THE RELATIONSHIP OF PERSONALITY TYPE TO PERCEIVED LEVELS OF JOB BURNOUT AMONG SECONDARY PRINCIPALS

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THE RELATIONSHIP OF PERSONALITY TYPE AND PERCEIVED LEVELS OF JOB BURNOUT AMONG SECONDARY PRINCIPALS

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Problem:

The issue of burnout continues to receive a great deal of attention. Schwab, Gmelch and others have raised concerns about educators and stress and the result of stress in the multidimensional condition of burnout. Educators deal with continually mounting levels of stress and burnout in a world that is rapidly changing and thrusting greater expectations on education. As Barth, Ubben, Smith and other scholars have noted, the principal is called upon to lead educationally in the forefront of this rapid change. In the conceptual framework of Schwab, Gmelch, Whitaker and other researchers, this study is aimed at determining if there are any relationships between levels of burnout and personalities of secondary principals as measured in temperament types.

The objectives of this study were threefold. The first was to determine if there were any relationships among secondary principals between perceived levels of burnout as measured in reported subscale levels of Emotional Exhaustion, Depersonalization, and Personal Accomplishment and the variables of age, sex, grade levels administered, school size, educational level, years of experience, years in the current position, and plans to continue in the principalship.

The second objective was to determine if relationships existed between self reported personality traits of secondary principals as measured in temperament types of Sensing-Judging, Sensing-Perceiving, Intuitive-Feeling, or
Intuitive-Thinking and the variables of age, sex, grade levels administered, school size, educational level, years of experience, years in the current position, and plans to continue in the principalship.

The third objective was to determine if relationships exist among the background variables, personality temperament types, and level of burnout as measured by Emotional Exhaustion, Depersonalization, and Personal Accomplishment.

Procedures:

The subjects of this study included all 659 secondary principals in the state of Iowa. The surveys included an informational background questionnaire, the Educators Version of the Maslach Burnout Inventory (MBI) and the Meyers-Briggs Type Indicator (MBTI). Both the MBI and the MBTI have been shown to be valid and reliable instruments. The usable respondents totaled 560 for a usable return of 85%.

Findings:

The findings of this study were that intent played a statistically significant role in relationship to levels of Emotional Exhaustion and Depersonalization experienced by secondary principals. There are also relationships between the temperament types of secondary principals and the variables of sex, levels of education attained, and urban or rural school setting.

Recommendations:

It is a recommended, based on the findings of this study, that further comparative studies be conducted using different measures of personality and burnout or that other aspects of the role of the principalship be studied in relation to levels of burnout.
Acknowledgment

As many know, doing a dissertation, especially a quality quantitative takes a great deal of effort and patience. It is an exciting endeavor that I am happy to have completed. I owe many people a lot for their helping me complete this work.

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Chapter 1

INTRODUCTION

In recent years there has been a growing concern over job burnout resulting from work related stress. In 1978, Walter Gmelch characterized stress and burnout in the late twentieth century as parallel to the Great Plague and leprosy during the Middle Ages. It was evident that others confirmed this concern in Gmelch writing ten years later that there were over 100,000 publications about stress and its impact on people (1988).

Educators have been the focus of a number of articles and research studies on job burnout. Dealing with the daily tasks of education takes a great deal of physical, mental, and emotional energy. Widespread criticism by the media over supposed declining test scores and students' lower ability to compete in a world economy, decreased enrollments, reduced funding for education, problems brought on by a rapidly changing society, and increased expectations of schools have resulted in even the most dedicated educators experiencing job stress. One consequence of stress resulting from their work has been job burnout. Burnout has been defined as a state of emotional exhaustion and fatigue, negative attitudes toward others in the workplace, especially clients, and loss of feeling of accomplishment experienced by people in the helping professions. Persistent feelings of burnout have been shown to have a negative impact on the individual, his or her students, and the organization (Maslach, Jackson & Schwab, 1986; Schwab, 1994).

Many researchers are attempting to determine the impact that stress has on people psychologically, physically, in terms of functioning in the workplace, and in terms of quality of life. Montiero noted in a 1990 study that forty to fifty percent of all diseases are stress related. In a 1990 study of 789 secondary teachers in Australia, Tuettemann and Punch reported that one-seventh indicated
experiencing high stress and another one-seventh reported at least moderate levels of stress effecting their daily feelings of job satisfaction. Other studies have been conducted to determine possible links between stress and burnout and physical consequences (Cooper, Sieverding, & Muth, 1988; Friedman & Rosenman, 1974; Kriegel & Kriegel, 1984; Sarros, 1988). Stress and burnout are phenomena impacting many individuals and society in general, and educators are in a particularly vulnerable position for experiencing their effects.

The increased expectations and criticism, the calls for transforming public education and practices, and the mounting issues dealt with by educators all added to the daily tasks in education increase the stress experienced by educators. Recent education literature is filled with various articles concerning educators and stress and the phenomena referred to as “burn out”, in which the stress of the job is no longer able to be dealt with in an acceptable manner. Persistent feelings of burnout may impact an individual, the students, and the organization negatively. Dean explained in 1990 that "we do know that an exciting teacher is more effective than one who wishes he were doing almost anything else!" (Dean, 1990, 32)

The leadership in a building is defined by the principal. The performance of the principal is often linked to the success or failure of a building as measured by overall school effectiveness, climate, and the performance of students, teachers, and district employed support staff in that building (Barth, 1991; DuFour, 1991; Leithwood & Montgomery, 1982; Lezotte & Passalacqua, 1978; Smith & Andrews, 1989).

The principal plays an important role in the climate of the school and satisfaction of the staff. As part of this call, researchers have cast the principal as staff developer, teacher energizer, motivator, and supporter (DuFour, 1991, Duttweiler, 1986; Ellis, 1989; Riegle, 1985; Thiel & Thiel, 1989). Part of the role
of the principal is as a resource provider able to identify ways to meet the needs of teachers (Hartzell & Winger, 1989; Imber, Neidt, & Reyes, 1990; Kreis & Milstein, 1985; Leslie, 1989). Because of a great deal of recent concern over stress and burnout among teachers, the principal has also been viewed as a central agent in maintaining teacher job satisfaction and preventing teacher stress (Blase, Dedrick, & Strathe, 1986; Calabrese, 1987; Campbell & Williamson, 1986; Cherniss, 1988; Evans & Johnson, 1990; Schlansker, 1987).

All of the demands placed on a principal make the job a difficult one to perform effectively. It takes a good match between the person and the job in order to make for an effective principalship and to help prevent burnout. Possible sources of low job satisfaction, stress and burnout identified in the literature include perceived role conflict and role ambiguity (Bacharach & Bamberger, 1990; Crane & Iwanicki, 1986; Kahn, Wolfe, Quinn, Snoek, & Rosenthal, 1964; Kottkamp & Mansfield, 1985; Schwab & Iwanicki, 1982a). Part of diminishing perceived role conflict and role ambiguity involves clarifying the duties and responsibilities associated with a job, but it takes coping and adaptation skills on the part of the person who is principal in order to minimize or eliminate the effects of stress. Thus, focusing on the job description and organization is only part of what needs to be studied in order to understand principal burnout. It is helpful to study the personality of the principal in order to understand more clearly principal burnout (Cooper, Sieverding, & Muth, 1988; Ubben & Hughes, 1987; Whitaker, 1992).

General Statement of the Problem

A current problem facing education in many states is that there are less qualified educational administrators and more principals leaving the field. Daniel Duke reported in 1988 that “22% of public school administrators who were
employed in Vermont in 1984 had left their position by the Fall of 1985" (p. 308). In this same study, Duke associated part of a similarly high rate of exemplary principals in Virginia leaving their positions due to stress and burnout as based on his findings from exit interviews with them.

In a 1978 study, Gmelch reported that leaders in education were faced with more pressure, aggression, change and conflict than at any other time in this century. In 1983, the American Association of School Administrators reported that principals ranked dealing with the stress of the job as one of the top in seriousness of job related problems. They ranked this component almost as high in 1981 and at that time predicted that the rate of increase in concern over stress would continue to grow at a similar pace throughout the 1980s (Farkas & Milstein, 1986). In statistics somewhat similar to those reported by Duke, Whitaker reported that at the end of the 1991-92 school year, 25% of the principals in the Denver Public Schools opted for early retirement (p. 87).

The School Administrators of Iowa estimated in 1994 that by the year 2000, there will be at least a 60% turnover of secondary principals in the state of Iowa. They reported this as a conservative estimate based on retirement projections and early retirement or career changes, a portion of which may be a result of stress or burnout. Because this was a report as a conservative estimate, this rate may have been an underestimate.

The specific problems addressed in this study will enable the researcher to examine the following specific relationships:

1. Possible relationships between variables of sex, age, degree attained, grades administered, number of students, number of staff, type of community, future occupational intent, experience in education, experience in the current district, and experience in administration related to perceived levels of burnout of secondary principals as reported in ratings of Emotional Exhaustion, Depersonalization, and Personal Accomplishment.
2. Possible relationships between variables of sex, age, degree attained, grades administered, number of students, number of staff, type of community, future occupational intent, experience in education, experience in the current district, and experience in administration related to the type of personality of secondary principals as reported in the temperament type clusters of Intuitive-Feeling, Intuitive-Thinking, Sensing-Judging, or Sensing-Perceiving.

3. Possible relationships between variables of type of personality of secondary principals as reported through temperament type clusters of Intuitive-Feeling, Intuitive-Thinking, Sensing-Judging, or Sensing-Perceiving related to perceived levels of burnout of secondary principals as reported in ratings of Emotional Exhaustion, Depersonalization, and Personal Accomplishment.

The general hypotheses guiding this study are stated in the null form as follows:

$H_{01}$: There are no differences among the means of perceived secondary principal burnout as described by Emotional Exhaustion frequency, Depersonalization frequency, and Personal Accomplishment frequency for each of the select administrator background variables of sex, age, degree attained, grades administered, number of students, number of staff, type of community, future occupational intent, experience in education, experience in the current district, and experience in administration.

$H_{02}$: There are no differences among the means of the type of personality of secondary principals as reported in the temperament type clusters of Intuitive-Feeling, Intuitive-Thinking, Sensing-Judging, or Sensing-Perceiving for each of the select administrator background variables of sex, age, degree attained, grades administered, number of students, number of staff, type of community, future occupational intent, experience in education, experience in the current district, and experience in administration.

$H_{03}$: There is no relationship between type of personality of secondary principals as reported through temperament type clusters of Intuitive-Feeling, Intuitive-Thinking, Sensing-Judging, or Sensing-Perceiving and perceived levels of burnout of secondary principals as reported in ratings of Emotional Exhaustion, Depersonalization, and Personal Accomplishment.
Need for the Study

This study focuses on determining the extent of burnout among secondary principals in Iowa and the relationship of reported levels of burnout among indicated personality types as measured by temperament type within that population. The findings contribute to a better understanding of questions involving secondary principals and burnout by providing further insight into the possible relationship existing among secondary principals and personality types.

