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Burnout Among Rural Special Education Specialists: An Investigation of Selected Variables

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BURNOUT AMONG RURAL SPECIAL EDUCATION SPECIALISTS: AN INVESTIGATION OF SELECTED VARIABLES

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This dissertation submitted by Linda Jean Reetz in partial fulfillment of the requirements for the Degree of Doctor of Education from the University of North Dakota is hereby approved by the Faculty Advisory Committee under whom the work has been done.

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This dissertation meets the standards for appearance and conforms to the style and format requirements of the Graduate School of the University of North Dakota, and is hereby approved.

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Signature Linda Jean Reetz

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ABSTRACT

Stress induced burnout among special education specialists has become a concern of administrators. This study was conducted to investigate burnout among the rural itinerant and non-itinerant specialists specifically.

Purpose

The purpose of this study was to investigate the extent of burnout among rural itinerant and non-itinerant specialists and the relationship of selected demographic and situational variables to this burnout. The relationship of role ambiguity and role conflict to burnout of this group was also investigated.

Design of the Study

The Maslach Burnout Inventory, the Role Questionnaire and a demographic/situational data sheet were mailed to rural special education specialists in North Dakota and South Dakota. Of the questionnaires sent, 307 (67.17%) were returned complete and were used in the study. The statistical tests used to analyze the data included cross-tabulations, chi squares, correlation coefficients, analysis of variance and multiple regression. The .05 level of significance was used to reject the null hypotheses.

Conclusions

The major findings of this study were:

1. Burnout was not evident in high proportions among the rural specialists.

2. Non-itinerant specialists reported significantly more intense and frequent feelings of depersonalization than itinerant specialists.

3. Significant relationships were found between burnout factors and exceptionality served. Those serving students with milder handicaps demonstrated less burnout.

4. Specialists serving students in resource rooms and self-contained placements experienced more burnout than other rural service models.

5. Older specialists and those with more years of experience reported significantly less burnout than younger specialists and those with less experience.

6. Significant relationships were found between role conflict and depersonalization and emotional exhaustion burnout scores. Role ambiguity was significantly related to personal accomplishment subscale scores.

7. No significant relationships were found between burnout factors and sex, marital status, educational level, consecutive years of special education teaching, number of schools served, miles driven per week, and number of grade levels served.

CHAPTER I

INTRODUCTION

The phenomenon of stress induced burnout is becoming a concern of individuals employed in the helping professions, among them special education teachers. The term "burnout" was first used by Herbert Freudenberger (1977) to describe those attempting to reach unattainable goals and continually giving of themselves in difficult emotional situations. These stressors eventually produce cynicism, negativism, and rigidity which ultimately insulates these providers from helping their clients in a personal way. Maslach (1982) defines burnout as a "syndrome of emotional exhaustion, depersonalization, and reduced personal accomplishment that can occur among individuals who do people work of some kind" (p. 3). This form of job stress is unique in that it is a result of these intense personal relationships between the worker and the client. Burnout will adversely affect the physical, intellectual, and emotional well being of the provider.

Burnout among teachers is reaching very serious proportions (Farber & Miller, 1982). Intense interpersonal relationships and personal stressors are inherent in the area of special education. The potential of setting unrealistic goals for handicapped students is high. Many parents and other teachers require emotional reassurance in accepting and dealing effectively with handicapped children. It is estimated

that six percent of the country's special education teachers burn out each year (Morsink, 1982).

Special education provides additional sources of stress due to the increased demands and restrictions on service delivery, accountability, and organization mandated by both state and federal legislation. School districts in rural parts of the country have been required to function under the mandates of Public Law 94:142 providing a free appropriate education for all handicapped. Implementing comprehensive educational services for the handicapped in rural areas requires creative programming and cooperative arrangements among districts. Delivery of special education services in rural settings necessitates employment of teachers who serve more than one school building or district.

Recruitment and retention of certified special education personnel remain dilemmas for many rural areas. In a study sponsored by the federal government (Helge, 1984), 200 rural special education administrators across all of the states were interviewed. Only seventeen percent of them had filled all of their teaching positions in 1983. With fewer specialists available in these areas, the sizes of caseloads and geographic areas covered by each itinerant specialist may be increased.

The employment conditions of itinerant special education teachers in rural areas contrast sharply to those of the "traditional" teacher. Itinerant specialists do not spend each day in the same classroom. They have many rooms spread among the schools they serve. Some rooms are less than ideal. Materials frequently used do not remain on bookshelves awaiting use, but travel in the trunk of the car. Itinerant specialists do not answer to one principal, but to one in each school,

plus a special education administrator or coordinator. While other teachers may release their frustrations by unloading on fellow colleagues in the coffee lounge, the itinerant specialist often spends his/her breaks in his/her automobile commuting to another school. These and other conditions set the itinerant specialist apart from the regular staff.

Research has shown that role ambiguity and role conflict are related to burnout among teachers (Brodsky, 1977; Cherniss, Egnatios & Walker, 1976; Crane, 1982; Schwab & Iwanicki, 1982). The probability of role ambiguity and conflict being prevalent for itinerant specialists is increased by the cooperative arrangements. There may be many administrators with direct line authority over the rural specialists and little coordination among them.

Purpose

Previous research has evaluated the prevalence of burnout among regular and special education teachers. The findings of this research warrant investigation of burnout among rural special education teachers. One purpose of this study is to investigate the extent to which burnout exists among itinerant and non-itinerant special education specialists in rural schools.

A second purpose is to determine the relationships that exist among burnout of itinerant and non-itinerant specialists and age, sex, marital status, educational level, years of teaching service, number of consecutive years of special education teaching, the number of schools served, the number of miles driven per week, the exceptionality taught, the type of service delivery model, and the grade span of the students

served. Research has shown that the first six of these variables are relevant to the effect of stress and burnout (Schwab & Iwanicki, 1982).

The unique system of multiple administrators with direct line supervisory authority over the itinerant specialists justify evaluation of role ambiguity and role conflict. The third purpose of the study will be to investigate the relationship of perceived role ambiguity and role conflict to burnout of itinerant and non-itinerant specialists.

Delimitations

The following delimitations will frame this study:

1. This study will be conducted with itinerant and non-itinerant specialists employed in the states of North Dakota and South Dakota.

2. Itinerant and non-itinerant specialists in this study will work in at least one school which fits the definition of rural.

3. This study will be concerned with the relationship of burnout, role ambiguity and role conflict, and selected demographic/situational variables among itinerant and non-itinerant specialists.

Significance of Study

A study of burnout among rural itinerant specialists can provide valuable information for those preparing teachers to serve handicapped students in rural areas. It can also provide important information for administrators in these districts. This information may justify preservice and inservice programs dealing with job related stress for the itinerant specialists.

Retention problems do exist in rural special education cooperatives. Delineating variables which correlate with burnout of itinerant specialists may allow administrators to adjust employment conditions to minimize the potential of burnout. The attrition rate in these districts may be reduced.

Data on role ambiguity and role conflict will be informative to both regular and special education administrators. It may point out the need to coordinate and clarify their supervisory roles in regard to the rural specialists they supervise.

In an effort to expand curriculum offerings in rural schools, the alternative of sharing regular teachers among several schools is being considered. The results of this study may point to important variables to consider before making these teaching assignments.

Assumptions

1. It is assumed that the population of itinerant specialists is representative of the rural itinerant specialists employed in the states of North Dakota and South Dakota.

2. It is assumed that the random sample of non-itinerant specialists is representative of the rural non-itinerant specialists employed in the states of North Dakota and South Dakota.

2. The writer also assumes that all data collected through the questionnaires will be accurate and honest based on the perceptions and situations of the rural specialists sampled.

Definition of Terms

The following terms are defined as they specifically apply to this study:

Burnout: A condition of emotional exhaustion, depersonalization, and reduced personal accomplishment induced by emotional stress resulting from jobs requiring intense interpersonal dealings. It is operationally defined as scores on the Maslach Burnout Inventory (MBI).

Itinerant Specialists: Any teacher certified by the state department to provide services to handicapped students who does so in two or more schools. It is operationally determined from information provided on the demographic/situational information sheet.

Non-itinerant Specialist: Any teacher certified by the state department to provide services to handicapped students who does so in only one school. It is operationally determined from information provided on the demographic/situational information sheet.

Role Ambiguity: The lack of concise and consistent information regarding one's rights and responsibilities in a given job situation. It is operationally defined as ratings obtained on the role ambiguity subscale of the Role Questionnaire (RQ).

Role Conflict: A situation characterized by two or more incongruous demands as part of one's job situation. It is operationally defined as ratings obtained on the role conflict subscale of the RQ.

Rural: "A district is considered rural when the number of inhabitants is fewer than 150 per square mile or when located in counties with sixty percent or more of the population living in communities no larger than 5000 inhabitants. Districts with more than 10,000 students and

those within a Standard Metropolitan Statistical Area are not considered rural" (Helge, 1984, p. 296).

Research Questions

The relationship among burnout, selected demographic and situational variables, and role conflict and role ambiguity of itinerant and non-itinerant special educaiton teachers will be examined with the following research questions:

1. What is the proportion of burnout scores among rural special education specialists that fall in the high, medium, and low levels using the norms of the MBI?

2. What is the relationship between itinerant and non-itinerant teachers on these scores?

3. What is the relationship among levels of perceived teacher burnout as measured by the frequency scale of the Maslach Burnout Inventory of (a) emotional exhaustion, (b) depersonalization, and (c) personal accomplishment of rural itinerant and non-itinerant specialists and selected demographic/situational variables? Demographic/situational variables will include: age, sex, marital status, educational level, number of years teaching, consecutive years of special education teaching, current number of schools served, exceptionality taught, number of miles driven per week, type of service delivery, size of caseload, and grade span of students taught. Do these variables show the same relationship to the measures of burnout in both groups?

4. What is the relationship among levels of perceived burnout as measured by the intensity scale of the MBI of (a) emotional exhaustion, (b) depersonalization, and (c) personal accomplishment of rural itinerant specialists and selected demographic/situational variables? Demographic/

situational variables will include: age, sex, marital status, educational level, number of years teaching, consecutive years of special education teaching, current number of schools served, exceptionality taught, number of miles driven per week, type of service delivery, size of caseload, and grade span taught. Do these variables show the same relationship to the measures of burnout in both groups?

5. What is the relationship among the perceived mean levels of role conflict, role ambiguity and perceived teacher burnout factors (emotional exhaustion, depersonalization, and personal accomplishment) when controlling for the selected demographic/situational variables of rural itinerant special education specialists? Do these variables show the same relationships for both itinerant and non-itinerant specialists?

Hypotheses

Research questions two through five lend themselves to a null hypothesis framework. Question one does not and will be dealt with in a descriptive fashion.

Null hypothesis 1. There are no significant relationships of proportions of burnout scores which fall into the high, medium and low ranges of the Maslach Burnout Inventory (MBI) between itinerant and non-itinerant special education specialists.

Null hypothesis 2. There are no significant relationships among perceived teacher burnout as measured by the frequency scale of the MBI of (a) emotional exhaustion, (b) depersonalization, and (c) personal accomplishment of rural itinerant specialists and selected demographic/situational variables. Demographic/situational variables will include: age, sex, marital status, educational level, number of years of teaching, consecutive years of special education teaching, current number of schools

served, exceptionality taught, number of miles driven per week, type of service delivery, size of caseload, and grade span of students taught.

Null hypothesis 3. There are no differences between itinerant and non-itinerant specialists on the significant relationship of frequency scale scores of the MBI and the selected demographic/ situational variables.

Null hypothesis 4. There are no significant relationships among levels of perceived teacher burnout as measured by the intensity scale of the MBI of (a) emotional exhaustion, (b) depersonalization, and (c) personal accomplishment of rural itinerant specialists and selected demographic/situational variables. Demographic/situational variables will include age, sex, marital status, educational level, number of years of teaching, consecutive years of special education teaching, current number of schools served, exceptionality taught, number of miles driven per week, type of service delivery, size of caseload, and grade span of students taught.

Null hypothesis 5. There are no differences between itinerant and non-itinerant specialists on the significant relationships of intensity scale scores of the MBI and the selected demographic/situational variables.

Null hypothesis 6. There are no significant relationships among perceived mean levels of role conflict, role ambiguity, and perceived frequency and intensity of teacher burnout factors (emotional exhaustion, depersonalization, and personal accomplishment) when controlling for the selected demographic/situational variables of rural itinerant special education specialists.

Null hypothesis 7. There are no differences in the significant relationships of mean levels of role conflict and role ambiguity to the perceived teacher burnout factors when controlling for the selected demographic/situational variables between itinerant and non-itinerant specialists.

CHAPTER II

REVIEW OF RELATED LITERATURE

Introduction

The review of literature will address the study of stress relevant to rural special education teachers. It will focus on situational and organizational variables that affect special education personnel in particular. The relationship of role conflict and role ambiguity, the personal and situational characteristics relevant to rural special education teachers and teacher perceived burnout will be specifically addressed.

Section one deals with burnout and its occurence among personnel in the helping professions. The problem of stress and burnout on teachers and special education teachers in particular will be discussed and analyzed. Research delineating specific employment variables relevant to burnout of rural special education personnel is included. The second section of the chapter deals with role theory and includes literature on role ambiguity and role conflict. It covers organizational stress research in educational settings. The problem areas in the delivery of special education to the rural areas and the potential stress factors therein will be incorporated into the third section of the chapter. The fourth section of the chapter includes the research that has incorporated elements of burnout, role conflict and ambiguity, and demographic variables.

The Concept of Burnout

Burnout is a physical, mental, and emotional reaction to chronic, everyday stress that results from social interactions. It is common among personnel in the helping professions. These individuals with a desire to contribute to the lives of others may eventually lose their ability and desire to help others. This process that can move them from compassion to callousness is called burnout.

The process of "burning out" may not be recognized by the caregiver (Cedoline, 1982). It is a slow nonspecific feeling that is inner directed. Caregivers come to feel helpless and inadequate in their desire to control these feelings.

Maslach (1982) describes burnout as a "syndrome of emotional exhaustion, depersonalization and reduced personal accomplishment that can occur among individuals who do 'people work' of some kind" (p. 3). Maslach sees burnout as the result of emotional overload. Caregivers become so involved with recipients that they cannot cope with the unmet human needs of the recipients. This may occur because of a tendency to take on the emotional burdens of others.

Maslach (1982) has described two kinds of empathy: emotional and cognitive. The person who operates on the level of emotional empathy takes on the feelings of the recipients and will become vulnerable to emotional exhaustion. Cognitive empathy allows one to acknowledge, understand and deal with recipient's problems but divorce himself from the emotional burden.

Freudenberger (1977) describes the caregiver who burns out as having symptoms of "cynicism and negativism and a tendency to be inflexible and

almost rigid in thinking which often leads to a closed mind about change or innovation" (p. 90). Two types of attitudinal changes may occur from the process of burning out: paranoia and a superior "know-it-all" attitude. The caregiver may see his peers and superiors as out to get him in almost a paranoic reaction. Another reaction may occur where the caregiver looks down on other co-workers and clients.

When encountering professionals who are "burned out," Maslach (1978, 1982) points out the need to look at the situations causing burnout rather than looking for "defective people." Her research supports the position that burnout is more a function of what a job entails than who the recipients or givers are. Maslach's findings have highlighted the results of job related interpersonal stress. Many teachers and others in the human service professions come to see their problems of burnout as the result of some personality flaw. Instead of saying, "My caseload is ridiculous," teachers begin to question why they cannot handle the situations. The fact that caregivers blame themselves is an interesting phenomenon. Maslach (1982) stated:

> psychological research informs us that many people have a general tendency to overestimate the importance of personal factors, while simultaneously underestimating the situational ones. (p. 10)

Based on this premise, the next section of this chapter will discuss the research delineating situational variables which have been found to correlate with regular and special education teacher burnout which apply directly to the focus of this study.

Variables Affecting Burnout

A number of recent research studies identified personal and professional variables which correlate with teacher burnout (Arreenich, 1981; Beck & Gargiulo, 1983; Crane, 1982; Gupta, Jenkins & Douglas, 1981; Welch, Medeiros & Tate, 1982; Olson & Matuskey, 1982; Zabel & Zabel, 1983a, 1983b). Few empirical studies have focused on special education teacher burnout specifically. No research was identified which dealt specifically with burnout of rural special education teachers.

Welch, Medeiros and Tate (1982) described the factors found in teaching that may lead to burnout as relating to salary, discipline, respect for the difficulty of the profession, and certain teaching conditions. These conditions included the close continual contact with the students, the high student teacher ratios, and the need for constant spontaneous decision making. Isolation may also result from a lack of time or encouragement among faculty to discuss educational problems and issues.

Arreenich (1981) studied factors which influence burnout of North Dakota classroom teachers. The researcher found significant relationships between sex, educational level, teaching level, and salary with emotional exhaustion frequency. Emotional intensity was significantly related to educational background, teaching level, years of experience, and the size of community. Those teachers in communities with populations of 501 to 2500 scored higher on intensity of emotional exhaustion than other size communities investigated. Some variables were not related to burnout in his sample: number of students in a classroom and teacher age. Level of teaching and the sex of the teachers were variables with

the most significant relationships with perceived North Dakota classroom teacher burnout. Arreenich also found that teachers with masters level education and those teachers with six or more children had stronger and more frequent feelings of burnout. Although marital status was not a significant factor for burnout of the sample, Arreenich reported a tendency for married teachers to experience less burnout than unmarried teachers.

Olson and Matuskey (1982) looked at the causes of burnout for specific learning disability teachers. They identified six job factors which a majority of the teachers found stressful: excessive paperwork, inadequate salary, problems with student discipline, insufficient time for planning, student attitudes, and high pupil teacher ratios. When compared with the responses of regular teachers, all of the same variables were seen as stress factors except inadequate planning time. This finding was thought to relate to the SLD teachers' responsibilities of preparing IEP's for the students according to the research authors.

Beck and Gargiulo (1983) studied the effect of burnout among different classifications of teachers: teachers of moderately retarded children, teachers of mildly retarded children, and regular educators. The results indicated that teachers of moderately retarded children experienced stronger and more frequent feelings of success on the personal accomplishment scale of the MBI than regular teachers. These teachers of moderately retarded students also scored significantly lower on depersonalization frequency and intensity than the other teacher groups. Beck and Gargiulo also found the demographic variables of age, sex, marital status, degree level, years of teaching, and grade level taught to be weak predictors of the MBI subscale scores, accounting for

less than 12 percent of the variance.

Three personal and professional variables significantly related to lower degrees of burnout among special educators were identified by Zabel and Zabel (1983a). They included years of teaching experience, educational training, and age of teachers. Teachers with less experience had greater feelings of emotional exhaustion and depersonalization than those with more teaching experience. Teachers with master's degrees scored significantly lower on emotional exhaustion and higher on personal accomplishment than teachers with bachelor's training. Older subjects were found to experience less emotional exhaustion and depersonalization while experiencing a greater sense of personal accomplishment than the younger teachers.

