores.

The conceptual hypothesis of a relationship between TSS-R stress levels and LOQ structure levels was not supported by this study. The correlation coefficient of  $.05$  was not significant at  $p = .05$ .

Previous researchers have suspected a relationship between leader attitudes and/or behaviors and leader stress. No previous studies that were examined, however, have been able to support such relationships (Kottkamp & Travlos, 1986; Yackel, 1984). This study of Michigan secondary school principals gives some credence to a relationship between stress and the leadership attitude of consideration. Further study in this area will shed additional light upon this perplexing but



interesting hypothesis.

A conclusion that might be drawn is that attention to leadership attitudes that have the potential for enabling the formation of collaborative work environments may result in lessened stress. This calls for heightened awareness by the principal of both self and practice.

### Research Question 3

The final research question asked how the variables of gender, age, marital status, years of work experience as a principal, level of educational preparation, grade levels for which the principal is responsible, presence of an assistant principal, environment, athletic classification as an indication of size of school population, hours worked per week, and principal self-estimate of stress level related to the stress level experienced by Michigan secondary school principals. Of the 11 hypotheses developed for this question, 5 were supported by the findings of this study. Each of the hypotheses is considered separately.

#### Hypothesis 1: Gender

The mean TSS-R total stress scores for females and males were almost identical (see Table 4). Earlier studies tended to show that females experienced less stress than males; however, Schnorr and McWilliams (1989) discovered that "women and men experienced similar stress producers on the job, used similar coping mechanisms, and experienced many of the same symptoms" (p. 263).

### Hypothesis 2: Age

Although there were differences among the various age groupings, no group was significantly different at  $p = .05$ . Principals in the groups 41-45 and 46-50 had stress somewhat higher than the other groups. Of interest is that 58% of the principals were in the groups 41-50. A study by Feister, Quell, and Bloom (as cited in Parkay & Hall, 1992) found the mean age of principals to be 45.6. The Beginning Principal Study (BPS, as cited in Parkay & Hall, 1992) discovered that the mean age for beginning principals was 40.3. As indicated later in this chapter, experienced principals who had 6-15 years of experience seemed to suffer more stress than those in other groups. Given the figures above, principals in the 41-50 years of age group would also likely be in the 6-15 years experience group. Further investigation of the connections between age, experience, and stress is needed to clarify this issue. Another interesting aspect is that the TSS-R stress score means declined with age after the 46-50 year group. Studies of age related differences relative to stress have been inconsistent and inconclusive; however, individuals in boundary spanning positions and in higher executive positions have shown increased stress with age (Kottkamp & Travlos, 1986).

It would appear that, even though the findings do not support a relationship between age and stress levels, principals in certain age groupings should pay attention to total stress levels, especially if they are in positions of significant responsibility.

### Hypothesis 3: Marital Status

This study did not support a relationship between total stress levels and marital status. Analysis and interpretation in response to this variable were difficult because of the large imbalance of numbers (see Table 6) and because this item resulted in the largest number of no responses. This, undoubtedly, reflected the numerous kinds of living arrangements that people in this day have. (Respondents were limited to single, married, other, and no response choices.) If used again, information about this variable will need to be identified by means other than those used for this study.

### Hypothesis 4: Years of Work Experience

The LSD procedure for years of work experience indicated significant differences at the .05 level of confidence between the 6-10 years of experience group and the groups including those principals with 21 to more than 30 years of experience. The principals who had 11-15 years of experience also were significantly different at  $p = .05$  than those principals who were in the 21 to 30 years of experience groups. Surprisingly, the 1-5 years of experience group showed no significant differences between the various age groups. The Beginning Principal Study (as cited in Parkay & Hall, 1992) discovered that beginning principals tend to experience considerable stress. The BPS study, however, examined stress on the basis of stress sources and coping strategies with no apparent comparisons made between beginning and more experienced principals.