Definition of Terms

Definitions of the major variables involved in this study are as follows:

**Burnout**: A perceived state of physical and emotional exhaustion, negative attitudes toward clients and others in the work place, and a lack of personal accomplishment experienced by people in the helping professions (Maslach, 1982).

**Emotional Exhaustion (EE)**: The depletion of available psychological resources to the point that individuals no longer feel able to work with service recipients (Maslach & Jackson, 1979).

**Depersonalization (DP)**: An attitude characterized by cynicism and negativism toward clients and others in the workplace (Maslach & Jackson, 1979).

**Personal Accomplishment (PA)**: The appraisal of one’s value as perceived by value in work. A negative self-appraisal due to the lack of accomplishment in the chosen profession manifests itself in a negative outlook (Maslach & Jackson, 1979).

**Sensing-Perceiving (SP) or Dionysian Temperament Type**: The characteristics of this type include a sense of free spirit, impulsiveness, optimism, enjoyment in dealing with crisis, and an orientation to the present. The Sensing-
Perceiving Personality Type works best as an active participant often acting in response to situations and the readings of those situations (Kiersey & Bates, 1984).

*Sensing-Judging (SJ) or Epimethean Temperament Type:* The characteristics of this type include an orientation drive to duty, parental in nature, a caretaker, prone to foster membership in the organization, driven by a strong work ethic, and tied to the organization as a social unit. The Sensing-Judging personality type is thought of as a more traditionally thinking type person working primarily with policies, rules, schedules and structure (Kiersey & Bates, 1984).

*Intuitive-Thinkers (NT) or Promethean Temperament Type:* The characteristics of this type include critical thinking, individualism, an orientation to the future, processing information through logic, and a preference for ideas and models to human interaction. The Intuitive-Thinking type is a visionary focusing on ideas and ingenuity with a weakness in working with people (Kiersey & Bates, 1984).

*Intuitive-Feelers (NF) or Apollonian Temperament Type:* The characteristics of this type include a searching for self, genuineness, restlessness, longing for meaning, and a yearning for self-actualization. The Intuitive-Feeling personality type is a more creative energizing type of person with less attention to details and strong with people skills (Kiersey & Bates, 1984).

Population of the Study

The population for this study included all 659 secondary principals in the state of Iowa. This population was determined using a cross reference of lists from the Iowa Department of Education and the Iowa High School Athletic Association. Cross referencing the lists allowed for the generation of the most
current list of secondary principals in the state and for the most current mailing list.

Null hypotheses one and three were analyzed using multiple regression in both a full model of all possible variables and a reduced model isolating particular variables. Bonferroni follow-up tests were run in order to control for type I error for significant findings on the included variables.

Instrumentation

The instrumentation used in this study included the Educator Version of the Maslach Burnout Inventory (MBI), the Myers-Briggs Type Indicator (MBTI) form G, and a demographics inventory requesting information about age, sex, grade levels administered, school size, education level, years of experience, years in that position, position level, and their intentions to remain in the principalship or not and why.

The Maslach Burnout Inventory (MBI) has 22 items assessing three dimensions or subscales including Emotional Exhaustion, Depersonalization, and Personal Accomplishment. The items that comprise these subscales are each rated for frequency. These items are reported in varied degrees of feelings on a Likert scale from zero to six with zero being “never” and six being “every day”. Several studies have confirmed the validity and reliability of this instrument (Gold, 1985; Maslach, Jackson, & Schwab, 1986; Byrne, 1994).

The Meyers-Briggs Type Indicator (MBTI) form G has 126 forced-choice items. Although there are a total of sixteen possible personality types on the MBTI, the authors recommend grouping the types into categories (Myers & McCaulley, 1985). Several studies have also confirmed the validity and reliability of this instrument (Myers & McCaulley, 1985; McCaulley, 1991; Sipps, Alexander, & Friedt, 1985; Thompson & Borello, 1986; Thorne & Gough, 1991; Tzeng, Outcalt, Boyer, Ware, & Landis, 1984; Wiggins, 1989).
Statistical Analysis of the Null Hypotheses

Null hypotheses one and three were analyzed using multiple regression in both a full model of all possible variables and a reduced model isolating particular combinations of variables. Bonferroni follow-up tests were run in order to control for type I errors (Agresti & Finlay, 1986). The variables of Emotional Exhaustion, Depersonalization, and Personal Accomplishment were treated as the dependent variables. All tests were run at the minimum of the .05 level of significance. If significance was determined, then the significance level was reduced in order to obtain the statistic of most likelihood in comparison with the null, or random model (Agresti & Finlay, 1986).

The second null hypothesis was analyzed using logistic regression and chi-square tests to determine goodness of fit of the model and to determine the likelihood of variable relationships. Logistic regression and chi-squares were used, because the dependent variables of temperament types were in the form of nominal data (Kennedy & Bush, 1985; Siegel & Castellan, 1988). All tests were run at the minimum of the .05 level of significance.

Control for Extraneous Variables

Because this study relied on self reported feelings in terms of the scales of burnout and in terms of personality tendencies, the results may be affected by extraneous variables. The main issue is that respondents may erroneously report feelings and thus skew the results of the study.

Efforts were made in three major ways to help minimize extraneous threats and to control external validity. First of all, the entire population of secondary principals in Iowa was studied. This population study provides for a large increase in validity (Agresti & Finlay, 1986). Second, the respondents were promised confidentiality and the surveys were numbered in a sophisticated way
in order to guarantee that confidentiality and foster more accurate reporting by the subjects involved. Finally, the returned surveys were screened by the principal investigator before being entered into the database in order to determine whether the questionnaires were completed validly. Any questionable returns were discarded.

Significance

This study is an attempt to determine relationships between perceived levels of burnout among secondary principals and personality types as reported in the form of temperament types. While this study will not only add to the knowledge of burnout among educators and more specifically to studies of burnout among educational administrators, it will add to the efforts at linking levels of burnout to personality types (Gmelch & Chan, 1992; Torelli & Gmelch, 1992; Whitaker, 1992). The results of this study adds to the research done relating background variables to perceived levels of burnout.

The population used in this study is unique when compared to others in similar positions in states other than Iowa of a different population composure. This study provides an analysis of a predominantly rural population. It would be of great interest to compare the results of this study with those of a predominantly urban state such as New Jersey.

The study may also provide results that may help in career choices by educators. People with certain temperament types may choose to go into or stay away from becoming secondary principals if they can identify a strong relationship between levels of burnout and a particular temperament type.

Finally, this study will aid in determining the relationship of measures reported on two statistically proven valid and reliable instruments. This
relationship will aid in indicating the usefulness or lack of usefulness in working with the MBI and the MBTI to determine significant relationships.

Limitations

The design of this study was to determine possible relationships between background variables and levels of burnout, personality types as clustered by temperament, and possible relationships between levels of burnout and personality types as clustered by temperament. Because this is primarily a descriptive study, it is not possible to determine cause and effect relationships.

The fact that the results of personality tendencies and temperament types are reported as nominal data limits the power of statistical analysis to chi-square and logistic regression. While these are fairly powerful methods of analysis, they are not as powerful as multiple regression (Kennedy & Bush, 1985).

This study is limited to the population of secondary principals in Iowa in the spring of 1994, therefore it is representative of that group at that time. Findings should be limited to similar populations of secondary principals. Further studies could involve principals at different levels, superintendents, or educational administrators in other positions.

Finally, this study focuses on relationships between levels of burnout and personality traits as reported in temperament types. Temperament types are a desirable and manageable way to cluster personality traits, but temperament types may not characterize an entire personality (Kiersey & Bates, 1984). Organizational factors are not a direct part of this study and merit further study (Friedman, 1994; Gmelch & Swent, 1984).
Summary

Maslach defined burnout as a multidimensional phenomenon involving a perceived state of physical and emotional exhaustion, negative attitudes toward others, and a lack of personal accomplishment experienced by people in the helping professions (1982). Burnout is often the end result of stress, defined by Seyle as an integrated, multidimensional response that occurs when people perceive the demands of a situation exceeding their coping resources (1974).

This chapter introduced the concept of burnout and the personality traits as reported by temperament types, and provided an overview of the design of this study. The issues presented in this chapter will be addressed in more detail in the following chapters.

Chapter II is a discussion of related literature in terms of early research in stress and burnout, organizational factors contributing to burnout, background and personal factors related to burnout, the role of the secondary principal, and various theories and studies linking personality traits and levels of burnout.

Chapter III contains a detailed discussion of the research design and methodology used in this study. In Chapter IV, the results of the analysis of the data are presented, and Chapter V includes a summarization of the findings and recommendations for further studies.
Chapter 2

REVIEW OF THE LITERATURE

Introduction

The most noted early scholar recognizing stress as a condition affecting the human system was Dr. Hans Seyle. Prior to the view of stress as a possible condition affecting the human system, architects and engineers used the term in describing conditions in design and construction. The term was applied in a similar fashion to the skeletal system in vertebrates (1974).

When stress is experienced to the point that the person is overcome and is not able to respond in a positive or even non-destructive way, one phenomenon that results has come to be known as burnout. Most secondary sources credit Freudenberger as being the first to define and describe this phenomenon, although Christina Maslach has become the foremost modern authority on burnout phenomena as related to people helping professions (Freudenberger, 1974; Maslach, 1982; Schwab, 1983). Maslach developed a self-reporting instrument to identify levels of burnout experienced by those in the helping professions. This instrument was adapted more specifically to the teaching profession by Richard Schwab and Edward Iwanicki during the 1980s (Iwanicki & Schwab, 1981; Schwab & Iwanicki, 1982; Schwab, Iwanicki, & Pierson, 1983; Jackson, Schwab, & Schuler, 1986; Maslach, Jackson, & Schwab, 1986).

Under the description of burnout developed by Freudenberger, Maslach, Jackson, and Schwab, the subject experiences feelings of and exhibits behaviors of emotional exhaustion, depersonalization, and a lack of accomplishment and worthwhile activity. In the examples of teachers experiencing high levels of burnout, Schwab described them as reporting that they were tired, fatigued, irritable and emotionally drained, negative, cynical, and emotionally removed.
(1983). They also displayed depersonalized attitudes, withdrawing from contact with students, and reporting feeling that they no longer made a difference in students' lives, and that their profession offered few other rewards like money or recognition (Schwab, 1983).

Burnout Experienced by Educators: Causes and Consequences

In his 1994 article in The International Encyclopedia of Education, Schwab summarized the research done to that point in teacher burnout with the following conceptual framework:

![Conceptual Framework](image)

Figure 1: Conceptual framework developed by Dr. Richard Schwab demonstrating causes and consequences of burnout.

As an explanation of this figure, the causes and consequences of burnout can be traced in the literature primarily by a combination of many factors and outcomes. The challenge to the researcher is to determine the effects of variables in an effort to explain as much of the burnout as possible.

This is a very useful format for research summarization in burnout, and this review is structured in a somewhat similar manner to that of Schwab (1994). Educator administrator burnout, as examined through the role of the secondary principal as the educational leader in the school, may be traced through these
variables in a similar fashion to those involved in other helping professions. The main emphasis of this study is to determine possible relationships between levels of burnout in emotional exhaustion, depersonalization, and personal accomplishment and reported personality types of secondary principals.