Zabel and Zabel (1983b) also looked at other factors which related to burnout of special education teachers, particularly teachers of the emotionally disturbed. When investigating service models, consulting teachers were found to rank highest on emotional exhaustion and depersonalization. Consulting teachers also, however, scored highest on personal accomplishment when compared with itinerant tutors and institutional teachers. Teachers of gifted students and emotionally disturbed students experienced the greatest emotional exhaustion when compared with other exceptionalities. Younger teachers were found to experience more emotional exhaustion and depersonalization than older teachers. Teachers who viewed their caseload as "too large" scored highest on emotional exhaustion in the survey. A negative correlation was also found between years of special education teaching and depersonalization scores.

Crane (1982) did extensive research on burnout of special education teachers in Connecticut. He found male special education teachers to experience both greater frequency and intensity scores on depersonalization of the MBI than female teachers. Teachers with self-contained special education classrooms were found to have more feelings of emotional exhaustion and depersonalization on the MBI than resource room teachers. Teachers with more than ten years of experience reported less frequent feelings of depersonalization than those with three or less years of experience. Emotional exhaustion intensity was also found to be greatest at ages of 31-35; it tended to decrease with increases in age.

Gupta, Jenkins and Douglas (1981) presented findings on public school teacher stress which contrasted those of Crane (1982). Female teachers were found to experience stress more often than male teachers. The researchers were careful to clarify the fact that most of the women in the sample were married and had children. The authors justified the findings based on the potential for additional demands from home. Stress was found to be negatively related to the expected psychological and behavioral indices of strain in women. The researchers explained this phenomenon by stating that "women may be more used to experiencing stress" (p. 15). Men, however, demonstrated the predictable signs of stress.

Weiskopf (1980) looked at literature about burnout of a variety of types of caregivers. She pointed out potential environmental stressors which apply to special education specialists. These included problems of work overload, difficulty in seeing teaching success, the need to

provide constant student supervision, high caseloads, program structure, and the emotional strain of being responsible for others.

Both personal and professional variables, therefore, related to burnout among teachers. Situational stress may also result from the organizational structure of the school systems. The next section of this chapter will deal with role theory in organizations, organizational stress, role conflict, and role ambiguity. These provide potential stressors for individuals in the special education teaching profession.

Organizational Role Stress

Organizations are structural entities that pattern people into certain roles to insure attainment of the goals of the organization (Knezevich, 1975). Schools are examples of these organizations. Within schools certain roles are assigned to each staff member. Regular and special education teachers come to know their roles and responsibilities and find success in fulfilling them. Research dealing with role stress has introduced vocabulary which describe organizational roles and the potential stressors therein (Kahn, Wolfe, Quinn, Snoek & Rosenthal, 1964; Korr, 1982; Randolph & Posner, 1981). As it is basic to understanding role stress, the following section will describe the specialized vocabulary.

Kahn et al. (1964) were the primary theorists in the study of role and organizational stress resulting from conflict and ambiguity. Their descriptions of the terminology will be used. Every job or office is given a certain set of responsibilities or activities which are defined as its "role." How they are related to activities of others is called the "role set." Based on this "role set," others in an organization

develop certain expectations of the job holder. These expectations may extend beyond the realm of job activities to preferred personality characteristics, thoughts, and social behaviors, etc. These become the "sent role" the employee may receive from colleagues and supervisors. Pressures arise from these messages which are termed "role pressures" which make certain demands on the employees. These "role pressures" are attempting to influence the employees to comply through external pressures. Internal pressures also influence employees to act in certain ways. These personal expectations and motivations create an "occupational self-identity."

When incongruous pressures and role sets are received by the job holder, role conflicts may arise. Role conflict is one form of organizational stress which may result from both environment and one's "internal psychological life." Five types of role conflicts were described by Kahn et al. (1964): (a) intra-sender conflict, (b) inter-sender conflict, (c) inter-role conflict, (d) person-role conflict, and (e) role overload. Each of these will be described briefly along with potential examples in special education.

Intra-sender conflict describes incompatible pressures from one person. An example in special education would be the coordinator who requires the teacher to provide certain programming for a handicapped child but will not allow the teacher to secure the appropriate materials to fulfill this goal.

Inter-sender conflicts are those which come from more than one sender and are in opposition. Special educators may receive pressures from coordinators to function as consultants but principals and classroom

teachers may want the specialists to serve as tutors removing the "problems" from the classrooms.

Inter-role conflicts are those which arise from belonging to more than one group. A job may put pressures on a special education teacher such as writing of IEP's at home. These pressures may interfere with the teacher's ability to fulfill the pressures of being a wife and mother.

Person-role conflicts are pressures to violate the value system of the job holder. The special education teacher may be forced to do testing for special education placement which is in the mind of the teacher biased and not reflective of the value system of the teacher.

Role overload comes when various role senders all pile demands on a job holder which may be compatible but extend beyond the time limitations of the employee. Kahn (1978) found work overload to be the most common of all role conflicts. In special education, it may take the form of, for example, too many responsibilites, too large a caseload, or too many schools.

Another construct of role theory which leads to organizational stress is role ambiguity. According to Kahn et al. (1964): "Role ambiguity is a direct function of the discrepancy between the information available to the person and that which is required for adequate performance of his role" (p. 73). Ambiguity is a part of life as no one is ever certain about the consequences of his actions at all times. Kahn et al. (1964) found that more than one-third of all male wage and salary earners in their sample saw clarity of employment responsibilities as a stress factor. The expectations of co-workers were described as

ambiguous by twenty-nine percent of those surveyed. Over a third of all employees stated they could not secure appropriate information to successfully complete their jobs. The incidence of role ambiguity may be high and it's potential for occurrence among special educators may also be high.

Three potential sources of conflict were discussed by Kahn et al. (1964): (a) organizational complexity, (b) rapid organizational change, and (c) current managerial philosophies. The problem of rapid organization change may be found in rural schools. Kahn described problems in this area as related to organizational growth, technological changes, and personnel changes. In rural schools special education has been growing adding to the organizational system new supervisors and auxiliary personnel. Exactly what the role of each new member in the educational system constitutes is often unclear. Turnover of personnel in these schools remains a problem for educators (Helge, 1984). Increasing in the field of education are computer technologies and teaching materials which add to the ambiguity of the teacher's roles. Information about evaluation and supervisory roles in rural schools often remain with only certain people in the organization. As a result, teachers who feel a need for communication may have no way of receiving the appropriate information.

Not having adequate information is not a problem unique to the field of education. Over a third of the American labor force felt they did not have sufficient information to adequately perform at their jobs according to the research of Kahn et al. (1964). This research found high significant positive correlations between ambiguity and tension and

futility. Significant negative correlations were also found between job satisfaction and self-confidence.

Rizzo, House, and Lirtzman (1970) developed a questionnaire to measure role conflict and role ambiguity based on the research of Kahn et al. (1964). Their findings demonstrated a negative relationship between role conflict and ambiguity and job satisfaction because of the stress of these role variables. They found a stronger negative relationship for role ambiguity than for role conflict on job satisfaction.

Keller (1975) also investigated the role variables with job satisfaction. He also found that "role conflict and ambiguity were both associated with low levels of job satisfaction" (p. 61). Role ambiguity was found to be more related to the intrinsic sources of job satisfaction with the work itself where expectations were not clearly defined by the nature of the work. Role conflict was related more to the extrinsic elements such as work dissatisfaction with the supervision, the pay and promotions.

Robson (1981) described the educational organization as being comprised of many "sub-units," among them special education. He collected role descriptions from special education directors, principals, superintendents, regular classroom teachers and special education teachers. Each respondent completed an instrument listing administrative responsibilities. Respondents marked whether they felt the duty was the responsibility of the special education director or principal. The results indicated considerable ambiguity between the perceived roles of the two administrators. The potential for conflicting pressures and signals being given to the special educators from this problem is

evident. Rural special educators receive pressures from principals and directors who may have little contact with one another. The present research is based on the perceived increased potential for role ambiguity and role conflict in the rural special education programs. The next section of this chapter will address the organizational problems of rural special education service delivery. It will describe the possibilities for stress inherent in rural special education programs.

Rural Special Education Programs

Delivery of special education services to rural areas requires unique approaches to programming, coordination of services, service delivery and administrative organization. The organization of special education in rural areas provides potential stressors for special education teachers. Some of these problems will be described in this portion of the literature review.

Cole and Ranken (1981) pointed out two differences between rural and urban special education: teacher specialization and program homogeneity. The best rural special educators may be those with a variety of core teaching skills that are applicable across most exceptionalities. In urban areas where teachaers serve only one exceptionality, specialization is seen as most important. Program and special class homogeneity are common in urban areas. In rural areas, children of a variety of exceptionalities may be grouped in the same special class. Teachers may be required to deal with students for whom they have had little educational training.

A limited number of teacher training institutions have attempted to train teachers specifically for rural areas (Cole & Ranken, 1981). In

remote areas, opportunities for inservice or preservice training are poor. Diagnostic personnel may be limited. This circumstance puts extra burdens on those in the field. They may not have other professionals in the same positions with whom to share problems and seek advice when answers are required under time constraints.

A special education rural teacher training program was attempted in the state of South Dakota (Ferrara, Hirshoren, & Levin, 1983). A model to train teachers already situated in the communities was instituted. Coursework and fieldwork were designed to train special education generalists. Non-categorical training and methods courses replaced the categorical curriculum common to most special education teacher training programs. Support and supervision services were provided through the Information Resource Center, use of WATS line for immediate answers to problems, inservice training to general educators, and frequent visits from training staff. Second year attrition rates from this program was lower than normal rates for rural special educators. (Based on this non-categorical approach common in South Dakota, a variable was added to the study investigating burnout among teachers serving more than one category of handicapped student in the rural schools.)

Helge (1981) reported that nearly half of the seventy-five rural districts in seventeen states polled in the National Rural Project described their staff development programs as inadequate. Some districts had no inservice days and limited opportunities for personnel development. The districts participating in the study saw this as a key negative factor in staff retention. The high attrition rates necessitated most inservice sessions to deal with reinitiation information such as

specific state and federal mandates and district philosophies. Isolation from similar professionals provided limited access to receive support through a "mentoring" system and professional sharing. The lack of access to consultation, the inability to secure technical assistance when needed, and responsibility overload all entail sources of stress for the rural special education teachers according to this study.

Recruitment and retention of special education teachers has been a major problem in the rural areas of our country (Cole, Smith, & Ranken, 1981; Helge, 1981, 1984). Often strapped by limited financial resources, wages are not competitive enough to draw or keep the teachers. Low incidence handicaps mandate many districts to make cooperative arrangements which will result in extensive travel for students or teachers.

The sparsity of population in rural areas creates this problem of transportation (Cole & Ranken, 1981). The students must be transported or the teachers must travel to the students. Cole and Ranken pointed out that it is not uncommon for students to be transported 40-60 miles one way over poor roads. Weather conditions in the northern states exacerbate this problem. Because of increased vulnerability to illness of many handicapped children, coupled with weather conditions, absenteeism is common. It is also a potential source of stress for rural special education teachers. In many situations, however, the special education specialists, not the students, travel to the schools in a number of districts.

The special education teacher who travels from school to school rather than having the children travel is called an itinerant resource

person. Howe (1981) describes this approach as common in low density population areas and in small schools. Howe (1981) identified the principal administrative problems with itinerant personnel as:

> . . . teachers not being identified as part of a building staff, the possibility of confusion about where the teacher is on a particular day, the need to cart materials from school to school, lack of appropriate teaching space in each building, time wasted on the road between schools, and the teacher's inability to provide instruction to each child on a daily basis. (p. 64)

Special educators are caught between the need to serve as an "advocate" for the handicapped child and simultaneously serve as a school employee according to Frith (1981). The potential for problems arising from this phenomenon in rural schools is great. Many rural districts have limited auxiliary and special services necessary to meet the needs of handicapped students. In an effort to secure appropriate services for a handicapped child, the special education specialist may have difficulty justifying the need with school administrators. Many administrators have difficulty providing an adequate education for the non-handicapped students in the district.

There may be an advantage for mildly handicapped children in rural areas according to Vasa and Steckleberg (1981). Many children receive services in less restrictive environments. These, however, place additional burdens on the classroom teachers in providing appropriate curriculum, methods, and materials for the handicapped. Because of the factors involved in rural programs the resource teacher must take on many roles. These may lead to role overload. Vasa and Steckelberg delineated them as:

1. Serve as inservice/staff development resource

2. Assist in the identification of the handicapped learner
3. Serve as a liaison to parent education programs
4. Consult with classroom teachers in the development of educational programs for the handicapped student
5. Provide direct instruction to identified handicapped students
6. Evaluate the effectiveness of the resource program. (p. 35)

Thus, the roles of special education personnel increase in the rural areas with limited access to specialized supervisory and support personnel.

Research Relating Role Conflict, Role Ambiguity and Teacher Burnout

Little empirical research has centered on the relationship of role conflict and role ambiguity with burnout of individuals in teaching (Brodsky, 1977; Cherniss, Egnatios & Walker, 1976; Crane, 1982; Schwab & Iwanicki, 1982). Because of its direct application to this research study, it will be discussed in this final section of this literature review.

Looking at new professionals in a number of fields, among them education, Cherniss et al. (1976) found that role conflict was a serious problem. Changes in expectations for new professionals in organizational structures were seen as frequent and critical.

Brodsky (1977) studied the long term effects of stress on teachers. His research identified a number of variables which may lead to burnout: conflicting role expectations, ill-defined support systems, role ambiguity, and uncooperative and violent students.

Two studies served as models for this research study (Schwab & Iwanicki, 1982; Crane, 1982). Schwab and Iwanicki (1982) looked at

the relationship of burnout on the MBI and the Role Questionnaire of regular Massachusetts teachers. They controlled for the variance of the variables of sex, age, marital status, grade level taught, years of teaching experience, level of education and teaching community. Using regression analysis, role ambiguity and role conflict were found to account for a significant amount of variance on both emotional exhaustion frequency and intensity and depersonalization frequency and intensity. Only role ambiguity accounted for a significant amount of the variance on personal accomplishment frequency or intensity.

Crane (1982) analyzed the problems of personal and professional variables, role variables, and burnout of urban Connecticut special education teachers. His findings paralleled those of Schwab and Iwanicki (1982). Role conflict and role ambiguity accounted for significant amounts of variance on the frequency and intensity dimensions of emotional exhaustion and depersonalization. Only role ambiguity, however, accounted for a significant amount of variance on personal accomplishment frequency.

Summary

Chapter II has presented a review of literature relevant to the purpose of this study. It has focused on teacher burnout and the interrelationship of demographic and situational variables, organizational stress factors, role ambiguity and role conflict, and characteristics of rural special education programs which may add to professional stress.

The literature review demonstrated that little, if any, empirical data existed about burnout of rural special education teachers. Variables which correlated with burnout of other teachers and human service

personnel are present in rural special education programs. The need for investigating the incidence and situational characteristics related to burnout is warranted by the literature presented.

The following chapter, Methodology, will delineate the procedures used to conduct this research study.

CHAPTER III

METHODOLOGY

This chapter delineates the methods and procedures used in this study. Included are the procedures for the selection of the population and subjects, a description of the survey instruments and the treatment of the data.

Selection of Population and Subjects

The population for this study includes the rural special education teachers in the states of North Dakota and South Dakota. Two groups of rural special education specialists are identified: itinerant and non-itinerant specialists. An attempt was made to include all itinerant specialists in rural schools in both states. A random sample of fifty percent of the non-itinerant specialists in both states serving rural schools is used as a comparison group.

The itinerant specialists in North Dakota were identified through the Department of Public Instruction, Bismarck, North Dakota. A list of all special education specialists serving more than one school in the state provided the names and addresses of the itinerant population in North Dakota as of October, 1983. Only those specialists who serve at least one school which was "rural" are included in the study. A random selection of fifty percent of all rural non-itinerant specialists was drawn from a published list of special education personnel in the state

of North Dakota. The list had been prepared by the Department of Public Instruction, Bismarck, North Dakota. A combined total of 294 rural itinerant and non-itinerant specialists were sent questionnaires in North Dakota.

The itinerant and non-itinerant specialists from South Dakota were selected from individual school district and cooperative special education unit personnel lists provided by the Department of Public Instruction, Pierre, South Dakota. All itinerant specialists identified who served rural schools are included in the study. A random selection of fifty percent of all non-itinerant special education specialists are also included in the study. A combined total of 163 rural South Dakota itinerant and non-itinerant special education specialists were sent questionnaires.

On April 1, 1984, the 457 selected special education specialists from North and South Dakota were sent questionnaires with an enclosed, self-addressed, stamped envelope. A copy of the letter of intent is included in Appendix A. Assurance was made that all responses would be kept confidential by removing any personally identifiable information. By the end of April, 1984, 317 questionnaires had been returned. The percentage of responses returned is 69.36 percent. Three questionnaires were stamped "Returned to Sender" by the U.S. Post Office. Seven of the questionnaires are incomplete and not used in the data analysis. Three hundred seven of the questionnaires sent (67.17%) are used in the data analysis, 195 from North Dakota and 112 from South Dakota. The North Dakota sample includes 125 itinerant and 70 non-itinerant specialists. The South Dakota sample includes 70 itinerant and 42 non-itinerant specialists.

Survey Instruments

The instruments completed by the rural special education specialists include the Maslach Burnout Inventory (MBI), the Role Questionnaire (RQ) and a demographic/situational information data sheet. A copy of the RQ is included in Appendix B. The demographic/situational data sheet is found in Appendix C. The MBI is not included in the appendices because of copyright laws.

The Maslach Burnout Inventory, developed by Christina Maslach and Susan E. Jackson (1981a), is used to measure aspects of burnout. It has three subscales: emotional exhaustion, depersonalization, and personal accomplishment. Emotional exhaustion encompasses feelings of being emotionally drained and exhausted by one's job. Impersonal and uncaring feelings toward students or other care recipients are measured by the depersonalization subscale. Feelings of success in one's job are measured by the personal accomplishment subscale. The dimensions of frequency and intensity are included under each of the three subscales. Burnout is measured as a continuous variable with low to high levels by the MBI instrument. The frequency dimension is scored on a scale of zero to six points. A score of zero represents "never" experiencing these feelings. The scores of one to six indicate a range of frequencies from "a few times a year" to "every day." The intensity dimension is scored on a scale of zero to seven points. A score of zero on the intensity scale also represents "never" experiencing these feelings. The intensity scores ranged from one which indicates "very mild, barely visible" to seven which indicates "major, very strong" feelings. High mean scores on the emotional exhaustion and depersonalization subscales

with low scores on the personal accomplishment subscale indicate a high degree of burnout. Normed scoring data for each of the three subscales is included in the manual indicating high, moderate, or low degrees of burnout.

The Role Questionnaire, developed by Rizzo, House, and Lirtzman (1970), is used to measure job relevant organizational role problems. The questionnaire is composed of eight statements to assess the problems of role conflict. Six statements comprise the role ambiguity subscale of the instrument. The teachers respond to a statement on a Likert scale ranging from 1 to 7. A "1" on the scale indicates that the statement is "definitely not true." If the statement is "extremely true" in one's job, a score of "7" is marked. The role ambiguity statements are reverse scored in the data analysis as they are stated positively in the instrument.

The Validity and Reliability of the Instruments

Maslach Burnout Inventory

The MBI was administered to a wide variety of professionals in the health and service occupations, among them teachers (Maslach & Jackson, 1981a). Psychometric tests were performed on the data to determine the reliability and validity of the instrument These results include information demonstrating high reliability and validity for the instrument (Maslach & Jackson, 1981a).

