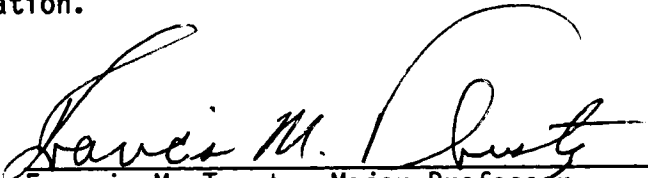
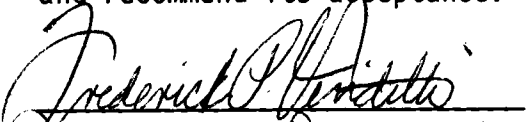
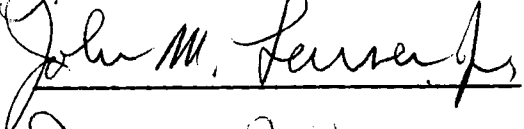
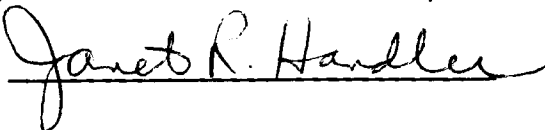


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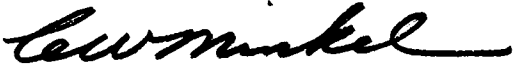
I am submitting herewith a dissertation written by Eva M. Wike entitled "An Analysis of the Relationship Between Educational Stressors and the Supervision of Teachers." I have examined the final copy of this dissertation for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy, with a major in Education.


Francis M. Trusty, Major Professor

We have read this dissertation
and recommend its acceptance:

Accepted for the Council:


The Graduate School

AN ANALYSIS OF THE RELATIONSHIP BETWEEN EDUCATIONAL
STRESSORS AND THE SUPERVISION OF TEACHERS

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

Eva M. Wike

June 1984

In Memory

of

my son

Joey

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ABSTRACT

The purpose of this study was to investigate the relationship between educational stress and supervisory practices as experienced by classroom teachers at the secondary level. Supervisory practices include all aspects of instructional supervision that have a direct influence upon the teacher. Educational stress is defined as the conditions which create "emotional toxicity" of the teaching environment (Levinson, 1972).

The global categories of problems investigated in this study were taken from earlier findings from research conducted by Cruickshank and others to determine the global problematic areas of teachers (Cruickshank, 1971). From the six categories of teacher problems (support, control, influence, inclusion, nurturance, and efficiency), the researcher selected 24 problems to be investigated in the study.

The following research questions provided direction for this study:

1. Is the distribution of educational stress influenced by the teacher's age, sex, tenure, years of experience, type of school district, or level of certification?
2. Which category (categories) of stress-related problems create the most stress for teachers?
3. Is there an association between teacher stress and existing supervisory practices?

Through the use of a questionnaire (Teacher Stress Survey) developed by the researcher, 1200 teachers were contacted through a random selection process. The analysis of data was done by using nonparametric

statistical methods. For research question 1, the chi-square (χ^2) tests of significance were made on the levels of stress within each category of problem for each of the demographic variables age, sex, tenure, years of teaching experience, type of school district, and level of certification. For research question 2, the sample arithmetic mean ($\bar{x}$) of the stress scores was determined for each category. To measure the closeness of association between teacher stress and existing supervisory practices for research question 3, the method of rank correlation was applied.

From the 1200 questionnaires mailed, 464 usable returns were received (38.6 percent). An analysis of the questionnaire data provided the basis for the following conclusions: with more years of teaching experience (six to ten years), the percentage of teachers in the category of control deviated significantly from the expected value. The highest arithmetic mean ($\bar{x}$) on the stress scores was calculated for the four problems within the category of nurturance ($\bar{x} = 13.98$). A significant and positive correlation between educational stress and the influence of supervisory practices was determined at the 0.0001 level of significance.

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CHAPTER I

INTRODUCTORY STATEMENT OF PROBLEM

A. INTRODUCTION

There are many factors which have created interest in the supervision and evaluation of teachers. Two important factors are: (1) the recognized need to improve the quality of instructional programs (Bellon, Bellon, 1982), and (2) a need for greater understanding of stress-related problems which affect the morale of classroom teachers (Bruno, 1982). In the search for ways to improve the quality of instructional programs, consideration must be given to classroom stress that may be related to supervisory practices. Data are needed to evaluate the claim that teacher morale and its related problem of teacher stress are of critical importance to quality instructional programs (Cook, 1979). The forceful claim that teachers find instructional supervision irrelevant should be considered (Cuban, 1968; Blumberg, 1974), as well as the belief that the locus of teacher stress prevention/intervention most clearly rests with school administration (Pettegrew, Wolf, 1982). The major portion of a supervisor's job responsibilities should be to work intensively with classroom teachers in order to implement needed changes in instructional programs (Goodlad, 1979).

External forces that are presently having major implications for instructional supervision and the classroom teacher include the continuing growth of teachers' political strength, prolonged educational

criticism in the media, budgetary reductions due to the curtailment or termination of local, state, and federal programs, and the products of research and development. Because of the great acceptance among practitioners of the principles of effective teaching, supervisors are expected to deliver inservice programs to teachers on alternative instructional methodologies in order to increase student engagement (Rubin, 1982). Sustained media emphasis on declining test scores has resulted in a wholesale attempt to raise student achievement on standardized tests. At least temporarily the traditional supervisory goal of good general education has been replaced with new policies bent in the direction of school-based reform. Supervisors are expected to diagnose school weaknesses, project correctives, and help bring about desirable changes. If this shift in supervisory efforts proves beneficial, it is suggested that more and more time will be devoted to bettering student performance (Rubin, 1982).

In addition, the nature of the time has greatly diminished the teachers' sense of well-being. Teachers are being held accountable to a greater degree for instructional outcomes while facing conditions which compound the impediments to good working relations within the system. Problems such as job insecurity, decimation of salaries by inflation, lack of parental support, and plain violence are having serious impacts on the classroom environment. The results of these conditions are that many supervisors must cope with teachers who are disillusioned and embittered (Pettegrew, Wolf, 1982). The contextual framework within which most supervisors and teachers work is, if not actually hostile to effective supervisory practices, largely non-supportive (Anderson, 1982).

Experts are ably propounding sound theories that, if applied, might create an environment in which needed changes and improvements could be accomplished (Alfonso, Goldsberry, 1982).

In order to more effectively remediate the conditions under which educators must work, accurate perceptions about the problems teachers experience in the classroom must be obtained. Specifically, proactive leadership is called for to reduce or eliminate these problems (Cruickshank, 1980). According to Cruickshank, teachers could be taught skills in problem solving during preservice and inservice programs. However, such support services are not being provided. Classroom-related problems are not being handled, and teachers' responsibilities are being expanded (Cruickshank, 1980).

A national awareness of the problems teachers face in the classroom has been created by the recent account in the news media, concerns of professional teachers' associations, and a proliferation of stress management seminars. Indeed, stress is increasingly becoming a recognized occupational threat to the teaching profession (Pettegrew, Wolf, 1982). In his preface to "Teaching is Tough" (1980), Cruickshank declared:

Teaching is tough! It is difficult to think of many occupations as demanding intellectually, physically, and psychologically. Who else but teachers must keep well informed in one or more groups of workers (students) and provide for both their success and satisfaction? Who else gets blamed when vandalism and crime increase and when scores on college entrance examinations drop? What other occupational group is subjected to so much national criticism in barrages from books like Johnny Can't Read and Crisis in the Classroom? Who else is constantly second-guessed by nearly everyone about what to do and how to do it?

For the past 15 years Cruickshank and his associates have been studying the problems of teachers. A part of this research was the development of an instrument called a teacher problem checklist. The instrument was

designed in such a way that teachers were able to react to each problem statement in terms of whether the problem was bothersome and/or frequent (Cruickshank, 1968). These studies showed that the problems of teachers are relatively stable and can be grouped into categories such as support, control, influencing, inclusion, nurturance, and efficiency.

In spite of the identified problems that teachers perceive as being a great source of educational stress and the popular interest presently existing on all fronts, there has not been substantive empirical research on this subject (Rubin, 1982). The teacher stress phenomenon remains vague. While attempted innovations have called for supervisors to oversee the implementation of changes, the problems that plague teachers have been ignored. Teachers have received little help in dealing with stress-related problems (Kryiacou, Sutcliffe, 1977; National Education Association, 1979). Classroom stress is regarded as one of the most serious problems facing education today (McGuire, 1979).

In this introductory section the desirability of teacher stress intervention through the improvement of supervisory practices was suggested along with the research findings and views of experts in the field of education. More indepth discussions of the extensive amount of literature that is presently being written on the subject of teacher stress will be presented in Chapter II of this study.

B. STATEMENT OF THE PROBLEM

In the review of literature on stress and stress prevention for educators, one major source of excess stress affecting educators has been identified as administrative in nature. In recent years supervisors

have been stereotyped as a source of teacher stress (Greenfield, 1980). Since supervisors play a key role in the level of stress exerted on teachers (Goens, Kuciejczyk, 1981), it is important that this major aspect of the interface between teachers and the educational organization be more fully understood.

In spite of the fact that classroom stress was identified as one of the most serious problems facing education in the late 1970s, understanding the teacher stress phenomenon remains vague. Instead of teachers simply viewing instructional supervision as irrelevant (Cuban, 1968; Blumberg, 1974), the reality of how supervisors assist teachers needs to be clearly determined. The teacher's perceptions of how supervisory practices may affect the level of stress the teacher is experiencing should be considered. The teacher's perceptions of supervisory practices may have a direct effect on the way the teacher works with students, other teachers, administration, and the community. Further, these perceptions may affect the way the teacher responds to the teaching job and ultimately may influence how the teacher sees himself or herself. These perceptions are what cause an increase or a decrease in levels of stress for teachers (Goens, Kuciejczyk, 1981).

The ideals of teacher growth and effective schooling are not being realized. It is believed that teachers are merely coping with problems that school supervisors can and should address. Ignoring these problems will eventually lead to frustration among teachers (Pettegrew, Wolf, 1982). It is time to move toward a broader concern for human conditions in the schools (Sergiovanni, 1982). The supervisor's role, which Wiles (1967) described as being supporting, assisting, and sharing, is apparently not the existing role of supervisors today.

This study was designed to investigate the teacher stress phenomenon at what has been called a very logical point of intervention the supervisor-teacher interface (Pettegrew, Wolf, 1982). Experts suggest that public schools and the educators they employ would possibly benefit through improvement of the supervisory process (Greene, 1982).

C. PURPOSE OF THE STUDY

This study was conducted to determine the relationship between existing supervisory practices and classroom stress as experienced by teachers at the secondary level of teaching. Specifically, the study was designed to provide feedback to practitioners and theoreticians regarding the following research questions:

1. Is the distribution of educational stress influenced by the teacher's age, sex, tenure, years of teaching experience, type of school district, or level of certification?
2. Which category (categories) of stress-related problems create the most stress for teachers?
3. Is there an association between teacher stress and existing supervisory practices?

The global areas or categories of problems that were used in the design of this study were taken from earlier research findings by Cruickshank and others to determine the global problematic areas of teachers (Cruickshank, 1971). The six categories were defined as follows:

1. Support — The system whereby the teacher is provided with necessary support and cooperation from school administrators and other teachers.

2. Control — The process whereby the teacher is able to control the teaching-learning environment.
3. Influence — The process whereby the teacher is able to influence decisions that have direct effect upon the teaching-learning environment.
4. Inclusion — The process whereby the teacher is able to develop and maintain rapport with administrators as well as maintain a professional relationship with colleagues.
5. Nurturance — The process whereby the teacher is able to improve life for students both inside and outside school.
6. Efficiency — The process whereby the teacher is able to accomplish both professional and personal tasks in the most efficient manner.

D. SIGNIFICANCE OF THE STUDY

From the review of literature, it was evident that there was a paucity of findings from the research community concerning the relationship between teacher stress and supervisory practices. Teachers may view supervisors as being of little help to them in coping with work-related stress (Goens, Kuciejczyk, 1981). Yet there have been few studies conducted to determine practical and specific ways that supervisors might do better jobs (Armstrong, 1980). A need has been recognized to conduct studies of problems identified as immediate and urgent for teachers (Schubert, 1980).

With the dearth of practical research in mind, the researcher attempted to provide an analysis of the relationship between teacher stress and existing supervisory practices. The results of this study

could be applied directly to the classroom. Supervisors would be able to determine those kinds of problems which cause the teacher the most stress. Findings from this study might also provide guidance for developing more effective supervisory practices. Instead of supervisors being viewed as threatening and authoritarian (Blumberg, 1974), they might be perceived as supportive if supervisory practices are developed that allow for more consideration of the teacher's perspective and vantage point.

E. LIMITATIONS

The results of the study were limited in the degree of generalizability within the population of secondary teachers because only teachers who were members of a professional teachers' organization were included in the sample. The single data collection approach was considered as a limitation. The source for collecting the data was a survey instrument. Conducting a longitudinal study by interview method might have produced more representative results of teacher stress throughout the school year.

The only available source for a random sample of 1200 secondary teachers was the Tennessee Education Association (TEA) membership roster. This population represented 37,000 teachers of the 47,000 public school teachers in Tennessee.

F. DELIMITATIONS

This study was delimited to those selected teacher problems related to six global areas or categories. These areas were support, control, influence, inclusion, nurturance, and efficiency. The study was also delimited to secondary teachers in the state of Tennessee.

The sample size was determined using statistical tables. The conventional practice of setting the significance criterion (α) at a value of 0.05 was used while specifying a probability (power, p) value of 0.80. It was assumed that at least a small degree of stress was present in the population (effect size, d). Thus with $\alpha = 0.05$, $p = 0.80$, and $d = \text{small degree}$, the researcher determined the sample size to be $n = 310$ (Cohen, 1969). The 5 percent level of significance ($\alpha = 0.05$) is considered acceptable in social research (Champion, 1970).

G. PROCEDURES

Selection of the Population

The population for this study consisted of secondary teachers (grades 7 through 12) in the public schools of Tennessee. This population was the most accessible through The University of Tennessee, Knoxville.

Selection of the Sample

The sample consisted of secondary teachers randomly selected from the public schools of Tennessee (grades 7 through 12). A sample size of $n = 310$ was determined using the conventional practice of setting the level of significance at (α) 0.05 and the power of the test at 0.80 ($\beta = 0.20$). A statistical table was used for predicting the necessary value of n (Cohen, 1969). A 30 percent rate of return was anticipated. The random sample of 1200 teachers drawn provided an actual sample size of 464, which was more than the needed size $n = 310$ determined from the statistical table.

Construction of the Questionnaire

The questionnaire was designed by the researcher in order to collect the data by survey method. The problems included in the questionnaire were taken from earlier research findings (Cruickshank, 1971). The questionnaire consisted of three parts. Part I provided for demographic information regarding the age, sex, tenure, years of experience, type of school district, and the level of certification of the respondent. The variables included in Part I were chosen because a growing body of research indicates that needs and concerns of teachers vary with age, job skills, and level of knowledge (Burden, 1979, 1980; Fuller, 1970; Newman, 1979; Peterson, 1979). For each of the problems in Part II, the respondent gave two responses: (1) the level of stress being experienced (0, 1, 2, 3, 4, 5 where 0 = not a problem, 1 = very low stress, 2 = low stress, 3 = medium stress, 4 = high stress, 5 = very high stress); and (2) how perceived supervisory practices were influencing the level of stress (1 = reduces stress, 2 = has no effect, 3 = increases stress). If the respondent indicated a response of zero, then the influence of supervisory practices was not considered in that particular question. In Part III the teacher was asked to choose from a list of ten supervisory practices three practices which best described existing supervisory practices in the teaching environment. An equal number of supportive and directive styles of supervision were chosen from the literature to be included in Part III (Wiles, Lovell, 1975; Sergiovanni, 1975).

In an effort to refine the instrument used in the study, experts were asked to evaluate the questionnaire. After D. Cruickshank and M. Phelps completed the evaluation, a pilot study was conducted at The

University of Tennessee, Knoxville. The pilot study involved 20 secondary teachers who were teaching full-time in county and city schools. The teachers were asked to respond to the questionnaire as well as to a cover letter that would be used in the study. The comments made by the teachers were used to improve the clarity and logical content of the letter and instrument. After making the changes in the instrument and letter, they were again reviewed by experts.

Means of Analysis

The analysis of data was accomplished through the use of nonparametric statistical methods. For research question 1 on the distribution of educational stress and the demographic variables age, sex, tenure, years of experience, type of school district, and level of certification, the chi-square distribution was used. An emphasis was placed on the analysis of data with respect to the differences in the distribution between the level of stress and the demographic variables. Frequency tables were generated for each of the six demographic variables.

For research question 2 on which category (categories) of stress-related problems created the most stress for teachers, the sample arithmetic mean ($\bar{x}$) was determined for each category. This was believed to be the most straightforward method. To measure the closeness of association between teacher stress and existing supervisory practices, as stated in research question 3, the method of rank correlation was applied. A Spearman rank correlation coefficient was also computed to provide a measure of association between the two variables for each of the six categories. All of the above statistical procedures were conducted using the Statistical Analysis System (SAS).

Further analysis was also done on the types of supervisory practices that were being experienced by teachers. A frequency distribution was determined for all ten practices. The more descriptive supervisory practices and comments made by the teachers were listed in their entirety, and a brief quantitative summary of these results was presented in the text.

H. ORGANIZATION OF THE STUDY

Chapter I contains the introduction to the problem, the statement of the problem, the purpose and significance of the study, the limitations, the delimitations, the procedures relative to the collection and analysis of data, and the organization of the study.

Chapter II contains an introduction, a review of related research and literature pertaining to the nature of stress, teacher stress, the supervision of teachers, and a summary of the study.

Chapter III contains an overview, the methodology and procedures used in relation to this study, the procedures followed, and how the data were to be analyzed and presented.

Chapter IV contains a presentation of findings from this study. Methods used to report the findings as they relate to the research questions are discussed in an introduction. Specific results relating to the research questions are presented in tabular and graphical form. A quantitative summary of the comments provided by the teachers are presented by theme. A similar presentation is made for the more descriptive supervisory practices which the teachers provided on the questionnaire.

Chapter V contains a brief restatement of the main features of the study and a discussion of the main findings. Conclusions and implications offered by the researcher are based on the findings of this study. Possible applications and other areas of future research are discussed in the summary.

CHAPTER II

REVIEW OF RELATED LITERATURE AND RESEARCH

A. INTRODUCTION

In order to view the supervisory process as broadly as possible and to explore fully the relationship between educational stress and the supervision of teachers, a brief review is needed of (1) the nature of stress, (2) teacher stress, and (3) supervision.

B. NATURE OF STRESS

To define the term stress, one may refer to Hook's Law and simply state that material under stress will return to its original condition, if the strain produced by the stress falls within the "elastic limit" of the material. If the strain exceeds the elastic limit, permanent damage to the material will result. Relating this principle to human beings, some stress theorists have defined stress as the pressure placed on a person to adjust. One research expert in stress, Hans Selye (1976), uses the term stress to refer to the body's response to any demand originating within or without the organism. The demand may take the form of anxiety, hostility, or depression. Conditions (stressors) that upset physiological or psychological homeostasis will activate the stress response.

According to Torrance (1961), for a condition to be labeled "stressful" for an individual or group, there must be one distinctive element present in the situation. This distinctive element is the "lack

of structure or loss of anchor in reality experienced by the individual" (p. 101). The task of the leader or supervisor is to provide the style of leadership necessary to restore the structure or provide means for coping with the demands of the unstructured situation.

In the flow of interaction, there are many conditions, causes, and settings for stress (Hampton, 1973). Indeed, it is suggested that stress and tension are beneficial if they reflect commitment which promotes challenge, heightened attention, and effort (Kelley, 1970). However, the adaptive response of the body to any condition or cause is always the same, regardless of the particular stimulus (Selye, 1981). What varies is the degree of the response, which in turn depends only on the intensity of the demand for adjustment. Therefore, it is immaterial whether the stress-producing condition is pleasant or unpleasant. What matters is the duration of the condition accompanying the stress response (Matheny, 1983), intensity of the stress response, and the personality of those involved in the stressful situation (Luborsky, Docherty, and Penick, 1973).

Selye has speculated that human energy for adaptation is limited. Each person inherits a limited amount from birth, and longevity depends partly on the rate at which it is expended. Accordingly, eliminating unnecessary stress and expertly managing the remainder should increase one's years.

In order to properly manage stress, one must identify its sources. Two major sources that have been supported by recent studies are major life events and personalitiy characteristics. Major life events such as the death of a spouse, marriage, divorce, separation, and loss of a job

are significant sources of stress. The underlying assumption in research on life events was that the clustering of the life events ties up enormous quantities of adaptation energy, leaving one's defensive resources dangerously thin. Dudley and Elke (1977) have maintained that rapid change in stimulation levels occasioned by life change is more closely related to subsequent illness than is the absolute amount of stimulation. Proper management of stress, from this perspective, involves spreading life events over a wider span of time and in this way to lessen the likelihood of disease.

Recent research by Matheny and Cupp (1982) indicates that certain perceptual variables serve as moderators to lessen the harm of stressful life events. Life events are less likely to lead to illness if they are perceived as being desirable, having been anticipated, and as being under the person's control. Although all three of these perceptual qualities proved to be important moderators, control was by far the most important. If respondents felt control over the life change events they experienced, there seemed to be little relation to subsequent illness. This was even more true of women than of men (Matheny and Cupp, 1982).