Sources of Stress and Burnout: Organizational

While it is difficult to completely sort out organizational characteristics as they relate to stress and burnout, there comes forth in the literature a substantial group of reports focusing on organizational issues as a primary cause of stress and burnout. These organizational issues may include a variety of items such as time limitations, working in isolation or lack of a support system of colleagues, lack of clarity in one's role known also as role ambiguity, a perception of role conflict, the perception of not having an active voice in policy making or other issues, the leadership of the principal, or other items.

The organization of the school and of education may or may not be conducive to the formation of either collegial support groups, professional network groups, or quality circles of professionals. These associations have been shown to be helpful in coping with stress and burnout prevention in student teachers, the teaching profession, the profession of educational administration, and many other professions. Several authors cite the need for individuals to belong to these groups in order to share common concerns, gain a sense of belonging and self-worth, and to grow professionally. While these support networks may come about formally or informally, by administrative action or encouragement, or by formation by colleagues, some authors argue that it is the responsibility of the building principal to initiate the formation of network and communication groups at the building level or in more narrowly defined aspects within the building (Blase, 1984; Dworkin, 1987; Farber, 1991).
An educator begins his or her career with a practicum situation as a student teacher. In a 1990 study of student teachers in the program at Long Island University, Davis found that many factors determining whether or not a student was successful in their practice teaching situation depended on the support gained from other students in similar situations. An author of an earlier study conducted in 1986 called more specifically for not only the formation of support groups but also for preparation for stress with required programs in feedback and counseling (Calhoun, 1986). Another study in 1986 prescribed making the practice teaching experience more realistic to an actual teaching situation (Kagan & Sadler). Driscoll and Shirey called for networks of student teachers in a 1985 study and Henkel-Ungericht called for support groups and training to combat burnout among future teachers in 1988.

In the teaching profession, several studies have pointed to the necessity of having a professional or social network in order to combat burnout (Blase 1986; Engelking, 1986; Jackson et al., 1986). This need is demonstrated both as a social group and as a professional group in what is called “quality circles” either within a school or within the profession. In a 1991 exploratory study of intern teachers, Schwab suggested that fostering a support network for intern teachers may be best accomplished by placing several interns in the same school, thus fostering collegiality early in their careers. The need for a network is demonstrated throughout the world in education as Kalekin-Fishman cited the importance of networking among Israeli teachers (1986), Rodgers-Jenkins and Chapman noted it among Jamaican teachers in a 1990 study, and Wisniewski noted support of peers in Poland (1990). Having a support group meets many needs of an individual, and it has been noted that the support of peers often transcends the support shown by an administrator (Pines, Aronson, & Kafry, 1981; Driscoll & Shirey, 1985). This is logical, as there may be more trust
between peers and less of a threat of having situations come out in evaluative situations.

The literature on educational administrators points out frequently the need for the formation of network groups or quality circles in order to combat burnout and encourage personal growth (Bailey, Filos, & Kelly, 1987; Cooper, 1988; Duke, 1988; Gmelch & Sharratt, 1990). Sieverding and Cooper noted that such groups help to reduce pressure and stress and thus reduce the physical and psychological impacts. They also advocate sharing duties like presentations to the board within a group if the district is large enough to employ several people in similar positions (1990).

The sharing of duties is a particularly interesting point, as much of the literature on leadership style points to supportive collegiality through shared decision making as important to preventing stress both among teachers and principals. In his 1987 book, Dworkin wrote that a principal sharing information and decision making would help to break down a feeling of lack of being included on the part of teachers. Likewise, it may leave the principal feeling less isolated. This need for inclusion was also emphasized by Farber in his 1991 book Teacher Burnout.

Shared decision making allows for better communication and for more of a feeling of control on the part of teachers (McEnany, 1986). This has been found to be particularly true in sharing decisions relative to building goals, structure of the school, and policy decisions (Chase, 1985; Brissie, Hoover-Dempsey, & Bassler, 1988). The study by Chase involved 2,223 teachers for 29 states. In his 1990 book The Fifth Discipline, Senge wrote about the importance of a systemic approach in leadership and establishing quality circles to share in the
combined the Rizzo et al. Role Questionnaire with the Maslach Burnout Inventory and demographic data to study causes of teacher burnout (1982a). They reported that role conflict and role ambiguity accounted for 24% of the total variance in teacher burnout at most. Based on those findings, they determined that while further study of other variables needed to take place, schools could help to reduce teacher role conflict and ambiguity by taking the following practical steps:

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

In 1986, Crane and Iwanicki found that role conflict and role ambiguity explained a significant amount of variance in feelings of emotional exhaustion and depersonalization among the 443 Connecticut urban special education teachers in their study. In a 1987 study of high school basketball coaches in six western states, Capel, Sisley, and Desertrain determined that role conflict and ambiguity attributed to about 14% of the burnout. Capel demonstrated similar findings among seventy-eight British secondary teachers in 1987, and in a 1989 study, Conley, Bacharach, and Bauer arrived at similar results among the eighty-seven teachers they surveyed in New York state. While Saleh and Kashmeeri note that they found role conflict and ambiguity related to burnout among their administrative subjects in Saudi Arabia in 1987, there are few other studies done of administrators in these areas. Savery and Detiuk surveyed 288 primary and secondary principals in Australia in 1986 and reported that role conflict and an overload of duties were experienced, but these findings were most often among subjects who both taught and carried through administrative duties.
leadership of an organization. Sherman wrote in 1990 that:

in essence, Quality Circles alone may not be sufficient to create satisfaction within employees. However, viewed in a larger context of promoting employee involvement in the organization for the benefit of both the organization and the employee, the Quality Circle could be one management strategy to help cope with the organizational demands of the 1990s. (p. 56)

Sharing decision making and relying on quality circles seems to benefit the principal as well in a variety of ways. In an article in 1990, Lyons identified coping strategies for principals as delegating, communicating, networking, and involving staff as being important. Also in 1990, Gmelch and Sharratt cited the need for principals to recognize the contributions of teachers, provide professional support, and offer new responsibilities to keep staff motivated. For the principal, Small and Garrett called for more involvement in formulating items like district policy and budget to help prevent stress and burnout (1988). Ubben and Hughes noted that the principal may do well to both involve staff in decisions at the building level and to get involved with district level decisions in order to motivate and stay motivated (1987). The calls for sharing decision making place different demands on educational leaders who in the past may have simply run the building on their decisions. This may be helpful in stress and burnout prevention or may compound the issues.

While a large part of stress and burnout may be the result of a problem with expectations of the person in the job and the duties of the job not really fitting together, we will consider this as primarily an organizational type of conflict. This is primarily because the discomfort experienced by a person may lead to role conflict or role ambiguity which in a general sense is more apt to happen because of the duties of a job or the lack of specifically communicated expectations.

Rizzo, House, and Lirtzman seem to be the first to really develop an instrument to determine role conflict and ambiguity (1970). Schwab and Iwanicki
Other results focused on role conflict and ambiguity produced no connection between the two items and burnout in the forms of militancy and leaving the profession. Bacharach and Bamberger studied teachers who left teaching in several schools during 1990 for reasons where they voiced dissatisfactions. They focused on organizational causes but reached no firm conclusions on reasons for militancy or exiting the profession. MacPherson studied principals in Nova Scotia in 1985 and found that levels of burnout were not high and role conflict and ambiguity only slightly predicted burnout responses.

Finally, as an aspect of organizational factors and burnout, we need to look at reward and punishment structures and their effect on personal accomplishment and depersonalization. Principals need to be in tune with the needs of their staff and use rewards that correspond to those needs in a consistent fashion (Ubben et al., 1987; Farber, 1991). It is reported that too often the positive accomplishments of teachers go unheralded, while principals more likely deal with the negatives. The same is true for superintendents and principals (Duke, 1988). Lowther, Gill, and Coppard also determined in a 1985 study that needs for rewards change from extrinsic to intrinsic as teachers get into their forties and fifties. The point is to offer rewards in creative, frequent, and yet consistent manners, and work to base rewards and punishments on performance (Gmelch & Sharratt, 1990).

In terms of organizational factors, Schwab noted that “even the most complete and sophisticated studies explain only twenty to forty percent of the variance in aspects of job burnout” (1994, 8). The other category that helps to explain causes of burnout is that of background and personal factors.
Background and Personal Factors

Sex, age, grade level taught, and experience make up background variables, while personality characteristics and individual expectations compose personal qualities.

Burnout has been linked to factors of age and sex. As mentioned, the focus of needs for rewards moves from extrinsic to more intrinsic with age (Lowther et al., 1985). Also, younger teachers tend to experience higher levels of fatigue and emotional exhaustion (Anderson & Iwanicki, 1984; Crane & Iwanicki, 1986; Schwab & Iwanicki, 1982b). In administrators, some of this youthful fatigue has been said to be overcome with better time management skills, but there are no statistically supported studies to this effect (Tanner & Atkins, 1990). Schwab and Iwanicki found that male teachers were more apt to have negative attitudes towards students than females (1982b), and this was supported by Greenglass and Burke in a 1988 study. Other reports on public school teachers demonstrate that females seem to cope with stress better than males (Holt, Fine, & Tollefson, 1987; Jenkins & Calhoun, 1991). While Nussel, Wiersma, and Rusche found in a 1988 study that males teaching college seemed less susceptible to burnout than their female peers. Torelli and others have linked some androgynous characteristics to successful coping, and this will be discussed later. Schwab and Iwanicki also demonstrated in one study that high school and middle school teachers experienced more negative attitudes toward students and less frequent feelings of accomplishment (1982b). There has been little evidence to show notable differences between races or family backgrounds (Culver, Wolfe, & Cross, 1990; Greenglass & Burke, 1988).
Role of The Secondary Principal

As with many positions in education, the role of the secondary principal continues to expand in expectations and in scope of duties. This expansion creates a large potential for opportunity, role ambiguity, and role conflict. The principal is expected to provide building leadership and also answer to and work within the confines of central administration guidelines. In this middle management role, the principal is called upon to both advocate for and place limitations on employees. In addition, the principal deals in a similar relationship with students, parents, and other members of the community. Because of the very nature of the position, the principalship embodies dichotomous relationships in many instances. As higher expectations and increased programming mount in education, the principal serves even more as the guiding force of the school (Barth, 1991; DuFour, 1991; Thomson, 1992).

The role of the secondary principal has been the subject of a great deal of recent study, but there still exists a variety of views about the role and leadership characteristics needed to successfully meet the demands of the principalship. In a 1989 study published by the Association for Supervision and Curriculum Development, Wilma Smith and Richard Andrews synthesized much of the research and formulated four categories that explained the role of the secondary principalship in its current form. What makes the study of the principalship difficult is that expectations of behavior are often unique to the situation in which the principal operates, and a variety of theories on leadership exist. "(School) leadership, in the general sense, then, is necessarily constrained by the situations in which leadership is displayed...Managing the daily operation of a school is a complex task in a complex organizational environment" (Smith & Andrews, 1989, 5,11). In other words, no prescriptive formula exists either to assure principal success or to define the role of the principal in each situation. In
a dynamic organization, the principal tends to both influence and be influenced by the organization. This sets up the potential for role ambiguity and role conflict which in turn could lead to varied degrees of stress and burnout.