Using Cronbach's coefficient alpha and a population of 1316 for frequency and 1789 for intensity, reliability coefficients for the three subscales were obtained (Maslach & Jackson, 1981a). Emotional exhaustion

subscale scores received reliability coefficients of .90 (frequency) and .87 (intensity). Depersonalization subscale scores received reliability coefficients of .79 (frequency) and .76 (intensity). Reliability coefficients of .71 (frequency) and .73 (intensity) were obtained for the personal accomplishment subscale.

The convergent validity of the MBI (Maslach & Jackson, 1981a) was demonstrated using three approaches: (a) correlating scores and behavior ratings by another person who knew the individual very well, (b) correlating scores with stress inducing factors expected tc lead to burnout, and (c) correlating outcomes associated with burnout. The results of these comparisons indicated significant correlations ranging from the .05 to the .001 levels demonstrating the convergent validity of the MBI.

Discriminant validity tests evaluated whether the MBI was measuring burnout as a distinct psychological construct or as merely dissatisfaction with one's job. The MBI was correlated with the "general job satisfaction" subscale of the JDS. Although moderate correlations were found between the MBI subscales and "general job satisfaction," it accounted for only six percent of the variance on any of the three correlations.

Discriminant validity was also tested by correlating the possibility of distortion because of a desire to provide socially desirable responses based on normal professional ideals. None of the MBI subscales were found to correlate significantly at the .05 level with the Crowne Marlowe Social Desirability Scale (Maslach & Jackson, 1981a).

Role Questionnaire

Reliability and factorical independence have been shown for the RQ. Split half reliabilities for Keller's (1975) sample were demonstrated when corrected by the Spearman Brown Formula. Role ambiguity received a split half reliability coefficient of .90 while role conflict attained a coefficient of .94. The construct validity of the Role Questionnaire instrument for teachers was tested by Pierson and reported in an unpublished paper at the University of Connecticut (cited in Schwab & Iwanicki, 1982). "A principal component analysis with iteration and oblique rotation (oblimin) yielded a solution supporting the two factor structure of the Role Questionnaire" (Schwab & Iwanicki, 1982, p. 64). Reliability was evaluated using Cronbach coefficient alpha reliabilities. The Role Conflict and Role Ambiguity subscales yielded reliability coefficients of 0.85 and 0.86, respectively.

Treatment of the Data

Both descriptive and comparative statistical procedures are used to analyze burnout among the rural special education specialists in the sample. As stated in Chapter I, research question one will be inevstigated as stated and research questions two through five will be investigated from a null hypothesis framework. In order to retain or reject the null hypotheses, the .05 level of significance is considered statistically sufficient.

Research question one is analyzed using crosstabulations to determine the proportion of respondents in each category of burnout on the MBI scales: high, medium, and low. Separate proportions are generated for itinerant and non-itinerant specialists.

Null hypothesis one is tested using the Cni-square generated from the crosstabulation of itinerant and non-itinerant groups with the three levels of burnout for the MBI subscales. These include high, medium, and low categories on the subscales of frequency and intensity of emotional exhaustion, depersonalization, and personal accomplishment.

Null hypotheses two through five are tested using a combination of Pearson correlations, point biserial correlations, and two-way analysis of variance. Pearson correlations are used to determine the relationship of the continuous demographic/situational variables of age, number of years teaching, number of years consecutive special education teaching, number of miles driven per week, size of caseload, and number of grade levels taught with the burnout factors. The burnout factors include the frequency and intensity of the three subscales of the MBI (emotional exhaustion, depersonalization, and personal accomplishment). This yields a correlation coefficient and a significance level for each relationship. Three separate sets of correlations are generated using the itinerant group, the non-itinerant group, and all rural specialists.

A number of the respondents teach children in more than one class of exceptionality and use more than one service delivery model. Point biserial correlations are used to measure the relationship of the frequency and itensity burnout subscale scores with the exceptionality taught and the type of service delivery. Correlation coefficients and significance levels are obtained for each relationship. Three separate sets of correlations are generated using the itinerant group, the non-itinerant group, and all rural specialists.

Two-way analysis of variance is performed to compare the nominal independent variable groups of age, sex, marital status, educational level, and itinerant group with the dependent burnout variables. These include the frequency and intensity scores on the three MBI subscales of emotional exhaustion, depersonalization, and personal accomplishment. This analysis compares the main effects of each independent variable as well as the interaction of the itinerant group with each other independent variable on the burnout scores. The analysis yields F values for each relationship and significance levels.

Multiple regression analysis is used with null hypotheses six and seven. Six separate regression analyses are run using both the frequency and intensity scores of the MBI's three subscales of emotional exhaustion, depersonalization, and personal accomplishment as the dependent variables. To control for the variance of the demographic/situational variables, they are entered in the equation first as a set. Role conflict and role ambiguity are entered in a stepwise manner in the euqation so that the variable accounting for the most variance will be entered first. Three sets of these six regression analyses are performed on the data: one on the itinerant group, one on the non-itinerant group, and one combining the itinerant and non-itinerant groups. This is performed to note any similarities or differences between the groups.

Chapter III has included a description of the sample population and the method for their selection, a description of the instrumentation, and a description of the procedures for the treatment of the data. Chapter IV will describe and analyze the findings of the statistical analyses of the data on burnout of rural special education specialists.

CHAPTER IV

RESULTS AND ANALYSIS

The results and analysis of the data collected using the Maslach Burnout Inventory, the Role Questionnaire and the demographic/situational information sheet will be reported in this chapter. As indicated in Chapter I, research question one will be investigated as stated. Research questions two through five are stated in seven null hypotheses. These will be addressed in this order. A statement of the research question or null hypothesis tested introduces each of the sections.

Research question 1. What is the proportion of burnout scores among rural special education specialists that fall in the high, medium, and low levels using the norms of the MBI?

Crosstabulations for itinerant and non-itinerant specialists are used to answer the question. The results of these calculations are included in tables one through six. The categories of high, medium and low on the MBI subscales were designed for the instrument by placing one-third of the standardization population in each category. Based on this premise, 33 1/3 percent of the normal population would be expected to fall into each category.

The data on Table 1 lists the proportions of respondents in depersonalization frequency categories. Compared with the other categories, the largest proportions of itinerant specialists in the sample report low depersonalization frequency on the MBI (65.8%). A small

percentage (5.6%) report high depersonalization frequency scores with 28.7 percent falling into the medium category. The largest proportion (60.7%) of non-itinerant specialists also fall into the low level of depersonalization frequency. Equal proportions of non-itinerant specialists indicate medium and high depersonalization frequency (19.6%).

TABLE 1

PROPORTIONS OF ITINERANT AND NON-ITINERANT SPECIALISTS IN DEPERSONALIZATION FREQUENCY CATEGORIES (N=307)

	High	Medium	Low
Itinerant	N=11 5.6%	N=56 28.7%	N=128 65.6%
Non-Itinerant	N=22 19.6%	N=22 19.6%	N=68 60.7%
Chi Square=15.5515	2df	p<.001	

Table 2 includes proportions of specialists in depersonalization intensity categories. The greatest proportion of itinerant and non-itinerant specialists report low depersonalization intensity scores (58.5% and 54.5%, respectively). Itinerant specialists report scores in which 31.3 percent fall in the medium category and 10.3 percent fall in the high category of depersonalization intensity. Of the non-itinerant specialists, 25.0 percent are in the medium category and 20.5 percent are in the high category.

TABLE 2

PROPORTIONS OF ITINERANT AND NON-ITINERANT SPECIALISTS IN DEPERSONALIZATION INTENSITY CATEGORIES (N=307)

	High	Medium	Low
Itinerant	N=20 10.3%	N=61 31.3%	N=114 58.5%
Non-Itinerant	N=23 20.5%	N=28 25.0%	N=61 54.5%
Chi Square=6.5348	2 df	$p<.05$	

The results of personal accomplishment frequency categories are presented in Table 3. They suggest that the largest proportion (42.6%) of itinerant specialists have high feelings on personal accomplishment frequency. The medium and low categories of the variable show decreasing proportions with 31.8 percent and 25.6 percent, respectively, for the itinerant specialists. In the non-itinerant sample, the greatest proportions of respondents score in the medium range on personal accomplishment frequency. Similar but decreasing proportions of non-itinerants fall in the high (33.9%) and low (27.7%) categories on this variable.

Table 4 presented proportions of specialists in personal accomplishment intensity score categories. The descending order of proportions on this variable is the same for both the itinerant and non-itinerant specialists: medium, low, and then the high category. The largest proportion of respondents in both the itinerant (42.1%) and non-itinerant

TABLE 3

PROPORTIONS OF ITINERANT AND NON-ITINERANT SPECIALISTS IN PERSONAL ACCOMPLISHMENT FREQUENCY CATEGORIES (N=307)

	High	Medium	Low
Itinerant	N=83 42.6%	N=62 31.8%	N=50 25.6%
Non-Itinerant	N=38 33.9%	N=43 38.4%	N=31 27.7%
Chi Square=2.36343	2df	N.S.	

TABLE 4

PROPORTIONS OF ITINERANT AND NON-ITINERANT SPECIALISTS IN PERSONAL ACCOMPLISHMENT INTENSITY CATEGORIES (N=307)

	High	Medium	Low
Itinerant	N=56 28.7%	N=82 42.1%	N=57 29.2%
Non-Itinerant	N=30 26.8%	N=46 41.1%	N=36 32.1%
Chi Square=.31035			

(42.1%) and non-itinerant (41.1%) groups fall in the medium category demonstrating average feelings of personal accomplishment intensity. The smallest proportion of both groups report high personal accomplishment intensity (28.7% itinerant and 26.8% non-itinerant). Exactly 29.2 percent of the itinerant specialists and 32.1 percent of the

non-itinerant specialists report low feelings of personal accomplishment intensity.

Table 5 suggests the largest proportion of itinerant and non-itinerant specialists fall in the medium range on emotional exhaustion frequency with 44.1 percent and 42.9 percent, respectively. The next largest category for both groups is the low category of emotional exhaustion frequency with 37.4 percent of the itinerant group and 38.4 percent of the non-itinerant group scoring at this level. The smallest proportion of respondents of both groups report high emotional exhaustion frequency scores (18.5% itinerant and 18.8% non-itinerant).

TABLE 5

PROPORTIONS OF ITINERANT AND NON-ITINERANT SPECIALISTS IN EMOTIONAL EXHAUSTION FREQUENCY CATEGORIES (N=307)

	High	Medium	Low
Itinerant	N=36 18.5%	N=86 44.1%	N=73 37.4%
Non-Itinerant	N=21 18.8%	N=48 42.9%	N=43 38.4%
Chi Square=2.98183	2df	N.S.	

Emotional exhaustion intensity scores are reported in Table 6. The largest proportion of itinerant specialists report scores on this variable in the medium category (44.1%). The next largest proportion of itinerant specialists (34.9%) fall in the low category with the smallest proportion (21.0%) reporting high feelings of emotional

exhaustion intensity. The largest proportion of non-itinerant specialists (43.8%) report low feelings of emotional exhaustion intensity. Decreasing proportions of non-itinerant specialists report scores in the medium (34.8%) and high (21.4%) categories on this variable.

TABLE 6

PROPORTIONS OF ITINERANT AND NON-ITINERANT SPECIALISTS IN EMOTIONAL EXHAUSTION INTENSITY CATEGORIES (N=307)

	High	Medium	Low
Itinerant	N=41 21.0%	N=86 44.1%	N=68 34.9%
Non-Itinerant	N=24 21.4%	N=39 34.8%	N=49 43.8%
Chi Square=.04571	2df	N.S.	

Null hypothesis 1: There are no significant relationships of proportions of burnout scores which fall into the high, medium, and low ranges of the Maslach Burnout Inventory (MBI) between itinerant and non-itinerant specialists.

The hypothesis is rejected for the depersonalization subscales and retained for the subscales of personal accomplishment and emotional exhaustion. Chi squares were calculated on the crosstabulations of the proportions in burnout variables categories and itinerant groups to test this hypothesis. These results are listed in tables one through six. Table 1 presents a chi square of 15.5515 which is significant at the .001 level. This indicates significant differences in proportions in the

depersonalization frequency categories between itinerant and non-itinerant specialists. Itinerant specialists show lower proportions demonstrating high depersonalization frequency than the non-itinerant specialists. These findirgs are also indicated in Tables 10, 16, 22, and 28. Itinerant specialists perceive less burnout as measured by perceived frequency of depersonalization when compared with non-itinerant specialists.

Table 2 presents findings indicating significant differences ($p<.05$) between itinerant and non-itinerant groups on depersonalization intensity categories. The chi square of 6.5348 indicates significantly greater proportions of high depersonalization intensity among non-itinerant specialists than among itinerant specialists.

No significant relationships are indicated by tables three through six between proportions of itinerant and non-itinerant specialists in personal accomplishment and emotional exhaustion frequency and intensity categories. None of the chi squares were significant at the .05 level. Itinerant and non-itinerant specialists, therefore, perceive similar proportions of burnout frequency and intensity as measured by the emotional exhaustion and personal accomplishment subscales of the MBI.

Null hypothesis 2. There are no significant relationships among perceived teacher burnout as measured by the frequency scale of the MBI of (a) emotional exhaustion, (b) depersonalization, and (c) personal accomplishment of rural itinerant specialists and selected demographic/situational variables. Demographic/situational variables will include: age, sex, marital status, educational level, number of years of teaching, consecutive years of special education teaching, current number of schools

served, exceptionality taught, number of miles driven per week, type of service delivery, size of caseload, and grade span of students taught.

Pearson correlations, point biserial correlations, and two way analysis of variance are used to test hypothesis two. The results are discussed based on this test sequence.

Table 7 displays the Pearson correlation coefficients generated for burnout subscale frequency scores and the continuous demographic/situational variables. These variables include age, years of teaching experience, consecutive years of special education teaching, number of schools served, miles driven per week, size of caseload, and the number of grade levels served. The results on Table 7 indicate no significant correlations between the continuous variables of age, years of teaching experience, consecutive years of special education teaching, number of schools served, miles driven per week, and number of grade levels served, and emotional exhaustion and depersonal frequency scores for itinerant specialists. The positive correlation of .19 for size of caseload and personal accomplishment frequency is significant at the .01 level. As caseload size increases, itinerant specialists report more frequent feelings of personal accomplishment. No other correlations between the continuous variables and personal accomplishment scores are significant for the itinerant specialists.

Point biserial correlation coefficients for exceptionalities and burnout variable frequency for the itinerant group are listed in Table 8. Null hypothesis two is retained for exceptionality and emotional exhaustion frequency and personal accomplishment frequency. Significant correlations at the .01 level are indicated on Table 8 for multi-categorical

TABLE 7

PEARSON CORRELATION COEFFICIENTS FOR BURNOUT VARIABLE FREQUENCY (EMOTIONAL EXHAUSTION, DEPERSONALIZATION, PERSONAL ACCOMPLISHMENT) AND CONTINUOUS DEMOGRAPHIS/SITUATIONAL VARIABLES
(N=195)

	Itinerant						
	Age	Years of Teaching Experience	Consecutive Years of Special Education Teaching	Number of Schools Served	Miles Driven Per Week	Size of Case-load	Number of Grade Levels Served
Emotional Exhaustion	.03	-.02	-.01	.04	-.03	-.01	.00
Depersonalization	-.03	.03	-.00	.01	.03	.04	.07
Personal Accomplishment	.09	.12	.07	.04	-.09	.19[a]	.09

[a] $p < .01$

TABLE 8

POINT BISERIAL CORRELATIONS FOR EXCEPTIONALITIES AND BURNOUT VARIABLE FREQUENCY (EMOTIONAL EXHAUSTION, DEPERSONALIZATION, PERSONAL ACCOMPLISHMENT)

(N=195)

	Multi-Categorical	Speech Handicapped	Learning Disabled	Emotionally Disturbed	Itinerant Educational Mentally	Deaf	Trainable Mentally	Hearing Impaired	Visually Impaired	Physically Handicapped	Gifted	Pre-School Handicapped
Emotional Exhaustion	-.01	-.03	- .02	.03	-.08	-.07	.02	-.06	-.10	-.05	.04	.00
Depersonalization	.21[a]	-.14[a]	.15	.01	.06	-.04	.11	.00	-.05	-.01	.01	.01
Personal Accomplishment	.05	.01	.01	.07	.07	.12	.04	.10	.07	.11	.02	.02

[a] $p<.01$

and speech handicapped exceptionality categories. When compared with specialists serving children in only one category of exceptionality, specialists serving children in a variety of categories of handicaps report high positive correlations (.21) with depersonalization frequency. Itinerant specialists serving speech handicapped report significantly less frequent feelings of depersonalization when compared with specialists serving other exceptionalities. No other significant correlations exist between exceptionality and depersonalization according to the data.

The point biserial correlations for service delivery models and burnout frequency are shown in Table 9. No significant correlations are listed for emotional exhaustion frequency and service delivery model. Three significant correlations between depersonalization frequency and service delivery model are indicated: itinerant tutor, resource room, and self-contained. The correlation of -.18 between the service model of itinerant tutor and depersonalization frequency is significant at the .001 level. When compared with other service models, itinerant tutors demonstrate lower depersonalization frequency. Significant positive correlations are indicated for the service models of resource room and self contained and frequency of feelings of depersonalization. Specialists working in resource rooms indicate a correlation of .11 which is significant at the .05 level when compared with other service models. Specialists in self contained service models also perceive frequent feelings of depersonalization with a correlation of .16 which is significant at the .01 level.

TABLE 9

POINT BISERIAL CORRELATIONS FOR SERVICE DELIVERY MODEL AND BURNOUT VARIABLE FREQUENCY
(EMOTIONAL EXHAUSITION, DEPERSONALIZATION, PERSONAL ACCOMPLISHMENT)
(N=307

	Itinerant Tutor	Itinerant Consultant	Resource Room	Self Contained	Non-Itinerant Tutor	Non-Itinerant Consultant	Other
Emotional Exhaustion	-.02	.04	.00	.06	.00	-.01	-.06
Personal Accomplishment	.07	.01	-.11[a]	-.02	-.02	-.05	.01
Depersonalization	-.18[c]	-.02	.11[a]	.16[b]	-.04	-.03	-.03

[a] $p<.05$

[b] $p<.01$

[c] $p<.001$

One significant relationship between personal accomplishment frequency and service model is listed on Table 9. The negative correlation (-.11) between the resource room model and frequency of feelings of personal accomplishment is significant at the .05 level. Specialists serving resource rooms report fewer feelings of personal accomplishment than specialists in other service delivery model formats.

Two way analysis of variance tests are used to investigate the relationship between sex, age group, marital status, or educational level and itinerant group with burnout variable frequency. These results are listed in Tables 10 through 21.

Null hypothesis two is retained for the variables of sex, age, marital status, and educational level with burnout variables frequency. Tables 10, 12, and 14 indicate no significant relationships between sex and frequency of perceived depersonalization, personal accomplishment, and emotional exhaustion. Means and numbers of specialists of each sex are indicated in Tables 11, 13, and 15.

