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AN EXAMINATION OF THE RELATIONSHIP BETWEEN TEACHER BURNOUT
AND ORGANIZATIONAL DESIGN

The University of North Carolina at Greensboro   ED.D. 1983

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AN EXAMINATION OF THE RELATIONSHIP

BETWEEN TEACHER BURNOUT AND

ORGANIZATIONAL DESIGN

by

Michele A. Crews

A Dissertation submitted to
the Faculty of the Graduate School at
The University of North Carolina at Greensboro
in Partial Fulfillment
of the Requirements for the Degree
Doctor of Education

Greensboro
1983

Approved by

_____
Dissertation Adviser

APPROVAL PAGE

This dissertation has been approved by the following committee

of the Faculty of the Graduate School at the University of North

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Dissertation Adviser ___*Sandra M. Powers*___

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___*August 12, 1983*___
Date of Acceptance by Committee

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Date of Final Oral Examination

CREWS, MICHELE A., Ed.D. An Examination of the Relationship between
Teacher Burnout and Organizational Design. (1983) Directed by Dr.
Sandra M. Powers. Pp. 133.

The purpose of this study was to examine the relationship between

teacher burnout and organizational design. To that end, the Maslach

Burnout Inventory (BMI) and the organizational design survey (ods)

developed by this researcher were completed by 306 teachers in north-

western North Carolina. Demographic differences among the respondents

were compared on the MBI and the ods.

The hypothesis that no relationship existed between teacher burnout

and organizational design was rejected after factor analysis and canonical

correlation analysis.

The hypothesis that there was no difference in demographic subgroups

when compared on the six MBI subscales was rejected. ANOVA performed

to test this hypothesis resulted in significant differences on 7 of 13

demographic variables. Significant findings were these: Blacks experience

less Emotional Exhaustion than Whites; Those in graduate schools reported

more Personal Accomplishment than those not in school; Academic teachers

experience more Depersonalization than vocational teachers; Those

reporting salary dissatisfaction experience more Depersonalization and

Emotional Exhaustion; Those who would not teach again experience more

Depersonalization, Emotional Exhaustion, and less Personal Accomplishment.

The hypothesis that there was no significant difference in demo-

graphic subgroups when compared on the ods was rejected. ANOVA resulted

in 36 significant findings. Major findings included these: Those who

had taught 6-15 years reported the most negative feelings toward the

organizational design of their schools; Males reported less use of peer

assistance; Blacks reported receiving more positive comments about their

work; Librarians reported the most role conflict and overload; and

elementary teachers reported less professional treatment from those in

authority. Many differences were found between academic and vocational

teachers, between those reporting salary satisfaction and dissatisfaction,

and between those who would rechoose the teaching profession and those

who would not.

ACKNOWLEDGEMENTS

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CHAPTER I

INTRODUCTION

The job of the classroom teacher has always been challenging,
but in the 1980's it has become even more demanding than it was in the
past.   Teachers are now confronted with the job insecurity that results
from decreased enrollment, criticism from the public and the media,
inadequate salaries, budget cuts, new evaluation procedures, students
who are being lured away from academics by television, video games, and
jobs, and a host of other problems.

As a result of the problems they face, teachers report dissatisfac-
tion with their jobs.   The 1981 NEA Teacher Opinion Poll found 37% of
the respondents dissatisfied;   in fact, 10% planned to abandon their
teaching careers as soon as possible.   Forty-five percent would not
choose the teaching profession if they could remake their career choice.
Reasons given for this decision were criticism by the media, school
disciplinary policies, expenditure of time on non-teaching duties, poor
salaries, and the "stress associated with the job" (Teacher Opinion Poll,
1981, p. 86).

The results of stress are felt by the teacher on both professional
and personal levels.   Research indicates that stress can diminish teacher
performance (Coates & Thoresen, 1976);   stress also takes its toll on
both the pyschological and physiological health of teachers (Gherman, 1981).

Maslach and Jackson (1981b), leading researchers on burnout,
believe that burnout, "a syndrome of emotional exhaustion and cynicism"

(p. 99), is the result of stress. Like stress, burnout affects the teacher in the classroom and outside of it. Reported results of burnout include low worker morale, absenteeism, job turnover, drug and alcohol use and abuse, and increased marital and family problems (Maslach, 1978).

Since burnout is a result of stressors in the work environment and since it is the work place that is primarily affected by the changes burnout produces, an examination of burnout must concentrate on the work place.

The school system, the work place of teachers, is fertile ground for the seeds of burnout because it is both a bureaucratic organization and the employer of helping professionals.

Bureaucracies, formal hierarchical agencies with centralized decision-making, have been found to have a high rate of turnover, low job satisfaction, and rapid burnout (Pines, Aronson, & Kafry, 1981).