Smith and Andrews identified the foremost task of the principal as serving as the instructional leader of the building. This capacity involves a great many tasks, which they classified into four categories, including the principal as resource provider, instructional resource, communicator, and visible presence. In order to perform well within these categories, the principal must choose within the categories which specific items deserving a concentrated effort (1989).

Recent Effective Schools Research suggests that the success of schools as demonstrated through school climate, student achievement, and perceptions of parents and community often depends on the educational leadership provided by the building principal (Barth, 1991; Leithwood & Montgomery, 1982; Lezotte & Passalacqua, 1978; Smith & Andrews, 1989; Thomson, 1992). Thus, expectations for principals as tied to the success or failure of a school continue to expand. Sieverding and Cooper warned as a result of their findings in a 1990 study of principals and the physiological responses to stress that "stress is on the increase as the occupational pressures on school leaders grow. Illness and death are the eventual outcomes. The more proximate results are discomfort, anxiety, and diminished capacity to accomplish just those tasks that school reformers seek..." (p. 210).

There has been some research done on linking tasks of the principalship to stress causing reactions, but nothing clearly conclusive has resulted from these studies. In 1982, a study of 1,156 principals focused on aspects of the job of the principal which could be sources of stress. These included role-based stress concerning self-perception of the role that a principal plays, conflict-mediating stress involving solving disputes, task-based stress involving issues
such as discipline and other day-to-day tasks, and boundary-spanning stress related to creative problem solving. They found that respondents reacted differently depending on other factors including age, experience, and position (Koch, Gmelch, Tung, & Swent, 1982).

Personality Types, Stress, Burnout, and Physical Consequences

In 1974 studies of physiological and personality traits as related to heart problems, doctors Meyer Friedman and Ray Rosenman brought attention to the study of personality types. Friedman and Rosenman theorized that male subjects exhibiting Type A behavioral traits were at a greater risk for coronary artery disease and heart attack. They characterized Type A personalities as exhibiting "complex personality traits including excessive competitive drive, aggressiveness, impatience and a harrying sense of urgency" (Friedman & Rosenman, p. 4). They characterized Type B individuals as displaying more basic and less intense personality traits, being less aggressive and excitable and being more patient. In their conclusion, Friedman and Rosenman demonstrated statistically that Type A males suffered seven times more coronary artery disease than those males classified as Type B personalities. The doctors attributed this to an elevated production of serum cholesterol, as a physiologically demonstrated residue of stress, in type A males. This personality theory was added onto later with the inclusion of a Type C personality characterized as having the drive of Type A with the patience and coping traits of a Type B (Kriegel & Kriegel, 1984).

Cooper, Sieverding, and Muth attempted to identify a link between stress, physiological responses to stress, and Type A and B personalities. This time the study was among a group of school administrators in New York in 1988. The focus of this study was to determine response differences between Type A and
Type B personality administrators. The subjects in this study wore heart monitors and recorded daily events in diaries. The researchers found that principals experienced levels of stress 23.4% of each work day at the stress guideline defined as having an elevated heart rate of 30% or more above their resting heart rate. The other finding in this study was that those principals classified as Type A personalities responded more noticeably physiologically than the Type B personalities but not at statistically significant levels (Cooper, Sieverding, & Muth, 1988). Cooper and Sieverding took this research a step further in 1990 by examining the expanding role of the principal and possible sources of stress as demonstrated in the 1982 research by Koch, Tung, Gmelch, and Svent, as well as others. While inconclusive on the exact sources of stress and about variances between personality types A and B, they re-emphasized their assertion of 1988 that there may be a link between personality types and physiological responses to stress.

Walter Gmelch is probably the most noted recent scholar on educational administrative stress. During the 1980s, Gmelch developed the following Stress Cycle involving four stages:

<table>
<thead>
<tr>
<th>STAGE I</th>
<th>STAGE II</th>
<th>STAGE III</th>
<th>STAGE IV</th>
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<tr>
<td>Demands/Stressors</td>
<td>Individual Perception</td>
<td>Stress Response</td>
<td>Consequences</td>
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<tr>
<td>• Meetings</td>
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<td>• Self Expectations</td>
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<td>• Interruptions</td>
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<td>• Rules, Regulations</td>
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<td>• Heavy Work Load</td>
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<tr>
<td>• Conflicts</td>
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Figure 2: Conceptual framework developed by Dr. Walter Gmelch demonstrating the stages of burnout among educators.

Gmelch was tying many things together in a pragmatic approach in studying stress as reported by principals and viewing the findings in a holistic and dynamic manner through four stages. He also focused on the commonalities and
individual differences that came out of the research in 1982. This conceptual framework is somewhat similar but less detailed than that developed by Schwab.

In more recent studies guided by Gmelch, his graduate students have focused on stress and burnout using a variety of instruments and attempting to determine if a link exists between personality traits and the ability to successfully cope with stress. More recent studies of this nature include relating coping with stress to gender traits as defined through the studies of Sandra Bem and the *Bem Sex Role Inventory*. While the major statistical findings of these studies have demonstrated stress and burnout related to tasks among various school administrators, they have also demonstrated that subjects reporting androgynous traits which consist of behaviors traditionally classified as gender neutral tend to cope better with stress (Gmelch & Chan, 1992; Torelli & Gmelch, 1992).

What may be the common focus of several studies on stress and burnout are the concepts of equilibrium, balance, or homeostasis. Seyle recognized this when he discussed the properties of stress. Those writing about burnout later recognized burnout as an inability to cope with stress constructively or adapt to a situation and thus experience burnout. The Type A, B, C personality theory began with two extreme personality types and ended with a definition of a third type embodying the best traits of the other two. As mentioned, Gmelch and his students have recently pursued the role of tendencies toward androgyny as a middle of the road tendency being the most able to cope with stress in addition to administrator task based stress and burnout.

In a study published in 1995, Isaac Friedman studied student behavior patterns as contributors to teacher burnout. In part of this study, teacher types were identified by tendencies referred to in the study as ‘humanistic’ or more caring in their approach and as ‘custodial’ or less involved in approach. Friedman noted links between student behaviors of disrespect have the greatest
impact on 'humanistic' teachers and student lack of attentiveness as the largest
effect on 'custodial' teachers (Friedman, 1995b).

As these and other studies demonstrate, there exists a need to study
personality and burnout to a greater extent. Charles Heikkinen wrote about the
possible use of the Myers-Briggs (Personality) Type Indicator in 1986 to
determine susceptibility to burnout. He explained how its use would make sense
through the determination of different personality types. Similarly, McCaulley
(1989) noted the possibility of its use in determining personality type and burnout.
Mills, Robey, and Smith identified the MBTI as useful to determine conflict
handling dimensions in 1985. The MBTI is one of the most requested personality
type indicators from Consulting Psychologists Press (Lawrence, 1982; Wiggins,
1989). In terms of its use to determine personality type and principal burnout,
Whitaker used it along with the MBI to determine a possible relationship among
principals in Colorado in 1992. There should be a lot to be learned by using the
two instruments together.

Personality Types According to Jung

C. G. Jung formulated theories about personality and psychological types
throughout his career encompassing the 1920s to the early 1970s. Jung was a
doctor, psychotherapist and author. As a theoretical student of Freud, Jung
focused on the study of dreams, observed behaviors, and based his theories and
writings on case studies encountered in his practice (1933, 1978).

Jung’s personality theories are complex but often involved three major
characteristics as evidenced in his writings. The first is that there exists an
archetype or archetypes which determine a person’s behaviors. These
archetypes often seem to represent conflicts within an individual. Jung focused
on the archetypes of the child and the mother a great deal. The second theme of
Jung's work was the struggle that involved items including the conscious and unconscious selves, the archetype and spirit and self, unresolved conflicts of childhood, or other forces. The third characteristic theme of Jung's work is his description of psychological types as a conflict between his defined opposite characteristics in four categories. These categories included preferences of Extroversion or Introversion, perceptions of Sensing or Intuitive, judgments of Thinking or Feeling, and orientations of Judgment or Perception. In Jung's explanation of personality type, a person works throughout their lifetime to resolve these extremes (Jung, 1933, 412-513).

Personality Types According to Myers and Briggs

I. B. Myers and her mother K. C. Briggs studied Jung's work on psychological traits and began formulating the Myers-Briggs Type Indicator (MBTI) in the 1940s. The MBTI was continually refined and put out for use with large groups in the 1960s (Myers & Myers, 1980; Myers & McCaulley, 1985). McCaulley reported that the MBTI gained popularity in the 1960s and has been used frequently since then (1990). Carlson attributed acceptance of Jung's psychological trait theories and the MBTI by psychological researchers to their "placing ubiquitous individual differences in a coherent theoretical context" (1980, p. 801). Jung's trait characteristics and the MBTI allowed researchers to study personality types in terms of measurable components indicated on a test.

Jung explained that the contrasting type characteristics could be demonstrated in terms of preferences. These preferences could be combined into sixteen different combinations or personality types by placing the most strongly reported indicator first and then others after it. Myers-Briggs put these in terms of preferences as indicated on the MBTI which were the same as those defined by Jung but measurable in a written test of self-perceptions. A brief
explanation of these preferences is as follows: world orientation indicated either Extroverted (E) where the person actively engages in the world and events around them or Introverted (I) relying on their inner world and ideas, perceptions of either Sensing (S) where practical and observable data is weighted heavily and decisions made quickly or Intuitive (N) where symbolic or theoretical meanings are perceived as underlying actions, judgments of either Thinking (T) using cause and effect processes or Feeling (F) where competing alternatives are weighed by perceived values, and orientation to the world using either Judgment (J) with structured decision making or Perception (P) being more curious and open to changes (Jung, 1933, 412-513; Myers & McCaulley, 1985, 11-14).

Personality and Temperament Types

In 1984, Kiersey and Bates proposed a model of four human temperaments resulting from different combinations of groups of indicator traits on the MBTI. Through their research and practice using the MBTI, they determined that subsets emerged in preferences linked to overt attitudes and mannerisms reflecting how people deal with situations and interpersonal relationships. Unlike Jung, Myers, and Briggs, they wrote that the traits not only contrasted, but that people did not spend a lifetime resolving the contrast. Instead, each person had a particular type similar to a thumb print that they carried throughout a lifetime which was composed of subsets of traits. They called these sub-sets ‘temperaments’ and stated that “temperament determines behavior, because behavior is the instrument for getting us what we must have” (Kiersey & Bates, 1984, p. 30).