Bandura (1982) has highlighted the importance of perceived control in moderating the stressfulness of life experiences. He maintains that confidence in one's coping ability can reduce the level of physiological arousal before, during, and after a trying experience.

From a historical perspective, there have been several accounts of certain personality characteristics which seem to increase susceptibility to stress and illness. As early as 1910, William Osler recognized a personality type which seemed particularly related to heart attack.

Aggressive, driven, work-oriented men seemed to be at higher risk than men lacking these dispositions. In 1935, Walter B. Cannon maintained that a causal link exists between mentations and somatic activity that may explain the relationship between stress and illness. Bundbar (1943) concluded that personality must be taken into consideration in the diagnosis and treatment of physical disease. Wolff (1947) noted that a wide range of diseases, including migraine headaches, allergic reactions, and gastro-intestinal disorders, were both aggravated and treatable through psychic activity.

More recent research by Friedman and Rosenman (1974) on the coronary-prone individuals serves as evidence of the personality type alluded to by Osler in 1910. These coronary-prone individuals, called Type As, are said to be suffering from "hurry sickness." They constantly try to do more and more in less and less time. Their type A characteristics — aggressiveness, competitiveness, and impatience — keep them in a chronic state of sympathetic nervous system arousal. Sympathetic arousal is associated with the production of emergency hormones, such as cortisol and adrenalin, which contribute to the development of atherosclerosis, an antecedent of cardiovascular disease.

McClelland (1982) has discovered some correlation between highly promotable managers, and type A personalities. His promotable managers had a high need for power, a low need for affiliation, and a high need for self-control. Moreover, he found that these managers were ill with much greater frequency than were managers with lesser power needs and more needs for affiliation.

Girdano and Everly (1979) maintain that certain personalities over-react to fearful and frustrating experiences and are, consequently, likely to experience a great deal more stress than persons who are less prone to over-react. Three patterns of physiological response can be seen among persons confronting fearful stimuli. Pattern A is the normal response. Arousal increases sharply upon appearance of the fearful stimulus, but it gradually diminishes. Pattern B is the pattern of meditators. Arousal increases rapidly, but it falls off much more rapidly than with "normals." Pattern C represents the anxious, reactive personality. Arousal increases as with the other patterns, but it continues to feed on itself and in this way increases. In this case, a positive feedback loop results in anxiety feeding anxiety.

In describing the anxious, reactive personality, one may say this kind of individual turns "molehills into mountains." Such individuals have been described as "augmenters" (Buchsbaum, 1978). Lazarus (1966) and Cox (1978) maintain that stress is always accompanied by negative cognitive appraisal. Demands lead to cognitive appraisal of the requirements of the demand and personal resources for coping. When one concludes that the demand seriously exceeds his personal resources, he experiences stress. The key is the perception involved. Coyne and Lazarus (1980) maintain that the person's perception of the demand and resources for coping must be considered in order to predict how the person will respond to a situation.

The significance and complexities of the psychological and physical nature of stress have been well established by medical and psychological research (Rahe et al., 1974). Chronic stress tends to suppress the

immune system within human beings, rendering us more vulnerable to infectious disease and cancer (Pelletier, 1977). Accumulation of stressful events has been shown to be positively correlated with self-reported tension and diseases of adaptation such as depression and alcoholism (Vinokur, Selzer, 1975).

C. TEACHER STRESS

Accurate assessments of the incidence of stress (distress) among teachers are difficult to obtain. Studies that have addressed this issue have relied on reports from a limited number of teachers rather than on comprehensive surveys. However, surveys that have allowed teachers to remain totally anonymous have revealed a strikingly high incidence of self-reported stress. One review of studies dealing with teacher anxiety (Coates and Thoresen, 1976) revealed that as many as 78 percent of the teachers in one survey reported working under moderate to considerable stress. A recent survey among 257 British teachers (Kyriacou and Sutcliffe, 1978) showed that 20 percent of the teachers found teaching to be highly stressful. Pratt (1978) administered a Teacher-Event Stress Inventory to 124 primary school teachers and found a positive association between the amount of stress recorded and illness.

In an effort to determine if there were differences between the stress experienced by special education teachers and the stress experienced by regular classroom teachers, Moracco (1981) reported that there were no differences found between regular and special educational teachers. The researcher concluded that stress is largely an individually perceived phenomenon caused by personality traits and individual belief systems rather than environmental factors.

In a study sponsored by the Chicago Teachers Union, and conducted by Cichon and Koff (1980), it was found that regardless of sex, race, age, type of school, physical and/or mental illness, etc., teachers share common perceptions about stress associated with teaching. Of the most stressful events, teachers indicated that managing disruptive students, being threatened with personal injury, having a colleague assaulted in school, and being a target of verbal abuse by students were the most stressful. Violence and student discipline were the dominant themes.

In the events that represent stress which is "imposed" upon the teacher, the number one item was being involuntarily transferred. Maintaining self-control when angry and being an effective teacher were perceived to be moderately stressful. Those events which induce relatively little stress were related to "pedagogical functions" such as dealing with bilingual students, evaluating students, and doing lesson plans. It was suggested that one might infer from these data that teachers find less stressful those teaching events (i.e., pedagogical functions) over which they have direct control.

From a descriptive study of teacher stress in a middle-sized school (kindergarten through grade 12), Charles Dedrick sought to identify the stressful conditions of the teaching profession in a rural setting (1981). He found that women ranked lack of time as the greatest source of stress while men ranked disruptive students as the most stressful condition.

Nina Gupta and D. Jenkins conducted a study of the work role stress among female and male public school teachers (1981). The study was conducted through interviews with 16 women and nine men. Stressors were categorized under three broad categories: job-related factors,

interpersonal factors, and general organizational factors. The researchers sought to determine the perceived role demands that an individual is unable to satisfy and the extent of symptoms of strain. The results indicated that quantitative role overload was the stress most frequently experienced by the teachers, followed by role ambiguity and role conflict. Stressors generally tended to be more potent for women than for men. Job variety, job responsibility, and interpersonal characteristics were found to be salient stressors for women. No stressor appeared to be salient for men. Organizational stressors were minimally potent for both men and women. While women were more likely to report the experience of role stress than were men, stress resulted in the experience of psychological strain for both men and women.

The results of a comprehensive survey conducted by The Knoxville Journal newspaper and Howard Pollio, professor of psychology at The University of Tennessee, Knoxville, were recently reported (January 13, 1983). The reporter, Klebenow, who surveyed the teachers of the Knox County and Knoxville City Schools, indicated that more than 73 percent of the teachers singled out financial problems as the most stressful aspect of their careers. Of those responding, 65 percent expressed doubt that they would ever choose teaching again. In a summary of these findings, one school administrator asked, "If dissatisfaction with a career choice has surfaced so strongly, how will good teachers be recruited in the future?"

The above question was addressed by Phillip Schlechty of the University of North Carolina in a study supported by the National Institute of Education (1982). The conclusion of this study was that

teaching no longer attracts the highly able individuals who once considered teaching a preferred profession. In Schlechty's words, "The teaching profession is drawing from the bottom of the barrel" in the selection, training, and retention of teachers. What can be done? The researcher suggested that the focus should be on making radical structural changes in schools to make them become attractive places for the academically able to pursue careers.

From a theoretical point of view, one may ask whether teachers have difficulty in satisfying their needs and in deriving satisfaction from teaching. One recent study examined the needs that teachers appear to have difficulty in trying to satisfy (Fratacci, 1982). The design of the study was based on Herzberg's Hygiene-Motivation Theory, which notes that all humans have two sets of needs. These are the need for psychological growth and the need to avoid unpleasantness.

Thirty-seven teachers who had resigned from teaching responded to two ten-item questionnaires in the above study. Two hypotheses were tested: (1) teachers who resigned from teaching will report no job satisfaction relative to the motivation component of the Hygiene-Motivation Theory, and (2) teachers who resigned from teaching will report job dissatisfaction relative to the hygiene component. Each hypothesis was found to be significant at the 0.05 level. Within the hygiene component, the teachers were dissatisfied with security and social needs, company policy and administration, supervision, salary, interpersonal relations, and working conditions. Within the motivation component, teachers reported dissatisfaction with recognition, advancement, and achievement.

Although teacher stress has emerged as a major contemporary concern among educators, it has been suggested that the phenomenon is not new

(Ricken, 1980). However, the effects of excess stress on teachers are of paramount concern today; and efforts are being made to determine the sources, reactions, and preventions of excess stress for teachers in the classroom (Kaiser, Polczynski, 1982). More and more school-based interventions are being called for to reduce levels of stress for teachers (Schwab, Iwanicki, 1982). And it is being suggested that school principals and supervisors should provide teachers with environments and programs of support to help them cope with the high levels of stress they continue to experience (Wangberg, 1982; Austin, 1981). From this review of current literature, it seems that the supervisory process is crucial in providing the support that teachers need to be effective in the classroom (Landsmann, 1978).

D. SUPERVISION OF TEACHERS

In a historical survey of developments in the supervision of teachers, it is not difficult to recognize that the traditional, inspection-based approach has had a profound influence upon present day practices. First established in Massachusetts during the eighteenth century, this monitoring style of supervision was based on a law that required that inspection be conducted by committees of lay citizens. This form of supervision persisted for over 150 years (Button, 1966).

During the mid-nineteenth century the professional supervision approach began to emerge when the Office of the County Superintendent was established. Instead of committees of lay citizens, the duties of inspection were allocated to the superintendent and then later to principals.

Scientific supervision or the "ideal form of supervision" was brought about by a management process that first began in business and industry in the early 1900s. Supervisors were to identify laws and direct teachers in using these laws. Although there were several limitations to scientific supervision, the introduction of this process has proven to be very positive (R. Schultes, 1978).

Democratic supervision had its roots in progressive education and emphasized the dignity of the individual (Mosher and Purpel, 1972). Supervision became associated with human personality. Instead of the emphasis being upon the leader and the led, wide participation was encouraged in formulating policies and solving problems (Lucio and McNeil, 1969).

Recent Trends

Recent trends in educational literature indicate that the supervision of teachers is becoming more participatory. In particular, attempts at instructional improvement are relying more on human resource styles of supervision.

As early as 1955 research by Halpin suggested that successful supervisors employed a humanistic style of management. More recent research by Likert (1975) in his discussion of collaborative supervision, support these findings.

According to Dow, there is a need to examine new theoretical conceptualizations and to exercise more dynamic leadership in the instructional improvement process (1981). Recently there has been a renewed interest in the theory and practice of instructional supervision. During the past five years there have been more than two dozen

professional texts published in North America on instructional supervision as well as numerous articles in professional journals.

One discernible trend is that of viewing supervision as a team approach involving all personnel above the teaching ranks. Lovell discusses this trend when he states that "instructional supervisory behavior is assumed to be an additional administrative behavior system, formally provided by the organization, for the purpose of interacting with the teacher behavior system" (Wiles, Lovell, 1975, p. 6). This combination of the diversified talents and efforts of each team member of the behavior system has been referred to as the "professional instructional team" (Alfonso, Firth, and Neville, 1975). It is suggested that a more direct, positive impact can be made upon the school or unit with whom the team is working than can be made by an individual working alone in the school.

Another trend is to view the instructional improvement process as human resources supervision (Sergiovanni, 1975). This conceptualization is based on the assumption that identity, commitment, and motivation are essential ingredients in any practice in supervision. In this perspective it is assumed that teachers are professionals, that they want to improve themselves professionally, that "teachers have a desire for and a need for full participation as shareholders in the affairs of the school, and that they are prepared to work very hard on behalf of the school as they have the opportunity" (p. 12).

A further development for which there is considerable agreement today is that supervision is not the province of a particular person but is a natural part of the school organization. It must be a team approach

involving all members of the instructional staff. The purpose of supervision was and still is to improve instruction. It is a process designed to facilitate pupil learning and to achieve the goals of the organization. The goals have not changed, but the means of achieving them have because of new insights into how organizations function. This perspective was advanced by Harris when he stated, "The archaic notion of the lone supervisor, without status, disguised as just another teacher will not suffice. This is an organized society in which lone individuals are doomed to be ineffectual" (Harris, 1976, p. 334).

Available Supervisory Models

One model that is available for supervisors to adopt in their attempts to maximize the human potential of educational institutions is that of management by objectives. MBO in education is defined as

"a disciplined communication process which relies heavily on an interview process, whereby all persons in an organization cooperatively express their hopes and aspirations for a stated period and rationalize them within the context of the overall goals of the corporation, as stated by school officials" (Dow, 1981).

From a review of the literature, it can be seen that MBO may be used successfully in education. It appears that no one disagrees with the need to define objectives or to measure the results and modify programs accordingly (Fleming, 1978). There exists an overall realization that educational effectiveness must be improved, and teacher effectiveness is an important aspect of the plan for improvement (Little, 1981). Teachers want to receive help, but they must be able to contribute to the making of objectives for themselves that make sense. And they must be able to trust and respect their supervisors (Diamond, 1978).

In an effort to meet the need for more effective supervision, the Carleton Board of Education in Ontario implemented a results-oriented supervisory system (ROS) in 1974. ROS is defined as a cyclic process of growth modification which uses bilateral objective setting activity with prime emphasis on formative assessment (Boston and Grove, 1978). It assumes that the participants are professionals who are inherently motivated to improve their performance. This specific orientation to the professional growth is a key to the process. By emphasizing the formative evaluation component and de-emphasizing the summative devaluation aspect, a climate of mutual trust and cooperation can be developed. The basic purpose of ROS is to improve the teaching and learning process in the school. This is accomplished through the development of human resources in the system.

The most significant aspect of the Carleton Board of Education project has been the application of the process to the classroom in the form of results-oriented supervision. Results-oriented supervision is an effort to humanize the supervisory process and is viewed as a continuous process and not simply an inspection reporting procedure. The role of the supervisor becomes that of assisting the teacher in facilitating the achievement of the goals. The process of formulating objectives, establishing procedures for meeting the objectives, and evaluating the program becomes a major task of the school team.

A third model of supervision designed for instructional improvement is the synergetic supervisory process. Synergism refers to a system which functions such that the effects or actions of the whole transcend those of the individual components. Synergy in supervision emphasizes

the position that the combined effort of teachers and supervisors will improve the total educational program more than the efforts of either group working alone (Shultes, 1978).

The synergetic supervisory process is based upon four key assumptions (Bellon, 1976): (1) teaching is a set of identifiable patterns of behavior; (2) when selected patterns of teaching behavior are changed, improvement of instruction can be achieved; (3) the supervisor-teacher relationship must be built on mutual trust if change is to take place; and (4) the improvement of instruction is the primary goal of supervision.

Another available model is the field-attentive-independent model which deals with cognitive styles that will help supervisors understand why they communicate well or poorly with certain people. Consideration is given to why different teachers respond differently to the same style of supervision. The method used in the field-attentive-independent model is to divide people into those who are field-attentive (FA) and those who are field-independent (FI). FA people tend to be attuned to others' values, attitudes, and feelings, and to have effective people skills. FI people tend to be more task-oriented and more concerned with ideas and principles than with people (Mezoff, 1980). A supervisor can become more effective by being aware of the kind of person a teacher is and by adapting methods of motivating and communicating to that kind of person.

In his comprehensive model, Ahnell (1981) states that communication and human relations are the two most important elements in a model that is conceived to aid decision making. Supervision occurs in a specific situation, and therefore analysis of the situation may determine the skills and behaviors appropriate to that situation. Supervision is not

accomplished through the application of a set of general supervisory behaviors, nor through the utilization of certain social processes to the exclusion of others. Use of the comprehensive model forces the collection of data and the determination of needs in specific supervisory situations.

A self-supervisory model is designed for helping teachers deal with the relative isolation that may exist in a school system (Park, 1981). Included in this model are possible self-supervisory activities as well as skill development and self-assessment with the individual teacher as the target.

The model of clinical supervision, which served as an educational idea for the first fifteen years of its existence, is entering the 1980s as a warmly pursued topic (Krajewski, 1982). A precise, well documented rationale and description of the process of clinical supervision was provided by Morris Cogan in 1973:

. . . the rationale and practice designed to improve the teacher's classroom performance. It takes its principal data from the events of the classroom. The analysis of these data and the relationship between the teacher and the supervisor form the basis of the program, procedures, and strategies designed to improve the students' learning by improving the teacher's classroom behavior (Cogan, 1973).

Recent proponents of clinical supervision have indicated more favor toward the product view of clinical supervision rather than the process view. According to Harris (1976), clinical supervision as currently conceptualized may be too restricted in procedural alternatives and too demanding of special conditions to be widely useful to supervisory personnel in public situations.

In contrast to this view are the findings of a study conducted by the Association for Supervision and Curriculum Development (1977-1978)

on the subject of "Role and Responsibilities of Supervisor." From the review of literature and empirical research gathered from interviews with executive directors of national associations, findings indicated that clinical supervision is accepted as a vital instructional supervision method. For example, when asked what the activities of instructional supervision should include, 49 of the 63 suggestions involved the techniques and practices of clinical supervision. And when asked what the preparation program for instructional supervisors should include, the majority of formal classwork suggested by the interviewees was clinical supervision.

It seems that interaction among instructional personnel was central to the success of the learning process. Indeed, clinical supervision was the process by which the instructional supervisor gained access to an understanding of the quality of this interaction (Sturges, 1978).

In order to improve the quality of interaction between the teacher and supervisor, a collegial supervisory approach is growing out of the field of clinical supervision. Several recent trends are making the collegial model more feasible. Most important are the increased use of team teaching combined with better preparatory training, stability in teacher staffs, and the growth in popularity of clinical assumptions and approaches to classroom supervision (McGee, Eaker, 1977).

In this approach a strong emphasis is placed on the development of an atmosphere of collegialship and mutuality in the relationship between the teacher and supervisor. The process includes both a pre-observation conference (in which the supervisor is oriented to the class and in which the two agree on the purposes of the observation) and a post-observation

conference (in which the critique is made and in which plans are drawn for mutually agreed-on changes) (Reavis, 1978).

According to Reavis, research on the effectiveness of the clinical supervision model is still somewhat limited. Most studies indicate that teachers favor clinical supervision over other approaches. However, the studies that Reavis discusses do not include means of accurately comparing clinical to nonclinical supervision.

Current Status of Supervision

It would be difficult and perhaps impossible to list all the various configurations by which supervisory services are provided to teachers. However, the impact of the bureaucratic structure of the school district on the supervisory services is direct, strong, and often immediate (Firth, Eiken, 1982). Some of the most common bureaucratic models for supervisory services are staff consultant, line authority, multiple central office support, local school support, decentralized area support, performance assessment, and intermediate service agency support. The professional bureaucracy has contributed a great deal toward providing support for teacher growth and at the same time releasing the energy and talents of the teacher. However, the benefits of this design have leveled to the extent that dysfunctions are now dominant (Sergiovanni, 1982).

There is substantial lack of agreement, great complexity, fluidity, and many competing models of supervision (Pohland, Cross, 1982). Four major conceptions of supervision are the instructional process, administrative, counseling, and performance-based. There are extensive variations in each of these concepts. For example, in the instructional process, further detailing is found in the clinical, technological, and

artistic instructional processes (Pohland, Cross, 1982). The administrative model of supervision is pervasive because of a long and consistent history of principals assuming the major responsibility for supervision and the fact that most principals tend to be managerially oriented (Pohland, Higbie, 1978). The counseling concept is grounded in a human growth and development metaphor which clearly differentiates the counseling concept from the administrative and instructional process. The performance-based concept is fundamentally different from the other three in that the focus of attention is more on the behavior and performance of the student than on the teacher. Models of performance-based supervision are currently being used, especially among hard-pressed administrators (Pohland, Cross, 1982). However, there are drawbacks to this approach when an attempt is made to transfer the experiences and learnings of teachers participating in program developments to those teachers who are not included in the work sessions.

In spite of the many models of supervision, there are forceful suggestions that teachers find instructional supervision irrelevant (Cuban, 1968; Blumberg, 1974). Teacher's sentiments establish and reinforce norms of individualism and collegial sharing of information (Lortie, 1975). What becomes the dominant mode of interaction is the peer-supervision (Pohland, Cross, 1982). That is, teachers report that their best sources for innovative ideas with respect to their teaching are other teachers (Sergiovanni, Starratt, 1979; Blumberg, 1974). There is a need for supervisors to recognize that teachers turn to their teaching colleagues with their problems and for new ideas (Alfonso, Goldsberry, 1982). Research into systems of peer review or peer

supervision is limited with the majority of research and development taking place in the elementary schools. It is suggested that secondary school, generally viewed as unresponsive to instructional improvement efforts, might be a very fertile ground for the development of the concept of collegiality in supervision (Alfonso, Goldsberry, 1982).

A more recent concept in the field of professional development among teachers is that of advisors. According to Hawkins (1979),

It is as advisors, not as supervisors, that we must be ready to give assistance. As advisors to teachers, we must be prepared to find within them, within their situations, and within ourselves the potential and the promise of those new paths waiting to be developed (p. 12).

Advisors have been described as individuals who practice the art of drawing out the best in a teacher and in a school. They are not master teachers but colleagues who are committed to working and learning alongside teachers (Hawkins, Thomas, 1979). Although this new way of working with teachers may be helpful, according to Watts (1980) we seem to have only a vague notion of what may be possible to offer teachers for their professional development.