No significant relationships are indicated for age group and burnout variable frequency according to the F values listed on Tables 16, 18, and 20. Tables 17, 19, and 21 include the number in each age group and their mean burnout frequency scores.

Tables 22, 24, and 26 contain the F values for marital status and burnout frequency variables. No significant relationship is indicated between marital status and frequency of depersonalization, personal accomplishment, or emotional exhaustion. Means for burnout variable frequency scores by marital status groups are indicated in Tables 23, 25, and 27.

TABLE 10

ANALYSIS OF VARIANCE FOR DEPERSONALIZATION (FREQUENCY)
BY SEX AND ITINERANT GROUP
(N=307)

Source of Variation	df	SS	MS	F
Sex	1	0.041	0.041	<1
Itinerant Group	1	151.449	151.449	6.863[a]
Sex X Itinerant	1	2.799	2.799	<1
Within Groups	303	6686.902	22.069	

[a] $p<.01$

TABLE 11

MEANS FOR EMOTIONAL EXHAUSTION (FREQUENCY)
BY SEX AND ITINERANT GROUP

	Itinerant Groups	
Sex	Itinerant	Non-Itinerant
Male	(N= 8) 4.13	(N= 7) 6.43
Female	(N=187) 4.48	(N=105) 5.90

TABLE 12

ANALYSIS OF VARIANCE FOR PERSONAL ACCOMPLISHMENT (FREQUENCY) BY SEX AND ITINERANT GROUP (N=307)

Source of Variation	df	SS	MS	F
Sex	1	16.568	16.568	<1
Itinerant Group	1	101.365	101.365	2.016
Sex X Itinerant	1	14.677	14.677	<1
Within Groups	303	15234.246	50.278	

TABLE 13

MEANS FOR PERSONAL ACCOMPLISHMENT (FREQUENCY) BY SEX AND ITINERANT GROUP

	Itinerant Groups	
Sex	Itinerant	Non-Itinerant
Male	(N= 8) 39.13	(N= 7) 36.00
Female	(N=187) 37.11	(N=105) 36.02

TABLE 14

ANALYSIS OF VARIANCE FOR EMOTIONAL EXHAUSTION (FREQUENCY)
BY SEX AND ITINERANT GROUP
(N=307)

Source of Variation	df	SS	MS	F
Sex	1	1.993	1.993	<1
Itinerant Group	1	92.648	92.648	<1
Sex X Itinerant	1	35.896	35.896	<1
Within Groups	303	31339.242	103.430	

TABLE 15

MEANS FOR EMOTIONAL EXHAUSTION (FREQUENCY)
BY SEX AND ITINERANT GROUP

	Itinerant Groups	
Sex	Itinerant	Non-Itinerant
Male	(N= 8) 23.88	(N= 7) 19.71
Female	(N=187) 22.03	(N=105) 21.06

TABLE 16

ANALYSIS OF VARIANCE FOR DEPERSONALIZATION (FREQUENCY)
BY AGE GROUP AND ITINERANT GROUP
(N=307)

Source of Variance	df	SS	MS	F
Age Groups	2	124.844	62.422	2.893
Itinerant Groups	1	157.470	157.470	7.297
Age X Itinerant	2	69.232	34.616	1.604
Within Groups	301	6495.664	21.580	

TABLE 17

MEANS FOR DEPERSONALIZATION (FREQUENCY)
BY AGE GROUP AND ITINERANT GROUP

	Itinerant Groups	
Age Groups	Itinerant	Non-Itinerant
20-30 years	(N= 94) 4.48	(N=65) 6.45
31-40 years	(N= 74) 4.69	(N=30) 6.50
41+ years	(N= 27) 3.81	(N=17) 2.94

TABLE 18

ANALYSIS OF VARIANCE FOR PERSONAL ACCOMPLISHMENT (FREQUENCY) BY AGE GROUP AND ITINERANT GROUP (N=307)

Source of Variation	df	SS	MS	F
Age Groups	2	99.777	49.888	.995
Itinerant Groups	1	96.494	96.494	1.924
Age X Itinerant	2	69.773	34.886	.696
Within Groups	301	15095.941	50.153	

TABLE 19

MEANS FOR PERSONAL ACCOMPLISHMENT (FREQUENCY) BY AGE GROUP AND ITINERANT GROUP

	Itinerant Groups	
Age Groups	Itinerant	Non-Itinerant
20-30 years	(N= 94) 36.61	(N=65) 36.11
31-40 years	(N= 74) 37.51	(N=30) 34.83
41+ years	(N= 27) 38.33	(N=17) 37.76

TABLE 20

ANALYSIS OF VARIANCE FOR EMOTIONAL EXHAUSTION (FREQUENCY)
BY AGE GROUP AND ITINERANT GROUP
(N=307)

Source of Variation	df	SS	MS	F
Age Groups	2	48.334	24.167	.232
Itinerant Groups	1	96.172	96.172	.925
Age X Itinerant	2	26.578	13.289	.128
Within Groups	301	31302.219	103.994	

TABLE 21

MEANS FOR EMOTIONAL EXHAUSTION (FREQUENCY)
BY AGE GROUP AND ITINERANT GROUP

	Itinerant Croups	
Age Groups	Itinerant	Non-Itinerant
20-30 years	(N=94) 22.43	(N=65) 21.29
31-40 years	(N=74) 21.81	(N=30) 21.23
41+ years	(N=27) 21.81	(N=17) 19.29

TABLE 22

ANALYSIS OF VARIANCE FOR DEPERSONALIZATION (FREQUENCY)
BY MARITAL STATUS AND ITINERANT GROUP
(N=307)

Source of Variation	df	SS	MS	F
Marital Status	4	26.80	6.705	<1
Itinerant Group	1	158.74	158.74	7.106[a]
Marital Status X Itinerant	4	51.752	12.938	<1
Within Groups	297	6611.168	22.260	

[a] $p < .01$

TABLE 23

MEANS FOR DEPERSONALIZATION (FREQUENCY)
BY MARITAL STATUS AND ITINERANT GROUP

Marital Status	Itinerant Group: Itinerant	Itinerant Group: Non-Itinerant
Single	(N= 38) 3.84	(N=30) 6.33
Married/No Children	(N= 43) 4.51	(N=20) 6.95
Single Parent	(N= 5) 3.40	(N= 5) 4.80
Divorced	(N= 4) 3.50	(N= 1) 5.00
Married/With Children)	(N=105) 4.76	(N=56) 5.46

TABLE 24

ANALYSIS OF VARIANCE FOR PERSONAL ACCOMPLISHMENT (FREQUENCY)
BY MARITAL STATUS AND ITINERANT GROUP
(N=307)

Source of Variation	df	SS	MS	F
Marital Status	4	468.313	117.078	2.394
Itinerant Group	1	76.377	76.377	1.562
Marital Status X Itinerant	4	273.856	68.464	1.400
Within Groups	297	14523.324	48.900	

TABLE 25

MEANS FOR PERSONAL ACCOMPLISHMENT (FREQUENCY)
BY MARITAL STATUS AND ITINERANT GROUP

	Itinerant Group	
Marital Status	Itinerant	Non-Itinerant
Single	(N=38) 35.50	(N=30) 34.93
Married/No Children	(N=43) 38.65	(N=20) 39.35
Single Parent	(N= 5) 40.00	(N= 5) 37.40
Divorced	(N= 4) 39.50	(N= 1) 22.00
Married/With Children	(N=105)36.98	(N=56) 35.54

TABLE 26

ANALYSIS OF VARIANCE FOR EMOTIONAL EXHAUSTION (FREQUENCY) BY MARITAL STATUS AND ITINERANT GROUP (N=307)

Source of Variation	df	SS	MS	F
Marital Status	4	15.875	3.969	<1
Itinerant Group	1	90.137	90.137	<1
Marital Status X Itinerant	4	349.696	87.424	<1
Within Groups	297	31011.559	104.416	

TABLE 27

MEANS FOR EMOTIONAL EXHAUSTION (FREQUENCY) BY MARITAL STATUS AND ITINERANT GROUP

	Itinerant Groups	
Marital Status	Itinerant	Non-Itinerant
Single	(N= 38) 23.05	(N=30) 19.47
Married/No Children	(N= 43) 22.16	(N=20) 19.85
Single Parent	(N= 5) 23.20	(N= 5) 19.60
Divorced	(N= 4) 19.00	(N= 1) 31.00
Married/With Children	(N=105) 21.81	(N=56) 22.13

No significant relationships between educational level and burnout variable frequency are indicated by the F values in Tables 28, 30, and 32. Means and number of specialists in each educational level are listed in Tables 29, 31 and 33.

In summary, null hypothesis two is retained for the demographic/situational variables of age, years of teaching experience, consecutive years of special education teaching, number of schools served, miles driven per week, number of grade levels served, sex, marital status, and educational level. No significant relationships exist between these variables and frequency of perceived burnout. Null hypothesis two is rejected for type of service delivery model, exceptionality taught, and size of caseload as significant relationships exist between these variables and frequency of burnout factors.

Null hypothesis 3. There are no differences between itinerant and non-itinerant specialists on the relationship of frequency scale scores of the MBI and the selected demographic/situational variables.

To compare the itinerant and non-itinerant groups, two additional sets of Pearson and point biserial correlations were generated for the data. One set of correlations included only non-itinerant specialists and the other set included both itinerant and non-itinerant (all rural) specialists.

Table 34 indicates the Pearson correlation coefficients for the non-itinerant specialists and the continuous demographic/situational variables and frequency of emotional exhaustion, depersonalization, and personal accomplishment. Only one significant relationship is indicated by the correlations. A correlation of -.19 between depersonalization

TABLE 28

ANALYSES OF VARIANCE FOR DEPERSONALIZATION (FREQUENCY) BY EDUCATIONAL LEVEL AND ITINERANT (N=307)

Source of Variation	df	SS	MS	F
Educational Level	5	159.992	31.998	1.483
Itinerant	1	116.397	116.397	5.394[a]
Educational Level X Itinerant	3	121.222	40.407	1.873
Within Groups	297	6408.527	21.578	

[a] $p<.01$

TABLE 29

MEANS FOR DEPERSONALIZATION (FREQUENCY) BY EDUCATIONAL LEVEL AND ITINERANT

Educational Level	Itinerant Group	
	Itinerant	Non-Itinerant
Bachelor	(N=102) 4.72	(N=72) 7.01
Bachelor + Special Education Certification	(N= 15) 4.33	(N= 6) 5.17
Master	(N= 72) 4.10	(N=31) 3.61
Master + Special Education Certification	(N= 2) 4.50	(N= 0) 0.0
Specialist	(N= 3) 4.67	(N= 2) 6.00
Doctorate	(N= 0) 0.0	(N= 0) 0.0

TABLE 30

ANALYSIS OF VARIANCE FOR PERSONAL ACCOMPLISHMENT (FREQUENCY) BY EDUCATIONAL LEVEL AND ITINERANT (N=307)

Source of Variation	df	SS	MS	F
Educational Level	5	119.940	23.988	<1
Itinerant	1	79.271	79.271	1.605
Educational Level X Itinerant	3	472.121	157.374	3.185
Within Groups	297	14673.430	49.405	

TABLE 31

MEANS FOR PERSONAL ACCOMPLISHMENT (FREQUENCY) BY EDUCATIONAL LEVEL AND ITINERANT

Educational Level	Itinerant Group	
	Itinerant	Non-Itinerant
Bachelor	(N=102) 36.56	(N=72) 36.29
Bachelor + Special Education Certification	(N=15) 35.27	(N= 6) 39.83
Master	(N=72) 38.35	(N=31) 34.32
Master + Special Education Certification	(N= 2) 43.50	(N= 0) 0.0
Specialist	(N= 3) 34.00	(N= 2) 41.50
Doctorate	(N= 0) 0.0	(N= 0) 0.0

TABLE 32

ANALYSIS OF VARIANCE FOR EMOTIONAL EXHAUSTION (FREQUENCY) BY EDUCATIONAL LEVEL AND ITINERANT (N=307)

Source of Variation	df	SS	MS	F
Educational Level	5	567.737	113.547	1.11
Itinerant	1	131.996	131.996	1.294
Educational Level X Itinerant	3	527.058	175.686	1.723
Within Groups	297	30282.336	101.961	

TABLE 33

MEANS FOR EMOTIONAL EXHAUSTION (FREQUENCY) BY EDUCATIONAL LEVEL AND ITINERANT

Educational Level	Itinerant Group	
	Itinerant	Non-Itinerant
Bachelor	(N=102) 22.53	(N=72) 22.33
Bachelor + Special Education Certification	(N= 15) 22.47	(N= 6) 22.50
Master	(N= 72) 20.94	(N=31) 17.68
Master + Special Education Certification	(N= 2) 25.50	(N= 0) 0.0
Specialist	(N= 3) 25.67	(N= 2) 23.50
Doctorate	(N= 0) 0.0	(N= 0) 0.0

TABLE 34

PEARSON CORRELATION COEFFICIENTS FOR BURNOUT VARIABLE FREQUENCY (EMOTIONAL EXHAUSTION, DEPERSONALIZATION, PERSONAL ACCOMPLISHMENT) AND CONTINUOUS DEMOGRAPHIC/SITUATIONAL VARIABLES

(N=112)

	Non-Itinerant						
	Age	Years of Teaching Experience	Consecutive Years of Special Education Teaching	Number of Schools Served	Miles Driven Per Week	Size of Case-load	Number of Grade Levels Served
Emotional Exhaustion	-.06	-.13	-.04		.15	-.09	.12
Depersonali-zation	-.19[b]	-.21[a]	-.06		.06	-.12	.05
Personal Accomplishment	.04	.07	.02		-.06	-.08	-.10

[a] $p<.05$

[b] $p<.01$

frequency and age is significant at the .05 level. As age increases, less frequent feelings of depersonalization are perceived.

Table 35 shows the Pearson correlations for all rural specialists between the continuous demographic/situational variables and burnout variable frequency. Three significant correlations are noted. Age and depersonalization frequency correlate at -.11 which is significant at the .05 level. As age increases, frequency of feelings of depersonalization decrease. The number of schools served have a significant correlation of -.11 ($p<.05$) with depersonalization frequency. Specialists serving greater numbers of schools report less frequent feelings of depersonalization. A positive correlation of .10 between years of teaching experience and frequency of perceived personal accomplishment is significant at the .05 level.

None of these significant relationships of continuous demographic/situational variables to frequency of burnout factors evident for the non-itinerant and total rural group were indicated for the itinerant group on Table 7. Thus, differences do exist between the itinerant group, the non-itinerant group, and the combined rural groups of specialists on these continuous variables with burnout factor frequency.

Table 36 lists the point biserial correlations for the exceptionalities and burnout factor frequency for the non-itinerant specialists. Only two significant relationships are indicated by the table. A correlation of .31 which is significant at the .01 level exists between frequency of perceived depersonalization and specialists serving emotionally disturbed children. A positive correlation of .40 exists between teachers of hearing impaired children and feelings of personal accomplishment

TABLE 35

PEARSON CORRELATION COEFFICIENTS FOR BURNOUT VARIABLE FREQUENCY (EMOTIONAL EXHAUSTION, DEPERSONALIZATION, PERSONAL ACCOMPLISHMENT) AND CONTINUOUS DEMOGRAPHIC/SITUATIONAL VARIABLES

(N=307)

Itinerant and Non-Itinerant

	Age	Years of Teaching Experience	Consecutive Years of Special Education Teaching	Number of Schools Served	Miles Driven Per Week	Size of Case-load	Number of Grade Levels Served
Emotional Exhaustion	-.04	-.06	-.01	.06	.04	.03	.06
Depersonaliza-tion	-.11[a]	-.09	-.03	-.11[a]	-.03	-.05	-.01
Personal Accomplishment	.07	.10[a]	.06	.08	-.03	.08	.0[illegible]

[a] $p < .05$

TABLE 36

POINT BISERIAL CORRELATIONS FOR EXCEPTIONALITIES AND BURNOUT VARIABLE FREQUENCY (EMOTIONAL EXHAUSTION, DEPERSONALIZATION, PERSONAL ACCOMPLISHMENT)

(N=112)

	Non-Itinerant											
	Multi-Categorical	Speech Handicapped	Learning Disabled	Emotionally Disturbed	Educational Mentally	Deaf	Trainable Mentally	Hearing Impaired	Visually Impaired	Physically Handicapped	Gifted	Pre-School Handicapped
Emotional Exhaustion	-.02	.04	-.09	.09	.01	-.01	-.09	-.04	.09	-.10	.06	.10
Depersonalization	.05	.02	-.09	.31[a]	.05	-.09	-.08	-.11	.04	-.03	.06	.09
Personal Accomplishment	-.06	.07	-.11	-.01	.04	-.01	-.08	.40	.02	-.01	-.03	.04

[a] $p < .01$

frequency. These findings contrast those of the itinerant group where depersonalization frequency resulted in significant positive correlations with multi-categorical and negative correlations with teachers of the speech handicapped.

The results on Table 37 show the correlations of burnout factor frequency and the exceptionality of students taught for all rural specialists. The correlations are the same as were listed on the separate itinerant and non-itinerant tables. No significant relationships are indicated for any of the specialist groups between frequency of emotional exhaustion and exceptionality of student served. A positive correlation is shown between frequency of perceived depersonalization and teachers of more than one category of exceptionality (.15), teachers of emotionally disturbed (.17), and teachers of the educationally mentally handicapped (.10). A negative correlation of -.13 is found between teachers of the speech handicapped and depersonalization frequency. Personal accomplishment frequency and scores of teachers of the hearing impaired yield a correlation of .10 which is significant at the .05 level. No other significant correlations occurred between frequency of burnout factors and the exceptionality of students taught.

Two way analysis of variance of burnout variables by the independent variables of sex, age group, educational level, or marital status, and itinerant group are also used to test whether differences exist among the itinerant and non-itinerant groups. Tables 10, 16, 22, and 28 indicate significantly less frequent feelings of depersonalization among itinerant specialists than non-itinerant specialists at the .01 level. When personnel serving the speech handicapped are removed from the

TABLE 37

POINT BISERIAL CORRELATIONS FOR EXCEPTIONALITIES AND BURNOUT VARIABLE FREQUENCY (EMOTIONAL EXHAUSTION, DEPERSONALIZATION, PERSONAL ACCOMPLISHMENT)

(N=307)

	Itinerant and Non-Itinerant											
	Multi-Categorical	Speech Handicapped	Learning Disabled	Emotionally Disturbed	Educational Mentally Handicapped	Deaf	Trainable Mentally Handicapped	Hearing Impaired	Visually Impaired	Physically Handicapped	Gifted	Pre-School Handicapped
Emotional Exhaustion	-.01	.01	-.05	.05	-.06	-.04	-.03	-.05	-.02	-.06	.05	.04
Depersonalization	.15[b]	-.13[b]	.06	.17[b]	.10[a]	-.05	.03	-.04	.01	-.02	.03	.07
Personal Accomplishment	-.01	.05	-.04	.03	.03	.03	-.02	.10[a]	.04	.07	.00	.02

[a] $p<.05$

[b] $p<.01$

sample, these significant differences between the itinerant and non-itinerant group do not exist.

Tables 10, 12, and 14 indicate no significant interactions between sex and itinerant group on frequency of burnout (depersonalization, personal accomplishment, and emotional exhaustion). Means and sample numbers of each sex are listed for the itinerant and non-itinerant specialists on Tables 11, 13, and 15.