An analysis of the data for this study of Michigan secondary school principals shows that the years 6-15 are critical years for practicing principals. No other studies were located to add credence to this finding other than a study done among correctional officers. In that study, officers with 5 or fewer years of experience and officers with more than 10 years of experience were more satisfied than those who had been employed for 6-10 years (Diehl, 1991). Until further study of this phenomenon has been done, one can only assume that increasing job responsibilities with the school system, more awareness by the principal in years 6-15 of the actual magnitude of the principal's position itself, added family obligations in the middle years of life, and/or a growing frustration with the extra hours of work demanded by the many after-school activities in the typical secondary school may have deleterious effects.

An area for further investigation, also, is the possibility that principals in this group may be suffering from a sense of frustration in being in a position where they seem to be at an impasse professionally; they are unable to move up into a superintendency and, perhaps, too proud to return to the classroom. Then, too, principals who have been in the position for more than 15 years may have come to terms with the many demands of the principalship, resulting in lower stress levels.

In any event, generalizations about years of experience and total stress levels must be made with caution because of the low Cochran's  $\underline{C}$ . Further investigation is definitely in order.

#### Hypothesis 5: Level of Educational Preparation

Principals with specialist or doctoral degrees had lower stress level means than principals who had master's degrees ( $p = .04$ ). There was great disparity in the number of principals in each group; consequently, the findings must be accepted with caution. This is an area for further research as well in the light of the common sense supposition that those who have completed rigorous educational programs may have more intrinsic motivation, a higher degree of organizational ability, a greater degree of resiliency, and more respect for scholarship than those who have not completed such programs. Individuals having these characteristics would be expected to be prepared professionally and personally for the stress encountered in the principalship.

No other studies were located on this particular relationship. Further study will be needed to clarify any existing connections. Even though the findings must be accepted with caution, it does appear that the conceptual hypothesis of a relationship between total stress levels and level of educational preparation is supported.

#### Hypothesis 6: Grade Levels of Responsibility

The findings in this area must also be accepted with caution. LSD procedures showed that principals with grade levels of responsibility 10-12 showed less stress than those who were responsible for Grades 7-12 or 9-12. Again, however, there is a disparity in numbers; the study included only 8 principals with Grades 10-12 responsibilities. The data do show, nonetheless, that stress level means rose with increased grade

responsibilities (see Table 9). No other comparable comparisons of this variable with total stress levels were found in the literature.

Although more investigation is certainly called for in this area, it would behoove educational administration programs, principals themselves, and school districts to be aware of the apparent additional stress with added grade responsibilities. Districts with Grades 7-12 contained in one building tend to be smaller districts. The implications here are that principals in those districts often have a broader array of responsibilities than do principals in larger districts. One rather obvious reason for this is that smaller districts cannot afford the support personnel, such as assistant principals, sufficient guidance counselors, and office clerical staff, that larger districts are able to provide. Kottkamp and Travlos (1986), in their discussion of role variables and emotional exhaustion commented: "Most emotionally exhausting to principals in this study [MacPherson's] was the volume of work generated by the role" (p. 244).

As noted, while the findings do parallel common sense, they must be generalized with caution.

#### Hypothesis 7: Assistant Principal

Sixty-nine percent of the principals had the help of an assistant principal. Apparently, the presence of an assistant does result in lessened stress. An indication of the respondents' interest in this particular item was that only one principal did not respond. The findings can be generalized with some degree of confidence since common sense also indicates that more help makes any job easier.

### Hypothesis 8: Environment

Although an early study by Washington (1980) found that urban principals perceived their jobs to be more stressful than those of other professionals, this study showed that rural principals had higher stress score means than either urban or suburban. The differences, however, were not significant at the established level of .05.

Even if findings had proven to be significant, they could not have been used with any confidence because of the apparent difficulties principals had in answering the question. Marginal notes indicated problems with deciding whether one was living in an urban or rural area. This is a natural perplexity; Marquette is a city, yet the area is classified rural.

### Hypothesis 9: Athletic Classification

Although the mean stress scores on the TSS-R were somewhat lower for principals in Class C and Class D schools, the difference did not reach significance at the .05 level that had been established (see Table 12). It seems likely that principals in small schools, such as C and D, would be more closely involved with supervision of athletic programs and all of the consequent difficulties. Also, principals in these smaller schools would have additional responsibilities, as noted in the discussion under Hypothesis 6. This may be a partial explanation of the differences in the mean stress levels. Additional study in the area of the impact of school size upon principal stress levels is needed to clarify this issue.