In a survey of state departments of education, professors of supervision, and teachers, the status of supervision was addressed (Thompson, Ziemer, 1982). The sample for the study was 24 state departments of public instruction, 76 professors of supervision representing 60 colleges and universities in 19 states and the District of Columbia, and 140 teachers from three midwestern states. State department findings indicated that little has changed in the past 25 years in the area of supervision. Professors indicated that it is not the supervision that is being taught at the university which is the problem but the model of

supervision that is actually being used in the schools. The majority of the professors indicated that less than half of what they taught was actually being carried out in the school setting. The teachers were firm in their judgments that wide discrepancies exist between what they were taught about supervision and what is identified as supervision in their school districts. Sixty-one percent of the teachers surveyed indicated that supervision in their schools or districts was of little or no value. Sixty-three percent of the teachers claimed that the forms used for evaluation were created by the central office or by supervisors with no teacher input. The assistance component was reported to be absent from the teachers' experiences with supervision. The majority of teachers indicated that they had been "supervised" one to three times over a period of three years. In their districts the term supervision implied evaluation. Fellow teachers were identified as their major source of assistance.

Perhaps assistance from other teachers (master teachers) is the beginning of the new paths which Thomas (1979) says must be taken in the struggle to evolve better classrooms. Rather than reliving the history of supervision, Thomas calls for an effort on the part of advisors, not supervisors, to find new ways of helping teachers within their classroom situation.

According to Anderson (1982), the framework within which most teachers and supervisors function is largely nonsupportive. There are limitations in the preparation, orientation, and skill of the existing supervisory force. These along with racial and sex discrimination complicate a most difficult situation (Greene, 1982). Schools continue

to suffer from neglect, and quality supervision is extremely difficult to establish.

E. SUMMARY

Chapter II was designed to acquaint the reader with contemporary issues in the areas of stress in general, teacher stress, and the supervision of classroom teachers. From the review of literature and research in the area of stress, it was suggested that to properly manage stress one must identify its sources. Certain perceptual variables were described as moderators of stressful events. These variables included the perception that the event was desirable, the event was anticipated, and was under the person's control. Of the three variables, control was by far the most important.

Certain personality types were identified which might explain the link between stress and illness. One such anxious, reactive personality type was described as augmentive wherein the individual turns molehills into mountains.

For teachers, the event which seemed to impose the most stress was involuntary transfer. Maintaining self-control when angry and being an effective teacher were perceived as moderately stressful. Events which created the least stress were pedagogical functions over which the teacher had direct control.

The review of related research and literature on supervision revealed that there are many models of supervision available today. There is a lack of research pertaining directly to how supervisors may reduce teacher stress in the classroom.

Chapter III describes the methodology and procedures to be followed in this study. This includes the development of the survey instrument, gathering the data, and the treatment of the data.

CHAPTER III

METHODOLOGY AND PROCEDURES

A. OVERVIEW

Nature of the Study

This study dealt with an analysis of the distribution of teacher stress with respect to specific demographic variables. The exploratory study was designed to investigate the possible differences in distribution of levels of teacher stress for the demographic variables age, sex, tenure, years of teaching experience, type of school district, and the level of certification of the teacher.

A survey was conducted of secondary teachers in the state of Tennessee. A random sample of size $n = 1200$ was drawn from the names of teachers who were members of the professional teacher's organization, Tennessee Education Association (TEA). The TEA membership list represented 37,000 of the 46,000 secondary teachers in the state of Tennessee.

Procedures to be Followed

An initial step involved in the development of this survey study was the identification of some of the specific variables which appeared to be important in gaining a better understanding of educational stress. Past research and a review of pertinent theory provided the researcher with insight needed to develop three broad research questions:

1. Is the distribution of educational stress influenced by the teacher's age, sex, tenure, years of teaching experience, type of school district, or level of certification?
2. Which category (categories) of stress-related problems create the most stress for teachers?
3. Is there an association between educational stress and existing supervisory practices?

These questions provided direction for the design of the survey study. It was believed that the study might provide feedback to practitioners and theoreticians regarding educational stress among teachers at the secondary level.

Selection of the Sample

The sample for this study was chosen from the secondary teachers in the public schools of Tennessee (grades 7 through 12). The source for obtaining the names of the teachers was the membership of the Tennessee Education Association (TEA). This represented approximately 37,000 of the 46,000 teachers of the state.

A written request was mailed to the TEA office in Nashville, Tennessee, for obtaining randomly selected names and addresses of full-time secondary teachers. The first of two random samples was drawn and the mailing of 600 questionnaires to those selected teachers resulted in the return of 245 questionnaires (40.8 percent).

The desired number of cases ($n = 310$) had been determined earlier using the conventional practice of setting the level of significance (α) at 0.05, and the power of the test at 0.80 ($\beta = .20$). This was deemed sufficient in order to detect what had been described as a "small" degree

of stress which was assumed to be present in the population (Cohen, 1969). In an effort to obtain the desired number of cases, another request was made by telephone to the TEA office for 600 more randomly selected names of full-time secondary teachers. After receipt of that sample, a second mailing was conducted which resulted in 230 returns. A total of 1200 questionnaires were mailed in a four-week period. Returns from 475 teachers were received, which was a 40 percent return rate.

Data Collection

Results from 464 teachers were included in the data set for this study. All of the data were collected by questionnaire from full-time secondary teachers. The 11 returns which were not included in the analysis were either not completed correctly or were from subjects who were not full-time secondary teachers.

Two important aspects in the gathering of the data which might introduce some bias should be noted: (1) The drawing of the random sample from the membership list of a professional teachers' organization was not a true representation of all secondary teachers in Tennessee, and (2) A possible bias existed as to whether only highly stressed teachers would (would not) return the questionnaire. These aspects were taken into account in the analysis of the data and noted in the conclusions as to the percentage of teachers indicating a high (low) level of stress.

Data Analysis

The data were analyzed by applying nonparametric statistical procedures. The Statistical Analysis System (SAS) was used to carry out

all of the calculations. The chi-square (χ^2) tests were used to generate contingency tables and calculate a χ^2 value on the level of stress for each of the demographic variables with respect to the problems being studied. The emphasis in the analysis of data was on the strength of the relationship between the level of stress and the independent variables.

In order to determine which category (categories) of stress-related problems created the highest level of stress for teachers, the sample arithmetic mean ($\bar{x}$) was determined. Descriptive statistics were also calculated for the standard derivation, median, minimum value and maximum value on levels of stress for each category of problems. To measure the closeness of association between the level of stress perceived by the teachers and the perception of how supervisory practices were influencing the level of stress, the method of rank correlation was applied. A Spearman rank correlation coefficient was computed to provide a measure of association between the level of stress (0 = no stress, 1 = very low stress, 2 = low stress, 3 = medium stress, 4 = high stress, 5 = very high stress) and how supervisory practices (1 = reduce stress, 2 = have no effect, 3 = increase stress) seemed to be influencing the teacher's level of stress. This coefficient and the confidence interval were calculated for each of the categories of problems. The intercorrelations were summarized in a correlation matrix.

Presentation Format

A tabular format was used to present the quantitative results of this study. Also figures were used to provide a graphical summary of results. Using the variables which would provide descriptive information about the composition of the sample, cross tabulations were made on the

raw data. The demographic variables selected for cross tabulation were age with sex, age with level of certification, age with years of teaching experience, years of teaching experience with levels of certification, and type of school district with level of certification. It was believed that these cross tabulations would serve to provide descriptive information and perhaps assist in answering the research questions. They were placed in Appendix A. Also included in Appendix A were four contingency tables which described the make-up or composition of teachers for the category control for each level of stress. This category of control was the category in which significant results were found for the variable years of teaching experience.

The three most frequently experienced supervisory practices which the teachers had selected from a list of ten practices were presented in tabular form. In Appendix B all supervisory practices were listed from the most frequently experienced to the least frequently experienced. The additional comments made by the teachers and the supervisory practices which the teachers described at the end of the questionnaire were listed in Appendix C in their entirety. A quantitative summary of the comments by theme were presented in the text. Also the supervisory practices were summarized in a similar manner. Scattergrams of stress scores for each category of problems with respect to the influence of supervisory practices were placed in Appendix D. All letters of correspondence were placed in Appendix E. The questionnaires for the pilot study and the survey study were placed in Appendix F.

B. PROCEDURES FOLLOWED

Source of Data

In this survey study all the data were collected by questionnaires mailed to 1200 full-time secondary teachers in the public schools of Tennessee. This method was chosen as the most feasible means of gathering data across a state-wide geographical area.

Development of Questionnaire

In the development of the instrument used in this study, consideration was given to earlier research. Cruickshank's research (1971) indicated that the problems of teachers were relatively stable and could be grouped into categories. These categories were the basis from which the problem statements for this study were developed. The six categories were (1) support, (2) control, (3) influence, (4) inclusion, (5) nurturance, and (6) efficiency.

Using these categories, an instrument was designed by the researcher to provide for the determination of the level of stress the teacher was experiencing. Provision was made which allowed the teacher to respond to supervisory practices which were influencing that level of stress. Additional information was gathered on which supervisory practices were most commonly experienced by teachers.

The instrument, which was developed specifically for this research project, consisted of three parts. Part I included a section for gathering descriptive data on the demographic variables age, sex, tenure, years of teaching experience, type of school district, and level of certification. These variables were the first six items of the questionnaire.

The rationale for including these six demographic variables was based on earlier research findings. These findings indicated that the teacher's problems and needs seemed to vary with age, sex, job skills, level of certification, and perhaps other variables (Burden, 1979, 1980; Fuller, 1969, 1970; Newman, 1979; Peterson, 1979). It was suggested that teachers were likely to experience stress in various degrees at different points in their careers (Burden, 1982). It was also believed that these descriptive variables could be used to classify teachers accurately within the scope of this study. On this basis, a decision was made to limit the items in the demographic section to these six variables. Data from these descriptive variables were used in answering research question 1.

Part II of the questionnaire consisted of 24 items. These items consisted of selected problem statements developed from Cruickshank's research findings (1971). The problem statements dealt with teacher problems in the six categories (1) support, (2) control, (3) influence, (4) inclusion, (5) nurturance, and (6) efficiency. They also represented problems which had been reported as most frequently occurring for the teacher (Cruickshank, 1971). Four problem statements from each of the six categories were developed from Part II.

Problem statements were stated in a positive tone to minimize the possibility of misinterpretation by respondents. The four statements from each category were placed randomly throughout Part II. Table 1 contains the six categories and the questionnaire item numbers which belong to each category. Data gathered for these 24 perceptual items were used in the analysis of all three research questions.

Table 1
Question-Items by Category

Category	Questionnaire Item
1. Support	C14, C15, C25, C26
2. Control	C18, C24, C29, C32
3. Influence	C10, C11, C16, C21
4. Inclusion	C12, C19, C25, C28
5. Nurturance	C13, C17, C23, C30
6. Efficiency	C9, C22, C27, C31

Part III of the questionnaire consisted of ten supervisory practices as well as space for the teacher to insert more descriptive practices. Five supportive type and five directive type practices were chosen from the literature on the supervision of teachers (Wiles, Lovell, 1975).

Examples of two of the practices were (a) Major effort of the supervisor is directed toward helping the teacher improve the teaching-learning process, and (b) Major effort of the supervisor is directed toward administrative duties in the central office. The first practice (a) was defined as supportive and the second (b) was defined as directive. Additional space was provided for the teacher to make comments at the completion of the questionnaire.

The scoring procedure used in Part I of the questionnaire provided equal intervals for the variables age and years of teaching experience. The true dichotomy variables were sex and tenure. For the two variables type of school district and level of certification, the scale for

response choices was taken directly from earlier research studies which had indicated the following choices for type of school district were inclusive: (1) county, (2) city, (3) metropolitan, (4) special. For level of certification (1) less than Bachelor's degree, (2) Bachelor's degree, (3) Bachelor's degree plus, (4) Master's degree, (5) above Master's degree.

The 24 items of Part II were scored on the ranking of 0, 1, 2, 3, 4, 5 for the level of stress. Zero = no stress; 1 = very low stress; 2 = low stress; 3 = medium stress; 4 = high stress; and 5 = very high stress. The ranking of 1, 2, 3 indicated how supervisory practices influenced the level of stress. If supervisory practices (sp) = 1, then the practices reduced the level of stress. If sp = 2, then the practices had no effect on level of stress. If sp = 3, then the practices increased the level of stress. The 0-5 point scale for stress levels was used in order to gain added sensitivity in the distinction between very low stress and very high stress (Fisher, 1954).

Possible stress scores for all four problems in a category could range from 0 to 20. Zero would indicate no stress for all four problems. A score of 20 would indicate a very high level (response of 5) of stress for all four problems. In order to reduce the number of columns (20) in the contingency tables, the stress scores were collapsed by the following method: if the stress score for four problems in a category was less than or equal to 5, then level = 1; if the stress score for four problems was between 6 and 10, then level = 2; if the stress score was between 11 and 15, then level = 3; and if the stress was greater or equal to 16, then level = 4.

The scoring for the data in Part III was a simple frequency count. This was considered the most straightforward method for providing additional information on the most common supervisory practices being experienced by teachers.

Special Permit

In order to conduct research involving human subjects, special permission was obtained through the research administration office at The University of Tennessee, Knoxville. A letter and form were submitted to that office requesting such permission. After a review of the request, permission was granted. When the survey was completed, the appropriate form was mailed to the research office notifying the director that the research project was completed.

Pilot Testing

A preliminary pilot study was carried out during September 1983 in order to improve the design of the instrument used in collecting the data. Also, the logical content of the instrument and cover letter was appraised.

The 20 subjects who participated in the pilot study were full-time secondary teachers. A teacher from each of five high schools was contacted by the researcher. The teacher then randomly selected three additional teachers to participate in the pilot study. After each questionnaire was completed and returned to the contact teacher, the researcher gathered all 20 of the questionnaires. The 20 teachers provided ideas and new approaches which were used in the revision of the instrument and cover letter.

The scope of the study was reduced and more refined research questions were developed from the feedback gained in the pilot study. Minor changes were made in the format of the instrument and in the wording of the instructions for completing the questionnaire. A simpler approach was taken for returning the questionnaire. A pre-paid return mailer was created from the reverse side of the instrument. This reduced the time and expense of providing an additional envelope for each of the 1200 instruments.

Final Critique

After the pilot study was completed, the revised cover letter and questionnaire were reviewed by Drs. Jan Handler and Fran Trusty, faculty members in the College of Education, The University of Tennessee, Knoxville. When all the changes were completed, a final review was made by Drs. Handler, Trusty, and Rowell.

Subsequently, the instrument was mailed by first class delivery to the home address of each teacher in the sample. No prior contact had been made to determine if the teachers were willing to participate in the survey. Instructions were included for folding the instrument so that the self-addressed, stamped section was in the proper place for return mailing.

Sampling of Population

The broadly defined population in this study was the secondary classroom teachers in public schools. It was predicted that with a sampling of 1200 teachers, the desired diversity in location and size of school would be obtained. The state-wide secondary membership of TEA

was approximately 15,000 teachers for the school year 1982-1983. With a random sample size of 1200, a ratio of about 2:25 was obtained. This was accepted because the financial arrangements under which the study was being funded were limited. A direct mailing to the home address of 600 teachers was conducted in the last week of November 1983. This was the only mailing address provided by TEA.

Monitoring and follow-up procedures were used to determine which teachers returned the questionnaires. Three weeks after the first mailing, when 200 returns had been received, a follow-up card was mailed to those teachers who had not returned the questionnaire. Because only 45 additional returns were received, a decision was made to conduct another mailing.

A telephone request was made to the TEA office in Nashville for another random sample of size 600. Questionnaires were mailed to the second sample the last a week of December 1983. A total of 475 returns had been received by January 15, 1984. At that time data from these returns were submitted to keypunch services.

C. ANALYSIS OF DATA

Tabulation of Data

The data were recorded on the computer coding sheets, and the sheets were submitted to the keypunch services within the computer center at The University of Tennessee, Knoxville. Verification of the accuracy of punching the data was carried out during the process of punching the cards. The data were then read into the computer by cards and printed out for additional verification. One duplication error was corrected.

Use of Computer

The computer facilities at The University of Tennessee were used to sort the raw data after the data cards had been read into the computer. The Statistical Analysis System (SAS) was used to generate all routines used in the analysis of data. The DEC-10 system was used through a remote terminal in Stokley Management Building and submitted to the IBM-360 for processing and printing. Consulting services were provided through the User's Services of the Computer Science Department.

Statistics Used

Nonparametric statistical methods were used in the study. The chi-square (χ^2) test was used to investigate the possible relationship between the level of stress and the demographic variables. Cross-tabulations were made on the variables age by sex, age by level of certification, age by years of teaching experience, years of teaching experience by level of certification, and type of school district by level of certification.

The rank-difference correlation (Rho) was used to correlate the scores on the level of stress with the scores on how supervisory practices influence the level of stress (1 = reduces stress, 2 = has no effect, 3 = increases stress). The raw scores on the level of stress (0, 1, 2, 3, 4, 5) for the four problems within a category were collapsed in order to simplify the analysis. The new levels of stress were created by considering the total stress scores for all four problems. If the stress score (SS) was between 0 and 5, then level = 1; if SS was between 6 and 10, then level = 2; if SS was between 11 and 15, then level = 3. And, if SS was greater than 16, then level = 4. A correlation coefficient

and confidence interval were determined for each of the six categories of problems.

In order to determine which category (categories) of problems created the most stress, the arithmetic mean ($\bar{x}$) was calculated for each category of problems. Additional descriptive statistics were presented on the stress scores of each category (standard deviation, median, minimum and maximum values). Frequency counts were made to determine the most common supervisory practices.

Examination of Data

The computer was used for the development of a program to analyze the data. After the data had been put onto keypunched data cards and read into the computer, the 464 cases were sorted according to the identification number. The data were then printed out for further examination. One duplication error was deleted from the data set.

The routines from SAS which were used in the analysis included the PROC FREQ, PROC MEANS, and PROC CORR. From the PROC FREQ procedure the chi-square test was used on the data which were in the form of frequency counts. The frequency counts on the demographic data and the levels of stress were placed into contingency tables, and a chi-square analysis was made. The results included a χ^2 value as well as a probability value for the level of significance for each of the 36 contingency tables. These values were given in tables in Chapter IV.

To calculate the arithmetic mean ($\bar{x}$) on the levels of stress for each of the six categories of problems, the PROC MEANS procedure was used. This and other descriptive statistics (standard deviation, median,

minimum value, maximum value) were computed to determine which category (categories) of problems was the most stressful for teachers.

Using the PROC CORR SPEARMAN R options, the Spearman correlation coefficients were calculated for the levels of stress (1, 2, 3, 4) and the scores on supervision practices (1, 2, 3) for each of the six categories of problems. The probability associated with each coefficient was computed as well as confidence intervals. The values showed the extent to which the level of stress was related to supervisory practices. Tables in Chapter IV contain the values for each of the six categories of problems. Scatter diagrams in the Appendices provide a graphical representation of the strength of the relationship between the levels of stress and the influence of supervisory practices.

Further examination of data was carried out by generating cross tabulations of the demographic variables. Although specific questions on these tabulations were not a part of the study, it was believed these results would be of interest and meaningful in answering questions that might arise.

D. PRESENTATION OF DATA

Tables

The results from the analysis of data were presented in tabular format. A general table was created to provide a complete summary of the results from the chi-square tests. The arithmetic means and other descriptive statistics on the stress scores (0, 1, 2, 3, 4, 5, where 0 = no stress . . . to 5 = very high stress) were presented categorically. The correlation coefficients and their confidence intervals were presented

by category in a 6 by 2 matrix. A correlation matrix was given to summarize the intercorrelations for each category and supervisory practice.

The three most frequently experienced supervisory practices which the teachers had selected from a list of ten supervisory practices were presented in a tabular format. The actual count and percentage for each practice were given in the table. A quantitative summary of the comments of teachers was presented by theme. A complete listing of the comments was included in the Appendix. The more descriptive supervisory practices which teachers provided were presented in a similar manner.

Graphs

Graphs of all the distributions for scores on level of stress for each demographic variable (six) were created. From the pictorial display the similarities and differences between the distributions could be observed. On the x-axis the levels of stress (1, 2, 3, 4) were shown with the values for the percentages on the y-axis.

Scatter diagrams were used to describe the magnitude of the relationship between the levels of stress (0, 1, 2, 3, 4, 5) and how supervisory practices (1, 2, 3) were influencing the level of stress. These scatter diagrams were placed in the Appendices to be used in conjunction with the correlational data in tabular form.

Appendices

Information which was gathered in the study but was not directly related to the three research questions was placed in the Appendices. All tables generated on the demographic variables which provided more

descriptive data were presented in tabular form in Appendix A. In Appendix B the supervisory practices experienced by classroom teachers were listed from the most frequently experienced to the least frequently experienced. The comments and more descriptive supervisory practices were listed in their entirety in Appendix C. Scatter diagrams of the relationship between levels of stress and the influence of supervisory practices were placed in Appendix D. All letters of correspondence which were written in regard to the study were placed in Appendix E. The instruments and cover letters used in the pilot study and in conducting the survey were included in Appendix F.

E. SUMMARY

This chapter presented a description of the procedures to be used in this study. The procedures included: (1) the development of a questionnaire and a cover letter, (2) conducting a survey of a randomly selected sample of teachers, (3) the collection of the data, and (4) outlines of the treatment and presentation of data.