No significant interactions are shown on Tables 16, 18, and 20 between age group and itinerant group on frequency of burnout factors. Burnout factor means and the number of itinerant and non-itinerant specialists in each age group are listed on Tables 17, 19, and 21.

The interactions of marital status and itinerant group on the frequency of burnout subscale scores are not significant as shown on Tables 22, 24, and 26. The means and sample numbers for subscale frequency scores of marital status and itinerant groups are listed on Tables 23, 25, and 27.

The two way interactions of educational level and itinerant group on the frequency of the burnout variables (depersonalization, personal accomplishment and emotional exhaustion) indicated on Tables 28, 30, and 32 are not significant. Means for burnout variable frequencies by educational levels and itinerant groups are listed on Tables 29, 31, and 33.

In summary, some differences do exist between the relationships of the demographic/situational variables and the frequency of burnout variables between the itinerant and non-itinerant group.

Null hypothesis 4. There are no significant relationships among levels of perceived teacher burnout as measured by the intensity scale

of the MBI of (a) emotional exhaustion, (b) depersonalization, and (c) personal accomplishment of rural itinerant specialists and selected demographic/situational variables. Demographic/situational variables will include age, sex, marital status, educational level, number of years of teaching, consecutive years of special education teaching, current number of schools served, exceptionality taught, number of miles driven per week, type of service delivery, size of caseload, and grade span of students taught.

Pearson correlations, point biserial correlations, and two way analysis of variance are used to test the relationship of the demographic/situational variables with intensity of the burnout factors. The results of the analyses are discussed in the order of statistical test sequence listed above.

Table 38 shows the Pearson correlation coefficients for burnout intensity subscale scores and the continuous demographic/situational variables. These variables include age, years of teaching experience, consecutive years of special education teaching, number of schools served, miles driven per week, size of caseload, and the number of grade levels served. No significant relationships are shown between these variables and intensity of perceived emotional exhaustion or depersonalization. Only one significant correlation exists between intensity of personal accomplishment and the continuous variable of size of caseload. The correlation of .19 between these variables is significant at the .01 level. This indicates that as caseload increases for specialists, so do feelings of personal accomplishment. No other significant correlations are indicated on Table 38.

TABLE 38

PEARSON CORRELATION COEFFICIENTS FOR BURNOUT VARIABLE INTENSITY (EMOTIONAL EXHAUSTION, DEPERSONALIZATION, PERSONAL ACCOMPLISHMENT), AND CONTINUOUS DEMOGRAPHIC/SITUATIONAL VARIABLES

(N=195)

Itinerant Specialists

	Age	Years of Teaching Experience	Consecutive Years of Special Education Teaching	Number of Schools Served	Miles Driven Per Week	Size of Case-load	Number of Grade Levels Served
Emotional Exhaustion	.03	-.02	-.01	.04	-.03	.00	.00
Depersonali-zation	-.03	.03	.00	.01	.03	.04	.07
Personal Accomplishment	.09	.12	.07	.04	-.09	.19[a]	.09

[a] $p<.01$

The point biserial correlations for exceptionalities and intensity of the burnout factors are listed on Table 39 for itinerant specialists. Three significant relationships are noted. Teachers of the visually impaired when compared with those serving other exceptionalities have a negative correlation (-.13) with intensity of emotional exhaustion which is significant at the .05 level. Itinerant specialists who serve children from more than one category of handicap have a positive correlation with intensity of depersonalization (.14). This correlation is significant at the .05 level. A correlation of .16 between teachers of the deaf and intensity of feelings of personal accomplishment is significant at the .05 level. No other correlations between exceptionality taught and the burnout factors are significant.

Table 40 lists the correlations for the point biserial correlations for service delivery model and intensity of burnout factors. Three significant correlations are indicated for service models and depersonalization intensity: itinerant tutors, resource rooms, and self-contained. Positive correlations exist between resource room (.10) and self-contained (.13) with intensity of perceived depersonalization. They are significant at the .05 and .01 levels, respectively. The service model of itinerant tutor has a negative correlation of -.11 with intensity of depersonalization that is significant at the .05 level. When compared with all other service models, specialists in resource room and self-contained models of service delivery report moderately more intense feelings of depersonalization. Specialists serving students from an itinerant tutor model, however, demonstrate less intense depersonalization than other service models. Specialists providing service in the self-contained service models correlate at -.10 with intensity of

TABLE 39

POINT BISERIAL CORRELATIONS FOR EXCEPTIONALITIES AND BURNOUT VARIABLE INTENSITY (EMOTIONAL EXHAUSTION, DEPERSONALIZATION, PERSONAL ACCOMPLISHMENT)

(N=195)

	Itinerant Specialists											
	Multi-Categorical	Speech Handicapped	Learning Disabled	Emotionally Disturbed	Educational Mentally	Deaf	Trainable Mentally	Hearing Impaired	Visually Impaired	Physically Handicapped	Gifted	Pre-School Handicapped
Emotional Exhaustion	.07	-.10	.06	.01	-.04	.01	.08	-.04	-.13[a]	-.01	.10	-.02
Depersonalization	.14[a]	-.10	.11	-.02	.05	-.03	.08	.00	-.05	.00	-.01	.00
Personal Accomplishment	.09	.01	.03	.09	.07	.16[a]	.06	.08	.04	.12	.10	.02

[a] $p<.05$

TABLE 40

POINT BISERIAL CORRELATIONS FOR SERVICE DELIVERY MODEL AND BURNOUT VARIABLE INTENSITY (EMOTIONAL EXHAUSTION, DEPERSONALIZATION, PERSONAL ACCOMPLISHMENT) (N=307)

	Itinerant Tutor	Itinerant Consultant	Resource Room	Self Contained	Non-Itinerant Tutor	Non-Itinerant Consultant	Other
Emotional Exhaustion	-.01	.01	-.01	.06	-.04	-.02	-.05
Personal Accomplishment	-.08	.00	-.08	-.10[a]	-.03	.03	.02
Depersonalization	-.11[a]	-.06	.10[a]	.13[b]	-.05	-.03	-.02

[a] $p<.05$

[b] $p<.01$

feelings of personal accomplishment when compared with the other service models. No significant relationships are shown for intensity of emotional exhaustion and service delivery model.

Two way analysis of variance is used to examine the relationship between sex, age group, marital status, or educational level and itinerant group with intensity of the burnout factors. These results are listed in Tables 41 through 64. The main effects of the independent variables of sex, age group, marital status, and educational level will be discussed to determine their relationship with burnout factor intensity.

Table 41 shows that no significant relationship exists between sex and intensity of depersonalization. Means for depersonalization intensity are listed by sex and itinerant group in Table 42.

No significant relationships are indicated for intensity of personal accomplishment and sex on Table 43. Means for this factor and number of specialists of each sex and by itinerant group are delineated on Table 44.

Table 45 reports no significant relationship between sex and intensity of emotional exhaustion. Table 46 lists the mean scores for this burnout factor by sex and itinerant group.

The significant relationship between age group and intensity of depersonalization is found on Table 47. The relationship yields an F value of 4.864 that is significant at the .01 level. Specialists in the age group forty-one and over indicate significantly less intense feelings of depersonalization than other age groups. The means for depersonalization intensity listed in Table 48 by age and itinerant group demonstrate this relationship.

TABLE 41

ANALYSIS OF VARIANCE FOR DEPERSONALIZATION (INTENSITY)
BY SEX AND ITINERANT GROUP
(N=307)

Source of Variation	df	SS	MS	F
Sex	1	.235	.235	<1
Itinerant Group	1	140.494	140.494	2.595
Sex X Itinerant	1	11.153	11.153	<1
Within Groups	303	16401.363	54.130	

TABLE 42

MEANS FOR DEPERSONALIZATION (INTENSITY)
BY SEX AND ITINERANT GROUP

	Itinerant Groups	
Sex	Itinerant	Non-Itinerant
Male	(N= 8) 5.63	(N= 7) 8.71
Female	(N=187) 6.57	(N=105) 7.89

TABLE 43

ANALYSIS OF VARIANCE FOR PERSONAL ACCOMPLISHMENT (INTENSITY) BY SEX AND ITINERANT GROUP (N=307)

Source of Variation	df	SS	MS	F
Sex	1	48.314	48.314	<1
Itinerant Group	1	143.785	143.785	2.582
Sex X Itinerant	1	.007	.007	<1
Within Groups	303	16871.262	55.681	

TABLE 44

MEANS FOR PERSONAL ACCOMPLISHMENT (INTENSITY) BY SEX AND ITINERANT GROUP

	Itinerant Groups	
Sex	Itinerant	Non-Itinerant
Male	(N= 8) 41.75	(N= 7) 40.29
Female	(N=187) 39.89	(N=105) 38.47

TABLE 45

ANALYSIS OF VARIANCE FOR EMOTIONAL EXHAUSTION (INTENSITY)
BY SEX AND ITINERANT GROUP
(N=307)

Source of Variation	df	SS	MS	F
Sex	1	360.324	360.324	2.786
Itinerant Group	1	3.048	3.048	<1
Sex X Itinerant	1	125.961	125.961	<1
Within Groups	303	39183.508	129.318	

TABLE 46

MEANS FOR EMOTIONAL EXHAUSTION (INTENSITY)
BY SEX AND ITINERANT GROUP

	Itinerant Groups	
Sex	Itinerant	Non-Itinerant
Male	(N= 8) 31.13	(N= 7) 36.57
Female	(N=187) 28.84	(N=105) 28.32

TABLE 47

ANALYSIS OF VARIANCE FOR DEPERSONALIZATION (INTENSITY)
BY AGE GROUP AND ITINERANT GROUP
(N=307)

Source of Variance	df	SS	MS	F
Age Groups	2	510.769	255.384	4.864[a]
Itinerant Groups	1	167.052	167.052	3.182
Age X Itinerant	2	99.238	49.619	0.945
Within Groups	301	15802.746	52.501	

[a]Significant at .01

TABLE 48

MEANS FOR DEPERSONALIZATION INTENSITY
BY AGE GROUP AND ITINERANT GROUP

Age Groups	Itinerant Groups	
	Itinerant	Non-Itinerant
20-30 years	(N=94) 6.23	(N=65) 8.78
31-40 years	(N=74) 7.73	(N=30) 8.50
41+ years	(N=27) 4.30	(N=17) 3.71

Table 49 lists the relationship between age group and intensity of personal accomplishment. Although no relationship is significant at the .05 level, the F value for age group is approaching significance at .058. The means for intensity of personal accomplishment by age and itinerant group are specified on Table 50. They indicate a tendency among specialists in the age group thirty-one to forty years to perceive less intense feelings of personal accomplishment than older or younger specialists.

In Table 51, no significant relationship is found between age group and intensity of emotional exhaustion. The means for this burnout factor and the number in each age and itinerant gorup are listed in Table 52.

The relationships of burnout factor intensity to marital status are listed in Tables 53 through 58. No significant relationship is indicated on Table 53 between depersonalization intensity scores and marital status. The means for this relationship are listed in Table 54 by marital status and itinerant group.

Examination of the data on Table 55 indicates that there is no significant relationship of intensity of personal accomplishment and marital status at the .05 level. The relationship is, however, approaching significance at .073. Perusal of the means by marital status in Table 56 show the least intense feelings of personal accomplishment as falling among single specialists.

No significant relationship is evident on Table 57 between intensity of emotional exhaustion and marital status. The means for intensity of emotional exhaustion are listed in Table 58 by marital status and itinerant group.

TABLE 49

ANALYSIS OF VARIANCE FOR PERSONAL ACCOMPLISHMENT (INTENSITY) BY AGE GROUP AND ITINERANT GROUP (N=307)

Source of Variation	df	SS	MS	F
Age Groups	2	313.607	156.803	2.866
Itinerant Groups	1	173.418	173.418	3.170
Age X Itinerant	2	137.576	68.788	1.257
Within Groups	301	16468.402	54.712	

TABLE 50

MEANS FOR PERSONAL ACCOMPLISHMENT (INTENSITY) BY AGE GROUP AND ITINERANT GROUP

	Itinerant Groups	
Age Groups	Itinerant	Non-Itinerant
20-30 years	(N=94) 40.01	(N=65) 39.18
31-40 years	(N=74) 39.42	(N=30) 35.77
41+ years	(N=27) 41.30	(N=17) 41.24

TABLE 51

ANALYSIS OF VARIANCE FOR EMOTIONAL EXHAUSTION (INTENSITY) BY AGE GROUP AND ITINERANT GROUP (N=307)

Source of Variation	df	SS	MS	F
Age Groups	2	499.694	249.847	1.922
Itinerant Groups	1	3.888	3.888	1
Age X Itinerant	2	37.346	18.673	1
Within Groups	301	39132.754	129.642	

TABLE 52

MEANS FOR EMOTIONAL EXHAUSTION (INTENSITY) BY AGE GROUP AND ITINERANT GROUP

	Itinerant Groups	
Age Groups	Itinerant	Non Itinerant
20-30 years	(N=94) 29.82	(N=65) 30.18
31-40 years	(N=74) 28.72	(N=30) 27.43
41+ years	(N=27) 26.48	(N=17) 26.18

TABLE 53

ANALYSIS OF VARIANCE FOR DEPERSONALIZATION (INTENSITY)
BY MARITAL STATUS AND ITINERANT GROUP
(N=307)

Source of Variation	df	SS	MS	F
Marital Status	4	91.557	22.889	<1
Itinerant Group	1	158.688	158.688	2.891
Marital Status X Itinerant	4	17.108	4.277	<1
Within Groups	297	16304.086	54.896	

TABLE 54

MEANS FOR DEPERSONALIZATION (INTENSITY)
BY MARITAL STATUS AND ITINERANT GROUP

	Itinerant Groups	
Marital Status	Itinerant	Non-Itinerant
Single	(N= 38) 5.89	(N=30) 7.63
Married/No Children	(N= 43) 7.47	(N=20) 8.65
Single Parent	(N= 5) 5.00	(N= 5) 6.20
Divorced	(N= 4) 5.25	(N= 1)11.00
Married/With Children	(N=105) 6.50	(N=56) 7.95

TABLE 55

ANALYSIS OF VARIANCE FOR PERSONAL ACCOMPLISHMENT (INTENSITY)
BY MARITAL STATUS AND ITINERANT GROUP
(N=307)

Source of Variation	df	SS	MS	F
Marital Status	4	478.859	119.715	2.164
Itinerant Group	1	102.258	102.258	1.848
Marital Status X Itinerant	4	8.556	2.139	<1
Within Groups	297	16432.168	55.327	

TABLE 56

MEANS FOR PERSONAL ACCOMPLISHMENT (INTENSITY)
BY MARITAL STATUS AND ITINERANT GROUP

	Itinerant Groups	
Marital Status	Itinerant	Non-Itinerant
Single	(N= 38) 38.42	(N=30) 36.73
Married/No Children	(N= 43) 42.02	(N=20) 40.55
Single Parent	(N= 5) 41.00	(N= 5) 40.40
Divorced	(N= 4) 40.00	(N= 1) 39.00
Married/With Chidlren	(N=105) 39.63	(N=56) 38.70

TABLE 57

ANALYSIS OF VARIANCE FOR EMOTIONAL EXHAUSTION (INTENSITY)
BY MARITAL STATUS AND ITINERANT GROUP
(N=307)

Source of Variation	df	SS	MS	F
Marital Status	4	516.916	129.229	1.006
Itinerant Group	1	1.829	1.829	<1
Marital Status X Itinerant	4	1007.526	251.881	1.961
Within Groups	297	38145.355	128.436	

TABLE 58

MEANS FOR EMOTIONAL EXHAUSTION (INTENSITY)
BY MARITAL STATUS AND ITINERANT GROUP

	Itinerant Group	
Marital Status	Itinerant	Non-Itinerant
Single	(N= 38) 27.32	(N=30) 26.43
Married/No Children	(N= 43) 31.05	(N=20) 28.95
Single Parent	(N= 5) 32.00	(N= 5) 26.40
Divorced	(N= 4) 27.25	(N= 1) 59.00
Married/With Children	(N=105) 28.58	(N=56) 29.77

In Table 59, no significant relationship is shown between educational level and depersonalization intensity. The means for depersonalization intensity by educational level and itinerant group are depicted in Table 60.

There is no significant relationship between personal accomplishment intensity and educational level as seen in Table 63. The means for personal accomplishment intensity are delineated in Table 64 by educational level and by itinerant group.

Table 61 shows that no significant relationship exists between intensity of emotional exhaustion and educational level and by itinerant group in Table 62. Null hypothesis four is retained for educational level as no significant relationships are evident in the data.

To summarize, null hypothesis four is retained for the variables of years of teaching experience, consecutive years of special education teaching, number of schools served, miles driven per week, number of grade levels taught, sex, marital status, and educational level. No significant relationships exist between these variables and intensity of burnout factors (depersonalization, personal accomplishment, or emotional exhaustion). Null hypothesis four is rejected for size of caseload, exceptionality taught, service delivery model, and age group for the itinerant specialists. Significant relationships exist between these variables and intensity of burnout factors.

Null hypothesis 5. There are no differences between itinerant and non-itinerant specialists on the significant relationships of intensity scale scores of the MBI and the selected demographic/situational variables.

TABLE 59

ANALYSIS OF VARIANCE FOR DEPERSONALIZATION (INTENSITY) BY EDUCATIONAL LEVEL AND ITINERANT GROUP (N=307)

Source of Variation	df	SS	MS	F
Educational Level	5	321.855	64.371	1.203
Itinerant Group	1	91.624	91.624	1.712
Marital Status X Itinerant	3	197.582	65.861	1.231
Within Groups	297	15893.316	53.513	

TABLE 60

MEANS FOR DEPERSONALIZATION (INTENSITY) BY EDUCATIONAL LEVEL AND ITINERANT GROUP

Educational Level	Itinerant Group	
	Itinerant	Non-Itinerant
Bachelor	(N=102) 7.02	(N=72) 9.36
Bachelor + Special Education Certification	(N=15) 4.93	(N=6) 6.00
Master	(N=72) 6.28	(N=31) 5.10
Master + Special Education Certification	(N=2) 4.50	(N=0) 0.0
Specialist	(N=3) 5.00	(N=2) 8.50
Doctorate	(N=0) 0.0	(N=0) 0.0

TABLE 61

ANALYSIS OF VARIANCE FOR PERSONAL ACCOMPLISHMENT (INTENSITY) BY EDUCATIONAL LEVEL AND ITINERANT (N=307)

Source of Variation	df	SS	MS	F
Educational Level	5	336.472	67.294	1.213
Itinerant	1	109.435	109.453	1.974
Educational Level X Itinerant	3	112.880	37.627	<1
Within Groups	297	16470.230	55.455	

TABLE 62

MEANS FOR PERSONAL ACCOMPLISHMENT (INTENSITY) BY EDUCATIONAL LEVEL AND ITINERANT

Educational Level	Itinerant Group	
	Itinerant	Non-Itinerant
Bachelor	(N=102) 39.27	(N=72) 38.15
Bachelor + Special Education Certification	(N= 15) 37.67	(N= 6) 40.50
Master	(N= 72) 41.07	(N=31) 38.71
Master + Special Education Certification	(N= 2) 44.00	(N= 0) 0.0
Specialist	(N= 3) 43.33	(N= 2) 44.50
Doctorate	(N= 0) 0.0	(N= 0) 0.0

TABLE 63

ANALYSIS OF VARIANCE FOR EMOTIONAL EXHAUSTION (INTENSITY)
BY EDUCATIONAL LEVEL AND ITINERANT
(N=307)

Source of Variation	df	SS	MS	F
Educational Level	5	734.571	146.914	1.137
Itinerant	1	14.324	14.324	<1
Educational Level X Itinerant	3	697.983	232.66	1.80
Within Groups	297	38237.238	128.745	

TABLE 64

MEANS FOR EMOTIONAL EXHAUSTION (INTENSITY)
BY EDUCATIONAL LEVEL AND ITINERANT

Educational Level	Itinerant Group	
	Itinerant	Non-Itinerant
Bachelor	(N=102) 29.45	(N=72) 30.86
Bachelor + Special Education Certification	(N= 15) 29.20	(N= 6) 28.83
Master	(N= 72) 27.75	(N=31) 24.58
Master + Special Education Certification	(N= 2) 28.50	(N= 0) 0.0
Specialist	(N= 3) 33.67	(N= 2) 27.50
Doctorate	(N= 0) 0.0	(N= 0) 0.0

Two additional sets of Pearson and point biserial correlations are generated for the data to note the differences between the itinerant and non-itinerant groups. One set of correlations includes only non-itinerant specialists. The other set of correlations includes all rural specialists (itinerant and non-itinerant specialists). These are generated to discern whether the same significant relationships exist between the demographic/situational variables and intensity of burnout factors for both groups.