Kiersey and Bates defined the four temperaments based on the types identified by Jung and placed into measurable cluster by Myers-Briggs.
Following are the labels they gave each of the temperaments, the descriptors from the Myer-Briggs Type Indicator and Jung's typology, the possible type combinations from the Myers-Briggs (MBTI) clusters, and explanation of the traits of each temperament:

**Sensing-Perceiving (SP) (Dionysian)** Possible MBTI combinations are ISTP, ESTP, ISFP, & ESFP with Sensing and Perceiving as the main indicators. The characteristics include a sense of free spirit, impulsiveness, optimism, enjoyment in dealing with crisis, and an orientation to the present. The Sensing-Perceiving Personality Type works best as an active participant often acting in response to situations and the readings of those situations.

**Sensing-Judging (SJ) (Epimethean)** Possible MBTI combinations are ISFJ, ESFJ, ISTJ, & ESTJ with an emphasis on Sensing and Judging. The characteristics include an orientation drive to duty, parental in nature, a caretaker, prone to foster membership in the organization, driven by a strong work ethic, and tied to the organization as a social unit. The Sensing-Judging personality type is thought of as a more traditional type person working primarily with policies, rules, schedules and structure.

**Intuitive-Thinking (NT) (Promethean)** Possible MBTI combinations are INTP, ENTP, INTJ, and ENTJ with the main indicators being Intuitive and Thinking. The characteristics include critical thinking, individualism, an orientation to the future, processing information through logic, and a preference for ideas and models to human interaction. The Intuitive Thinking personality type is a visionary focusing on ideas and ingenuity with a weakness in working with people.

**Intuitive-Feeling (NF) (Apolloian)** Possible MBTI combinations are INFJ, ENFJ, INFP, and ENFP with the main indicators being Intuitive and Feeling. The characteristics include a searching for self, genuineness, restlessness, longing
for meaning, and a yearning for self-actualization. The Intuitive-Feeling personality type is a more creative energizing type of person with less attention to details and strong with people skills (Kiersey & Bates, 1984).

Ballou and Brown used the Kiersey and Bates temperaments in a 1987 study as a possible predictor of college Resident Assistant (RA) burnout. They initially speculated that RAs with SJ and NF temperaments might be more prone to burnout because of their drive toward human relationships as a means of self-fulfillment. The reasoning for this speculation for the SJ temperament, for example, was the orientation toward service to others and continual caring. They paired this orientation with characteristics identified by Maslach in 1982 as resulting in exhaustion and depersonalization.

The results of the 1987 Ballou and Brown study indicated no significant difference between the four temperament groups of RAs in terms of burnout scores. They did find that eight of the fifty-two RAs experienced high levels of burnout, but the eight represented each of the four temperaments. From interviews with the supervisors of these eight RAs, it was indicated that the eight experiencing high burnout tended to over invest themselves in their jobs. Further interviews also indicated that RAs with SP and NT temperaments stayed less emotionally involved in activities and decision-making. According to Ballou and Brown, by being more detached from their work, these RAs may have developed successful methods of dealing with stress in order to prevent burnout. While the conclusion drawn was that temperament seemed not to be a predictor of burnout, the authors recommended that further studies be conducted of a similar nature.

In a 1992 study, Whitaker conducted a study of 107 principals in Colorado using the MBI and the MBTI. While she found low to moderate levels of burnout among the principals and no statistically significant relationship between any of the four temperament types and burnout, Whitaker indicated a pattern emerging
showing a possible link between Intuitive personality types and burnout. She used Chi Square as her statistical analysis. Finally, Whitaker called for further studies in this area similar to hers and also of a qualitative nature (Whitaker, 1992).

Other researchers have identified personality types and mapped qualities of leaders and managers to correspond with clusters of the MBTI categories. In 1981, Margerison and Lewis reported a need for managers to identify members of their organization based on MBTI traits and then motivating and leading members of the organization according to those findings. They termed this "Managerial Mapping" (Margerison & Lewis, 1981). McCaulley published a compendium of mostly previously unpublished data on use of the MBTI to report on personality types of leaders in various sectors of society. In their 1989 book titled The Leadership Equation, Barr and Barr focused on the MBTI characteristics and fitting the need of the organization to potential leaders demonstrating the presence of particular traits.

Summary

There continues to be growing concern with stress and burnout in education, and this concern will undoubtedly be on the rise as schools are called upon to do more and more and as society becomes more and more complex with rapid changes occurring. In his 1992 unpublished dissertation, Robert Stouffer ran a descriptive study of stress and burnout and school administrators in Iowa and found through interviews a shared concern over the demands education. There are several warnings by those who study the effects of burnout on education. Wax explained in 1984 that "understanding burnout in school administrators may be an important step in increasing the effectiveness of our schools...(because of the key role that administrators play) (27)." In 1990, Hubert
and Gable wrote that "studies of school improvement projects may be more useful if they monitor teacher stress and report on the teacher stress levels as school are improved (for lasting improvement) (204)."

In this chapter, the related literature was discussed in terms of early studies in burnout, a framework for a discussion of burnout and consequences among educators, organizational factors, personal and background factors, studies of personality traits, the secondary principalship, and possible relationships between temperament types and burnout among secondary principals. The design of this study is discussed in the following chapter.

In order to determine the relationship of burnout to secondary principals, research questions will be answered. The first research question is meant to determine the type of background variables to test temperament types, and the third research question investigates the relationship between background variables, levels of burnout, and secondary principals.

**Research Questions**

This study addresses the following research questions:

1. To what extent are variables of sex, age, degree attained, grades administered, number of students, number of staff, type of community, future occupational intent, experience in education, experience in the current district, and experience in administration related to perceived levels of burnout of secondary principals as reported in scales of Emotional Exhustion, Depersonalization, and Personal Accomplishment?

2. To what extent are variables of sex, age, degree attained, grades administered, number of students, number of staff, type of community, future occupational intent, experience in education, experience in the current district, and experience in administration related to the type of personality of secondary principals as reported in the temperament type clusters of Intuitives-Feeling, Intuitives-Thinking, Sensing-Judging, or Sensing-Perserving?
Chapter 3

METHOD

Introduction

This study investigated the relationship between background variables and reported levels of burnout in Emotional Exhaustion, Depersonalization, and Personal Accomplishment and personality type as indicated through reported temperament types of Intuitive-Feeling (NF), Intuitive-Thinking (NT), Sensing-Judging (SJ), or Sensing-Perceiving (SP).

In order to determine the relationship of background variables to levels of burnout, the first research question will be addressed. The second research question is meant to determine the role of background variables to temperament types, and the third research question addresses the relationship of the background variables, levels of burnout, and temperament types.

Research Questions

This study addresses the following research questions:

1. To what extent are variables of sex, age, degree attained, grades administered, number of students, number of staff, type of community, future occupational intent, experience in education, experience in the current district, and experience in administration related to perceived levels of burnout of secondary principals as reported in ratings of Emotional Exhaustion, Depersonalization, and Personal Accomplishment?

2. To what extent are variables of sex, age, degree attained, grades administered, number of students, number of staff, type of community, future occupational intent, experience in education, experience in the current district, and experience in administration related to the type of personality of secondary principals as reported in the temperament type clusters of Intuitive-Feeling, Intuitive-Thinking, Sensing-Judging, or Sensing-Perceiving?
3. To what extent are variables of type of personality of secondary principals as reported through temperament type clusters of Intuitive-Feeling, Intuitive-Thinking, Sensing-Judging, or Sensing-Perceiving related to perceived levels of burnout of secondary principals as reported in ratings of Emotional Exhaustion, Depersonalization, and Personal Accomplishment?

Null Hypotheses

The following were the null hypotheses and evaluated at the .05 level of significance. The null hypotheses are statements based on probable findings using a random model for analysis.

\( H_0_1 \): There are no differences among the means of perceived secondary principal burnout as described by Emotional Exhaustion frequency, Depersonalization frequency, and Personal Accomplishment frequency for each of the select administrator background variables of sex, age, degree attained, grades administered, number of students, number of staff, type of community, future occupational intent, experience in education, experience in the current district, and experience in administration.

\( H_0_2 \): There are no differences among the means of the type of personality of secondary principals as reported in the temperament type clusters of Intuitive-Feeling, Intuitive-Thinking, Sensing-Judging, or Sensing-Perceiving for each of the select administrator background variables of sex, age, degree attained, grades administered, number of students, number of staff, type of community, future occupational intent, experience in education, experience in the current district, and experience in administration.

\( H_0_3 \): There is no relationship between type of personality of secondary principals as reported through temperament type clusters of Intuitive-Feeling, Intuitive-Thinking, Sensing-Judging, or Sensing-Perceiving and perceived levels of burnout of secondary principals as reported in ratings of Emotional Exhaustion, Depersonalization, and Personal Accomplishment.

The Population

This study sought to involve all 659 public and state accredited school secondary principals in the state of Iowa. Databases from the Iowa Department of Education and the Iowa High School Athletic Association were cross-
referenced to assemble the most current database of subjects. The population included principals of schools considered to be secondary and involving upper elementary grade levels through high school. Categories of grade levels administered were established.

Instrumentation

The instrumentation used in this study included the educator version of the *Maslach Burnout Inventory* (MBI), the *Myers-Briggs Type Indicator* (MBTI) form G, and a demographics inventory requesting information about age, sex, grade levels administered, school size, education level, years of experience, years in that position, position level, and their intentions to remain in the principalship or not and why.

The MBI has 22 items assessing three dimensions or subscales including Emotional Exhaustion, Depersonalization, and Personal Accomplishment. The items that comprise these subscales are each rated for frequency. These items are reported in varied degrees of feelings on a Likert scale from zero to six with zero being ‘never’ and six being ‘every day’. Several studies have confirmed the validity and reliability of this instrument (Gold, 1985; Maslach, Jackson, & Schwab, 1986; Byrne, 1994).

The MBTI form G has 126 forced-choice items. Although there are a total of sixteen possible personality types on the MBTI, the authors recommend grouping the types into categories. (Myers & McCaulley, 1985). Several studies have also confirmed the validity and reliability of this instrument (Myers & McCaulley, 1985; McCaulley, 1991; Sipps, Alexander, & Friedt, 1985; Thompson & Borello, 1986; Thorne & Gough, 1991; Tzeng, Outcalt, Boyer, Ware, & Landis, 1984; Wiggins, 1989).

The statistical analysis programs used for data analyses were the *Statview+*
and SuperAnova for the Macintosh computer. The statistics were also run at a different location using the SAS program for DOS computer language. The electronic transfer of data from both sites was accomplished through the Internet. Numbers on all programs corresponded throughout the analyses, and the SAS program enabled analyses using logistic regression to be run with the data.

Data Collection

This study was initially approved by the doctoral committee in January of 1992, and approval for all survey materials was granted in March of 1994.

An initial mailing including a cover letter with personalized greeting, informational questionnaire, a Maslach Burnout Inventory Educators’ Survey, a Meyers-Briggs Type Indicator Survey Form G, and a postage paid return envelope was sent to each subject on April 2, 1994. The cover letter indicated the importance of response to the study, the importance of the topic, use of the information from the study, a promise of confidentiality, approval of the study by the School Administrators of Iowa organization, the bonus of two randomly selected respondents receiving cash prizes, and a message thanking all respondents for their time and effort. The surveys were sent in a large white envelope with first class postage on them and addressed to the person by name and title. All survey materials were numbered in order to keep track of respondents and materials.