Chapter IV contains a presentation of findings from this study. Methods used to report the findings as they relate to the research questions are discussed in the introduction. Each research question is considered separately along with the related findings.

CHAPTER IV

PRESENTATION OF FINDINGS

A. INTRODUCTION

Chapter IV contains a presentation and discussion of the findings of this study which is designed to answer the three broad research questions. To present clearly the findings of the study, each research question is considered separately. All findings pertinent to the question are presented. The results of the study are included in the discussion and interpretations. When the results are statistically significant, this is noted.

The findings are presented in the form of tables and graphs. A summary of the chi-square (χ^2) values of all the variables of the study are presented in table form. The values for all the frequency counts and the percentage distributions of teachers by level of stress are also presented in summary tables. A graph using the percentage values is presented to summarize and better illustrate the findings. The findings for specific variables of the statistically significant data are presented in a similar format.

The frequency counts and the descriptive statistics (arithmetic mean, standard deviation, median, minimum value, and maximum value) for the stress levels of each category are presented in tabular format. A table of values for the rank correlation coefficients is included in the final discussion as well as a correlation matrix. The sample characteristics are presented in cross tabulations in Appendix A.

Other findings obtained from further analysis are placed in the Appendices. These findings are noted and used as justification for drawing conclusions about the results of the study.

B. RESEARCH QUESTION 1

For research question 1 (Is the distribution of educational stress influenced by the teacher's age, sex, tenure, years of teaching experience, type of school district, or level of certification?), the chi-square (X^2) tests are applied to data on the levels of stress for each category. The objective is to determine if there is a significant difference in the distributions for the different values of the demographic variables. For example, the variable age is assigned interval values of 21 to 30 years, 31 to 40 years, 41 to 50 years, 51 to 60 years, and 61 or over. Thus, the X^2 tests are used to determine if significant differences exist in the distributions of the level of stress for different age intervals. A summary of the results from these X^2 tests are presented in Table 2.

As indicated in Table 2, the X^2 values calculated on the levels of stress for each demographic variable are not significant at the 5 percent level for any category except for years of teaching experience. The X^2 tests indicate significant differences in the distribution of scores for levels of stress for different intervals of teaching experience. This significant difference in distribution is discussed in the next section. Within this sample there is not a significant difference between the sample distribution of stress scores and those scores which would result if only chance factors were operating for the variables age, sex, tenure,

Table 2
Summary of χ^2 and Probability Values by Demographic Variables and Problem Categories

Category	Age		Sex		Tenure		Yrs. of Exp.		Type of Sch.		Level of Cert.	
	χ^2	Prob	χ^2	Prob	χ^2	Prob	χ^2	Prob	χ^2	Prob	χ^2	Prob
Support	13.2	0.15	1.6	0.66	0.64	0.88	2.7	0.83	2.8	0.97	13.0	0.36
Control	10.2	0.32	0.4	0.94	4.0	0.26	12.9	0.04*	7.5	0.57	8.4	0.74
Influence	13.5	0.13	3.7	0.29	2.3	0.49	8.1	0.22	10.6	0.30	3.9	0.98
Inclusion	5.9	0.74	4.1	0.24	0.45	0.92	1.6	0.94	6.1	0.72	7.5	0.81
Nurturance	9.2	0.41	5.9	0.11	0.25	0.96	3.6	0.72	8.1	0.51	8.8	0.71
Efficiency	6.4	0.69	5.2	0.15	0.74	0.86	5.9	0.42	9.4	0.39	14.2	0.28
Degrees of Freedom	9		3		3		6		9		12	

* $\alpha = .05$
 $\chi^2 = 321.44$

type of school district, or level of certification. The "chance factors" will be referred to as "expected" value within the text.

From Table 2, two important results should be noted: (a) The χ^2 tests show that the distribution of educational stress is not significant for different values for five of the six demographic variables. The only exception is the variable years of teaching experience for the category of control. (b) The χ^2 tests on the years of teaching experience in the category of control show that the distributions of stress scores across the years of teaching experience are significantly different than the expected distributions.

In order to better describe the summary of χ^2 values and probability values by demographic variables, a graph showing the percentage distributions of stress for all six categories is given in Figure 1. The distributions of stress scores (1 = very low stress, 2 = low to medium stress, 3 = medium to high stress, 4 = high to very high) for each category are the same for each nonsignificant demographic variable. This is because the row levels are collapsed into one row total. These row totals for levels of educational stress (1, 2, 3, 4) are identical for each demographic variable. From Figure 1, the distributions of stress within categories are not the same for all categories.

In addressing the question of stress level distributions among the categories, there is a consistent pattern in the distributions for the categories of support, control, influence, and efficiency. The trends across these distributions are the greatest percentage of teachers indicating a low level of stress. The next greatest percentage is observed in level 3 for each of the four categories. Similarly the next to the

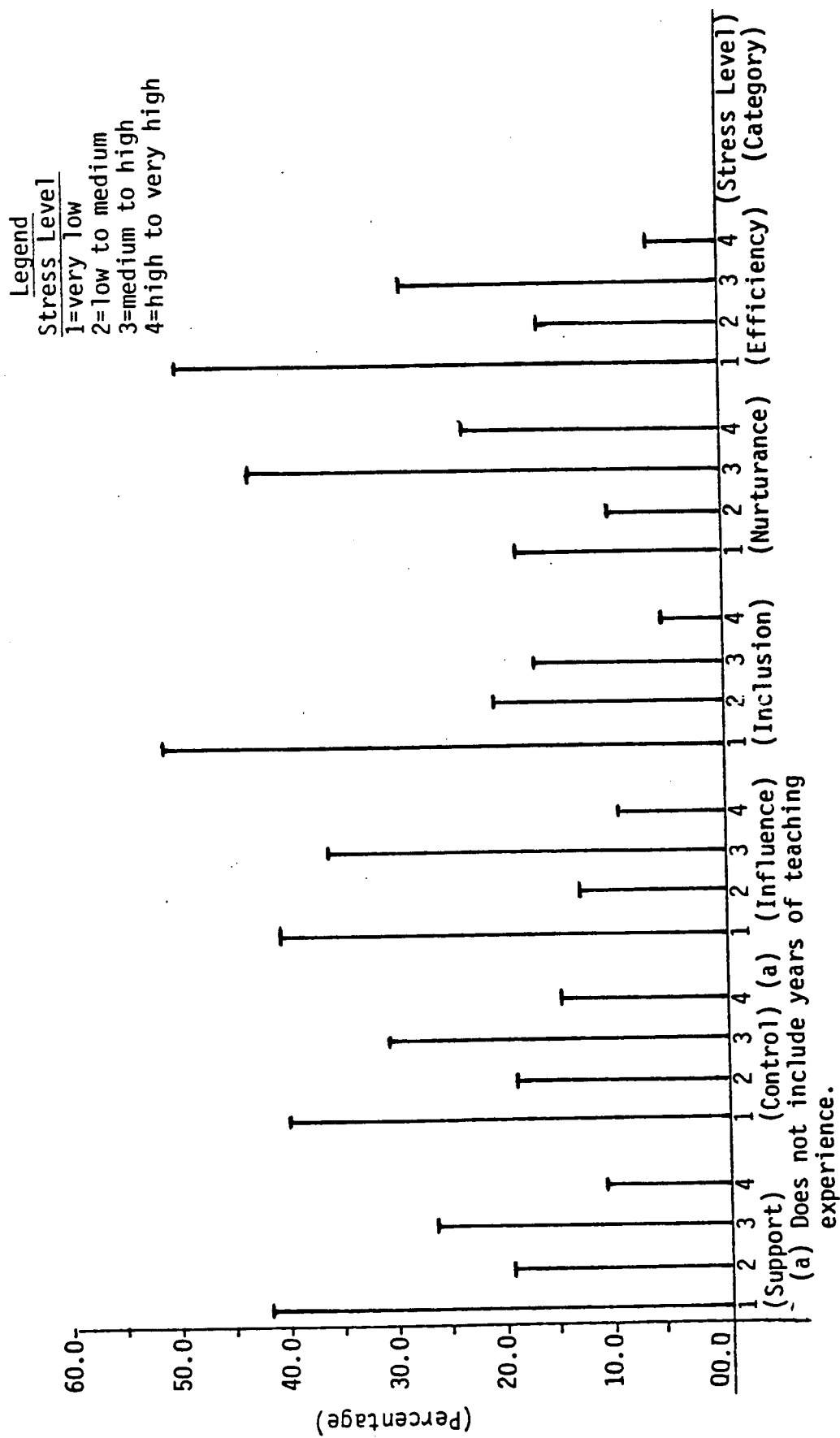


Figure 1. Graph of Percentage Distribution of Teachers by Levels of Stress within Problem Categories.

least percentage is observed in level 2, and the least percentage is in level 4. The category of inclusion shows a high percentage of persons experiencing low stress (52.16 percent) and a low percentage of persons experiencing very high stress (4.96 percent). The category of nurturance has the opposite pattern with the greatest percentage of teachers experiencing very high levels of stress (27.16 percent) while a small percentage experience a very low level of stress (18.53 percent).

Table 3 contains the percent of teachers experiencing different levels of stress within each problem category. These results indicate that the categories of inclusion and efficiency contain the greatest percentage of teachers experiencing low levels of educational stress (52.16 percent and 48.49 percent, respectively). By contrast the greatest percentage of teachers experiencing high and very high levels of stress is in the problem category of nurturance (44.40 percent and 27.16 percent, respectively). These are the values used in plotting the graph in Figure 1.

Table 3
Percentage Distribution of Teachers by Levels
of Stress and Problem Categories

Category	Level 1	Level 2	Level 3	Level 4	Total
Support	42.67	19.61	27.37	10.34	100.00
Control	35.99	18.75	30.39	14.87	100.00
Influence	41.16	13.15	37.28	8.41	100.00
Inclusion	52.16	26.07	16.81	4.96	100.00
Nurturance	18.53	9.91	44.40	27.16	100.00
Efficiency	48.49	16.82	28.66	6.03	100.00

The frequency of teachers indicating each level of stress by problem category is presented in Table 4. Those cells in which the observed frequency is greater than the expected frequency are indicated.

In order to address the question of the unequally divided frequencies, level 1 of the frequency counts is considered from Table 4. Treating this column as a six by one array with five degrees of freedom, the calculated χ^2 value is $\chi^2 = 82.22$. This value is highly significant at the 5 percent level (11.07 = entry in chi-square table).

Within level 1 the categories of inclusion and nurturance contribute the greatest fractional part to the total χ^2 value (Table 5). Each is significant at the 0.005 percent level. Similarly, for levels 2, 3, and 4 in the category of nurturance, the fractional contributions to the total χ^2 value are great ($\chi^2 = 14.89$, $\chi^2 = 27.75$, $\chi^2 = 89.55$, respectively). This substantiates the previous observation made from Figure 1, that the distributions were not the same for all categories.

The fractional part of the total χ^2 which is contributed by each category is presented in Table 5. These values are calculated from the frequency counts for each level of stress by category. From the values in Table 5, the categories of support, control, influence, and efficiency do not make a large contribution to the total χ^2 value. However the large fractional contributions for the categories of inclusion and nurturance indicate that the observed frequencies differ significantly from the expected frequencies for these two categories. This results from the large values in Table 4 (cell 4,1 and cell 4,2) for inclusion; cell 5,3 and cell 5,4 for nurturance) which deviate greatly from the expected values.

Table 4
Frequency of Teachers Indicating Each
Level of Stress by Problem Category

Category	Level 1	Level 2	Level 3	Level 4	Total
Support	198	91*	127	48	464
Control	167*	87*	141	69*	464
Influence	191*	61	173*	39	464
Inclusion	242*	121*	78	23	464
Nurturance	86	46	206*	126*	464
Efficiency	225*	78	133	28	464
Total	1109 (185)**	484 (81)**	858 (143)**	333 (56)**	2684

*Greater than expected frequency.

**Expected frequency.

Table 5
Fractional Contribution to the χ^2 Values of
Each Problem Category by Levels of Stress*

Category	Level 1	Level 2	Level 3	Level 4
Support	0.94	1.33	1.79	1.01
Control	1.72	0.50	0.03	3.28
Influence	0.21	4.76	6.29	4.90
Inclusion	17.76	20.16	29.54	19.03
Nurturance	52.85	14.89	27.75	89.55
Efficiency	8.74	0.08	0.70	13.63
Total	82.22	41.72	66.10	*131.40

*Degrees of freedom = 15, $\chi^2 = 321.44$, $\alpha = 0.05$

Statistically Significant Data

From Table 2, a significant difference ($p = 0.04$) among the distributions of levels of stress was detected for years of teaching experience for the category control. To examine this significant result in detail the percentage distributions are presented in Table 6.

Considering the interval zero to five years of teaching experience in Table 6, there is not a consistent trend in the increase or decrease in the level of stress. Two-thirds of the distribution is in the lower levels of stress. One-third is split between the high and very high levels of stress.

The results in the interval six to ten years of teaching experience indicate that 46 percent of the distributions is in the lower levels of stress. Thus, 54 percent is in the higher levels of stress.

In the interval 11 or more years of experience, the results show 57 percent of the distribution in the lower levels of stress. Forty-three

Table 6

Percentage Distribution of Teachers by Years of Experience
and Levels of Stress for the Category of Control*

Interval in Years	Level 1	Level 2	Level 3	Level 4	Frequency Count
0 to 5	36.00 (18)	30.00 (15)	16.00 (8)	18.00 (9)	(50)
6 to 10	30.65 (38)	15.32 (19)	34.68 (43)	19.35 (24)	(124)
11 or more	38.28 (111)	18.28 (53)	31.03 (90)	12.41 (36)	(290)
Expected Values	35.99 (167)	18.75 (87)	30.39 (141)	14.87 (69)	(464)

$$*X^2 = 12.97, \text{ degrees of freedom} = 6, \Pr[X^2 \geq 12.97] = 0.04$$

percent of the distribution is spread over the high and very high levels of stress. A graphical description of the results from Table 6 are presented in Figure 2. The three intervals of teaching experience are shown as well as the expected percentage distribution.

Further analyses are carried out on the frequency distributions from Table 4. These values are collapsed into a low level (sum of level 1 and level 2) and a high level (level 3 plus level 4) of stress. A χ^2 value is calculated for these new values. The number of degrees of freedom is 2, and the $\chi^2 = 6.53$ is significant at the 5 percent level.

Contingency tables of the descriptive characteristics (age by sex) of those teachers in each level (1, 2, 3, 4) are given in Appendix A. One of these contingency tables is presented below (Table 7). This Table 7, of the frequency counts of teachers by sex and age, is presented for level 3 because this level is where the significant differences are detected in the χ^2 tests. The age interval 31 to 40 contains 46.8 percent of all teachers for level 3 (medium to high stress level). This age interval has been described in earlier research as the most stressful years (Kyriacou, Sutcliffe, 1975).

Table 7
Frequency Distribution of Teachers by Age and
Sex for Level 3 of the Category of Control

Sex	Age (Years)				Total
	20 to 30	31 to 40	41 to 50	Over 50	
Male	6	21	15	16	58
Female	11	45	17	10	83
Total	17	66	32	26	141

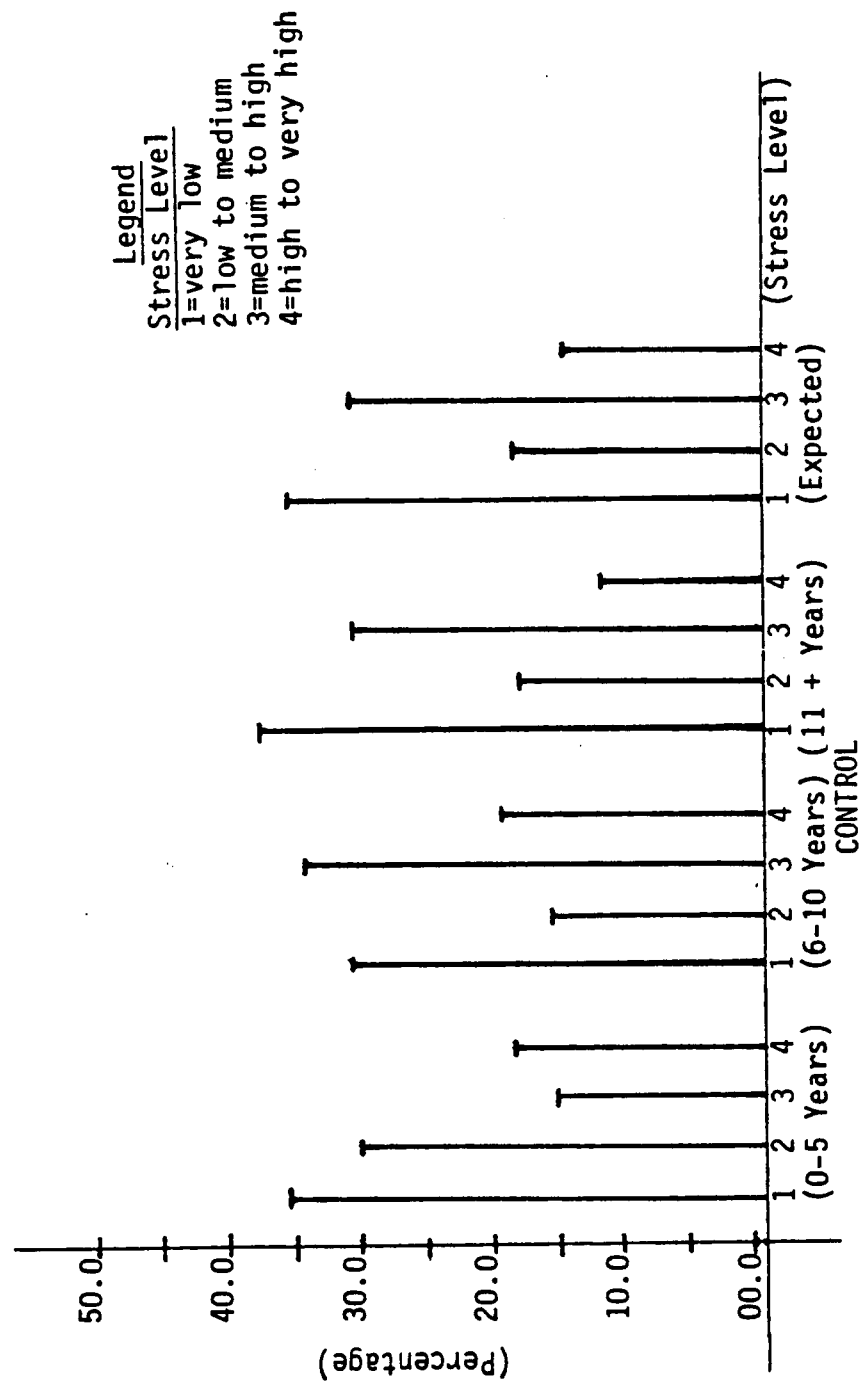


Figure 2. Percentage Distribution of Teachers by Level of Stress for Years of Teaching Experience for Category Control.

C. RESEARCH QUESTION 2

The research question 2 [Which category (categories) of stress-related problems creates the most stress for teachers?] is addressed by considering the frequency distribution for each category of problems as well as the arithmetic mean for the raw data from the stress scores on the questionnaire (0, 1, 2, 3, 4, 5). From Table 4, the category having the greatest frequency of teachers in the very high level of stress is nurturance. This value is 126 as compared to the next highest value of 69 for the category of control.

Further analysis of this question is carried out by using the SAS PROC MEANS procedure to calculate the mean for each category. These values are presented in Table 8 in rank order. Other values for the descriptive statistics of median, standard deviation, minimum value, and maximum value are presented in Table 8.

Table 8

Arithmetic Mean, Median, Standard Deviation, Minimum Value,
and Maximum Value of Stress Scores by Category

Category	Means ($\bar{x}$)	Median	Standard Deviation	Minimum Value	Maximum Value
Nurturance	13.98	14.00	2.86	6.00	20.00
Influence	12.49	13.00	2.70	5.00	18.00
Control	12.43	12.00	3.53	4.00	20.00
Support	11.99	12.00	3.34	5.00	20.00
Efficiency	11.79	12.00	3.02	5.00	19.00
Inclusion	10.37	10.00	3.46	4.00	20.00

The $\bar{x}$ values in Table 8 are computed by summing the levels of stress scores (0, 1, 2, 3, 4, 5) as indicated on the questionnaire for all four problems. This sum is divided by the number of scores in the sum. This mean ($\bar{x}$) is considered more representative than a total rank for each category. This method allows for differences in the number of teachers responding across categories.

D. RESEARCH QUESTION 3

The objective in research question 3 (Is there an association between teacher stress and existing supervisory practices?) is to determine if there is an association between teacher stress (0, 1, 2, 3, 4, 5, with 0 = no stress, 1 = very low stress, 2 = low stress, 3 = medium stress, 4 = high stress, and 5 = very high stress) and the influence of existing supervisory practices (1, 2, 3, with 1 = reduces stress, 2 = has no effect, and 3 = increases stress). The statistic used to describe the strength of the relationship between the two variables is the Spearman correlation coefficient. Data for both of the variables are available in rank form.

Table 9 contains the value for the rank correlation coefficients and the confidence intervals for each. The probability values for these Spearman correlation coefficients are 0.0001 for all categories except for nurturance which is 0.01. The probability values show that the correlation is not zero (i.e., $\text{Rho} \neq 0$).