#### Hypothesis 10: Hours Worked Per Week

It would seem logical that greater hours of work would result in greater amounts of stress. This study does not, however, support such a conclusion. Other studies have noted that volume of work and interpersonal relationships, for example, have more to do with administrator stress than many other factors (Kottkamp & Travlos, 1986; Sarros & Friesen, 1987). Additionally, a more recent study reported that even though 49% of the principals in that investigation felt their jobs made too heavy demands on their time, 71% reported high job satisfaction (Boothe, Bradley, Flick, Keough, & Kirk, 1994). Apparently, this trend holds true for Michigan secondary school principals as well.

#### Hypothesis 11: Self-Estimate of Stress Level

The two variables of total stress and self-estimate of stress were not held to be independent by the statistical analysis. "Two values are independent whenever knowing the value of one variable tells you nothing about the value of the other variable" (Norusis, 1990a, p. 255). In terms of this study independence would mean that knowing an individual was placed in the moderate category of stress on the TSS-R, for example, would not allow the observer to know whether or not that individual was actually perceiving a moderate level of stress in his life. Examination of the data revealed that those with mild TSS-R levels perceived themselves to be in that same category more often than did those who were in the moderate and severe categories (62.5%, 51.8%, and 32.5%, respectively).



These findings tend to show that principals are not always aware of the actual stress levels that they are under. Because of this, principals need to pay greater attention to their physical and emotional well-being than to somewhat artificial measures of stress level. One survey respondent, for example, indicated that he did not believe in "stress." Others may have similar misconceptions of the definition of stress and, consequently, may not consciously be aware of the tremendous pressure under which they are working and of the possible negative effects this tension may have upon both job performance and physical, mental, and emotional health.

### Recommendations

Although numerous studies of teacher burnout and stress have been conducted, often in relationship to the leadership of the school administrator, not many researchers have studied the relationship between the leadership style or leadership attitudes of the principal and the level of stress that the principal experiences. Although researchers suspect a relationship between leadership style and stress, studies seeking to discover the exact nature of that relationship often prove inconclusive. Although this study of Michigan secondary school principals unearthed possible relationships between leader attitude and leader stress, much more investigation needs to be done before further conclusions can be drawn. A fruitful avenue for future research would be to compare the results of measures of leader attitudes and behaviors, follower perceptions of leader behavior, and leader stress levels. This might, for example, help to pinpoint inconsistency between attitude and

behavior. This inconsistency may well contribute to leader stress levels, particularly if the leader perceives himself to be, for example, collaborative and the followers perceive that he is not. The resulting tensions would, undoubtedly, contribute to stress at all levels.

School administrator preparation programs as well as practicing secondary school principals need to recognize the potentially negative impacts of leader stress. Although conclusions drawn from this study are tentative and need further investigation, programs and principals need to recognize the areas that may serve to mitigate the harmful effects of stress. For example, a principal who does not have an assistant needs to find other ways of sharing the work load. Principals in the critical years of their principalship need to recognize that these years may be especially stressful. Perhaps learning to recognize signs of stress will help principals to navigate these years successfully.

Most importantly, the attitude of the principal toward leadership needs to be considered. Collaborative environments of mutual trust and purpose have the potential of creating a workplace that is conducive to growth for both principals and teachers. This kind of work environment carries with it possibilities for eliminating unwanted negative stress for both teachers and principals. It is likely that this kind of workplace will, then, result in successful teaching and learning.

During the last decade numerous initiatives for school reform have been proposed, and much public debate has centered upon K-12 education. Caught in the middle of this debate have been the school administrators who are charged with the responsibility of orchestrating school improvements. By and large, school improvement to the public means

improvement in student performance as assessed by various national and state tests. The review of literature for this study clearly indicated that performing schools are also collaborative schools. The literature also revealed that the school principal is critical to building a culture of collaboration. The literature, as well, established that leaders who are overwhelmed by negative stress will be ineffective in leading school communities. This research has sought to establish relationships between the leadership attitudes of Michigan secondary school principals and the stress they experience. Much further study, however, will be necessary to establish the exact nature and degree of such a relationship.