Table 65 lists the Pearson correlations of the non-itinerant specialists between the continuous demographic/situational variables and intensity of burnout factors. The variables include age, years of teaching experience, consecutive years of special education teaching, miles driven per week, size of caseload, and number of grades served. As only one school is served by the non-itinerant specialists, this variable was not included. No significant relationship is shown between any of the continuous demographic/situational variables and perceived intensity of personal accomplishment. A negative correlation of -.17 between emotional exhaustion intensity and years of teaching experience is significant at the .05 level. As years of teaching increase, less intense feelings of emotional exhaustion are evident for non-itinerant specialists. Negative correlations are listed for depersonalization intensity and age (-.22) and years of teaching experience (-.23). They are significant at the .01 and .05 levels, respectively. As age and years of teaching experience increase, less intense feelings of depersonalization are noted among non-itinerant specialists. No other significant relationships exist among the continuous demographic/situational variables and intensity of burnout factors for the non-itinerant sample. None of the

TABLE 65

PEARSON CORRELATION COEFFICIENTS FOR BURNOUT VARIABLE INTENSITY (EMOTIONAL EXHAUSTION, DEPERSONALIZATION, PERSONAL ACCOMPLISHMENT) AND CONTINUOUS DEMOGRAPHIC/SITUATIONAL VARIABLES

(N=112)

Non-Itinerant Specialists

	Age	Years of Teaching Experience	Consecutive Years of Special Education Teaching	Number of Schools Served	Miles Driven Per Week	Size of Case-load	Number of Grade Levels Served
Emotional Exhaustion	-.13	-.17[a]	-.08		.14	-.11	.05
Depersonali-zation	-.22[b]	-.23[a]	-.07		.07	-.15	.10
Personal Accomplishment	.01	.07	-1.0		-.04	-.05	-.13

[a] $p < .05$

significant relationships on Table 65 for non-itinerant specialists are evident for the itinerant specialists on Table 38.

Table 66 shows the significant relationships between the continuous demographic/situational variables for all rural specialists. Three significant relationships are indicated. The negative correlations between age and intensity of emotional exhaustion (-.11) and depersonalization (-.10) are significant at the .05 level. As age increases the intensity of perceived emotional exhaustion and depersonalization decrease. The third significant relationship is a correlation of .12 between intensity of perceived personal accomplishment and the number of schools served. As the number of schools served increase, so do the intensity of perceived feelings of personal accomplishment. None of the significant relationships for all rural specialists depicted on Table 66 are the same as the significant relationships for the itinerant specialists found on Table 38.

Point biserial correlations for exceptionalities and burnout factor intensity among non-itinerant specialists are listed in Table 67. No significant relationship exists between exceptionality taught and intensity of emotional exhaustion. A positive correlation of .22 is listed between teachers of the emotionally disturbed and intensity of feelings of depersonalization when compared with specialists serving children with other handicaps. This correlation is significant at the .01 level. Personal accomplishment intensity correlates with specialists serving the speech handicapped at .18 which is significant at the .01 level. Specialists serving the speech handicapped indicate more intense feelings of personal accomplishment than specialists serving other

TABLE 66

PEARSON CORRELATION COEFFICIENTS FOR BURNOUT VARIABLE INTENSITY (EMOTIONAL EXHAUSTION, DEPERSONALIZATION, PERSONAL ACCOMPLIHSMENT) AND CONTINUOUS DEMOGRAPHIC/SITUATIONAL VARIABLES

(N=307)

	Itinerant and Non-Itinerant Specialists						
	Age	Years of Teaching Experience	Consecutive Years of Special Education Teaching	Number of Schools Served	Miles Driven Per Week	Size of Case-load	Number of Grade Levels Served
Emotional Exhaustion	-.11[a]	-.09	-.03	.04	.01	.01	.03
Depersonali-zation	-.10[a]	-.09	-.01	-.08	-.05	-.03	.04
Personal Accomplishment	.03	.09	.00	.12[a]	.00	.07	.04

[a] $p < .05$

TABLE 67

POINT BISERIAL CORRELATIONS FOR EXCEPTIONALITIES AND BURNOUT VARIABLE INTENSITY (EMCTIONAL EXHAUSTION, DEPERSONALIZATION, PERSONAL ACCOMPLISHMENT)

(N=112)

	Multi-Categorical	Speech Handicapped	Learning Disabled	Emotionally Disturbed	Educational Mentally	Deaf	Trainable Mentally	Hearing Impaired	Visually Impaired	Physically Handicapped	Gifted	Pre-School Handicapped
Emotional Exhaustion	-.10	-.15	-.10	.01	.06	.00	-.15	-.05	.06	-.09	.05	.14
Depersonalization	.03	.07	-.13	.22[a]	.06	-.05	-.13	-.13	.07	-.05	.04	.11
Personal Accomplishment	-.03	.18[a]	-.09	-.02	.04	-.13	-.04	-.03	-.03	.04	-.05	.10

[a] $p < .05$

exceptionalities. No other significant relationships are indicated between exceptionality and intensity of burnout factors for the non-itinerant respondents. None of the same significant relationships listed for the non-itinerant group between exceptionality and intensity of burnout are indicated for the itinerant group in Table 39.

Table 68 lists the point biserial correlations of all rural specialists for exceptionalities and burnout factor intensity. There is a positive correlation of .10 between teachers serving more than one exceptionality and intensity of depersonalization. This correlation is significant at the .05 level. The same significant relationship was found for the itinerant population in Table 39. A correlation of .10 between intensity of feelings of personal accomplishment and teachers serving the physically handicapped is indicated in Table 68 for the total rural population. This relationship is significant at the .05 level. A similar correlation exists between these variables for the itinerant group (.12) but when compared with other exceptionalities, the correlation is not significant for the itinerant specialists.

Two way analysis of variance of burnout factor intensity and sex, age group, education level, or marital status with itinerant group are used to test whether significant differences exist among itinerant groups. Interactions between the independent variables of sex, age group, educational level, or marital status with itinerant group are also used to test for differences between itinerant gorups on the dependent burnout intensity factors.

Tables 41, 47, 53, and 59 indicate no signficant relationship of the main effect of itinerant group with intensity of perceived

TABLE 68

POINT BISERIAL CORRELATIONS FOR EXCEPTIONALITIES AND BURNOUT VARIABLE INTENSITY (EMOTIONAL EXHAUSTION, DEPERSONALIZATION, PERSONAL ACCOMPLISHMENT)

(N=307)

	Itinerant and Non-Itinerant Specialists											
	Multi-Categorical	Speech Handicapped	Learning Disabled	Emotionally Disturbed	Educational Mentally	Deaf	Trainable Mentally	Hearing Impaired	Visually Impaired	Physically Handicapped	Gifted	Pre-School Handicapped
Emotional Exhaustion	.00	.02	.00	.01	-.04	.00	-.02	-.05	-.04	-.03	.08	.08
Depersonalization	.10[a]	-.08	.04	.09	.08	-.03	.00	-.05	.01	-.02	.01	.06
Personal Accomplishment	.03	.09	-.02	.04	.01	-.01	-.01	.04	.00	.10[a]	.09	.06

[a] $p < .05$

depersonalization. No significant relationship exists for the main effect of itinerant group with intensity of personal accomplishment as indicated on Tables 42, 48, 54, and 60. Tables 43, 49, 55 and 61 also show no significant relationship between intensity of emotional exhaustion and itinerant group.

Table 41 shows no significant interaction between sex and itinerant group on depersonalization intensity. The means for depersonalization intensity are listed by sex and itinerant group in Table 42.

No significant interaction is indicated by Table 43 between sex and itinerant group on intensity of personal accomplishment. The means for the intensity factor and number of specialists by sex and itinerant group are listed in Table 44.

Table 45 indicates no significant interaction between sex and itinerant group on emotional exhaustion intensity. The means for intensity of emotional exhaustion and the number of specialists are listed in Table 46 by sex and itinerant group.

The two way interactions of age and itinerant group on depersonalization are not significant as shown on Table 47. Table 48 contains the depersonalization intensity means by age group and itinerant group.

No significant interaction is shown on Table 49 between age and itinerant group on personal accomplishment intensity. Means for personal accomplishment intensity by age group and itinerant group are listed on Table 50.

Table 51 listed the analysis of variance for emotional exhaustion intensity by age group and itinerant group. No significant interaction is shown for age and itinerant group on this table. Table 52 presents the means and number of specialists by age group and itinerant group

for intensity of emotional exhaustion.

Table 53 shows no significant interactions between marital status and itinerant group on depersonalization intensity. Means for depersonalization intensity are listed on Table 54 by marital status group and itinerant group.

No significant interactions are noted between marital status and itinerant group for personal accomplishment intensity. Table 56 contains the means for personal accomplishment intensity by marital status and itinerant group.

On Table 57 no significant interaction was shown between marital status and itinerant group on intensity of emotional exhaustion. The means for emotional exhaustion intensity are listed by marital status and itinerant group on Table 58.

Table 59 indicates no significant interaction between educational level and itinerant group. Depersonalization intensity means are listed by educational level and itinerant group in Table 60.

The results of analysis of variance for emotional exhaustion intensity by educational level and itinerant group are presented on Table 61. No significant interaction is shown for educational level and itinerant group on the dependent variable. Table 62 contains the means for emotional exhaustion intensity by educational level and itinerant group.

No significant interaction is shown on Table 63 between educational level and itinerant group on personal accomplishment intensity. The means for personal accomplishment intensity by educational level and itinerant group are listed on Table 64.

Null hypothesis 6. There are no significant relationships among perceived mean levels of role conflict, role ambiguity, and perceived teacher burnout factors (emotional exhaustion, depersonalization, and personal accomplishment) frequency and intensity when controlling for the selected demographic/situational variables of rural itinerant specialists.

Multiple regression is used to analyze the predictive value of the research variables on frequency and intensity of burnout factors of depersonalization, personal accomplishment, and emotional exhaustion for itinerant specialists. The demographic/situational variables were entered as a set into the equation first. Role conflict and role ambiguity were entered in a stepwise fashion. Regression was used to determine whether role conflict and/or role ambiguity are good predictors of burnout among the itinerant specialists.

The results on Table 69 show that the demographic/situational variables do not account for a significant amount of variance on depersonalization frequency when controlled for in the regression equation. Role conflict which is entered next into the equation accounts for an F change of 22.896 which is significant at the .0001 level. This indicates that role conflict is a high predictor of depersonalization frequency for itinerant specialists. The scores on the role ambiguity variable which are entered last do not account for a significant amount of change on depersonalization frequency.

The relationship of the variables to personal accomplishment frequency for itinerant specialists are delineated in Table 70. The demographic/situational variables do not account for a significant amount

TABLE 69

THE RELATIONSHIP OF VARIABLES TO DEPERSONALIZATION (FREQUENCY) (N=195)

Itinerant Specialists

Set	Multiple R	R^2	F	Increase in R^2	F Change
Demographic/Situational Variables	.36139	.3060	<1		
Role Conflict	.48533	.23944	1.48	.10884	22.896[a]
Role Ambiguity	.48977	.23987	1.43	.00043	1

[a] $p<.0001$

TABLE 70

THE RELATIONSHIP OF VARIABLES TO PERSONAL ACCOMPLISHMENT (FREQUENCY) (N=195)

Itinerant Specialists

Set	Multiple R	R^2	F	Increase in R^2	F Change
Demographic/Situational Variables	.46282	.21410	1.32989		
Role Ambiguity	.51075	.26086	1.66084[a]	.04666	10.101[b]
Role Conflict	.51078	.26090	1.60362[a]	.00004	<1

[a] $p<.05$

[b] $p<.01$

of variance on the dependent variable. Role ambiguity is entered next into the equation. The combined effect of the demographic/situational variables and role ambiguity on the R yields a significant relationship at the .05 level. Role ambiguity causes a change in the variance yielding an F change of 10.101 that is significant at the .01 level. Role ambiguity is a modest predictor of frequency of personal accomplishment. The combined effects of demographic/situational variables, role ambiguity, and role conflict on personal accomplishment frequency account for a significant amount of the variance at the .05 level.

Table 71 lists the relationship of the variables to emotional exhaustion frequency as measured by multiple regression for itinerant specialists. The demographic/situational variables that are entered into the equation first do not account for a significant amount of the variance on frequency of emotional exhaustion. Role conflict is entered next in the equation. Together the demographic/situational variables and role conflict account for a significant amount of the variance at the .05 level on the dependent variable. Role conflict is a good predictor of emotional exhaustion frequency producing an F change of 32.932 that is significant at the .0001 level. Role ambiguity alone does not produce a significant change in the variance. It does account for a significant amount of the variance on emotional exhaustion frequency when combined with the demographic/situational variables and role conflict at the .05 level.

The results of Table 72 indicate that the demographic/situational variables controlled for do not account for a significant amount of variance on depersonalization intensity. Role conflict is entered into

TABLE 71

THE RELATIONSHIP OF VARIABLES TO EMOTIONAL EXHAUSTION (FREQUENCY) (N=195)

Itinerant Specialists

Set	Multiple R	R^2	F	Increase in R^2	F Change
Demographic/Situational Variables	.31374	.09843	<1		
Role Conflict	.50232	.25232	1.588[a]	.15389	32.932[b]
Role Ambiguity	.51281	.26298	1.621[a]	.01065	2.298

[a] $p<.05$

[b] $p<.0001$

the regression equation next and the increase in the R^2 results in an F change of 13.060 which is significant at the .001 level. This indicates that when controlling for the demographic/situational variables, role conflict is a good predictor of depersonalization intensity for itinerant specialists. Role ambiguity did not add a significant increase to the R^2 in the equation.

Table 73 suggests that the demographic/situational variables controlled for do not account for a significant amount of variance on personal accomplishment intensity. A significant change in R^2 is added by entering role ambiguity. It results in an F change of 7.659 which is significant at the .01 level. Role conflict which is entered last

TABLE 72

THE RELATIONSHIP OF VARIABLES TO DEPERSONALIZATION (INTENSITY) (N=195)

Itinerant Specialists

Set	Multiple R	R^2	F	Increase in R^2	F Change
Demographic/Situational Variables	.29452	.08674	<1		
Role Conflict	.39453	.15566	<1	.06892	13.060[a]
Role Ambiguity	.40597	.16481	<1	.00915	1.743

[a] $p<.001$

TABLE 73

THE RELATIONSHIP OF VARIABLES TO PERSONAL ACCOMPLISHMENT (INTENSITY) (N=195)

Itinerant Specialists

Set	Multiple R	R^2	F	Increase in R^2	F Change
Demographic/Situational Variables	.42888	.18393	1.099		
Role Ambiguity	.47033	.22121	1.337	.03728	7.659[a]
Role Conflict	.47050	.22137	1.292	.00015	<1

[a] $p<.01$

does not account for a significant change of the variance or combined variance of the variables. When controlling for the demographic/situational variables role ambiguity is a good predictor of emotional exhaustion intensity at the .01 level for itinerant specialists.

The relationship of variables to emotional exhaustion frequency are indicated in Table 74 for the itinerant specialists. Controlling for the demographic/situational variables does not account for a significant amount of variance on intensity of emotional exhaustion. Role conflict, which is entered into the equation next, accounts for a significant increase in R^2 resulting in an F change of 45.380 ($p<.0001$).

TABLE 74

THE RELATIONSHIP OF VARIABLES TO EMOTIONAL EXHAUSTION (INTENSITY) (N=195)

Itinerant Specialists

Set	Multiple R	R^2	F	Increase in R^2	F Change
Demographic/Situational Variable	.35825	.12834	<1		
Role Conflict	.56652	.32094	2.224[a]	.19260	45.380[b]
Role Ambiguity	.57959	.33593	2.298[a]	.01499	3.589

[a] $p<.01$

[b] $p<.0001$

The combined effects of the demographic/situational variables and role conflict account for a significant amount of variance on intensity of

emotional exhaustion ($p<.01$). When role ambiguity is entered, this same relationship exists. Alone, role ambiguity does not account for a significant increase in the variance. Role conflict is thus a modest predictor of emotional exhaustion frequency for itinerant specialists.

Null hypothesis six is, therefore, rejected in all aspects. Significant relationships and changes in accountable variance were found between the frequency and intensity of the burnout factors and role ambiguity and/or role conflict when controlling for the demographic/situational variables. The regression analyses indicate that role conflict scores are good predictors of depersonalization and emotional exhaustion frequency and intensity for itinerant specialists. Role ambiguity scores are good predictors of personal accomplishment frequency and intensity for itinerant specialists.

Null hypothesis 7. There are no differences in the significant relationships of mean levels of role conflict and role ambiguity to the perceived teacher burnout factors when controlling for the selected demographic/situational variables between itinerant and non-itinerant specialists.

Two additional sets of multiple regression analyses are generated for the non-itinerant group and for the total rural group (itinerant and non-itinerant specialists). These results are listed in Tables 75 through 86.

The relationship of variables to depersonalization frequency for the non-itinerant specialists is shown in Table 75. Role conflict accounts for the most variance in the equation (8%) which is significant at the .0001 level. Role ambiguity also accounts for a significant

TABLE 75

THE RELATIONSHIP OF VARIABLES TO DEPERSONALIZATION (FREQUENCY) (N=112)

Non-Itinerant Specialists

Set	Multiple R	R^2	F	Increase in R^2	F Change
Demographic/Situational Variables	.59090	.34916	1.448		
Role Conflict	.65887	.43410	1.980[b]	.08495	12.009[c]
Role Ambiguity	.68193	.46502	2.146[b]	.03092	4.566[a]

[a] $p<.05$

[b] $p<.01$

[c] $p<.0001$

amount of variance on the dependent variable of 3 percent which is significant at the .05 level.