The data in Table 9 indicate a statistical relation which is a measure of the linear relationship between the variables. This linear relation does not necessarily imply a cause and effect. One might cause the other to be affected, but this cannot be assumed.

Table 9
Rank-Correlation Values for Level
of Stress by Supervisory Practice

Category	Value of Spearman Correlation Coefficient (r_s)	Confidence Interval
Support	0.47	$0.33 \leq p \leq 0.61$
Control	0.33	$0.18 \leq p \leq 0.48$
Influence	0.34	$0.33 \leq p \leq 0.49$
Inclusion	0.44	$0.29 \leq p \leq 0.59$
Nurturance	0.21	$0.18 \leq p \leq 0.49$
Efficiency	0.48	$0.33 \leq p \leq 0.61$

The correlation between teacher stress and the influence of supervisory practices is found to be significant and positive for all categories of problems.

Because the probability values are 0.01 or higher (0.0001), there is a significant relationship between the two variables. Since the variables are co-variable (one is not dependent on the other), there is a random scattering of variation about a straight line. The r_s values are point estimates of the true correlation. The probable range of the true correlation is given by rho for each category of problem.

Further analyses was made of the correlation between medium to high level responses of stress and the influence of supervisory practices. However, too few responses for these levels were made to carry out a correlation procedure on these variables.

The intercorrelations are summarized in Table 10 which contains a correlation matrix of all the categories of problems and the influence of supervisory practices. The correlation between any two variables is given at the point where the row and column corresponding to the variables cross.

An example of the intercorrelations in Table 10 is found by considering the intersection of row 4 and column 4. This is the correlation between the category of inclusion and the influence of supervisory practices ($r_s = 0.44$). Similar observations may be made for values of correlation coefficients for the other categories of problems.

A listing of the percentages and frequency counts of the three most frequently experienced supervisory practices is given in Table 11. These practices were selected by the teachers from a list of ten supervisory practices.

From Table 11 the two most frequently experienced supervisory practices are classified as directive. A summary of all ten practices with a frequency count is given in Appendix B.

A quantitative summary of the comments by theme are presented in Table 12. The seven broad themes (student behavior/attitude, administrative support, supervisor/principal, teaching profession, teaching environment, teacher effectiveness, parent/public support) are the actual terms used by the teachers in making the comments. Of the 464 returned questionnaires 117 contain additional comments (25.2 percent). The comments sometimes include positive as well as negative type statements. An example of such a comment is, "My principal and supervisor are superior; assistant principal leaves a lot to be desired." When this comment

Table 10

Intercorrelation of Teacher Stress with Influence of
Supervisory Practices [for All Coefficients (r_s)]

S.P. for	Support	Control	Influence	Inclusion	Nurtur- ance	Efficiency
Support	0.47	0.03	0.26	0.20	0.07	0.20
Control	0.30	0.33	0.24	0.23	0.11	0.13
Influence	0.30	0.10	0.34	0.17	0.13	0.05
Inclusion	0.36	0.12	0.34	0.44	0.21	0.32
Nurturance	0.33	0.21	0.29	0.26	0.21	0.25
Efficiency	0.42	0.14	0.31	0.40	0.21	0.48

Table 11

Percentage and Frequency Count of the Most Frequently
Experienced Supervisory Practices

Practice	Count/Percentage*
1. Major effort of the supervisor is directed toward administrative duties in the central office	266/41.2
2. Supervisor incidently and infrequently observes actual teaching performance	190/41.0
3. Supervisor supports the teacher's professional growth and development	143/30.8

*N = 464.

is being counted a positive and a negative count is made under supervisor principal theme. Thus the values in Table 12 add up to 142 comments instead of 117 actual comments.

In Table 13 the more descriptive supervisory practices are summarized according to positive and negative tones. The number of comments related to time are also presented. As in Table 12, some practices contained a positive and a negative type response. Also some practices were stated as comments which could not be classified. An example of such a comment is, "There is none." Thus from the 73 practices provided, a total of 68 practices were included in Table 13. A subset of comments (11) related to time are classified by positive and negative tone.

Table 12
Quantitative Summary of Comments by Theme

Student Attitude/ Behavior		Adminis- trative Support		Supervisor Principal		Teaching Profession		Teaching Environ- ment		Teacher Effec- tiveness		Parent Public Support	
+	-	+	-	+	-	+	-	+	-	+	-	+	-
2	10	3	13	18	43	2	12	3	20	0	5	2	9

Table 13
Quantitative Summary of More Descriptive Practices by Positive/Negative Tone Related to Time and a Subset of Time Related Practices

Principal/Supervisory Practice		Supervisor Does Not Have Time to . . .	
Positive	Negative	Positive	Negative
13	55	3	8

An example of a practice which is classified as a positive time related practice is: (Although our principal has little time for much supervision of teachers — perhaps he supervises others more — he always lends a "listening ear" and would be available if needed).

E. SUMMARY

This chapter contains a presentation and discussion of the findings of the study. Pertinent findings are presented in tabular and graphical form. Additional descriptive data are placed in the Appendices.

Chapter V contains a brief restatement of the research questions and categories of problems related to the study. A summary of all main findings of the study are stated. Alternative explanations of the observed results are considered. The researcher's conclusions based on the findings are presented. Possible applications and other areas of future research are discussed in the summary.

CHAPTER V

SUMMARY AND DISCUSSION

A. INTRODUCTION

Chapter V contains a brief summary of all the main features of the study, methods and findings. Each research question is considered separately with the main findings being listed for each question. This is followed by the researcher's conclusions based on the findings of the study.

In the discussion alternative explanations of the observed results are considered. Possible applications of the findings to the classroom and other field situations are discussed. A summary statement is made which includes suggestions for future research related to educational stress.

B. RESEARCH QUESTION 1

For the first research question, "Is the distribution of educational stress influenced by the teacher's age, sex, tenure, years of teaching experience, type of school district, or level of certification?" the chi-square (χ^2) distribution is applied. For the 464 cases in the survey study, the χ^2 tests are computed on the values of the levels of stress for problems within the categories of control, support, inclusion, influence, nurturance, and efficiency. The levels of stress are defined by level 1 = no stress to low stress, level 2 = low to medium stress, level 3 = medium to high stress, and level 4 = high to very high stress.

The categories of problems are stated from the teacher's perspective.

The category of

(1) Support is the system whereby the teacher is provided with the necessary cooperation of the supervisor, principal, and other teachers in the school.

(2) Control is defined as the process whereby the teacher is able to control the teaching-learning environment.

(3) Influence is the process whereby the teacher is able to influence decisions that have direct effect upon the teaching-learning environment.

(4) Inclusion allows for the teacher to develop and maintain rapport with administrators as well as maintain a professional relationship with colleagues.

(5) Nurturance is the process whereby the teacher is able to improve life for students both inside and outside school.

(6) Efficiency is related to the teacher accomplishing both professional and personal tasks in an efficient manner (Cruickshank, 1971).

Major Findings

The major findings for research question 1 are as follows:

(i) The sample frequencies for the variable years of teaching experience in the category of control are significantly different from those frequencies which would result if only chance factors were operating ($p = 0.04$).

(ii) The X^2 values calculated on the levels of stress for the other demographic variables age, sex, tenure, type of school district, and level of certification are not significant ($p = 0.05$).

(iii) The frequency distributions for different categories of problems are significantly different ($p = 0.005$).

Conclusions

In drawing conclusions about the findings (i), consideration is given to the three intervals in years of teaching experience for the category of control. For the interval zero to five years of teaching, the number of teachers experiencing stress is not significantly different from the expected values. Thus, for this interval of teaching, teachers do not experience as much stress as in later years. For example, 66 percent of the teachers with five or less years of experience reported low levels of stress.

In the interval six to ten years of teaching experience for the problems in the category of control, 46 percent of the teachers report low levels of stress. In this interval of experience (6 to 10), 54 percent of the teachers report high to very high levels of stress. For this interval, the percentage increase of teachers from stress level 2 to stress level 3 is statistically significant ($p = 0.04$). Thus, within the category of control, the conclusion is drawn that teaching may be characterized as the most stressful for teachers in the 6 to 10 year interval of experience.

The interval 11 or more years of teaching has 43 percent of the teachers reporting high to very high levels of stress. This is only a slight nonsignificant decrease from the interval six to ten years.

When the frequency distributions are analyzed further, significant differences are again found. This is done by collapsing level 1 and level 2 into a "low" level of stress while collapsing level 3 and level 4

into a "high" level of stress. The $\chi^2 = 6.53$ for the new values is significant at the 0.05 level of significance ($\chi^2 = 5.99$, $p = 0.05$, degrees of freedom = 2). These results provide additional support for the conclusion that the distribution of educational stress is influenced by the number of years the teacher has taught.

From the findings (ii) the conclusion may be drawn that the demographic variables age, sex, tenure, type of school district, and level of certification do not have a statistically significant influence on the level of stress being experienced by the classroom teacher. However, the conclusion cannot be drawn that there is no relationship. Within this sample, there are not significant differences for different intervals or values of these demographic variables.

From the findings (iii), which indicate a statistically significant difference between the frequency distributions for the categories of problems, certain conclusions may be drawn. One conclusion is that the percentage of teachers in the categories of nurturance (higher level of stress) and inclusion (lower level of stress) deviate the most from the expected values. This is based on the results of the large fractional part which these percentage distributions contribute to the total χ^2 value (Table 5, page 61). From the small fractional parts which are contributed by the distributions for the categories of control, support, influence, and efficiency, it may be concluded that the percentage of teachers are similar in their distributions. This same conclusion is drawn from the graph in Figure 1 (page 58) in which similar patterns from one level of stress to another may be observed across these four categories.

C. RESEARCH QUESTION 2

Research question 2 [Which category (categories) of stress-related problems create the most stress for teachers?], is answered by calculating the arithmetic mean ($\bar{x}$) on the stress scores for the four problems within a category (0 = no stress, 1 = very low stress, 2 = low stress, 3 = medium stress, 4 = high stress, and 5 = very high stress). Other descriptive statistics are calculated on these stress scores (median, standard deviation, minimum value, and maximum value). The values for all of the categories are given in Table 8 (page 65).

Major Findings

The findings of the analysis on the raw stress scores for question 2 are that (i) the category of nurturance has the highest value for the mean and median (13.98 and 14.00, respectively) on the stress scores for the four problems in the category. The standard deviation (2.86 is smaller than the standard deviation for four of the other five categories; (ii) Inclusion has the lowest value for the mean and median (10.37 and 10.00).

These same findings are indicated by results reported in other parts of the study. For example, in Table 3 (page 59), the category of nurturance has the greatest percentage of teachers in the very high level of stress (27.16 percent). For the category of inclusion, the very high level of stress contains the least percentage of teachers (4.96 percent).

Conclusions

The problems in the category of nurturance may be classified as the most stressful for teachers. An example of one of these problems is

"Getting every student to work up to his ability." Teachers may be very much concerned with problems such as the above which relate to the welfare of the student. These problems, over which the teacher may have little control, are associated with the highest levels of stress. These high levels of stress may have a negative impact on the teaching-learning environment which in turn may create additional stress for the teacher.

For the category of inclusion, opposite conclusions may be drawn. Problems in this category are the least stressful for teachers. Teachers do not seem to be highly stressed by problems related to inclusion. An example of a problem statement from this category is "Having satisfactory affiliation with colleagues." Teachers perceive this type of problem as creating very low levels of stress (level 1 = 52.16 percent of teachers).

D. RESEARCH QUESTION 3

For research question 3 (Is there an association between teacher stress and existing supervisory practices?), the method of Spearman correlation is applied to the rank scores on the levels of stress (0, 1, 2, 3, 4, 5) and the influence of existing supervisory practices (1 = reduces stress, 2 = has no effect, and 3 = increases stress). It should be noted that the correlation does not imply a cause and effect relation. Supervisory practices may cause the level of stress for the teacher to increase, but this cannot be assumed.

Major Findings

The major findings for research question 3 are as follows:

(i) the correlation between teacher stress and the influence of supervisory practices is found to be significant and positive for all categories of problems ($p = 0.0001$),

(ii) the probability values (0.0001) indicate that the true correlation coefficient is not zero ($\rho \neq 0$).

Conclusions

In drawing conclusions from the findings (i) for research question 3, it must be kept in mind that the coefficients of correlation show a relationship between the two variables (teacher stress and influence in supervisory practices). These coefficients give no indication as to what factors cause the relationship. These coefficients are dimensionless values.

The values of the correlation coefficients (i.e., $r_s = .47$) may be considered moderate or high. The conclusion drawn is dependent on the purpose for which it is being used to make predictions.

The objective in research question 3 is to determine if there is an association between the two variables level of stress (0, 1, 2, 3, 4, 5) and influence of supervisory practices (1, 2, 3). Thus, the values of the correlation coefficients (r_s) in Table 9 (page 67) are considered high enough to draw the following conclusion: There is a linear association between teacher stress and the influence of supervisory practices. For an increase in the teacher's level of stress, an increase may be predicted for the influence of supervisory practices.

Discussion

Before discussing the results of the present study, consideration must be made regarding the interpretation of the findings in terms of the demographic variables. As an example, teachers with more years of teaching experience are older teachers who have remained in the profession.

These teachers will differ from less experienced teachers in their attitudes, values, and expectations regarding teaching. Such considerations imply that, although the present study may identify some patterns in teacher stress, the explanation of such patterns is very complex.

The finding that teachers rate the problems in the category of control as being most stressful (for 6 to 10 years of teaching experience) is consistent with previous research (Cichon, Koff, 1980). However, the previous study failed to reveal any demographic differences in self-reported stress. It was found that regardless of sex, age, type of school district, and so forth, teachers share common perceptions about stress associated with teaching.

In view of the above discussion, the position taken here, (the distribution of educational stress is influenced by years of teaching experience) must be treated with caution. Of the 36 cells in the contingency table, on all the variables of the study, only one cell contained a statistically significant result.

The findings that the greatest percentage of teachers ranked the problems in the category of nurturance as being highly stressful (27.16 percent) is not consistent with previous studies (Dedrick, 1981). Lack of time (category of efficiency) has been ranked as the greatest source of stress in previous studies. In the present study the percentage of teachers ranking the related problems as highly stressful is small (6.03 percent). Only one category (inclusion) has a smaller percentage of teachers ranking the related problems as highly stressful (4.96 percent).

A consistent finding is that the percentage of teachers in their mid-career years of teaching (6 to 10) for the category of control is

significantly greater than expected. This may correspond to the mid-career "disillusionment" which has been linked with the age interval 31 to 40 years. These years have been described in previous studies as the most stressful (Cayne, Lazarus, 1980). In the present study the greatest percentage of teachers indicating a stress level 4 is in the age interval 31 to 40 years (46.4 percent).

For the correlation study between the variables teacher stress and the influence of supervisory practices, the results are consistent with the implications found in the literature. However, there is such a paucity of findings from previous research these findings cannot be compared for consistency.

Because of the dearth of practical research, the discussion is limited to a consideration of the statistical results (above) and the interpretation of the comments which the teachers make (Table 12, page 70). Of the 464 teachers in the study, 117 provide comments (25.2 percent). From the 142 specific comments, 112 reflect a negative tone (78.8 percent). Likewise for the more descriptive supervisory practices which are provided by the teachers (79), the majority are negative (79.7 percent).

The interpretations made here are based on the assumption that the comments represent the true perception of the teachers' situation (25.2 percent). As long as teachers perceive the teaching situation in a negative light, then the situation is negative. The assumption may be made that had the other teachers provided comments they would be on a positive tone (74.8 percent).

E. APPLICATION OF THE FINDINGS

The findings of this study may be applied in the area of instructional supervision, administrative services, in pre-training of teachers, and in stress-management of experienced teachers. For example, in the development of more effective supervisory practices, consideration may be given to the variable years of teaching experience. Different strategies could be developed for teachers in different intervals of teaching experience.

Perhaps less attention should be given to the external factors which mediate the teacher's perception of stress (age, sex, tenure, level of certification, and so forth) and more attention be given to less well-defined factors such as attitude and morale. Specific categories of problems that teachers identify as most stressful could be considered as immediate and urgent by the supervisor. Seminars of stress management could be planned around these categories of problems.

These findings may be of interest to administrative personnel in planning for support services. The instrument developed for this study could be used to evaluate the stress impact which supervisors have upon teachers.

During the pre-training of future teachers, these findings could be used to better inform the prospective teachers. In the process of preparing the beginning teacher, an emphasis could be placed on training the individual to better handle stress. To be informed and prepared to handle stress before entering the teaching profession would be most beneficial for the new teacher.

F. SUMMARY

Chapter V contains a brief summary of the main features of the methods used to analyze the data in the survey study. Each research question is considered separately. The question is followed by a listing of the main findings. The researcher's conclusions are drawn based upon these findings. A discussion of the results is followed by suggestions of how these results may be applied. A summary statement is made with respect to future research in the area of educational stress.

From the results of this study, no statistically significant differences exist for the variables age, sex, tenure, type of school district, and level of certification. It must be realized that these are all external factors which may in some way mediate the teacher's perception of stress. What remains to be investigated are internal factors such as intelligence, verbal skills, morale, and personality type in order to more fully understand the nature of stress associated with teaching.

Another research area of interest is how stress affects teachers in the performance of their professional duties. A third area of research is related to how administrators perceive the stress being experienced by the teacher. Finally, a fourth area of research involves including stress as a variable in determining causes of absenteeism, teacher turnover, and the related costs of school personnel.

It is hoped that the findings from this study will serve as a basis for future research in the area of classroom stress. Until this area of stress is more fully understood within the supervisory system, much energy and talent will be spent in less effective ways in the educational process.

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APPENDICES

APPENDIX A

Table 14
Cross Tabulation of Age with Sex

Age Interval	Sex		Total
	Male	Female	
21 to 30 years	22	35	57
31 to 40 years	73	114	187
41 to 50 years	60	72	132
51 to 60 years	32	42	74
61 or over	6	8	14
Total	193	271	464

Table 15
Cross Tabulation of Age by Level of Certification

Age Interval	Degree					Total
	Less Than Bachelor	Bachelor	Bachelor Plus	Master's	Above Master's	
21 to 30 years	0	18	15	20	4	57
31 to 40 years	0	26	44	79	38	187
41 to 50 years	4	21	33	50	24	132
51 to 60 years	1	6	23	26	18	74
60 or over	0	2	4	4	4	14
Total	5	73	119	179	88	464

Table 16

Cross Tabulation of Age by Years of Teaching Experience

Age Interval	Years of Teaching				Total
	0 to 5	6 to 10	11 to 15	16 or More	
21 to 30 years	32	25	0	0	57
31 to 40 years	12	78	87	10	187
41 to 50 years	6	16	27	83	132
51 to 60 years	0	4	6	64	74
61 or over	0	1	1	12	14
Total	50	124	121	169	464

Table 17

Cross Tabulation of Years of Teaching Experience by Level of Certification

Years of Teaching	Degree					Total
	Less Than Bachelor's	Bachelor's	Bachelor's Plus	Master's	Master's Plus	
0 to 5	1	19	17	11	2	50
6 to 10	1	24	23	54	22	124
11 to 15	1	15	30	53	22	121
16 or more	2	15	49	61	42	169
Total	5	73	119	179	88	464

Table 18

Cross Tabulation of Type of School District by Level of Certification

Type of School District	Degree					Total
	Less Than Bachelor's	Bachelor's	Bachelor's Plus	Master's	Master's Plus	
County	3	58	73	114	44	292
City	2	12	38	51	29	132
Metropolitan	0	3	5	9	15	32
Special	0	0	3	5	0	8
Total	5	73	119	179	88	464

Table 19

Frequency of Teachers in Stress Level 1 for the Category of Control

Sex	Age Interval				Total
	21 to 30	31 to 40	41 to 50	51 or More	
Male	9	29	23	11	72
Female	12	26	34	23	95
Total	21	55	57	34	167

Table 20

Frequency of Teachers in Stress Level 2 for the Category of Control

Sex	Age Interval				Total
	21 to 30	31 to 40	41 to 50	51 or More	
Male	5	12	14	3	34
Female	8	22	12	11	53
Total	13	34	26	14	87

Table 21

Frequency of Teachers in Stress Level 3 for the Category of Control

Sex	Age Interval				Total
	21 to 30	31 to 40	41 to 50	50 or More	
Male	6	21	15	16	58
Female	11	45	17	10	83
Total	17	66	32	26	141

Table 22

Frequency of Teachers in Stress Level 4 for the Category of Control

Sex	Age Interval				Total
	21 to 30	31 to 40	41 to 50	50 or More	
Male	2	11	8	8	29
Female	4	21	9	6	40
Total	6	32	17	14	69

APPENDIX B

Table 23

Frequency of Supervisory Practices as Experienced by Teachers

Supervisory Practice	Frequency*
(b) Major effort of the supervisor is directed toward administrative duties in the central office.	266/464
(d) Supervisor incidentally and infrequently observes actual teaching performance.	190/464
(g) Supervisor supports the teacher's professional growth and development.	143/464
(e) Supervisor encourages teacher to initiate a conference whenever there is a felt need by the teacher.	117/464
(c) Supervisor goes through systematic cycles of pre-observation, observation, and an analysis of teacher's performance annually.	114/464
(h) Supervisor is mostly concerned with getting through the school day and does not have time for much supervision of teachers.	108/464
(a) Major effort of the supervisor is directed toward helping the teacher improve the teaching-learning process.	100/464
(j) Supervisor is not concerned about developing a high level of trust and collaboration in the relationship with the teacher.	85/464
(i) Supervisor provides needed teaching materials and is a very resourceful person with respect to new teaching methodologies.	66/464
(f) Supervisor takes charge during a conference and the teacher knows exactly where he/she stands with the supervisor.	56/464

*N = 464.