## APPENDICES

**Appendix A**  
**Protocol Clearance From the Human Subjects**  
**Institutional Review Board**

Human Subjects Institutional Review Board



Kalamazoo, Michigan 49006-3899

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## WESTERN MICHIGAN UNIVERSITY

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Date: March 9, 1993

To: Earl Kaurala

From: M. Michele Burnette, Chair *M. Michele Burnette*

Re: HSIRB Project Number 93-02-27

This letter will serve as confirmation that your research project entitled "Stress and secondary school principal" has been **approved** under the exempt category of review by the Human Subjects Institutional Review Board. The conditions and duration of this approval are specified in the Policies of Western Michigan University. You may now begin to implement the research as described in the approval application.

You must seek reapproval for any changes in this design. You must also seek reapproval if the project extends beyond the termination date.

The Board wishes you success in the pursuit of your research goals.

Approval Termination: March 9, 1994

xc: Cowden, EL

**Appendix B**  
**Copy of First Cover Letter to Survey Participants**

# Houghton High School

**Principal's Office**

**1603 Gundlach Road**

**Houghton, Michigan 49931**

**(906) 482-0450 • FAX (906) 482-1516**

**EARL B. KAURALA**  
Principal

**FRITZ E. WILSON**  
Assistant Principal  
**DON R. SAWASKI**  
Athletic Director

October 21, 1993

Dear Colleague:

As secondary school principals, you and I are very much aware of the stress that seems to be an inherent part of our positions. As a full-time principal in a 7-12 building and as a student enrolled in Western Michigan University's doctoral program in educational leadership, the selection of stress as a dissertation topic was a natural choice.

The accompanying survey instrument is designed to assist in studying the relationship between leadership styles and stress. The results of the study will assist principals in determining what leadership styles will help them to deal most effectively with stress. In addition, the information gathered will be useful in preparing future principals at the college and university levels. The value of the study has been recognized by Mr. Jack Bittle, the Executive Director of the Michigan Association of Secondary School Principals. In his words, "Studies such as this will help principals analyze their own attitudes and behaviors in relation to the job stress they are experiencing, thus enhancing their effectiveness."

You have been randomly selected to participate in this study from among all Michigan public secondary school principals. Your responses, then, are very important to getting results which accurately reflect the total population of principals. Completing the questionnaire should take no more than 20 minutes of your time. Your responses will be kept in confidence.

Please return the survey material in the enclosed, stamped envelope at your earliest convenience. (A numbering system has been used on the return envelopes so that nonrespondents can be contacted.)

Thank you for taking time out of your busy schedule to participate in this study.

Sincerely,



Earl B. Kaurala

Enclosures 3

**Working Together To Provide Educational Opportunities For All**



**Appendix C**  
**Copy of Follow-up Letter to Survey Participants**

# Houghton High School

**Principal's Office**

**1603 Gundlach Road**

**Houghton, Michigan 49931**

**(906) 482-0450 • FAX (906) 482-1516**

**EARL B. KAURALA**  
Principal

**FRITZ E. WILSON**  
Assistant Principal  
**DON E. SAWASKI**  
Athletic Director

December 2, 1993

The demands on our time as principals are enormous--and here I am, again asking you to give up some more time to complete the accompanying survey. To show my appreciation for your personal effort, I've also attached a dollar bill so that you can have a cup of coffee on me.

In my previous letter to you, I mentioned that I am a public school principal as well as a doctoral student in Western Michigan University's educational leadership program. The accompanying survey instrument will assist in studying the relationship between leadership styles and stress. Results should be helpful in assisting principals in determining what leadership styles will help them to deal most effectively with stress.

Because you have been randomly selected to participate in this study, your responses are important for an accurate reflection of the total population of Michigan secondary school principals. Completing the survey should take no more than twenty minutes of your time.

Please return the survey material in the enclosed, stamped envelope as soon as possible. (A numbering system has been used on the return envelopes to identify nonrespondents.) Responses will, of course, be kept in confidence.

Thank you for your time!