Table 76 lists the results of the regression for the relationship of variables to depersonalization frequency for all rural specialists. Role conflict accounts for 11 percent of the variance on depersonalization frequency which is significant at the .01 level. Role ambiguity does not account for a significant change in the variance.

Role conflict accounts for a significant amount of variance on depersonalization frequency for itinerant, non-itinerant, and all rural specialists. Role ambiguity, however, accounted for a significant change in R^2 only for the non-itinerant specialists.

TABLE 76

THE RELATIONSHIP OF VARIABLES TO
DEPERSONALIZATION (FREQUENCY)
N=307

Itinerant and Non-Itinerant Specialists

Set	Multiple R	R^2	F	Increase in R^2	F Change
Demographic/Situational Variables	.37997	.14438	1.350		
Role Conflict	.50635	.25639	2.670[a]	.11201	40.821[a]
Role Ambiguity	.51465	.26486	2.702[a]	.00847	3.112

[a] $p<.01$

Tables 70, 77, and 78 show the relationship of variables to personal accomplishment frequency for itinerant specialists, non-itinerant specialists and all rural specialists, respectively. In all three groups, role ambiguity accounts for a significant change in the variance which is significant at the .01 level. Role ambiguity accounts for 5 percent of the variance for the itinerant specialists, 9 percent of the variance for non-itinerant specialists, and 7 percent of the variance for all rural specialists. In all three groups, role conflict accounted for change in variance that was not significant.

The relationship of variables to emotional exhaustion frequency for itinerant specialists, non-itinerant specialists, and all rural specialists are listed in Tables 71, 79, and 80. In all three groups role conflict accounted for a significant amount of variance on emotional

TABLE 77

THE RELATIONSHIP OF VARIABLES TO PERSONAL ACCOMPLISHMENT (FREQUENCY) (N=112)

Non-Itinerant Specialists

Set	Multiple R	R^2	F	Increase in R^2	F Change
Demographic/Situational Variables	.44224	.19557	<1		
Role Ambiguity	.53348	.28460	1.026	.08902	9.955[a]
Role Conflict	.53349	.28461	<1	.00002	<1

[a] $p<.01$

exhaustion frequency. With the itinerant group, role conflict accounts for 15 percent of the variance which is significant at the .0001 level. For the non-itinerant group, role conflict accounts for only 5 percent of the variance which is significant at the .05 level. Role conflict accounts for 14 percent of the variance for all rural specialists. This increase in R^2 is significant at the .01 level. In the total rural group only does role ambiguity account for a significant amount of the variance. It accounts for 2 percent of the variance which is significant at the .05 level.

Tables 72, 81, and 82 present the results of regression to test the relationship of variables to depersonalization intensity for the itinerant, non-itinerant, and all rural specialist groups. In all three groups, role conflict accounts for a significant amount of the variance on

TABLE 78

THE RELATIONSHIP OF VARIABLES TO
PERSONAL ACCOMPLISHMENT (FREQUENCY)
(N=307)

Itinerant and Non-Itinerant Specialists

Set	Multiple R	R^2	F	Increase in R^2	F Change
Demographic/Situational Variables	.33507	.11227	1.012		
Role Ambiguity	.42753	.18278	1.732[b]	.07051	23.381[b]
Role Conflict	.42769	.18292	1.679[a]	.00014	<1

[a] $p<.05$

[b] $p<.01$

TABLE 79

THE RELATIONSHIP OF VARIABLES TO
EMOTIONAL EXHAUSTION (FREQUENCY)
(N=112)

Non-Itinerant Specialists

Set	Multiple R	R^2	F	Increase in R^2	F Change
Demographic/Situational Variables	.57229	.32752	1.314		
Role Conflict	.61691	.38057	1.586	.05306	6.852[a]
Role Ambiguity	.61943	.38369	1.537	.00311	<1

[a] $p<.05$

TABLE 80

THE RELATIONSHIP OF VARIABLES TO
EMOTIONAL EXHAUSTION (FREQUENCY)
(N=307)

Itinerant and Non-Itinerant Specialists

Set	Multiple R	R^2	F	Increase in R^2	F Change
Demographic/Situational Variables	.23729	.05631	<1		
Role Conflict	.44158	.19500	1.876[b]	.13869	46.689[b]
Role Ambiguity	.46018	.21177	2.015[b]	.01677	5.745[a]

[a] $p<.05$

[b] $p<.01$

TABLE 81

THE RELATIONSHIP OF VARIABLES TO
DEPERSONALIZATION (INTENSITY)
(N=112)

Non-Itinerant Specialists

Set	Multiple R	R^2	F	Increase in R^2	F Change
Demographic/Situational Variables	.61339	.37625	1.629[a]		
Role Conflict	.68031	.46282	2.223[b]	.08657	12.892[c]
Role Ambiguity	.68808	.47345	2.220[b]	.01063	1.595

[a] $p<.05$; [b] $p<.01$; [c] $p<.001$

TABLE 82

THE RELATIONSHIP OF VARIABLES TO DEPERSONALIZATION (INTENSITY) (N=307)

Set	Itinerant and Non-Itinerant Specialists Multiple R	R^2	F	Increase in R^2	F Change
Demographic/Situational Variables	.31708	.10054	<1		
Role Conflict	.44754	.20029	1.939[a]	.09975	33.804[a]
Role Ambiguity	.44754	.20029	1.878[a]	<.00001	<1

[a] $p<.01$

depersonalization intensity. Role conflict accounts for 7 percent of the variance for itinerant specialists. This is significant at the .001 level. For non-itinerant specialists, 9 percent of the variance is accounted for by role conflict which is significant at the .001 level. Role conflict accounts for 10 percent of the variance on depersonalization intensity for all rural specialists which is significant at the .01 level.

Tables 73, 83, and 84 include the regression results for the relationship of variables to personal accomplishment intensity for the itinerant specialists, the non-itinerant specialists, and all rural specialists, respectively. In all three groups role ambiguity is entered first in the equation and accounts for a significant amount of variance on personal accomplishment intensity. Role ambiguity accounts for 4 percent of the variance for itinerant specialists, non-itinerant

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TABLE 33

THE RELATIONSHIP OF VARIABLES TO PERSONAL ACCOMPLISHMENT (INTENSITY)
(N=112)

Non-Itinerant Specialists

Set	Multiple R	R^2	F	Increase in R^2	F Change
Demographic/Situational Variables	.52126	.27171	1.607		
Role Ambiguity	.55075	.30332	1.178	.03160	4.367[a]
Role Conflict	.56607	.32043	1.164	.01711	<1

[a]p<.05

TABLE 34

THE RELATIONSHIP OF VARIABLES TO PERSONAL ACCOMPLISHMENT (INTENSITY)
(N=307)

Itinerant and Non-Itinerant Specialists

Set	Multiple R	R^2	F	Increase in R^2	F Change
Demographic/Situational Variables	.34415	.11844	1.075		
Role Ambiguity	.40071	.16057	1.481[b]	.04213	13.601[a]
Role Conflict	.40768	.16620	1.495[b]	.00563	1.825

[a]p<.005

[b]p<.01

specialists, and all rural specialists. These increases in R^2 are significant at the .01, .05, and .05 levels, respectively.

The relationship of variables to emotional exhaustion intensity are indicated in the regression results listed in Tables 74, 85, and 86 for the itinerant, non-itinerant, and all rural specialists. In all three analyses role conflict accounts for a significant amount of variance on emotional exhaustion intensity. Role conflict accounts for 19 percent of the variance for itinerant specialists. This is significant at the .0001 level. For non-itinerant specialists, the 5 percent of the variance accounted for by role conflict is significant at the .01 level. For all rural specialists, the 17 percent of the variance accounted for by role conflict is significant at the .01 level. Only for all rural specialists does role ambiguity account for a significant amount of variance on emotional exhaustion intensity. It accounts for 1 percent of the variance which is significant at the .05 level.

TABLE 85

THE RELATIONSHIP OF VARIABLES TO EMOTIONAL EXHAUSTION (INTENSITY) (N=112)

Non-Itinerant Specialists

Set	Multiple R	R^2	F	Increase in R^2	F Change
Demographic/Situational Variables	.63370	.40157	1.811		
Role Conflict	.67184	.45137	2.123[b]	.04980	7.262[b]
Role Ambiguity	.67298	.45290	2.043[b]	.00152	<1

[a] $p<.05$; [b] $p<.01$

TABLE 86

THE RELATIONSHIP OF VARIABLES TO
EMOTIONAL EXHAUSTION (INTENSITY)
(N=307)

Itinerant and Non-Itinerant Specialists

Set	Multiple R	R^2	F	Increase in R^2	F Change
Demographic/Situational Variables	.29932	.08959	<1		
Role Conflict	.50741	.25746	2.684[b]	.16787	61.267[b]
Role Ambiguity	.51962	.27001	2.774[b]	.01254	4.639[a]

[a] $p<.05$

[b] $p<.01$

To summarize, role conflict accounts for a significant amount of variance on depersonalization frequency and intensity for all three groups of specialists. Role ambiguity, however, accounts for a significant amount of variance on depersonalization frequency only for the non-itinerant specialists. The demographic/situational variables that are controlled for also account for a significant variance for non-itinerant specialists for depersonalization intensity. Role ambiguity accounts for a moderately significant amount of variance on personal accomplishment frequency and intensity for all three groups of specialists. In no instance does role conflict account for a significant amount of variance for personal accomplishment. Role conflict accounts for a

significant amount of variance for all three groups of specialists on emotional exhaustion frequency and intensity. Role ambiguity also accounts for a significant increase in R^2 for only the total rural group for both emotional exhaustion frequency and intensity.

CHAPTER V

SUMMARY, MAJOR FINDINGS, CONCLUSIONS, RECOMMENDATIONS AND IMPLICATIONS

Summary

The purpose of this study was to determine the extent of burnout among special education specialists in rural schools. Of specific interest were the relationships that exist among burnout of itinerant and non-itinerant specialists and various demographic and situational variables. These variables included age, sex, marital status, educational level, years of teaching service, number of consecutive years of special education teaching, the number of schools served, the number of miles driven per week, the exceptionality taught, the type of service delivery model, and the grade span of the students taught. A third purpose of this study was to investigate the relationship of perceived role ambiguity and role conflict to burnout of the itinerant and non-itinerant specialists in rural schools.

Four hundred fifty-seven special education specialists in North Dakota and South Dakota were sent questionnaires with an enclosed, self-addressed envelope. Three hundred seven subjects providing special education in the rural schools returned complete survey instruments. They were the subjects for the research. Each of these specialists completed three instruments: the Maslach Burnout Inventory, the Role Questionnaire and a demographic/situational data sheet. The Maslach Burnout Inventory

was used to measure frequency and intensity of burnout on the three subscales of emotional exhaustion, personal accomplishment and depersonalization. The Role Questionnaire, which measured job relevant organizational role problems, contained two subscales: role conflict and role ambiguity. On the demographic/situational data sheet, respondents provided personal information as well as information describing their jobs.

A number of statistical analyses were used to analyze the data for this study. They included crosstabulations, chi squares, Pearson correlations, point biserial correlations, two way analysis of variance, and multiple regression. The .05 level of significance was considered sufficient to reject the null hypotheses.

Summary and Discussion of Major Findings

The major findings for research question one and the seven hypotheses under consideration in this study are discussed in this section. A summary of the major findings relevant to each research question or hypothesis and a discussion of the results are included.

1. The largest proportion of both itinerant and non-itinerant specialists reported low frequency and intensity of depersonalization. On personal accomplishment frequency, the largest proportion of itinerant specialists (42.6%) perceived high feelings of personal accomplishment. The largest proportion of non-itinerant specialists (38.4%) revealed medium feelings on this variable. The greatest proportions of both itinerant and non-itinerant specialists perceived intensity of personal accomplishment in the medium category. Both groups indicated the greatest proportion falling in the medium category for emotional exhaustion frequency.

On intensity of emotional exhaustion, the largest proportion of itinerant specialists indicated emotional exhaustion intensity in the medium category. The largest proportion of non-itinerant specialists had low feelings of emotional exhaustion intensity.

Based on this information, it can be seen that the rural specialists revealed lower proportions of burnout as measured by the burnout variables of depersonalization, emotional exhaustion and personal accomplishment. In no instance did the high burnout categories contain one-third of the itinerant or non-itinerant respondents.

2. There were some significant relationships in proportions of itinerant and non-itinerant specialists in perceived frequency and intensity of depersonalization categories. More non-itinerant specialists reported high depersonalization frequency and intensity scores than itinerant specialists. Similar proportions of burnout on the MBI categories of frequency and intensity of emotional exhaustion and personal accomplishment were perceived by itinerant and non-itinerant specialists.

3. Some significant relationships were found among the demographic/situational variables and the burnout factors. As the size of caseload increased, the itinerant specialists reported significantly more frequent feelings of personal accomplishment. Itinerant specialists serving students from more than one category of exceptionality reported significantly more frequent feelings of depersonalization. Specialists serving the speech handicapped, however, reported significantly less frequent feelings of depersonalization. Itinerant tutors demonstrated lower depersonalization frequency than other service models. Specialists serving resource rooms and self-contained placements perceived

significantly more frequent feelings of depersonalization than other specialist service models. Specialists serving resource rooms also reported fewer feelings of personal accomplishment than did specialists in other service models.

Some of the variables did not relate significantly to burnout for itinerant specialists. No significant relationship was found among frequency of burnout factors and age, years of teaching experience, consecutive years of special education teaching, number of schools served, miles driven per week, number of grade levels served, sex, marital status, and educational level in the itinerant specialists.

4. Some differences in significant relationships between demographic/situational variables and frequency of burnout among itinerant groups were noted in the findings. As age increased significantly less frequent feelings of depersonalization were perceived. When all rural specialists were considered there was a significant positive relationship between years of teaching experience and frequency of perceived personal accomplishment. When the total rural group was considered, specialists serving more schools reported less frequent feelings of depersonalization. Non-itinerant specialists serving emotionally disturbed children reported greater frequency of perceived depersonalization than other specialists. Specialists serving hearing impaired children indicated significantly more frequent feelings of personal accomplishment. When the itinerant and non-itinerant groups were considered together no different relationships were found than were present in one or the other group when considered individually.

5. Some significant relationships existed between demographic/situational variables and intensity of burnout factors for itinerant specialists. The intensity of feelings of personal accomplishment increased as caseload increased for the itinerant specialists. When compared with other specialists three significant relationships were noted by exceptionality: (a) those serving the visually impaired indicated significantly less intense feelings of emotional exhaustion, (b) those serving children in more than one category of exceptionality reported more intense feelings of depersonalization, and (c) teachers of the deaf indicated more intense feelings of personal accomplishment. More intense feelings of depersonalization were also indicated by specialists serving resource rooms or self-contained service models than for other models. The itinerant tutors indicated less intense feelings of depersonalization than other service models. The itinerant specialists forty-one and over indicated significantly less intense feelings of depersonalization than other age groups.

It is important to note that not all variables had significant relationships with the intensity of burnout. No significant relationships were found among intensity of burnout factors for itinerant specialists and years of teaching experience, consecutive years of special education teaching, number of schools served, miles driven per week, number of grade levels taught, sex, marital status, and educational level.

6. Some differences existed between itinerant groups on significant relationships of intensity of burnout factors and the demographic/situational variables. As years of teaching increased, less intense

feelings of emotional exhaustion were perceived among the non-itinerant specialists. Significantly less intense feelings of depersonalization were reported as the age and years of teaching experience increased among non-itinerant specialists. When all rural specialists were statistically considered, as age increased the intensity of emotional exhaustion and depersonalization decreased significantly. Of all rural specialists those serving more schools indicated more intense feelings of personal accomplishment.

Among the non-itinerant specialists significantly more intense feelings of depersonalization were shown for specialists serving the emotionally disturbed. Non-itinerant specialists serving speech handicapped indicated significantly more intense feelings of personal accomplishment. None of these same relationships were found among the itinerant sample.

When all rural specialists are statistically considered significant positive correlations between teachers serving children from more than one category of handicap and intensity of personal accomplishment were indicated. When compared with teachers of other exceptionalities, specialists serving the physically handicapped indicated significantly more intense feelings of personal accomplishment.

No significant interactions between the independent variables of sex, age group, educational level, or marital status with itinerant group on intensity of burnout factors were reported.

7. There are significant relationships among burnout factors and role conflict and role ambiguity when controlling for the variance of the demographic/situational variables. Role conflict scores accounted

for significant changes in the frequency and intensity of burnout as measured by the depersonalization and emotional exhaustion subscales for itinerant specialists. Role ambiguity for this group accounted for significant changes in personal accomplishment frequency and intensity when controlling for the demographic/situational variables.

8. Similar significant relationships existed between burnout factors and role ambiguity and role conflict when controlling for the demographic/situational variables for both the itinerant and non-itinerant groups. For the non-itinerant sample, however, both role conflict and role ambiguity accounted for significant amounts of variance on depersonalization frequency. As with the itinerant gorup, role conflict accounted for significant changes for the total rural group. Role ambiguity accounted for significant variance on personal accomplishment frequency and intensity for all three groups: itinerant, non-itinerant, and all rural specialists. For all three groups, role conflict accounted for a significant change in variance for emotional exhaustion frequency and intensity. In only the total rural group, however, significant changes in variance were also noted for role ambiguity. Role conflict accounted for similar significant amounts of variance on depersonalization intensity for the itinerant, non-itinerant, and total rural groups. In all three gorups, role ambiguity did not account for significant changes in variance on intensity of depersonalization.

Conclusions

The following conclusions emerged from the findings of this study. It is important to note that in the present research only modest correlations are necessary to achieve significance based on the size of the sample.

1. The most important finding is that burnout is not evident in large proportions among the itinerant specialists. Based on the MBI categories of burnout levels, however, it can be concluded that some itinerant specialists and non-itinerant specialists were experiencing high levels of burnout. It seems clear that burnout was not as prevalent as among the caregivers who served as the normative base for the MBI. Less than one-third of itinerant or non-itinerant groups reported high burnout on frequency or intensity on depersonalization, personal accomplishment, or emotional exhaustion. The non-itinerant specialists experienced more intense and frequent feelings of depersonalization than the itinerant specialists. When the specialists serving the speech handicapped were removed from the sample, this significant difference was not present. These results suggest that burnout was not the major contributing factor to attrition of itinerant specialists. Instead the most important variables in determining burnout were the exceptionality taught and the amount of continual contact with the same students. Specialists experienced more burnout when they worked with children who made slow progress and required regular contact with the same specialist. Itinerant status did not seem to be the most important factor.

Although the proportions are lower, rural schools cannot afford to lose special education specialists because of burnout. Preventing burnout should, therefore, be a concern of the regular and special education administrators in the rural schools.