APPENDIX C

Listed below in their entirety are all the comments as stated by each teacher who chose to provide additional information on the questionnaire:

1. It is nice to be trusted to do as I wish in the classroom, but I also have the feeling that "out of sight, out of mind" holds for my classroom.
2. Without paid fringe benefits such as health insurance, teaching is more like the lowest of all jobs — day laborer, etc., rather than a time honored profession.
3. Academic teachers at my school have no preparation period. Student loads range from 130-185. I've taught 13 months and have yet to be evaluated.
4. Students do not receive the same punishment for the same offense. Some students see one vice principal and nothing is done, time after time. Yet, another student gets the book thrown at them on the first offense. Even punishment is needed!
5. Our system is very limited in the number of supervisors it employs. We need more supervisors.
6. I am in a system in which we are in conflict with the county superintendent, whose almost total dominance of county politics is slowly being chipped away by a dedicated majority of the school board and an increasing active prof. ass'n. The administration of the local high school could not be more supportive, but we are faced with continual harassment from the county office directed at faculty, principals, and supervisors who support concern for education rather than unquestioning conformity to the superintendent's every whim. Our county commission has traditionally been in his control, so financing is hard to obtain. The secondary supervisor has been in her position for only two months, and the above reflects expectations primarily.

My own personal stress is mostly the result of growth and change in me personally. At age 40 I have found abilities and needs that I either didn't have or wasn't aware of at age 20. I'm ready for a change but don't know what it should be.

7. Supervisor described is my principal. His first priority should be (and is) to administrate the school. Other supervisory personnel

would have to be hired to deal with the topics mentioned above. Your questions are obviously slanted toward a predetermined conclusion and are not good research questions.

8. The above is for my principal, but my area supervisor doesn't help me in any way or fashion. He comes in and says "hi — how are you?" and before I can answer leaves.
9. Supervisor balances helping the teacher and administrative duties, but is low on evaluation of teachers.
10. I teach in an excellent school with a fantastic principal. My major stresses are student discipline, inadequate time for grading papers, and principal's tendency to lose his temper (I feel intimidated).
11. Student apathy is of great concern. Public criticism undermines the teacher.
12. My answers in this survey are directed towards my teaching situation of band in the 7th and 8th grades. I have 200 plus students, and my teaching situation is different from regular classroom teachers.
13. By supervisor, I mean our principal. He is new and is concentrating his efforts toward establishing what seems to me is a near-prison atmosphere. However, the public is very upset about our situation and has demanded increased discipline. Our principal has not had time to prove himself otherwise. Our school supervisor and county superintendent would fit items e, f, and g.
14. Our administrator is a "my way or not at all" type. Would be nice to do without some of the duties (hall, lunch, bus, study hall). Paperwork practices make a strain on the teacher just for the convenience of four in the office.
15. I have 850 students to pass through my class in a week (which I like). Since ART is an activity class, noise level is constant. Stress is extremely high by end of day.
16. I am not sure my teaching supervisor could add much to the technical side of physics, chem, biology. Perhaps this type of teaching supervisor should come out of the college level situation.
17. Our supervisors attempt to help in any way they can; however, the number of teachers for which they are responsible and other administrative duties reduces the amount of time they have for supervisory duties.
18. The greatest single problem in education today is finding and keeping able and competent principals. In my situation I am pretty much left alone. No one in supervision seems to care.

19. I resigned from teaching at the end of last year due partly to stress and burnout. It was the major factor in my resigning. The other factor was why so much stress for so little money. Money was secondary.
20. Our principal was recently dismissed. There were various reasons; however, his alcoholism was the catalyst for this action. Working conditions have been deplorable, AND morale has been extremely low throughout this entire ordeal. Obviously, this had an effect on my answers.
21. I have never had the opportunity to work with a really competent administrator. They have mostly been "ex-coaches" or "good old boys" who have been promoted because of who they are, not because they have demonstrated excellence in administration.
22. Very high interest in football, volley ball, basketball, etc.
23. I feel the only time that I see a supervisor is when there is more "work" for me to do.
24. I teach gifted students almost exclusively. My biggest problem is how to deal with the occasional bad apple.
25. Supervision is practically nonexistent in grades 7-12 in our school system.
26. I am a special education teacher so my responses may not be comparable to regular classroom teachers. It's hard to pinpoint the major stress factors because some weeks it seems to come from one source, perhaps students, and at other times from contacts with other staff members, administrators, or something like a special rush report that needs to be completed. If I had to pick the most consistently stressful aspect of teaching, it would have to be student behavior towards teacher and subject matter in and out of the classroom. We are sorely lacking in effective discipline. Additionally, I think the wide gap between what I consider acceptable behavior and the behavior I see tolerated in the school cause me to feel a great deal of stress/distress. I enjoy my job, but I do find it very stressful!
27. The only supervision is by the building principal. He has not been involved in many of those practices above. There is no supervisor from the central office.
28. As a business teacher in today's high tech society, I am never ahead. I go to school nights and summers just to keep my head above water. I attend conferences, workshops, exhibits, etc. and have little time to catch my breath. It is really the most stressful part of my teaching experience.
29. The greatest contributor to stress, you haven't mentioned, and that is listening to teachers gripe and bitch, everyday, about how bad

they have it. The illness of bitching does more harm than anything I can think of.

30. Too many students have not been taught to think and to do work beyond the minimum. They want things handed to them the easy way — "spoon fed."
31. We have five people including the principal and assistants for a H.S. of some 1700 students. They are cooperative but very busy. We get along well. Having been in a Sup. position and since I am certified by the state of Tn. for same, I do appreciate the duties of these people and rate each one "Satisfactory." Let me hear from you. Good luck! (name given)
32. These comments relate to only one of my supervisors. I teach in two different areas. The other relationship is excellent.
33. I feel the highest stress level I face is caused by a poor student attitude, which seems to be caused by a lack of parental support and discipline.
34. My county supervisor has never been inside my classroom. He meets our problems by putting them back on our shoulders. I have taught in this county four years (plus this one).
35. Central office personnel have poor human relations skills. Their highest emphasis seems to be on teacher loyalty to administrators as people. They resent professional negotiations. Superintendent harasses teachers "out of favor" with critical, "nitpicking" letters. Political quarrels between city and county officials leave teachers in the middle, sometimes feeling insecure. Thank you for allowing me to participate.
36. The above is related to our building level principal.
37. The supervisor is the principal.
38. The above examples are not applicable in my situation.
39. I try to go by the old adage: "If you can't say something nice, don't say anything at all. . . . Finis
40. Neither teachers nor administrators in this system can function because there is NO clerical or paraprofessional aid. Time absorbed by nonprofessional duties in order to save blessed taxpayer money at expense of education. Nothing is more important in this system than keeping property tax low. If doctors and nurses had to scrub floors and fire furnaces at the hospital, they might need Lamar Alexander to climb their hump as well.
41. Some portions of part 2 may appear contradictory concerning association with colleagues. Some are honestly not good teachers,

and that frustrates me; but it does not hinder my ability to be friendly or work with them.

42. I taught four years, 1968-1972. In 1982 I returned to the same high school, teaching the same (math) classes. I am quitting because I just can't stand it.
43. Supervisor does not know how to teach, but likes to tell everyone how to teach. Supervisor does not like to "rock the boat" when it comes to discipline.
44. These questions were answered with the idea of considering the principal and assistant principals as supervisors. I have no immediate art supervisor.
45. Supervisory practices are changing this year due to the Master Principal Program. The principals are the supervisors here.
46. Not enough emphasis is placed on my subject area at this time by the school or community. Subject area — music.
47. My principal and supervisor are superior; assistant principal leaves a lot to be desired. Colleagues' uncaring attitude and sloppy record work is often times very frustrating to me.
48. Supervision shows more concern for the attention of "upline" than students' needs.
49. I feel supervisors are a much needed facility and a real aid to the teacher in the classroom as a resource for "outside" information from other classes, etc.
50. (c) — is actually taking place. We have a new vice-princ. who is involved in the pre-observation, observation, analysis procedure. He is working with nontenure teachers first, so I have not seen the procedure in operation. I am probably a poor subject for stress evaluation. I teach in an upper-middle class school, and my students are all average or above. The stress I encounter is generally the result of pressure I put on myself.
51. Although our supervisor gives encouragement to professional growth, there is little she can actually do. Teachers in my system cannot even attend professional meetings without losing pay. On the other hand librarians, guidance, and principals are given time off for meetings and conventions. This obvious favoritism is a source of stress for me as I enjoy these meetings and have attended quite a few (NSTA) science teachers conventions at my own expense including low of pay. Now that is unfair!!! and stressful.
52. Supervisor is bound up in red tape requirements for Spec. Ed. records — she needs help to free up observation times.

53. In our county the supervisor of instruction uses the evaluation process as a means of harassment rather than a healthy, meaningful self-improvement tool as I feel it was designed for.
54. I am pleased to help you by giving this information "anonymously." Best wishes for many returns!
55. I teach in a small rural West Tennessee county with a strong emphasis on football and vocational subjects. There is little emphasis on nor interest in academic material. Over two-thirds of our students attend the vocational school. All of our administrators are former coaches. Into this setting, I am attempting to teach Algebra II, Advanced Math, Physics, and Calculus. Do you wonder about a high stress level? Post Script — What are to be done with these findings? Will anything be done to help the classroom teacher?
56. In my previous eight years of teaching, I've had no contact with the supervisor; and I really don't know what he did. My old supervisor obviously (from what I saw at faculty meetings) was promoted to his highest level of incompetence. We have a new supervisor who has begun to make drastic changes toward improvement.

My most stress causing problem is lack of preparation time. Our administration, due to lack of funds to hire paraprofessional workers, keeps giving teachers additional assignments (bathroom duties, detention hall duty; in-school suspension during planning period time; work at athletic games; sponsor clubs; sponsor club activities such as junior class float, dances, etc.; bus duty; tutoring assigned by principal; and little extras such as reports, recommendations, and new detailed lesson plans so the administration can see what is being taught). (Lesson plans written by me and only for me have the same material and goals, but they do not require as much time to write out.)
57. Could have marked (c42).
58. My immediate supervisor is new to the job and is being pressured by uncooperative fellow administrators. At this point, one very big source of stress for me is the current attack on the teaching profession's credibility. I have no idea what to expect in my career growth.
59. I teach sp. ed., and the 2 yrs. that I have been teaching — the dir. of sp. ed. has never been in my classroom. My principal, on the other hand, has been superb.
60. In the past eight years, I have never been observed by a supervisor.
61. I feel there is much too little contact between supervisor and teachers.

62. The statements on the other page were marked in reference to the building administrator acting as the supervisor. The secondary supervisor functions only as asst. superintendent and has no effect upon any classroom behavior!!!
63. I have just moved from a very poorly supervised system in East Tennessee to a much better system in Middle Tennessee. My stress has been greatly reduced this year.
64. It doesn't make a damn because of the pay for teachers in this county!! Thank God I have a good principal. The superintendent is only worried about keeping his job and keeping the teachers under thumb! I am from (name of county given) — enough said!
65. My school faculty is very lucky to have well-rounded administrators — consistent, open to new ideas, patient.
66. Teachers are assigned far too many piddling little tasks not related to instruction, e.g. collecting money for fund drives, prom dues, school pictures, textbooks. As usual athletics and its related activities are more important to students and the community than are academics. The admin. abets this by such activities as "pep rallies" which I have to attend and which take place during class time; interrupting class time to laud athletic feats on the P.A. System; releasing cheerleaders and band members from class early and often thus reinforcing that football, etc. is where it's "at."

One area in which teachers are remiss is not supervising students in cafeteria and halls. If teachers would do these "Loco Parentis" duties on a roto basis, if only being visible, they would exert a beneficial influence. On student behavior, however, MNEA has managed to shirk this responsibility. Many students are placed in great stress by the lack of adult presence in halls, cafeteria, locker rooms, and other mixing areas. If you are interested in a sweeping generalization, I'll point out some major problems in public education:

(1) An Executive Principal's salary is related to the student population of his school. But the teacher's salary is related neither to the size of school nor classroom population. Result, we promote students who should be retained, we use such absurd practices as "in school suspension," a kid must practically be a felon to be expelled. (2) The state appropriates funds based on ADA. Thus kids are worth "so much a head." (3) The public schools are instruments for social and political objectives, some of which are detrimental to education, i.e., "bussing." (4) We are graduating illiterates every spring, and it is becoming a matter of policy. (5) Penalties for absences and tardies are not dealt with by admin policy but are the burden of the individual teacher. Penalties must be made automatic "no-fault" policy, i.e., a fixed number of absences should automatically result in admin action regardless of why.

67. Many of my responses in section 2 would vary if I was involved in a traditional classroom situation. I feel you should be aware of my present position's characteristics (in-school suspension). I average three to five students on any given day. Very restricted discipline, and I have substantial power to demand cooperation because if they fail to cooperate with me the next step leaves them one step from permanent expulsion.
68. Teachers are permitted to "do their thing!!" Very little constructive supervision has been administered.
69. I have been teaching for over 16 years, and I have never been observed by a supervisor, formally. The supervisor has been in my classroom to inform me of something, ask questions, or various other reasons, but has never observed my class or my teaching performance.
70. My supervisor is most helpful and tries to make each day as productive as possible.
71. With each year of teaching, I find that my school system gives me more to do, but no additional time to perform the duties. Rewards (either verbal or financial) are few. I am expected to act as a professional (and do), but my school system does not treat its teachers as professionals. Neither do many of the students. I am making plans to leave the teaching profession and seek a career whose stresses I can better handle. I would estimate that at least 40 percent of the teachers in my school feel the same way.
72. Our supervisor has other duties such as assistant superintendent, truant officer, thus sharing the job of supervisor.
73. Our supervisors are totally useless to teachers. Our special education supervisor is the only one who does what she is supposed to do.
74. We are to write curriculum; then rewrite curriculum; then rewrite curriculum.
75. The county supervisor visited my classroom seven or eight years ago. I have not worked with him in a professional manner since then.
76. The stress I rate highest is the ever increasing volume of pupils that are promoted to my area (math) that must repeatedly be retaught the skills that should have been mastered at other levels. I can't retain 60 percent or more. Stress — when I (by my own judgment) promote at least 80 percent of the entire group.
77. Supervisor — Principal is so bogged down with reports and bookkeeping procedures that he uses what time is left for students and teachers.

78. On the classroom level, I feel that we have lost many competent teachers in the past to other professions and vocations due to pay or lack of pay incentives. This becomes a pressure that becomes interrelated to the overall solution of the stress factors in your survey questions; for a school; and for a school system.
79. I am in an ideal school. Being the sp. ed. teacher at a vocational school, I deal with many students that know it is their last chance before going into the world. The only big problem I have is dealing with students that have not been directed to the program that would best fit their ability and attitude.
80. The question of stress due to lack of tenure was not covered and is my major stress area. Even with superior ratings, I do not have tenure because I moved here four years ago. Every year, I get "let go" and have to reapply or wait until the school year starts to see if I have a job! The reasoning: they need a coach or a drop in enrollment!
81. If a teacher is excited about the student(s) he has and about the subject taught, then teaching is a low stress occupation.
82. The school principal (or assistants) usually observe actual teaching performance. I enjoy teaching. Most of the stress I experience comes when students don't seem to want to learn a concept. That is, when students don't seem to care.
83. During my first three years of teaching I was never observed more than ten minutes during a class period. I have not been observed in two years.
84. Supervisor and principal have opposite views on our science curriculum. This puts teachers in the middle, a very stressful situation (complicated by critical, vocal parents).
85. Although our supervisor has little time for much supervision of teachers (perhaps he supervises others more), he always lends a "listening ear" and would be available if needed.
86. In my ten years as a teacher, I have been evaluated twice by my building principal; our "supervisor of instruction" has never been in my classroom at all. No wonder we teachers experience stress!!
87. The supervisor described here is not the high school principal, but the next highest in command who holds the key to all meaningful decisions in policy.
88. Biggest problem facing education today (staff morale). Low pay — very little respect — very little input by those who play the most important role. Anything that raises morale will certainly benefit the educational process.

89. Supervisor has not been in my room in the two years of my teaching experience, nor has he even spoken to me. The principal who does the evaluations does an adequate job and observes in my room quite frequently.
90. Almost never goes through observation and analysis of teacher's performance.
91. I feel very fortunate in several respects: I teach an elective (Latin) for college-bound students in an affluent show-piece school (name given). We have a written curriculum and fair evaluation practices. We have the support of an excellent curriculum principal (name given), a fair and just principal (name given), and an interested supervisor. Even my dept head is fair to all the languages. This is a great situation for me — the best in my teaching life — so I probably am screwing your results. However, I have taught in other schools which gave me headaches, etc. My major problems have been getting new books and as much time as I would like for professional meetings. (The latter is not major, however.) I also dislike lunch duty but understand the need.
92. Compared with two large city schools where I have previous experience, the discipline in this rural area is fantastic because the students are intrinsically well-behaved. However, there is a great lack of teaching materials and support from both administrators and parents.
93. There is no effective science supervisor in the (name given) City School System. None of the above can apply this year.
94. I had my heart attack in March of 83, but it's hard to say which of these situations was the most stressful.
95. Major source of stress for every teacher is an inadequate salary. Remedy this situation first and then concentrate on other areas.
96. We do not have a supervisor in our system, "per se" — only an asst. principal and a superintendent. We are just not supervised. If we need help, we get it; if we don't need any help, we are left alone. It works very nicely as far as I'm concerned.
97. I feel a need for teachers, particularly beginning ones, to have opportunities to observe techniques, curriculum, and methods of other teachers in the same subject area. My area, VOE, does not follow one text book, and the teacher must devise her own curriculum. It would have been invaluable to me to be able to work with other VOE teachers or to observe in their classrooms. The supervisor and principal in my county provide no assistance or observation in the classroom.
98. This is a difficult exercise for me because my supervisor is an inept, bumbling person who plays golf and talks in circles. His

assistant, who is better educated, articulate and quite professional, has started working with my group this year. And we are seeing a great change.

99. If you are doing research on supervisory qualification, you have a classic example of working your way to the top by means other than education and teaching experience in this system.
100. Our supervisors are very good and considerate, but we have too many teachers assigned to them in our area of the city.
101. Supervisor for which answers given is principal.
102. I see a great problem with parents who are not concerned with their children's grades, attendance, or conduct at school.
103. Principal's display of lack of interest in teacher's work; complete lack of understanding the teacher's work; and barricading her efforts.
104. First year where we have a vice principal whose responsibility is to supervise teachers and teacher performance.
105. I have taught in college seven years — and now have returned to secondary setting (English). I received Ph.D. (Ole Miss Aug. 83). New stresses are evident in a secondary setting, but you can teach more to more willing listeners than you can using the same amount of time at a college level. Thanks! (name and address given).
106. The supervisor is spread so thin over such a large amount of responsibilities that it is not possible to be all things to all teachers — should not be this way!
107. I'm talking about all supervisors in the above.
108. Our supervisor is very aggressive and has the interest of the student and teachers at heart. However, I can't say this for our school board. Politics is their first and main interest and concern.
109. (1) Only time supervisor comes is to bring paper. (2) Very little guidance is given by the supervisor in the area of proper procedure on forms without instructions.
110. I rarely see the supervisor of my school system.
111. The present principal projects a strong, active image which involves much parent participation. This image helps the teacher in classroom management. The teacher reflects the support of administration and parents.
112. Additional pressure placed on teachers will not result in an improved educational system. Pressure needs to be placed on the

students to make them more responsible for obtaining an education. They expect the teachers to pour knowledge into their heads while they sit passively by. They resent homework and any assignment which requires them to think. Teachers have been made to feel guilty for too long for students who fail because they will not get assignments. Motivation comes from within. Stop cluttering up the classroom with students who do not want to learn. Teach them a trade.

113. The supervisor I am relating is currently on staff in our school. Her title is curriculum coordinator.
114. My immediate supervisor and all of the administrative staff within my school system support teachers as much as they possibly can.
115. This is based upon the principal of the school and his attitude toward my program.
116. This section concerns my supervisor, not my principal — I get NO help from the principal in any way.
117. I.A. Teacher develops own curriculum, great emphasis is given to academic subjects, insufficient emphasis is given to Ind. Arts and Vocational courses. The academic diploma is encouraged over general education; not all students in school will attend college, only approximately 30 percent.

Listed below in their entirety are all the additional supervisory practices which the teachers gave in the blank space on the questionnaire.

1. Supervisor establishes poor rapport with faculty and other staff members ex. — maintenance, social workers, etc. —; is almost always negative; harasses teachers; is virtually incompetent; was dismissed from another job for incompetence; now has a purely political appointment; when people who dared to complain to our Supervisor's superiors — all got basically same answer — "He must be having a bad day - PAY NO ATTENTION to him!" Well said — but not very practical if you want to keep your job!!
2. Supervisor does not observe, does not provide materials, does not seem to be interested in my work.
3. Supervisor has not been actively involved in curriculum development.
4. Supervisor rarely visits school and never supervises teachers.
5. Supervisor is very slow to allow teacher input in school operations.
6. Supervisor is mostly concerned with having teachers write curriculum guides.
7. Concerned with improving teaching-learning process, but has problems implementing ideas due to budget, time, etc., etc.