April tends to be a time when principals in Iowa have less paperwork, and so they are more apt to complete a survey in a timely manner. It is also a time in the year that avoids the ending or beginning of a semester and allows for follow-up measures to be more successful. These are methods suggested by various authors aimed at achieving a high response rate (Moser, 1958; Dillman, 1978; Fink & Kosecoff, 1985; Stouffer, 1992).
Two additional mailings were made to non-respondents in an effort to increase the rate of response. On April 11th, approximately one week after the initial mailing, a follow-up postcard was sent to those subjects not responding to that point reminding them of how greatly appreciated and important their response would be. Approximately three weeks after the initial mailing, on April 21st, a second entire survey was mailed to those not responding by that time. This mailing reported that a completed survey had not yet been received and included copies of the survey materials with postage paid return envelopes in case the initial survey was misplaced.

Of the 659 subjects surveyed, there were 571 surveys returned for a total percentage of 86.7%. Eleven of these surveys were returned either entirely or partially unanswered and therefore unusable. This left a total of 560 usable surveys at a percentage rate of 85% of the population. The descriptive characteristics of the respondents are listed in Table 1. A predominant profile of the respondents includes the characteristics of being a male, forty-five to fifty-four years old, with a Masters degree, serving as a high school principal, administering over one to 499 students and one to forty-nine staff, at a school in a rural community, having more than twenty-four years of experience in education, one to six years of administrative experience and in the current system, and having a Sensing-Judging (SJ) temperament type.

Models Used for Analyses

The model used for this study was consistent with the model formulated by Schwab in 1994 reflecting the review of recent studies of burnout among educators. Referred to earlier in this study, this model examines sources of stress, psychological reactions in terms of the three subscales of the MBI, and the consequences of burnout (Schwab, 1994). This model also corresponds with
the model formulated by Gmelch throughout the 1980s for administrators presented earlier in this study (1988). For the first question of this study, the factors were run as a full model and individually with the dependent variables of Emotional Exhaustion (EE), Depersonalization (DP), and Personal Accomplishment (PA). For the second question, the factors were run as a full model and individually with each of the four temperament types as dependent variables. For the third question, the entire model was run with EE, DP, and PA as the dependent variables.

In the analyses of the data for the first question, analyses of variance with full model and reduced model regressions were run (Agresti & Finlay, 1986). In cases of significance, Bonferroni follow-up tests were run in order to control for type I errors. In determining usage of multiple regression for the first question, the model and data were tested for assumptions relevant for multiple regression. The model was checked for linearity, the conditional distribution of Y is normal and has a standard deviation through the range of values of the independent variables (homoscedasticity), and the observations on the dependent variable are statistically independent (Agresti & Finlay, 1986).

To test the relationships between variables for the second question, chi square and logistic regression were used for analyses to determine possible relationships. There was a limitation in working with reported temperament types as they are nominal data. With nominal data as the dependent variable, logistic regression provided a fairly powerful tool for working with determining possible statistically significant relationships. While the findings from logistic regression are not as meaningful as those in linear regression where continuous data is used, logistic regression is a fairly powerful analysis when working with nominal data (Kennedy & Bush, 1985). Chi-squares were also used to work with cases of the nominal temperament type variables (Siegel & Castellan, 1988).
The logistic regression procedure is a maximum likelihood statistic, which means that a model is generated to predict the likelihood that individuals will go into certain categories (Kennedy & Bush, 1985). For example, if we know that a principal is male, has a doctorate, is at an urban school, and so forth, he might be forty percent likely to be a Sensing-Judging temperament. In other words, the model makes predictions concerning who will be expected to be in which of the four categories. It then compares the findings using the predicted model to the actual data findings. It is important that there be a good fit between the hypothesized model and the data (Kennedy & Bush, 1985). The model was checked for goodness of fit with the data using chi-square tests also. The chi-square value of 41.59 with thirty-six degrees of freedom is not significant at the p > .05 level. Therefore, the predicted model fit well with the data, and a rather confident interpretation of the rest of the data could be made. To test the goodness of fit of the model further, -2 log likelihood tests were also run to compare the model fit with the null model. The result of the -2 likelihood tests were also better than the null model, as the chi-square was 81.15 with a df of eighteen. Therefore, the goodness of fit of the model used was better than the null or random model (Kennedy & Bush, 1985).

To test the relationships between variables in the third question, temperament types were put into the full model for multiple regression. The dependent variables were Emotional Exhaustion, Depersonalization, and Personal Accomplishment (Agresti & Finlay, 1986).
Chapter 4
ANALYSIS OF THE DATA

Introduction

The analyses involved first putting the data together into a table in order to look for and to establish some possible relationships indicating significance. Table 1 on the following page presents the basic descriptive data including the number of responses, means, and standard deviations.

In descriptive terms, we could create a profile of a typical secondary principal in Iowa and define some noteworthy patterns of the population. Based on information drawn from Table 1, a secondary principal in Iowa would typically be male, between the ages of forty-five and fifty-four, hold a masters degree, administer to less than forty-nine staff and less than 499 students in a rural community, have no elementary administrative responsibility, have eighteen or more years of experience in education, one to six years of experience in the current system, less than six years of administrative experience, have a Sensing-Judging temperament type, and would most likely want to change jobs. The specific data analyses will be reported and discussed by each of the three research questions.

Research Question Number One

1. To what extent are variables of sex, age, degree attained, grades administered, number of students, number of staff, type of community, future occupational intent, experience in education, experience in the current district, and experience in administration related to perceived levels of burnout of secondary principals as reported in ratings of Emotional Exhaustion, Depersonalization, and Personal Accomplishment?

As shown on Table 1, all groups of secondary administrators reported at least a moderate level of Emotional Exhaustion in the range between seventeen
Table 1: Descriptive Norms for the MBI Subscales

<table>
<thead>
<tr>
<th>Variable</th>
<th>Emotional Exhaustion</th>
<th>Depersonalization</th>
<th>Personal Accomp.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>Sex</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>47</td>
<td>23.957</td>
<td>9.756</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>35-44</td>
<td>177</td>
<td>24.441</td>
<td>10.575</td>
</tr>
<tr>
<td>45-54</td>
<td>247</td>
<td>22.729</td>
<td>11.675</td>
</tr>
<tr>
<td>Highest Degree Attained</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Specialist</td>
<td>113</td>
<td>22.823</td>
<td>11.188</td>
</tr>
<tr>
<td>Doctorate</td>
<td>39</td>
<td>24.256</td>
<td>13.516</td>
</tr>
<tr>
<td>Grades Administered</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elem.-H.S.</td>
<td>17</td>
<td>19.412</td>
<td>10.536</td>
</tr>
<tr>
<td>Elem. &amp; M.S.</td>
<td>47</td>
<td>23.021</td>
<td>10.023</td>
</tr>
<tr>
<td>Middle School</td>
<td>154</td>
<td>23.110</td>
<td>10.599</td>
</tr>
<tr>
<td>M.S. &amp; H.S.</td>
<td>152</td>
<td>22.717</td>
<td>11.630</td>
</tr>
<tr>
<td># of Students Administered</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 to 499</td>
<td>423</td>
<td>23.414</td>
<td>11.313</td>
</tr>
<tr>
<td>500 to 999</td>
<td>110</td>
<td>20.782</td>
<td>10.331</td>
</tr>
<tr>
<td>1,000 or More</td>
<td>27</td>
<td>25.704</td>
<td>12.884</td>
</tr>
<tr>
<td># of Staff Administered</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 to 49</td>
<td>454</td>
<td>23.117</td>
<td>11.164</td>
</tr>
<tr>
<td>50 to 99</td>
<td>81</td>
<td>22.049</td>
<td>11.534</td>
</tr>
<tr>
<td>100 or More</td>
<td>25</td>
<td>24.120</td>
<td>12.187</td>
</tr>
<tr>
<td>Community Type</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Suburban</td>
<td>75</td>
<td>20.773</td>
<td>10.712</td>
</tr>
<tr>
<td>Urban</td>
<td>50</td>
<td>22.320</td>
<td>11.399</td>
</tr>
<tr>
<td>Occupational Intent</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Change in Ed.</td>
<td>125</td>
<td>25.000</td>
<td>11.104</td>
</tr>
<tr>
<td>Experience in Education</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12 to 17 yrs.</td>
<td>91</td>
<td>24.275</td>
<td>10.073</td>
</tr>
<tr>
<td>18 to 23 yrs.</td>
<td>173</td>
<td>24.532</td>
<td>11.742</td>
</tr>
<tr>
<td>24 yrs. or more</td>
<td>265</td>
<td>21.736</td>
<td>11.357</td>
</tr>
<tr>
<td>Experience in Current System</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 to 6 yrs.</td>
<td>238</td>
<td>23.269</td>
<td>11.164</td>
</tr>
<tr>
<td>7 to 12 yrs.</td>
<td>100</td>
<td>24.410</td>
<td>11.659</td>
</tr>
<tr>
<td>19 yrs. or more</td>
<td>149</td>
<td>22.396</td>
<td>11.054</td>
</tr>
<tr>
<td>Administrative Experience</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 to 6 yrs.</td>
<td>330</td>
<td>23.294</td>
<td>10.924</td>
</tr>
<tr>
<td>7 to 12 yrs.</td>
<td>106</td>
<td>23.453</td>
<td>11.603</td>
</tr>
<tr>
<td>13 to 18 yrs.</td>
<td>60</td>
<td>21.317</td>
<td>13.375</td>
</tr>
<tr>
<td>19 yrs. or more</td>
<td>64</td>
<td>22.375</td>
<td>10.214</td>
</tr>
<tr>
<td>Temperament</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NF</td>
<td>69</td>
<td>24.493</td>
<td>11.536</td>
</tr>
</tbody>
</table>

Rating Scales:
- Emotional Exhaustion: High = 27 or more, Moderate = 17-26, Low = 0-16
- Depersonalization: High = 14 or more, Moderate = 9-13, Low = 0-8
- Personal Accomplishment: High = 37 or more, Moderate = 31-36, Low = 0-30
and twenty-six. Those subjects intending on changing fields reported a mean of 31.723 in the high range. The groups of subjects with an intent to change fields within education, those undecided, and those administering 1,000 or more students indicated means in the upper moderate range.

It is noteworthy also from Table 1 that 320 of the respondents indicated that they would like to change fields within education, change fields completely, or were undecided as to whether they wanted to remain in their current position or change positions. This amounts to fifty-seven percent of the 560 respondents. Running the full multiple regression analysis model without the temperament variables on the first question yielded a total $R^2$ value of .2814 by the combined variables in relation to Emotional Exhaustion as reported in Table 2 on the following page. By narrowing the model, the factor of intent yielded an $R^2$ value of .26 at the .0001 significance level. The remaining variables accounted for little in relationship to Emotional Exhaustion at the $R^2$ value of .02, demonstrating that there was a significant relationship between intent and Emotional Exhaustion.