2. The results showed neither sex, educational level, nor marital status were significantly related to burnout frequency or intensity. These findings were in conflict with those of Arreenich (1981), Crane

(1982), Maslach (1981b), Maslach (1982), and Zabel and Zabel (1983a). Most special educators tend to be female. In this sample, only fifteen males were included compared with 292 females. This may have influenced the findings. Gupta, Jenkins and Douglas (1981) had found females to experience more burnout. Arreenich (1981), however, had found males to experience more burnout. It was observed that regardless of educational level, approximately the same probability of burnout was experienced. This may suggest that advanced educational degrees did not significantly reduce chances of burnout among rural specialists. Zabel and Zabel (1983a), however, had found teachers with master's degrees to experience significantly less emotional exhaustion and higher personal accomplishment. Among the rural specialists, marital status did not make significant differences in burnout. It is interesting to note that the largest category of marital status in the study is "married with children" (161). Only five divorced and ten single parents were included in the sample. These unequal groups may have had some influence on the results on this variable.

3. The number of grade levels served did not result in any significant relationships with the burnout factors. This was true for both the itinerant and non-itinerant groups.

4. Instead of feeling burned out by different measures of work overload, such as size of caseload, the itinerant specialists reported greater personal accomplishment frequency and intensity. This was not shown among the non-itinerant specialists. Since a majority of the itinerant population served speech handicapped, this finding may have reflected the increased chances of visible improvement and termination from handicapped services for these children. There is also the

possibility that most specialists in the rural schools did not feel they had caseloads that were of optimal levels.

These findings contrasted those of Welch, Medeiros and Tate (1982), Olson and Matuskey (1982), and Zabel and Zabel (1983b). In their research increased size of caseload led to greater feelings of burnout.

5. The results of this study also showed that the miles driven per week did not have a significant relationship with burnout. Since driving in North Dakota and South Dakota during the winter months is often difficult, it is interesting to note that no significant relationship existed with miles driven and burnout. A possible explanation is that driving also removes the specialists temporarily from continual contact with the handicapped students; this serving as a respite and diversion from teaching. Kahn (1978) has suggested that these breaks in direct service during the day can actually reduce stress.

6. It appears that age level was significantly related to burnout among rural specialists. The oldest age group of itinerant and non-itinerant specialists reported lower feelings of depersonalization than did younger specialists. These findings paralleled those of Crane (1982) and Zabel and Zabel (1983a, 1983b).

7. The results revealed that the exceptionality taught has a significant impact on burnout. Serving students from more than one category of exceptionality led to more frequent burnout among itinerant specialists as measured by depersonalization. This may have resulted from a lack of training in each exceptionality that may have allowed the specialist to understand the child's handicaps and deal with him on a personal basis. When all rural specialists were grouped, however,

greater feelings of personal accomplishment were reported by those serving more than one category of exceptionality. Among the non-itinerant specialists, those serving emotionally disturbed children experienced the greatest burnout. The frequent feelings of depersonalization may occur in that emotionally disturbed children are often unable to reciprocate positive feelings to their teachers. To protect themselves from this emotional strain, the specialists may come to regard the students in an impersonal manner.

Significantly less frequent feelings of depersonalization burnout were evident in itinerant specialists serving speech handicapped and non-itinerant specialists serving the hearing impaired. These are considered mild handicaps. This may suggest that less burnout, as measured by depersonalization, is evident for specialists serving students with mild handicaps. The milder handicaps require less time and emotional involvement. Caseloads change frequently and improvement is usually more rapid. The help of additional auxiliary specialists such as occupational therapy, physical therapy, psychological services, etc., are not usually needed for children with milder handicaps. In the rural programs, these specialists may not be available. Specialists serving other handicaps requiring these services may have additional pressures on them. These factors may have minimized burnout among specialists serving children with milder handicaps.

Significantly less intense feelings of emotional exhaustion were evident among itinerant specialists serving the visually impaired. Teachers of the deaf demonstrated more intense feelings of personal accomplishment. When all rural specialists were considered, specialists

serving the physically handicapped also indicated greater personal accomplishment.

Zabel and Zabel (1983b) also found teachers of the emotionally disturbed to experience more burnout than specialists dealing with other exceptionalities. This research on rural specialists did not support their finding on increased burnout among specialists serving the gifted children. It is important to note that most of the previous research dealt with only three exceptionalities: mentally handicapped, emotionally disturbed, and learning disabled (Beck & Gargiulo, 1983; Crane, 1982; Olson & Matuskey, 1982). The findings of this research where all exceptionalities were considered is, therefore, important.

8. The results of the study also allow one to conclude that the type of service delivery model had a significant impact on burnout depersonalization. Specialists providing services through a resource room model or self-contained model indicated significantly more frequent and intense feelings of burnout. According to Public Law 94:142, the Education of All Handicapped Act, these models would represent more restrictive environments than those receiving tutoring or consultation. Students in these placements often demonstrate poor classroom adaptive skills and more severe handicaps. Specialists in the resource room or self-contained classroom have more intense and regular contact with the students. Accordingly, positions of greater individual responsibility may stimulate burnout.

In contrast, the specialists who served as itinerant tutors reported significantly less burnout than did those of other service models. This finding may reflect the fact that these specialists shared responsibility

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for the children they served. When compared with other models, they devoted the least amount of continual contact with the students.

Crane's (1982) research also found that teachers in self-contained special education classrooms had more feelings of emotional exhaustion and depersonalization. Not all research has supported this finding, however. Zabel and Zabel (1985) found that consulting teachers experienced greater emotional exhaustion and depersonalization than specialists from other service models.

9. Although not significant for either the itinerant or non-itinerant group alone, the relationships between years of teaching and burnout for all rural specialists were significant. As years of teaching increased, greater frequency of personal accomplishment was perceived. This supported the findings of Crane (1982). With the high attrition rate in special education, this was not surprising. Those specialists who have not felt a sense of personal accomplishment would probably be the ones who left the profession.

10. It is evident that role conflict had significant impact on burnout for both itinerant and non-itinerant specialists as measured by depersonalization and emotional exhaustion in this research. Role conflict accounted for more variance, however, for itinerant than non-itinerant specialists. Significant changes in personal accomplishment frequency and intensity were accounted for by role ambiguity. These results suggested that role conflict may lead to emotional exhaustion and depersonalization as one attempts to meet the conflicting demands that may be classified as intra-sender, inter-sender, inter-role, person-role, or role overload (Kahn et al., 1964). Contrary to expectations,

for the children they served. When compared with other models, they devoted the least amount of continual contact with the students.

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9. Although not significant for either the itinerant or non-itinerant group alone, the relationships between years of teaching and burnout for all rural specialists were significant. As years of teaching increased, greater frequency of personal accomplishment was perceived. This supported the findings of Crane (1982). With the high attrition rate in special education, this was not surprising. Those specialists who have not felt a sense of personal accomplishment would probably be the ones who left the profession.

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role overload, as measured by size of caseload, number of schools served, and miles driven per week, did not result in burnout. Instead, increased caseload size and the number of schools served led to greater feelings of personal accomplishment. One may conclude that this role conflict was indicative of conflicting pressures from supervisors rather than merely work overload. With increased role ambiguity, it may be difficult for the rural special education specialist to determine whether professional responsibiiities were being achieved. When job responsbilities were not clarified, nor necessary information provided, rural specialists would not perceive a sense of accomplishment in their job. Without the reinforcement gained by knowledge of professional success and competence, rural specialists may experience burnout.

Both Schwab and Iwanicki (1982) and Crane (1982) used the same instruments to measure role stress among teachers compared with burnout. Their findings paralleled those found for the rural specialists.

Recommendations

The findings of this study generated a number of recommendations for rural special education programs and for further research. These will be discussed in this section of the chapter.

Rural Programs

1. Special effort must be made by building principals to stimulate a sense of belonging for rural specialists, especially those in resource room and self-contained service models. This will not only fulfill a natural human need, but will also set up a communication channel from which information and recognition of success are transmitted to the specialist.

Chapman and Hutcheson (1982) investigated attrition from teaching careers. They found that the depth of teacher and administrator interpersonal relationships were important for teachers to feel successful in their careers. The recognition and positive feedback from peers and friends in the teaching environment are also key factors in teachers feeling successful. Opportunities for this must be provided by the administrators.

2. Administrators must be made aware of the fact that some special educators require more professional reinforcement and recognition than do others. Rural specialists serving the emotionally disturbed as well as children requiring more restrictive environments may experience greater feelings of burnout. Often these handicapped students do not provide a reciprocal reinforcement to their teachers. Limited progress may also be characteristic of students in these placements. Praise and encouragement must, therefore, come from colleagues and supervisory personnel.

These same specialists may also require in-service training on stress reduction. Administrative recognition that there are stressors in teaching handicapped students where progress is minimal is important. A number of recommendations for stress reduction among teachers have been put forth (Alschuler, Carl, Leslie, & Ustal, 1980; Cedoline, 1982; Kahn, 1978; Maslach, 1982; Truch, 1980). Some in-service training for stress reduction is recommended.

3. Change tends to prevent burnout. In rural schools the special education specialists may serve the same students for many years in a row. This may be particularly true for those in resource rooms or self-contained classrooms. A number of changes within the specialists'

duties may decrease the chance of burnout. Where possible, special education specialists could be allowed to voluntarily change schools or teaching assignments. It may be helpful to allow the special education personnel to work as regular teachers as a temporary assignment when they are experiencing professional stress. They may need to work with students where progress is more observable. Flexibility about part-time work may also provide a means for emotional relief among rural specialists. These changes may facilitate stress reduction among these specialists.

4. To decrease the possibility of burnout, in-service training is recommended for the itinerant specialists serving students of more than one exceptionality. It should include not only training in appropriate methods and materials for the handicaps for which the specialist is not specifically educated, but also information regarding etiology and prognosis of educational progress for these students. Such experiences may help the specialists set realistic goals for the students.

5. Based on the findings of this research regarding role clarification for administrators, two in-service recommendations made by Robson (1981) seem appropriate:

> a) some inservice component for administrators to consider and develop aspects of shared, as well as specific, role responsibility for the delivery of services, and b) some inservice component for teachers in terms of the role administrators in the delivery of educational services. (p. 187)

6. A further recommendation is made based on this problem of conflicts in roles among building level and special education administrators. A directive from the state departments of instruction for each special

education cooperative to designate a chain of administrative command over each specialist may prevent, or lessen, the stress that results from conflicting pressures.

7. The recommendations of Schwab and Iwanicki (1982) regarding potential strategies for limiting stress due to role conflict and ambiguity are also applicable for rural specialists. They include:

> Establish clean lines of authority within the school organization. Develop clear teacher job descriptions. Involve teachers in the development of realistic systemwide as well as individual school goals and objectives. Train teachers and administrators in conflict resolution skills. Organize effective teacher support groups. (p. 72)

8. A system of "mentoring" is recommended for specialists working in the rural schools. Teachers who are older and have been teaching in the rural areas could serve as models and resources for new personnel. This is common among regular educators where there are others in similar employment positions within the school (Fagan & Walter, 1982). The rural special education specialists are usually the only ones with their specialty in their schools. Using a "buddy system" and providing a lucrative phone budget for new employees to seek information and professional support may be effective in reducing burnout resulting from role ambiguity.

Further Research

1. Because role conflict did appear to affect burnout among both itinerant and non-itinerant rural specialists, further research should look at the types of conflicts that may arise in the rural special education programs. These conflict factors should be compared with burnout variables for the rural specialists.

2. The role of administrative and teacher support on burnout among rural specialists should be thoroughly investigated.

3. The role of clear job descriptions on the affect of burnout should be studied for the rural specialists.

4. Training in conflict resolution for rural specialists may tend to decrease the prevalence of this factor as a stress inducer for this population. This possibility should be tested.

5. Since burnout is not common in high proportions in the rural schools, this cannot be used to explain the high attrition rate among these specialists. Further research should investigate other variables that may be causing this attrition rate.

Implications

The final section of this chapter will be devoted to the general implications relating to an evaluation of the findings of burnout among the special education specialists in the rural schools. The most important of these is that the rural itinerant and non-itinerant specialists do not tend to be as burned out as other caregivers. This implies that there are other reasons why the attrition rate among specialists in the rural schools is as high as it is. Further research to determine the causes of the high attrition rates is warranted.

Most of the demographic/situational variables that relate to burnout are not controllable. It is unlawful to hire employees based on sex, age, or marital status. Some variables that are administratively controllable include the size of caseload, miles driven per week, and the number of schools served. The findings, however, indicated that these do not lead to burnout among rural specialists. The demographic

and situational variables that did correlate with burnout (such as exceptionality taught, type of service model, age, and years of teaching) cannot be administratively determined. It is necessary for someone to serve all children regardless of handicap. Since the law insists that a range of placement alternatives be provided, potential for burnout will always remain for special education specialists. This implies that administrators should alter other variables to prevent burnout.

Administrators can provide in-service training to help specialists learn how to minimize the emotional strain of stress. They can also provide additional training in specialties for which the specialist is not specifically trained. An attempt can be made to provide at least telephone communication with additional, auxiliary personnel or other similar specialists.

The amount of role ambiguity and role conflict within an educational structure can be adjusted. The findings imply that administrators need to develop an awareness of the extent and quality of information that is getting to the specialists in the rural schools. Clear and non-conflicting role expectations are needed as well as recognition for achievement. Communication between special and regular administrators should be frequent, and of sufficient depth so as to avoid unnecessary conflicts for the specialist in the rural schools. Clear lines of authority regarding various administrative tasks could eliminate some unnecessary stress for the rural specialists. Each specialist could be assigned one administrator from the school served to function as his/her primary supervisor. These changes are feasible and should be considered in the rural schools.

In summary, burnout is not found in high proportions among rural itinerant specialists. Most of the demographic and situational variables that correlate with burnout cannot be administratively adjusted. What can be addressed is the amount of role ambiguity and role conflict present in rural special education programs. Attempts should be made to reduce these role stressors in the rural schools. In-service to help specialists deal with stress is also warranted. It is also important for all teachers and administrators to recognize that they can help minimize the effects of stress on their colleagues by providing professional stimulation, encouragement, reinforcement, information, and cooperation.

APPENDICES

APPENDIX A

LETTER OF INTENT TO CONDUCT STUDY

Sorry, but this is the best copy from the fiche.

THE UNIVERSITY OF NORTH DAKOTA

THE CENTER FOR TEACHING AND LEARNING
Box 8158, University Station
Grand Forks, North Dakota 58202

Dear Special Education Teachers:

You are invited to participate in a study with other special education personnel. We hope to determine the extent of stress related burnout among rural special education teachers. This will be compared with the amount of role ambiguity and role conflict you perceive in your job situation and the personal and professional information you provide. You have been selected as one of many special education teachers serving rural schools in North Dakota and South Dakota. These states have been selected because of their similar ruralness and climatic conditions which make winter travel between schools hazardous and stressful.

Your participation in this study is strictly voluntary. The results of this study, however, may benefit you and other special education personnel by providing evidence to administrators in rural areas of the stressors that are present. It may encourage adjustment of conditions to alleviate the causes of burnout among special education personnel in the rural schools. It also may stimulate inservice programs to teach personnel how to cope with job related stress.

If you choose to participate, please complete the three survey forms included as accurately as possible. Return them in the enclosed envelope within two weeks. Any information that is obtained in connection with this study that can be identified with you will be changed to a number code and will be destroyed following completion of the study. Personally aware of the paperwork involved in the field of special education, your assistance in this research is greatly appreciated.

Sincerely,

Linda J. Reetz

Linda J. Reetz
Doctoral Student

APPENDIX C

DEMOGRAPHIC/SITUATIONAL DATA SHEET

Demographic/Situational Data Participant # ____

Directions: In each of the items identified as A through K check (✓) the one best response which describes you or your situation.

A. Age:
___(1) 20-30 ___(2) 31-40 ___(3) 41 and over

B. Sex:
___(1) Male ___(2) Female

C. Marital Status:
___(1) Single ___(2) Married/No Children ___(3) Single Parent
___(4) Divorced ___(5) Married/With Children

D. Educational Level:
___(1) Bachelor's ___(2) Master's ___(3) Specialist's
___(4) Doctorate ___(5) Other, please explain

E. Number of Years Teaching:
___(1) 1-3 ___(2) 4-6 ___(3) 7-9 ___(4) 10-12
___(5) 13 and over, please specify _____
Number of Consecutive Years of Special Education Teaching:
___(1) 1-3 ___(2) 4-6 ___(3) 7-9 ___(4) 10-12 ___(5) 13+

F. Current Number of Schools Served:
___(1) 1 ___(2) 2 ___(3) 3 ___(4) 4 ___(5) 5+

G. Exceptionality Taught:
___(1) Speech Handicapped ___(2) Learning Disabilities
___(3) Emotionally Disturbed ___(4) Educable Mentally Handicapped
___(5) Deaf ___(6) Trainable Mentally Handicapped
___(7) Hearing Impaired ___(8) Visually Impaired
___(9) Physically Handicapped ___(10) Other _____

H. Number of Miles Driven Per Week:
___(1) 0-50 ___(2) 51-100 ___(3) 101-150 ___(4) 151-200
___(5) 201-300 ___(6) 301-400 ___(7) 401-500 ___(8) 500+

I. Size of Caseload:
Exceptionalities #2-#9 Complete This Section:
___(1) 0-5 ___(2) 6-10 ___(3) 11-15 ___(4) 16-20
___(5) 21-25 ___(6) 25+, please specify _____
Speech Pathologists Complete This Section:
___(1) 0-15 ___(2) 16-30 ___(3) 31-45 ___(4) 46-60
___(5) 61-75 ___(6) 76+, please specify _____

J. Type of Service Delivery:
___(1) Itinerant Tutor ___(5) Non-Itinerant Tutor
___(2) Itinerant Consultant ___(6) Non-Itinerant Consultant
___(3) Resource Room ___(7) Other, specify _____
___(4) Self-Contained _____

K. Grade Levels of Students Taught:
___(1) Pre-K ___(2) K-3 ___(3) 4-6 ___(4) 7-9 ___(5) 10-12
___(6) K-6 ___(7) K-8 ___(8) K-12

APPENDIX B

ROLE QUESTIONNAIRE

Sorry, but this is the best copy from the fiche.

ROLE QUESTIONNAIRE

Directions: Please read the following statements and respond to them by circling one of the numbers 1 through 7. If this statement is definitely not true in your job, you would circle number 1. If the statement is extremely true, you would circle number 7.

	1	2	3	4	5	6	7
	DEFINITELY NOT TRUE		MODERATE				EXTREMELY TRUE
1.	I have to do things that should be done differently.	1	2	3	4	5	6	7
2.	I have to work on unnecessary things.	1	2	3	4	5	6	7
3.	I perceive an assignment without the proper manpower to complete it.	1	2	3	4	5	6	7
4.	I receive an assignment without adequate resources and materials to execute it.	1	2	3	4	5	6	7
5.	I work with two or more groups who operate quite differently.	1	2	3	4	5	6	7
6.	I have to buck a rule or policy in order to carry out an assignment.	1	2	3	4	5	6	7
7.	I receive incompatible requests from two or more people.	1	2	3	4	5	6	7
8.	I do things that are apt to be accepted by one person and not accepted by others.	1	2	3	4	5	6	7
9.	I know exactly what is expected of me.	1	2	3	4	5	6	7
10.	I feel certain about how much authority I have.	1	2	3	4	5	6	7
11.	Clear, planned goals exist for my job.	1	2	3	4	5	6	7
12.	I know that I have divided my time properly.	1	2	3	4	5	6	7
13.	I know what my responsibilities are.	1	2	3	4	5	6	7
14.	Explanation is clear of what has to be done.	1	2	3	4	5	6	7

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