Sincerely,



Earl B. Kaurala

Enclosures (4)

***Working Together To Provide Educational Opportunities For All***

**Appendix D**

**Letter Granting Permission to Purchase  
Leadership Opinion Questionnaire  
for Dissertation Research**



**London House**

Macmillan/McGraw-Hill

*Leaders in  
Human Resource  
Assessment*

June 9, 1993

9701 WEST HIGGINS ROAD

ROSEMONT, IL 60018

708 292 1900

708 292 3400 FAX

Mr. Earl Kaurala  
Principal  
Houghton High School  
1603 Gundlach Road  
Houghton, MI 49931

Dear Mr. Kaurala:

Thank you for your letter requesting permission to purchase the Leadership Opinion Questionnaire (LOQ) for your dissertation research.

I'm willing to grant permission. In addition, I am also willing to apply the 10% discount if you would be willing to share an overview of your results and the LOQ scores (for normative purposes) with SRA upon completion of your project.

You may write me or call at my office (708)292-3382.

Sincerely,

Dennis S. Joy, M.A.  
Director of SRA Industrial Testing

DSJ/mm

**Appendix E**  
**Letter Granting Permission to Use**  
**Tennessee Stress Scale-Revised**



## PHOENIX REGIONAL CENTER

November 30, 1992

Earl Kaurala  
Route 1 Box 303  
Houghton, Michigan 49931

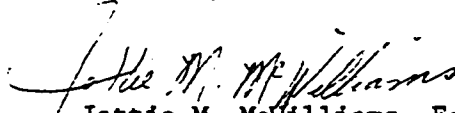
Dear Mr. Kaurala:

Thank you for your interest in the TSS-R.  
You have my permission to copy the test for  
research purposes. I do request a copy of the  
results of your study.

I hope this information will be helpful.  
Let me know if you have further questions.

Best of luck on your dissertation.

Sincerely,

  
Jettie M. McWilliams, Ed.D.

Enclosures

7902 N. Black Canyon Highway Phoenix, AZ 85051  
(602) 995-2177

## **Appendix F**

**Letter of Support From Jack D. Bittle, Executive Director,  
Michigan Association of Secondary School Principals**



## ***Michigan Association of Secondary School Principals***

### ***Serving High School & Middle Level Administrators***

Executive Director  
JACK D. BITTLE  
Associate Director  
JIM BALLARD  
Ass't. Dir. for Middle Level  
JACOB BRISENDINE  
M.A.S.C. Director  
PATRICIA BOSS

2339 School of Education Bldg. - The University of Michigan  
Ann Arbor, Michigan 48109-1259  
(313) 769-5497 or (313) 763-9850

President  
JOHN TOMA  
Andover H.S.  
Bloomfield Hills

President-Elect  
TOM DENEWITH  
L'Anse Creuse H.S. North  
Mt. Clemens

Vice-President  
GERALD JUDGE  
Kalkaska H.S.  
Kalkaska

December 18, 1992

Earl B. Kaurala, Principal  
Houghton High School  
1603 Gundlach Road  
Houghton, Mi. 49931

Dear Earl:

Thank you for the prospectus and sample letter. It looks like a good study to me.

Studies such as this will help principals analyze their own attitudes and behaviors in relation to the job stress they are experiencing, thus enhancing their effectiveness.

Please feel free to use my name as a part of your cover letter for this survey.

Sincerely Yours,

  
Jack D. Bittle  
Executive Director



**Appendix G**  
**Leadership Stress Survey**  
**Personal Data Sheet**

**Leadership Stress Survey  
Personal Data Sheet**

100

**PLEASE CIRCLE YOUR RESPONSES**

**Gender:**      Female          Male

**Age:**

25-30	51-55
31-35	56-60
36-40	61-65
41-45	66+
46-50	

**Years of Experience as a Secondary Principal:**

1-5	21-25
6-10	26-30
11-15	30+
16-20	

**Highest Level of Educational Preparation:**

B.A.	Specialist
M.A.	Doctorate

**Grade Levels of Responsibility:**

7-8-9	9-12
7-12	10-11-12

**Presence of Assistant Principal(s):**      Yes      No

**Environment:**

Urban  
Suburban  
Rural

**Athletic Classification:** \_\_\_\_\_

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