In terms of Depersonalization, those in the age category of thirty-five to forty-four scored the highest mean, but still at the moderate level. The $R^2$ value for the full model of variables without temperament types for Depersonalization was .2216, also demonstrated in Table 2. However, in terms of the reduced model, age accounted for an produced an $R^2$ value of .03 and the other variables each had an $R^2$ value of .01 or less. Running the reduced model produced an $R^2$ value for intent of .1760 at the .0001 significance level. Again, a significant relationship existed with intent, but in this case with Depersonalization.

For Personal Accomplishment, the $R^2$ value was .1270 in the full model without temperament types and .10 of this was linked to intent. The relationship
between intent and Personal Accomplishment was significant. These results are also shown on Table 2 below.

<table>
<thead>
<tr>
<th>Model or Variable</th>
<th>R</th>
<th>SEST</th>
<th>R²</th>
<th>ADJ. R²</th>
<th>F</th>
<th>p&lt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full Model without Temp. Types</td>
<td>.5305</td>
<td>9.6956</td>
<td>.2814</td>
<td>.2575</td>
<td>11.769</td>
<td>.0001</td>
</tr>
<tr>
<td>Intent Variable</td>
<td>.5113</td>
<td>9.6963</td>
<td>.2614</td>
<td>.2574</td>
<td>65.580</td>
<td>.0001</td>
</tr>
<tr>
<td>Full Model with Temp. Types</td>
<td>.5332</td>
<td>9.7020</td>
<td>.2844</td>
<td>.2565</td>
<td>10.184</td>
<td>.0001</td>
</tr>
</tbody>
</table>

Table 2: Multiple Regression Analysis for the Relationship Between Nine Background Variables and Intensity of Secondary Principal Burnout and Intent

<table>
<thead>
<tr>
<th>Model or Variable</th>
<th>R</th>
<th>SEST</th>
<th>R²</th>
<th>ADJ. R²</th>
<th>F</th>
<th>p&lt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full Model without Temp. Types</td>
<td>.4707</td>
<td>4.9600</td>
<td>.2216</td>
<td>.1957</td>
<td>8.556</td>
<td>.0001</td>
</tr>
<tr>
<td>Intent Variable</td>
<td>.4195</td>
<td>5.0338</td>
<td>.1760</td>
<td>.1716</td>
<td>39.590</td>
<td>.0001</td>
</tr>
<tr>
<td>Full Model with Temp. Types</td>
<td>.4799</td>
<td>4.9458</td>
<td>.2303</td>
<td>.2003</td>
<td>7.666</td>
<td>.0001</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Model or Variable</th>
<th>R</th>
<th>SEST</th>
<th>R²</th>
<th>ADJ. R²</th>
<th>F</th>
<th>p&lt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full Model without Temp. Types</td>
<td>.3564</td>
<td>5.8488</td>
<td>.1270</td>
<td>.0979</td>
<td>4.372</td>
<td>.0001</td>
</tr>
<tr>
<td>Intent Variable</td>
<td>.3162</td>
<td>5.8579</td>
<td>.1000</td>
<td>.0951</td>
<td>20.590</td>
<td>.0001</td>
</tr>
<tr>
<td>Full Model with Temp. Types</td>
<td>.3774</td>
<td>5.8131</td>
<td>.1424</td>
<td>.1089</td>
<td>4.254</td>
<td>.0001</td>
</tr>
</tbody>
</table>

Bonferroni follow-up tests were run to determine significance between intent and the three MBI subscales. The results of these tests are shown in Table 3 on the following page. As is demonstrated in this table, there is
significance in the comparisons between several of these groups in relation to intent and each of the three MBI subscales.

<table>
<thead>
<tr>
<th>Comparison</th>
<th>b</th>
<th>$S_b$</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stay v. Change in Ed.</td>
<td>8.4</td>
<td>1.12</td>
<td>7.48**</td>
</tr>
<tr>
<td>Stay v. Change Fields</td>
<td>15.1</td>
<td>1.18</td>
<td>12.85**</td>
</tr>
<tr>
<td>Stay v. Undecided</td>
<td>9.4</td>
<td>1.20</td>
<td>7.83**</td>
</tr>
<tr>
<td>Change in Ed. v. Change Fields</td>
<td>-6.67</td>
<td>1.15</td>
<td>5.82**</td>
</tr>
<tr>
<td>Change in Ed. v. Undecided</td>
<td>-1.0</td>
<td>1.15</td>
<td>-0.87</td>
</tr>
<tr>
<td>Change Fields v. Undecided</td>
<td>-5.7</td>
<td>1.18</td>
<td>-4.83</td>
</tr>
</tbody>
</table>

*Bonferroni Follow-up Tests Results on Intent for Emotional Exhaustion (N = 560)*

| Stay v. Change in Ed.           | 2.78  | 0.57   | 4.87**|
| Stay v. Change Fields           | 6.12  | 0.60   | 10.17**|
| Stay v. Undecided               | 3.62  | 0.61   | 5.91**|
| Change in Ed. v. Change Fields  | -3.33 | 0.58   | 5.74**|
| Change in Ed. v. Undecided      | -0.84 | 0.59   | 1.42  |
| Change Fields v. Undecided      | -2.50 | 0.60   | 4.16**|

*Bonferroni Follow-up Tests Results on Intent for Depersonalization (N = 560)*

| Stay v. Change in Ed.           | -2.12 | .68    | -3.14**|
| Stay v. Change Fields           | -4.57 | .71    | -6.44**|
| Stay v. Undecided               | -3.76 | .72    | -5.21**|
| Change in Ed. v. Change Fields  | 2.45  | .70    | 3.50**|
| Change in Ed. v. Undecided      | 1.64  | .70    | 2.34**|
| Change Fields v. Undecided      | 0.81  | .71    | 1.14  |

*p<.05

**Indicates Significance
Single pair correlations were also figured for the continuous variables of age, students administered, staff administered, educational experience, system experience, administrative experience, emotional exhaustion, depersonalization, and personal accomplishment. The results of these correlations are shown in Table 4 below. In these results, there is a noticeably large negative correlation between age and Depersonalization. Otherwise, there is very little correlation between the variables and the three subscales of the MBI.

In the case of the first null hypothesis, it is partially rejected because of the statistical significance of intent in regards to Emotional Exhaustion and Depersonalization. The remainder of the hypothesis is not rejected, so there is no statistically significant relationship between the other variables and the three subscales of the MBI larger than a random relationship.

<table>
<thead>
<tr>
<th></th>
<th>Age</th>
<th>Stdnts</th>
<th>Staff</th>
<th>Ed. Ex.</th>
<th>Sys. Ex.</th>
<th>Ad. Ex.</th>
<th>EE</th>
<th>DP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students</td>
<td>.09</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Staff</td>
<td>.06</td>
<td>.89</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ed. Ex.</td>
<td>.81</td>
<td>.11</td>
<td>.08</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sys. Ex.</td>
<td>.54</td>
<td>.12</td>
<td>.09</td>
<td>.58</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ad. Ex.</td>
<td>.52</td>
<td>-.08</td>
<td>-.11</td>
<td>.56</td>
<td>.62</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EE</td>
<td>-.08</td>
<td>.00</td>
<td>-.02</td>
<td>-.09</td>
<td>-.06</td>
<td>-.04</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DP</td>
<td>-.16</td>
<td>-.08</td>
<td>-.08</td>
<td>-.11</td>
<td>-.07</td>
<td>-.05</td>
<td>.59</td>
<td></td>
</tr>
<tr>
<td>PA</td>
<td>-.02</td>
<td>.10</td>
<td>.12</td>
<td>-.01</td>
<td>.01</td>
<td>-.05</td>
<td>-.27</td>
<td>-.38</td>
</tr>
</tbody>
</table>
Research Question Number Two

2. To what extent are variables of sex, age, degree attained, grades administered, number of students, number of staff, type of community, future occupational intent, experience in education, experience in the current district, and experience in administration related to the type of personality of secondary principals as reported in the temperament type clusters of Intuitive-Feeling, Intuitive-Thinking, Sensing-Judging, or Sensing-Perceiving?

In analyzing the variables for possible relationships in the second question, the findings were that sex, age, degree, staff, educational experience, system experience and type of community were all significant at the .05 level in relation to temperament types. These results demonstrate a most likely relationship, but are difficult to separate into great specificity within each category. Running the logistic regression verified that the model used fit the data well, and much better than the random or null model. The significant variables are demonstrated in Table 5 below. Table 6 on the following page shows the results of chi-squares run for question two.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Parameter Estimate</th>
<th>Standard Error</th>
<th>Wald Chi-Square</th>
<th>PR &gt; Chi-Square</th>
<th>Standardized Estimate</th>
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<td>11.8941</td>
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<td>-0.230764</td>
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<td>0.0080</td>
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<td>Ed. Exp.</td>
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<td>0.0021</td>
<td>-0.346126</td>
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<td>0.0128</td>
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<td>0.0305</td>
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* All are reported with 1 Degree of Freedom
** All of the variables listed above are significant at the .05 level.
Chapter 5

SUMMARY, CONCLUSIONS, DISCUSSION, AND RECOMMENDATIONS

In terms of the questions of this study, several things came to the forefront that were both similar and dissimilar to findings in previous studies of similar nature. The main intent of this study was to determine if there were any relationships between reported personality types in the secondary principalship and levels of burnout reported by secondary principals.

Based on the findings in this study, there seem to be no predictable relationships between temperament type as measured by the Kiersey Bates categories using the Meyers-Briggs Type Indicator and burnout expressed on subscale scores of the Maslach Burnout Inventory. As both the MBTI and MBI are statistically shown to be reliable and valid when used on their own, it was hoped that they might demonstrate relationships when used together. Consulting Psychologists Press publishes both the MBTI and the MBI and have a substantial database on both measurements.

The Educator Version of the MBI was developed to measure levels of burnout in teachers and may not have a real goodness of fit for administrators. This could be a real limitation, because while they are both educators, the role of the administrator is often quite different than that of a teacher. The MBI is by far the mostly widely used instrument to study levels of burnout in the helping professions. The MBTI is the most widely used instrument to determine personality type, and Consulting Psychologists Press reports regularly that it is their most widely sold test instrument. Part of the limitation with the MBTI is finding a way to break down the many factors measured by the test into smaller and more manageable classifications than the sixteen prescribed personality types. The Kiersey and Bates scale puts the personality traits into four
orientation to the future and planning for the future, and a quest for meaning and self-actualization.

Part of the third null hypothesis was rejected, again because of the role played by intent as a statistically significant predictor of burnout levels for Emotional Exhaustion and Depersonalization. The other factors, including personality temperament types, were not any more statistically significant than the random null hypothesis.