8. Supervisor does not have time for much supervision of teachers.
9. Political appointments (who does very little work).
10. No supervisory personnel are assigned to secondary level. Supervision is by school administrators.
11. Supervisor spends most of day on PA disturbing class with unimportant talk.
12. Leaves at 3 — teachers leave at 3:30 — makes principals hard to find.
13. Supervisor tends to "pass-the-buck" for educational failures to the classroom teacher, failing to consider the responsibilities of administration in the matter.
14. Supervisor has too many teachers and too broad areas — Foreign Language and Language Arts.
15. Supervisor spends majority of time solving student scheduling and other guidance problems.
16. Supervisor spends much time away from school teaching training sessions in staff development.
17. Supervisor is seen in my school only 1 or 2 times per year.
18. Supervisor has had no experience in secondary schools and does not know how to advise teachers.
19. Implementation as to discipline (frequently) not carried out.
20. Provides inservice (optional) training on computer usage.
21. Supervisor provides needed materials when possible.
22. Organize inservice training programs and schedules for inservice credit.
23. Inservice meetings which are meaningless.
24. Supervisor has too many schools to cover.
25. Supervisor seldom praises but often criticizes.
26. Supervisor (principal) watches for teachers arriving late and students running in the halls — major effort.
27. Supervisor provides unnecessary paper work for teachers to complete.
28. Supervisor goes out of his way to foster warmth and affection among members of the faculty.

29. Time is consumed with Federal and State reports.
30. Supervisor does not provide planning time for elective teachers.
31. Supervisor is concentrating on student discipline and ignoring learning experiences.
32. Major effort seems to be to find another fund-raiser which we as homeroom teachers have to promote, etc.
33. There is none. (more descriptive practice)
34. Organizes for infrequent professional meetings that are required.
35. Supervisor is not concerned about helping, only making sure that the "boat does not rock."
36. Major effort of the supervisor is directed toward up-grading athletic program.
37. Supervisor does not supervise employees — are left on own to sink or swim.
38. Supervisor is probably not as interested in developing a better vocational program as the teacher he "supervises."
39. Supervisor works hard on book selection.
40. Supervisor is an ex-kindergarten teacher who avoids contact with teachers above the primary level.
41. Supervisor sometimes is concerned with "picky" details which have little to do with the pedagogical process.
42. Major effort toward helping teacher meet required or requested conditions for teaching.
43. Principal is mostly concerned with students' conduct and seeing that teachers are at teaching areas. I have a 1st year principal.
44. Shows a genuine concern for teacher problems.
45. Supervisor spends an 18 hr. day on discipline prob., building maintenance, parent conference, financial books and records, and other admin. duties.
46. Supervisor is more concerned with making the "right moves" to impress higher authority (superintendent) to better the possibility of promotion.
47. Very considerate and helpful.
48. I don't even know the name of the secondary supervisor for my county!

49. A few poor teachers makes it difficult for others by "doing their own thing."
50. Supervisor is willing to take over any of the duties assigned the teacher.
51. DON'T GIVE A DAMN!
52. Supervisor is concerned with noise in the hallway and keeping bathrooms clean.
53. Meets once or twice a year in group meeting — resulting in little consequence.
54. Materials clerk (few materials available).
55. Attitude is one of laissez-faire; supervisor responds mostly when under pressure.
56. Eager to help in any way needed.
57. Supervisor works to find negative thing to say — although positive aspects are noted also.
58. Supervisor changes mind constantly.
59. Supervisor is so burdened with other duties that he has no time for teacher supervision.
60. Disruptive students are considered poor "class management."
61. Supervisor is unorganized and does things on spur of the moment thus creating low teacher morale.
62. Supervisor uses coping mechanism.
63. Supervisor is there when we need them for personal and professional plbms.
64. Supervisor too busy with proficiency testing and computers.
65. Supervisor evaluation is used to harass rather than as an aid.
66. Although supervisor is nice, when you try to talk to supervisor he seems not to have enough time to sit down and thoroughly talk to teacher.
67. I see him about once every 2 years in my class.
68. Is firm regarding discipline, but teacher never knows the mood of Supervisor which changes the way he reacts to both teachers and students daily.

69. Sometimes is inconsistent in student policies.
70. Much time directed toward paper work, reports (federal and state).
71. Supervisor anticipates stressful situations and helps to reduce their origin.
72. In 14 years of teaching I don't think a supervisor from the central office has ever observed my teaching, asked to see lesson plans, or even asked about my professional growth and development.
73. Supervisor observes only when required to do so (by Southern Association guidelines).

APPENDIX D

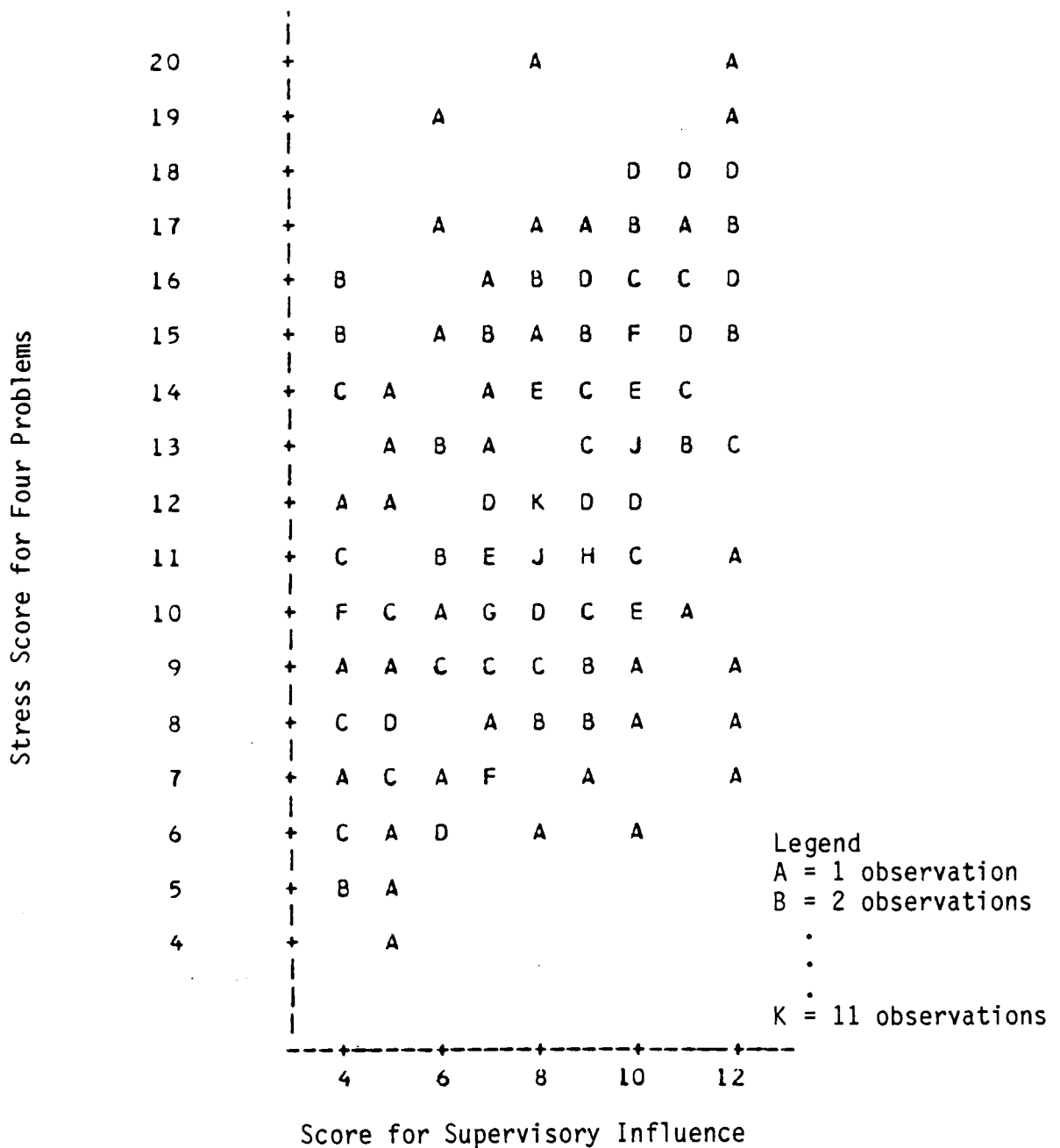


Figure 3. Scattergram of the Stress Scores (1, 2, 3, 4, 5) and the Influence of Supervisory Practices (1, 2, 3) for the Four Problems in the Category of Support.

Stress Score for Four Problems

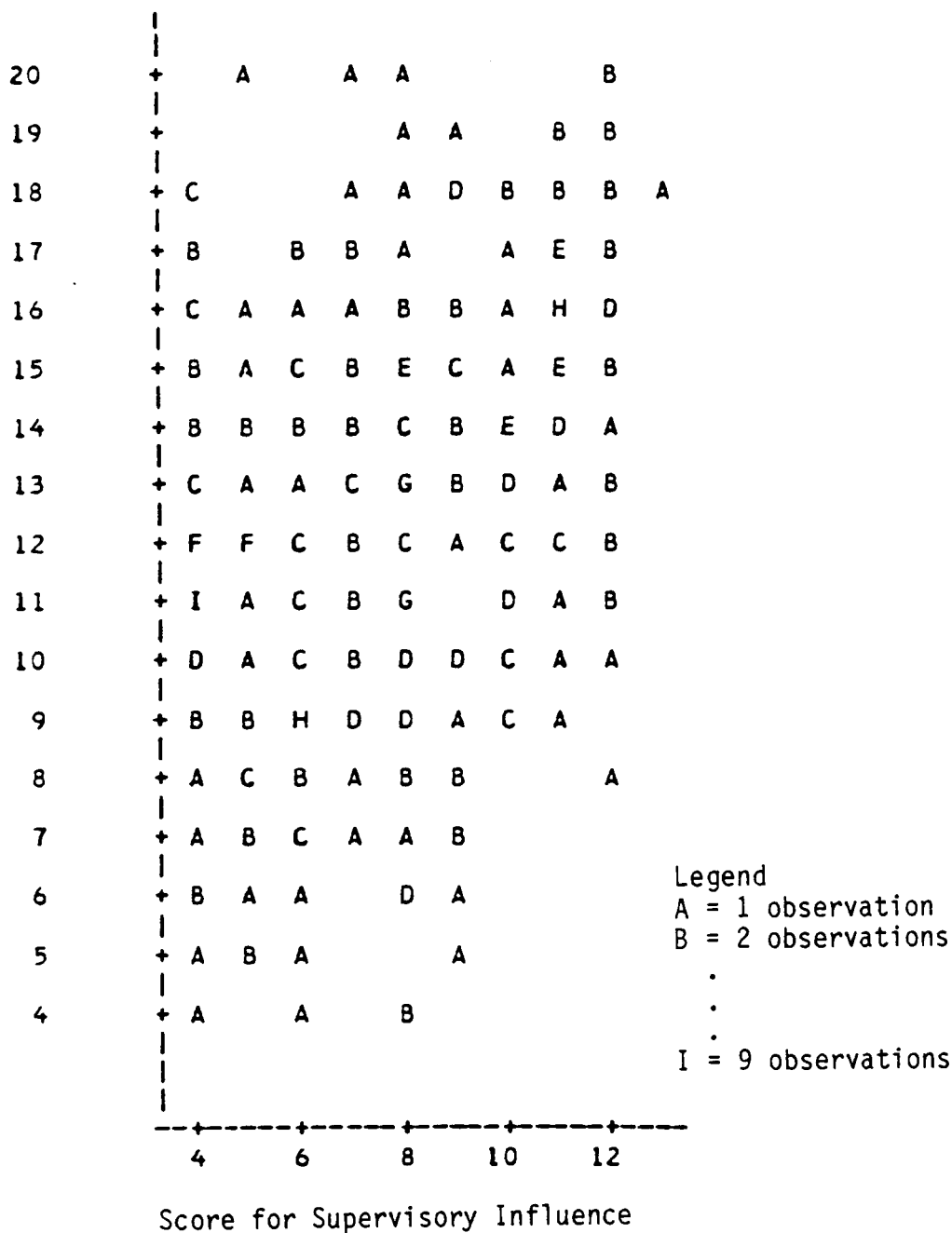


Figure 4. Scattergram of the Stress Scores (1, 2, 3, 4, 5) and the Influence of Supervisory Practices (1, 2, 3) for the Four Problems in the Category of Control.

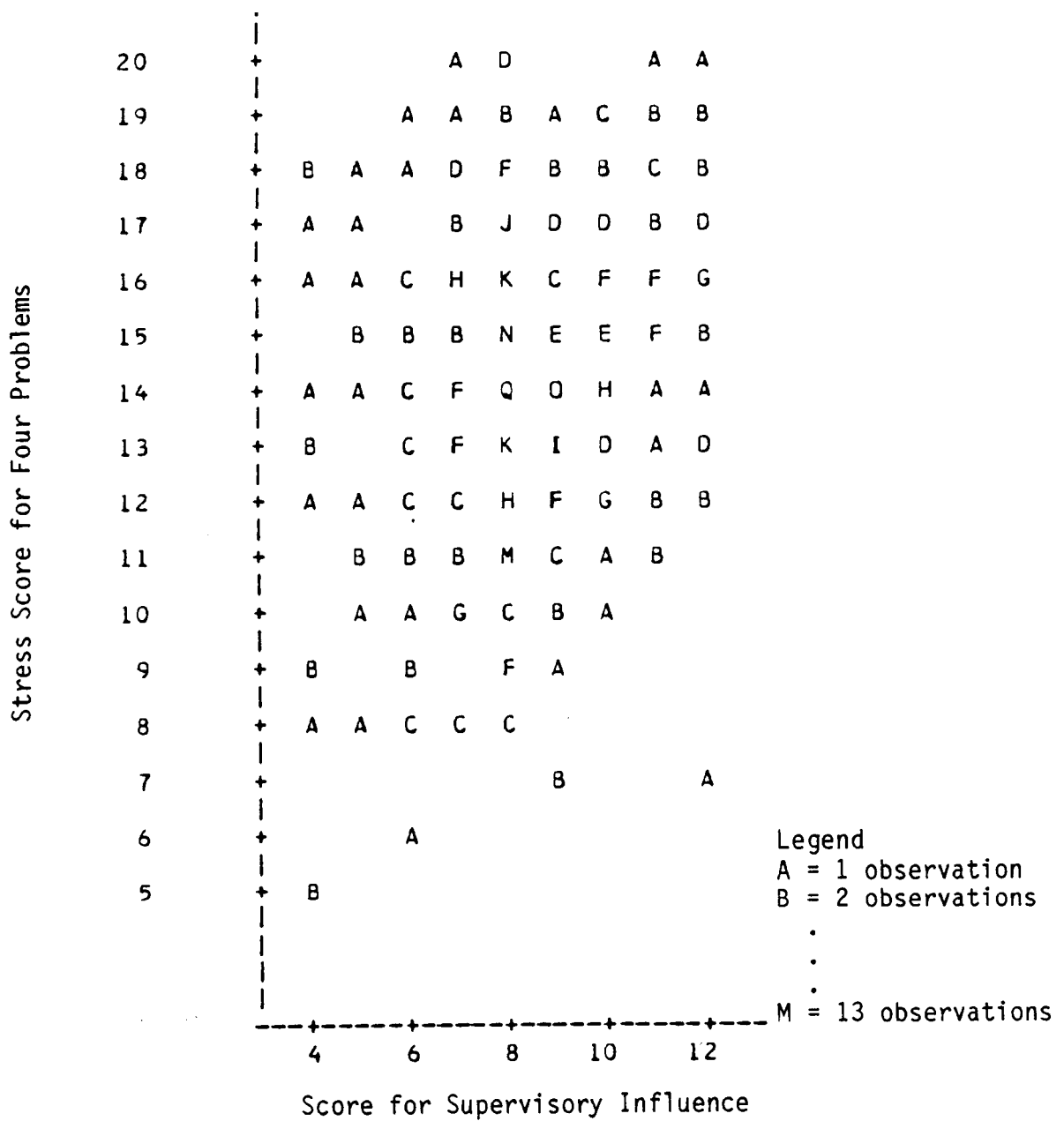


Figure 5. Scattergram of the Stress Scores (1, 2, 3, 4, 5) and the Influence of Supervisory Practices (1, 2, 3) for the Four Problems in the Category of Nurturance.

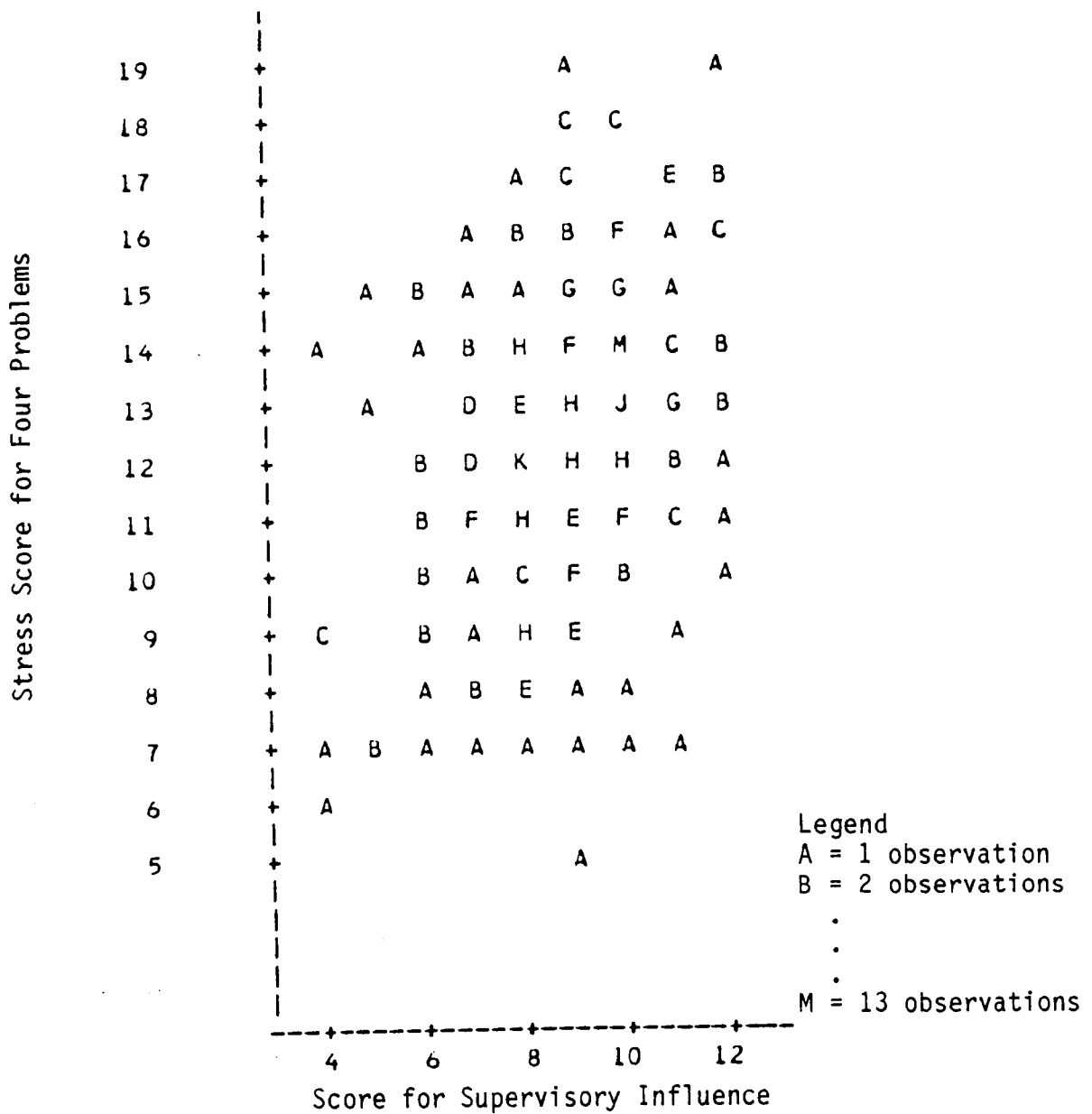


Figure 6. Scattergram of the Stress Scores (1, 2, 3, 4, 5) and the Influence of Supervisory Practices (1, 2, 3) for the Four Problems in the Category of Influence.

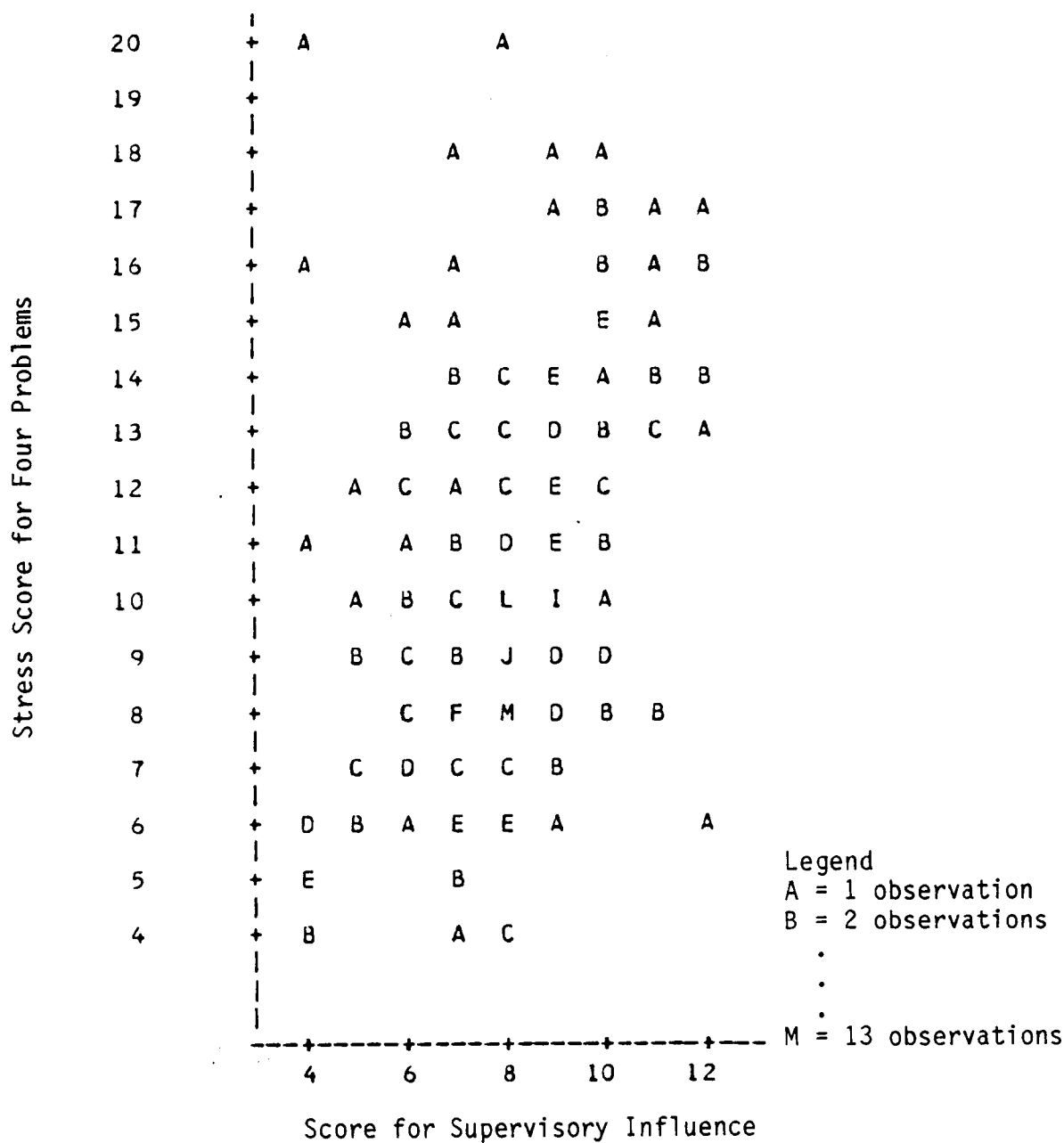


Figure 7. Scattergram of the Stress Scores (1, 2, 3, 4, 5) and the Influence of Supervisory Practices (1, 2, 3) for the Four Problems in the Category of Inclusion.

Stress Score for Four Problems

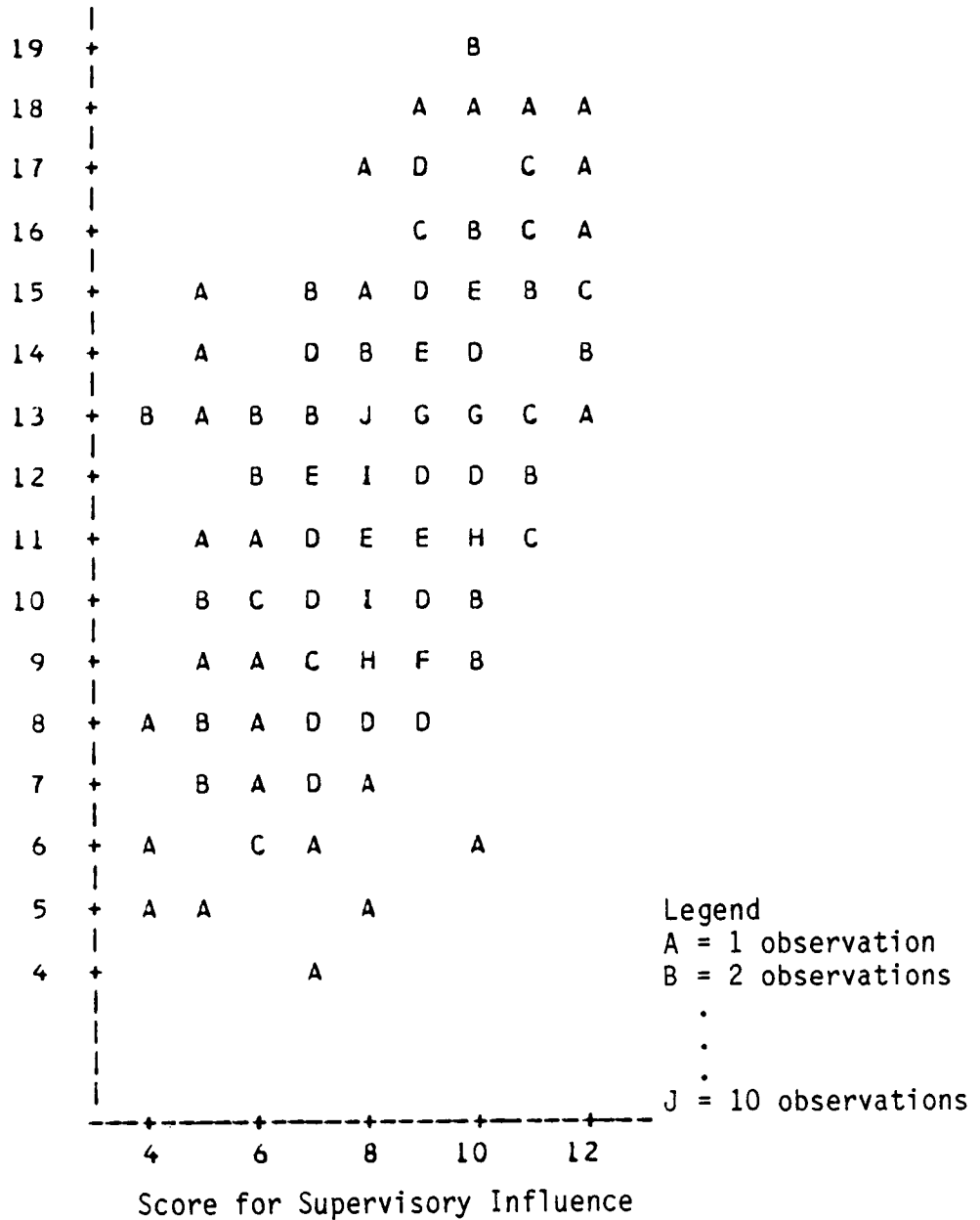


Figure 8. Scattergram of the Stress Scores (1, 2, 3, 4, 5) and the Influence of Supervisory Practices (1, 2, 3) for the Four Problems in the Category of Efficiency.

APPENDIX E

October 15, 1983

Mr. Cavit C. Cheshier
Tennessee Education Association
598 James Robertson Parkway
Nashville, Tennessee 37219

Dear Mr. Cheshier:

This is to request a random sample of size 600 from the teacher membership roster of the Tennessee Education Association. My research, which we discussed by phone today, is related to my studies in the Ph.D. program at U.T. Knoxville.

I need this sample of secondary teachers to conduct a survey across the state of Tennessee. Your assistance in this matter is greatly appreciated.

Sincerely yours,

Eva M. Wike, Ph.D. Candidate
Educational Administration
and Supervision

AASA-National Academy for School Executives
1801 North Moore Street
Arlington, Virginia 22209

December 21, 1982

Eva M. Wike
109 Oklahoma Avenue
Oak Ridge, TN 37830

Dear Eva:

Thanks for your recent letter. I have entered your request for specific documents to Education Research Services, Inc. and hope that they will be able to provide me with the documents sometime in early January. I will forward them to you as soon as they are given to me.

I hope all goes well for you and that your doctorate program is progressing according to plan. Please convey my regards to Fran Trusty and the other fine people there at the university and happy holidays.

Best regards,

Jerry Melton, Ed.D.
Director

RGM/hlb

AASA-National Academy for School Executives
1801 North Moore Street
Arlington, Virginia 22209

September 15, 1982

Eva M. Wike
109 Oklahoma Avenue
Oak Ridge, TN 37830

Dear Eva:

I have enclosed the packet of information provided me by Education Research Service, Inc. I hope that it will be of some benefit to you in your doctoral research. If I can be of any further service in this regard, please let me know.

Thanks again for the great day of tennis while we were in Knoxville. Ann and I both thoroughly enjoyed it. She sends her regards and wishes you well as you finish your doctorate.

Best regards,

Jerry Melton, Ed.D.
Director

Enclosure

JM/lv

Eva M. Wike
109 Oklahoma Avenue
Oak Ridge, Tennessee 37830

August 25, 1983

Professor Margaret S. Phelps
Box 5032 TTU
Cookville, Tennessee 38505

Dear Professor Phelps:

Your presentation on last Monday morning at Harriman High School was very meaningful to me. That was the first time I had heard Clinical Supervision discussed in Roane County. It was really great!

Please find enclosed a copy of my abstract, cover letter to teachers, and the instrument for conducting the survey on classroom stress at the secondary level. If you will be so kind and helpful as to read and put your reactions on the margins I will be most grateful. The list of ten supervisory practices is not very complete. Do you have some that might be more clear to the teacher?

I thank you very much for your time and support. I look forward to hearing from you.

Sincerely yours,

Eva M. Wike, Ph.D. Candidate
University of Tennessee

Eva M. Wike
109 Oklahoma Avenue
Oak Ridge, Tennessee 37830

June 3, 1983

Professor D. R. Cruickshank
Academic Faculty of Educational
Foundations and Research
The Ohio State University
Columbus, Ohio

Dear Professor Cruickshank:

This is to request the ordered listing of problems as determined in your research that was published in the Journal of Educational Research, Vol. 68, December 1974, pages 154-159. Any other information or research findings you could share with me on the subject of teacher stress or teacher problems will be greatly appreciated.

I am presently writing on my dissertation for the Ph.D. in Educational Administration and Supervision at The University of Tennessee. Your findings on teacher problems is serving as input to my study of the relationship between teacher stress and supervisory practices as experienced by teachers in secondary classrooms.

I look forward to hearing from you.

Sincerely yours,

Eva M. Wike, Ph.D. Candidate
The University of Tennessee

APPENDIX F

Department of Educational
Administration and Supervision
College of Education
The University of Tennessee
Knoxville, Tennessee 37916

Dear Professor

This is to request that Eva Wike be permitted to conduct a survey in your class involving those students who are high school teachers. The survey will take approximately fifteen minutes and will be of great help to her in her research on classroom stress at the secondary level. Eva is a doctoral student in the Educational Administration and Supervision Department here at the University of Tennessee. Thank you very much for your consent and support.

Sincerely yours,

Francis M. Trusty
Professor

FMT/alp

Eva M. Wike
109 Oklahoma Avenue
Oak Ridge, Tennessee 37830

September 20, 1983

Dear Classroom Teacher:

Will you please help me in this pilot study, which is a preliminary step in the design of the survey instrument to be used in my research at the University of Tennessee, Knoxville? As you read the cover letter (blue) and respond to each item in Part I, II, and III of the questionnaire, will you please note any suggestions as to how I may revise the instrument to improve the clarity and logical content of any item. Just write your suggestions in the margins or below. The data gathered from this pilot study will only be used to help me design a better statistical model to be used in the broader study later this year.

Your time and support are greatly appreciated. Please return the survey form (sealed) in the envelope to _____ as soon as possible. I thank you very much.

Sincerely yours,

Eva M. Wike, Ph.D. Candidate
Educational Administration
and Supervision

ADDITIONAL COMMENTS:

Eva M. Wike
109 Oklahoma Avenue
Oak Ridge, Tennessee 37830

Dear Secondary Classroom Teacher:

Major research studies are being conducted to help us understand some of the stress-related factors that teachers like yourself experience in the classroom. Your name has been selected from a list of secondary teachers in the state of Tennessee, to participate in a study of some of these factors. By completing the attached questionnaire, you will be lending support to this ongoing research effort.

The questionnaire consists of three parts (Part I, II, and III). About twenty minutes of your time will be required for completion of the questionnaire. Return of the questionnaire will indicate your consent as a willing participant in the study. All data received will be treated with anonymity and confidentiality, being used only in compiling results. Each questionnaire has been assigned an identification number. This is strictly for follow-up purposes. No personal or district identification will appear in the completed results.

Your completion and early return to me in the stamped, addressed envelope is greatly appreciated. If you would like a copy of the findings, please indicate below.

Sincerely yours,

Eva M. Wike

_____ Yes, I would like a copy of the findings.

Eva M. Wike, Researcher
109 Oklahoma Avenue
Oak Ridge, Tennessee 37830

U R G E N T

Dear Secondary Classroom Teacher:

You may have already returned to me the questionnaire you recently received concerning some research we are conducting at the University of Tennessee, Knoxville. I appreciate very much your lending such vital support to this effort. If you have not returned the questionnaire, I would like to request that you complete it and return it to me at your earliest convenience.

Sincerely yours,

Eva M. Wike, Researcher

INSTRUCTIONS: Please mark with an (X) one response to each item.

DEMOGRAPHIC INFORMATION - PART I

- (c4) (a) Age
 (1) 21 to 30 years
 (2) 31 to 40 years
 (3) 41 to 50 years
 (4) 51 to 60 years
 (5) 61 or over
- (c5) (b) Sex
 (1) Male
 (2) Female
- (c) Are you currently tenured?
 (1) Yes
 (2) No
- (c6) (d) Total years of full-time teaching experience prior to this year.
 (1) Zero to 5 years
 (2) 6 to 10 years
 (3) 11 to 15 years
 (4) 16 or more years
- (c7) (e) Type of school district in which you presently teach.
 (1) County School District
 (2) City School District
 (3) Metropolitan School District
 (4) Special School District
- (c8) (f) Level of Certification
 (1) Less than Bachelor's Degree
 (2) Bachelor's Degree
 (3) Bachelor's Degree Plus
 (4) Master's Degree
 (5) Above Master's Degree

Dear Secondary Classroom Teacher:

Major research studies are being conducted to help us understand some of the stress-related factors that teachers like yourself experience in the classroom. Your name has been selected from a list of secondary teachers in the state of Tennessee, to participate in a study of some of these factors. By completing the attached questionnaire, you will be lending support to this ongoing research effort.

The questionnaire consists of three parts (Part I, II, and III). About ten minutes of your time will be required for completion of the questionnaire. Return of the questionnaire will indicate your consent as a willing participant in the study. All data received will be treated with anonymity and confidentiality and will be used only in compiling results. Each questionnaire has been assigned an identification number. This is strictly for follow-up purposes. No personal or district identification will appear in the completed results.

The completion and prompt return of the questionnaire are greatly appreciated. The two sheets should be folded and stapled so that my mailing address is shown. If you would like a copy of the findings, please indicate below.

Sincerely yours,
Eva M. Wike
 Eva M. Wike, Researcher

Yes, I would like a copy of the findings.

Part II

INSTRUCTIONS: Please mark an (X) in the appropriate blanks for each problem statement below: (i) on the left, indicate the level of stress you feel the problem creates for you; (ii) on the right, indicate how existing supervisory practices affect the level of stress; or (iii) at the end of the statement, indicate that this is not a problem for you. Stress is defined as that which creates physical or mental tension for you and may have a negative impact on your effective teaching. Supervisory practices include any aspect of the supervisory process which you experience.

KEY (left)

1. Very low
2. Low
3. Medium
4. High
5. Very high
6. Not a problem

KEY

1. Reduces stress
2. Has no effect
3. Increases stress

EXISTING SUPERVISORY PRACTICES

LEVEL OF STRESS EXPERIENCED PROBLEM

(c9)	(1) (2) (3) (4) (5)	a. Having sufficient preparation time. (6)	(1) (2) (3)
(c10)	(1) (2) (3) (4) (5)	b. Assigned duties inappropriate to my professional role. (6)	(1) (2) (3)
(c11)	(1) (2) (3) (4) (5)	c. Being able to bring about needed changes in school rules. (6)	(1) (2) (3)
(c12)	(1) (2) (3) (4) (5)	d. Being able to have confidence in colleagues. (6)	(1) (2) (3)
(c13)	(1) (2) (3) (4) (5)	e. Students demonstrating honesty and respect for teachers. (6)	(1) (2) (3)
(c14)	(1) (2) (3) (4) (5)	f. Parents showing support and interest in educational programs. (6)	(1) (2) (3)
(c15)	(1) (2) (3) (4) (5)	g. Obtaining appropriate teaching materials. (6)	(1) (2) (3)
(c16)	(1) (2) (3) (4) (5)	h. Increasing the level of interest on the part of students toward learning. (6)	(1) (2) (3)
(c17)	(1) (2) (3) (4) (5)	i. Being able to help the atypical student. (6)	(1) (2) (3)
(c18)	(1) (2) (3) (4) (5)	j. Dealing with student classroom behavior. (6)	(1) (2) (3)
(c19)	(1) (2) (3) (4) (5)	k. Being able to feel successful as a teacher. (6)	(1) (2) (3)
(c20)	(1) (2) (3) (4) (5)	l. Having sufficient support and cooperation from the administration. (6)	(1) (2) (3)
(c21)	(1) (2) (3) (4) (5)	m. Being able to conduct worthwhile conferences with parents. (6)	(1) (2) (3)
(c22)	(1) (2) (3) (4) (5)	n. Being able to 'keep up' professionally. (6)	(1) (2) (3)
(c23)	(1) (2) (3) (4) (5)	o. Getting every student to work up to his ability. (6)	(1) (2) (3)
(c24)	(1) (2) (3) (4) (5)	p. Being able to remove a student who is a source of disruption in class. (6)	(1) (2) (3)
(c25)	(1) (2) (3) (4) (5)	q. Being able to maintain a professional relationship with colleagues. (6)	(1) (2) (3)
(c26)	(1) (2) (3) (4) (5)	r. Being able to establish and maintain rapport with administrators. (6)	(1) (2) (3)
(c27)	(1) (2) (3) (4) (5)	s. Having to attend unproductive faculty meetings. (6)	(1) (2) (3)
(c28)	(1) (2) (3) (4) (5)	t. Having satisfactory affiliation with colleagues. (6)	(1) (2) (3)
(c29)	(1) (2) (3) (4) (5)	u. Being able to employ punishment effectively. (6)	(1) (2) (3)
(c30)	(1) (2) (3) (4) (5)	v. Being able to give all students adequate attention. (6)	(1) (2) (3)
(c31)	(1) (2) (3) (4) (5)	w. Being provided with a well-defined curriculum. (6)	(1) (2) (3)
(c32)	(1) (2) (3) (4) (5)	x. Dealing with the parents of students. (6)	(1) (2) (3)

Eva M. Wike
Researcher

Part III

INSTRUCTIONS: Please mark with an (x) three practices from the supervisory practices listed below which most accurately describe existing supervisory practices in your present teaching position.

SUPERVISORY PRACTICES

- (c33) ☐ (a) Major effort of the supervisor is directed toward helping the teacher improve the teaching-learning process.
- (c34) ☐ (b) Major effort of the supervisor is directed toward administrative duties in the central office.
- (c35) ☐ (c) Supervisor goes through systematic cycles of pre-observation, observation, and an analysis of teacher's performance annually.
- (c36) ☐ (d) Supervisor incidentally and infrequently observes actual teaching performance.
- (c37) ☐ (e) Supervisor encourages teacher to initiate a conference whenever there is a felt need by the teacher.
- (c38) ☐ (f) Supervisor takes charge during a conference and the teacher knows exactly where he/she stands with the supervisor.
- (c39) ☐ (g) Supervisor supports the teacher's professional growth and development.
- (c40) ☐ (h) Supervisor is mostly concerned with getting through the school day and does not have time for much supervision of teachers.
- (c41) ☐ (i) Supervisor provides needed teaching materials and is a very resourceful person with respect to new teaching methodologies.
- (c42) ☐ (j) Supervisor is not concerned about developing a high level of trust and collaboration in the relationship with the teacher.
- (c43) ☐ (k) Other more descriptive practice?

Comments:

Please fold so that address on reverse side is in proper position for mailing.

Fold here

Fold here

RETURN TO:

Eva M. Wike, Researcher
109 Oklahoma Avenue
Oak Ridge, Tennessee 37830

VITA

Eva M. Wike is a native North Carolinian from Clay County in the western region of the state. After living 20 years in the remote Appalachian mountains, Eva moved to Oak Ridge, Tennessee. Her studies at The University of Tennessee span several years. She received a Bachelor of Science degree with a major in mathematics and physics (with honors) in 1973; in 1979, a Master of Science degree with a major in mathematics, and the Doctor of Philosophy degree with a major in Education in June 1984.

Eva has worked in the areas of energy research at Union Carbide Corporation, the Institute for Energy Analysis, and for the past seven years has taught mathematics, physics, and chemistry at the high school level.

Eva lives with her husband (Jim) and their son (Jimmy) at their home at 109 Oklahoma Avenue, Oak Ridge, Tennessee.