<table>
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<th>Comparison</th>
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<td>1.08</td>
<td>2.2</td>
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<td>SJ v SP</td>
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<td>NF v NT</td>
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<tr>
<td>NF v SJ</td>
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<tr>
<td>NT v SJ</td>
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</table>

The Educator Version of the MBTI was developed to measure levels of burnout in teachers and may not have a neat application for administrators. This could be a real limitation, because while they are both educators, the role of the administrator is often quite different than that of a teacher. The MBTI is by far the mostly widely used instrument to study levels of burnout in the helping professions. The MBTI is the most widely used instrument to determine personality type, and Consulting Psychologists Press reports regularly that it is their most widely sold test instrument. Part of the limitation with the MBTI is finding a way to break down the many factors measured by the test into smaller and more manageable classifications than the sixteen prescribed personality types. The Keirsey and Bates scale puts the personality traits into four
Research Question Number Three

3. To what extent are variables of type of personality of secondary
principals as reported through temperament type clusters of Intuitive-
Feeling, Intuitive-Thinking, Sensing-Judging, or Sensing-Perceiving
related to perceived levels of burnout of secondary principals as reported
in ratings of Emotional Exhaustion, Depersonalization, and Personal
Accomplishment?

In determining relationships in the third question, temperaments were put
into the full model with the three subscales used as the dependent variables. For
Emotional Exhaustion, the $R^2$ value increased from .2814 to .2844. This being
no real change leads to the conclusion that controlling for all variables in the
model, temperament type does not explain any significant portion of the variable
in Emotional Exhaustion.

A similar finding occurred in the case of Depersonalization, as the $R^2$
value increased from .2216 to .2303. Therefore, controlling for all variables in the
model, temperament type does not explain any significant portion of the variable
in Depersonalization.

A somewhat seemingly similar finding took place in testing significance in
Personal Accomplishment as the $R^2$ value moved from .1270 to .1424 with the
addition of temperament into the model, however, one of the temperament types
came up significantly different. In performing Bonferroni posthoc tests on all
possible pairs for temperament types and Personal Accomplishment, there was
significant difference between Intuitive-Feeling (NF) and Sensing-Perceiving
(SP). These are reported in Table 7 below. These are two fairly contrasting
temperament types. Intuitive-Feeling involves a high degree of impulsivity, an
orientation to the present, reaction, and enjoyment in dealing with crises. The
Sensing-Perceiving type enjoys dealing with people, searching for meaning, and
The most noteworthy relationships that came out in terms of personality types as the dependent variables were that urban principals, those holding their doctorate, and females tend to be Intuitive-Thinkers. Males, rural, and those holding degrees less than doctorates tend to fall into the category of Sensing-Judging temperament types. Sensing-Judging types tend to be driven by duty, parental in approach to people, demonstrate a strong work ethic, foster a sense of belonging to an organization, and approach issues through policies, rules, and schedules.

The second null hypothesis is rejected, because at the .05 level there are significant relationships between females being NT, males tending to be SJ, those holding doctorates tending to be NT, those with lower degrees tending to be SJ, urban principals tending to be NT, and rural principals tending to be SJ. The probabilities of these tendencies between variables are significant.
temperament types that are better able to be managed statistically. The reported database on the Kiersey and Bates scale categories is not nearly as statistically founded as that of the MBTI. When tests were run using the sixteen personality traits, the results were slightly more intensified but impossible to analyze thoroughly for significant relationships. Perhaps there is a different personality inventory that may better measure possible relationships with levels of burnout. There is also an argument among those involved in measuring personality over whether a person has a consistently expressed personality throughout their lifetime. Kiersey and Bates argue that a person has a type of 'thumbprint' of personality at birth which lasts a lifetime. Others may argue that personality changes and evolves as a person ages. This evolution would definitely involve a dynamic relationship between personality factors and all of the variables experienced in the environment.

A thorough examination of past studies indicates that stress and burnout are more multi-dimensional in nature, and so it may be extremely difficult to run statistical analyses using existing instruments. Probably the best example of a study using many different instruments to measure many facets of stress and characteristics of teachers and job situations was conducted by Byrne in 1994. Byrne conducted a very comprehensive study of a variety of perspectives of burnout indicators among teachers, yet still determined a small significant relationship between factors and reported stress and burnout.

In a 1995 article, Friedman demonstrated the most recent attempt to measure burnout of school administrators as based on job characteristics in a fashion not dissimilar to that used by Gmelch for earlier studies. Friedman created a new instrument for measuring burnout which was not yet available for this study (Friedman, 1995a). It will be important to determine validity and
reliability for any instruments that are used to determine burnout levels among educational administrators.

Figure 1 in this study demonstrates past research categorized by the many sources of burnout as proposed by Schwab in 1994, however, there are probably many facets within these categories that may be measured with instruments yet to be developed. The four categories Schwab proposed were environmental sources, personal or background factors, psychological reactions, and consequences. The most statistically significant finding of this study was that high levels of burnout were related to an intent to leave the current position. This may be more of a consequence than a relationship of prediction.

Within each of the four categories presented by Schwab, there are numerous subcategories. As an example, there is a group of studies within the environmental sources category that involve “locus of control” or the ability that a person has to influence what goes on in the workplace (Kyriacou & Sutcliffe, 1979; McIntyre, 1984; Watson, 1967). The findings in these studies indicated that there may be a relationship between people and their ability to control their environment. The authors reported a common finding that the less control the subjects had over what took place, the higher the levels of burnout they reported. The principal may particularly fall victim to loss of ‘locus of control’ issues by being a middle level leader. While he or she holds control over many issues as a principal, many other items fall under the guise of the superintendent and others. The instruments used in these studies, however, were not shown statistically to be particularly valid or reliable. Also, these studies dealt with teachers in specified subject areas, and as a result may not be relevant to administrators.

Other possible variables that could be explored in further studies may be role conflict and role ambiguity similar to a study by Schwab et al. (1983), the influence of job description and workload, socio-economic level of the
community, salary of the administrator, performance of students and staff in the school, characteristics of students and staff in the school, or community pressures to perform in a constantly changing society. The principal often plays an undefined role which at the same time is pivotal to the leadership in the building. Many external and internal variables to the school may impact him or her.

For the first question in this study, it is evident that secondary principals in Iowa are reporting moderate to high levels of emotional exhaustion, generally low levels of depersonalization, and high levels of personal accomplishment. In more specific terms, it is evident that many secondary principals have doubts as to whether or not to stay in their current position with forty-three percent reporting that they intend to stay in their current position. Future intentions that accounted for the greatest relationship with Emotional Exhaustion at twenty-six of twenty-eight percent at the .0001 level, for seventeen percent of the twenty-two percent at the .0002 for Depersonalization, and for ten percent of the thirteen percent for Personal Accomplishment. Those principals between twenty-five and thirty-four years old are experiencing the higher levels of Depersonalization. While the differences in Depersonalization for age levels seemed higher for the younger groups, there were no significant findings for this and the means for the two younger groups were in the moderate range.

Maslach and Jackson (1986) and Schwab (1982) conducted studies that found age accounting for a significant amount of the variance in Emotional Exhaustion and Depersonalization. Part of the explanation for this discussed in those studies focused on "professional mystique" in dealing with the expectations of a new position and the possibility that someone new to a position may have higher expectations and a level of less comfort in dealing with the expectations of the position (Schwab, 1982, 14). This may relate to the fact that 330 of the
respondents reported being in administration for six or less years as well as being in those younger age categories. Burnout could become even more of a concern for Iowa with the predicted rate of turnover at sixty percent turnover of secondary principals by the year 2000 (SAI, 1994).

There were notable differences between the personality types of secondary principals in terms of sex, age, degree, staff size, type of community, educational and system experience at the .05 level. Of these differences, females were more apt to be Intuitive-Thinking types while males tended to be Sensing-Judging types, those administrators with doctorates tended to be Intuitive-Thinking while those holding masters or specialist degrees were more apt to be Sensing-Judging types, and urban principals were more apt to be Intuitive-Thinkers and rural Sensing-Judging types.

Of the 560 principals, 322 were characterized as Sensing-Judging temperament types. Sensing-Judging types are characterized by being driven to duty, parental in nature, involved particularly with policies, rules, schedules, and structure, and prone to view the organization as a family. There were 128 Intuitive-Thinkers. This NT type tends to be oriented to the future as visionary and critical thinkers, being more individualistic in nature, using logical processes, and preferring ideas and models over human interaction. Sixty-nine principals tended to be Intuitive-Feelers (NF) and the smallest group of forty-one composed the Sensing-Perceivers (SP). Both NF and SP temperament types tend to by more free spirited, creative, and less willing to work within a structured environment. One may conclude that this is why less NFs and SPs are principals, however, there are many questions such as comparisons to general population and others that prohibit drawing this conclusion.

Because this study reflects the mostly rural state of Iowa, it may be very useful to compare the results with a predominantly urban state such as New
REFERENCES


burnout experienced by educators as compared to other specific groups of professionals or to the general public.

It is recommended that others continue to research burnout among school administrators in an effort to recruit and keep in the profession high quality educators to lead for a bright future. Every profession seeks to continually improve its practitioners. Using a reliable and valid instrument to predict success would hold a great deal of value both for individuals interested in becoming principals and for the field of education administration.

Finally, it is useful to remember the phrase often referred to by burnout researchers that "you cannot burnout if you were never on fire to begin with" (Schwab, 1994). Researchers including Duke and Stouffer report results from interviewing administrators exiting the profession due to stress and burnout issues. This may be due to a mismatch between personality type and the position, never being excited about the profession, coping with rapid changes in the role of the principalship, building the position to a level that is beyond what a person can actually carry through, or other reasons. The future seems a bit tenuous, at least in Iowa, as there is a decline in those pursuing educational administration and an expansion of jobs due to an increase in retirements and other circumstances. This leaves the field of educational administration widely open for ambitious leaders who possess energetic motivation for leading educational transformation and effective coping skills.
Jersey. Such a study would help to broaden the perspective on stress and burnout. Other data which would widen perspective may be comparative studies on levels of burnout experienced by educators in contrast to those experienced throughout society in general. It may be that educators do not experience any more or less stress and burnout than the rest of society.

There is a concern over high turnover in educational administration. This study shows that there are high levels of Personal Accomplishment associated with the secondary principalship in Iowa and that there are moderate levels of stress in this group as demonstrated by Emotional Exhaustion and Depersonalization. Similar studies with different populations would provide more information on this topic. Perhaps a more exhaustive study using different instruments and a different model such as that conducted similar to the very comprehensive study by Byrne in the Fall, 1994 issue of the American Educational Research Journal or using an instrument such as the School Principal Burnout Scale recently developed by Friedman (1995a) but not available for use in this study.

The key to the study of stress and burnout among educators and others seems to be in the development of valid and reliable measurement instruments. Researchers continue to move forward in this direction and have come a long way since the early work of Seyle in the 1930s. Schwab reported on recent progress in this direction in his article demonstrating the gains in statistical quality research in 1983 titled 'Teacher Burnout: Moving Beyond Psychobabble.'

Throughout the research, the common thread of interest is to determine the causes of stress and burnout in an effort to reduce or eliminate this modern plague. Many studies need to be conducted in an effort to achieve this goal, and this study contributes to the body of knowledge in this area. A question that has not been answered well in past studies is the relationship between levels of


Lawrence, G. D. (1982). People types and tiger stripes (2nd ed.). Gainesville, FL: Center for Applications of Psychological Type.