Cary Cherniss (1980b), University of Michigan psychologist, views the design of an organization as a source of burnout. He cites role structure, power structure, and the normative structure of an organization as specific areas which influence job satisfaction and performance.

Role structure is "the way tasks and duties are allocated among specific roles" (p. 74) in the organization. It can influence the degree of burnout through role conflict and ambiguity and through the motivating potential of the job.

The power structure of an organization is the second major area which influences worker burnout. The power structure is the source of decision-making in an organization: the source of choice or control. Decision-making may be autonomous--the worker makes decisions that affect his work; collective--the worker makes decisions with

other staff; or hierarchical--a supervisor or group makes decisions
for the worker.

The normative structure is the third aspect of organizational
design that can influence staff burnout. Cherniss identified four areas
in which the normative structure affects the work setting: the guiding
philosophy of treatment, the strength of bureaucratic mentality within
the organization, the extent to which production of new knowledge is a
goal, and the norms concerning organizational health and staff needs.

The helping professions, including teaching, are marked by unique
work situations with built-in sources of stress that can lead the worker
to burn out. The helping professional begins his career with the highest
of ideals and enthusiasm; the ensuing conflict between bureaucratic
reality and the helper's dreams leads to burnout. There is a lack of
adequate criteria for measuring accomplishment in the helping professions
and, as a result, the helper becomes frustrated when he cannot determine
his success. The helping professions are widely known for their inadequate
salary range, and the more disenchanted the helper becomes, the more
important salary becomes. Helpers become frustrated by typical case
management: the most difficult or most rewarding cases receive the most
time, while the middle group, to the helper's dismay, is often neglected.
The helping professions are public professions, and the helper is often
subjected to political pressure and inadequate funding. The helper will
also find that his role is misunderstood and criticized by the media.
Even job advancement for the helping professional brings mixed feelings
because it unfortunately takes the helper away from those with whom he
originally wished to work (Edelwich & Brodsky, 1980).

Helpers perform "emotionally taxing work" (Pines et al., 1981, p. 48):

teachers, for example, often hear that if a student did not learn, then

the teacher did not teach. Such a statement is typical of the criticism

that a helping professional may hear, and the erroneous content of the

message makes it no easier to bear. When the work situation becomes too

emotionally charged, stress and burnout may result.

Significance of the Study

Recalling the problems facing today's educators, it seems likely

that teacher stress and its extension, burnout, are on the rise. In view

of this, a study focused on the relationship between burnout and the

various factors purported to cause it is of growing importance. The

intent of this study is to examine one of those factors--organizational

design--and teacher burnout.

Many issues that affect education and contribute to stress and burn-

out cannot be resolved by those most affected, the teachers themselves;

but educators, both teachers and administrators, can work towards improv-

ing the teaching environment and reducing burnout through the use of

organizational design theory.

This study was designed to collect three types of data: demographic

factors; a measurement of burnout experienced by the teachers involved;

and a report on teachers' perceptions of the role, power, and normative

aspects of their jobs.

Demographic data collected included standard items such as age, sex,

and race. Data pertinent to teaching such as years of experience, class

size, and grade level taught was also collected. Experienced burnout

was measured by the Maslach Burnout Inventory (MBI), a survey that measures

three separate areas of burnout. The organizational design survey (ods) is composed of 58 job-related questions rated for applicability by each respondent.

The following hypotheses were tested:

H_oI: There is no significant relationship between organizational design as measured by the ods and teacher burnout as measured by the MBI.

H_oII: There is no significant difference in demographic subgroups when compared on the MBI subscales.

H_oIII: There is no significant difference in demographic subgroups when compared on the ods factors.

Results of this study can be useful in lessening burnout and its effects in several ways. First, if administrators know who is most susceptible to this syndrome, they can make stress-reducing strategies available to the affected population. Second, since past studies suggest that the organization itself may be a contributor to burnout, knowledge of which areas of the organization--the role, power, or normative struc- tures--contribute most to burnout would be helpful to those in administra- tion who are policy makers. Finally, in-service education can teach teachers how to deal best with the stressors that affect their personal and professional lives.

Limitations of the Study

This study was limited to certified teachers, librarians, and guidance counselors in two school systems located in northwestern North Carolina. Both systems, Mount Airy City Schools and Surry County Schools, are located in a predominantly rural area. The selection of this population

was determined after consideration of temporal, monetary, and accessibility factors. The use of these two systems, both in the same geographical area, affects the external validity of this study. The results of this study may not be generalized reliably to school settings other than similar rural ones.

A second limiting factor, one that affects internal validity, is this study's predication on self-reporting. Results of self-report studies are only as reliable as the "degree that the self-perceptions are accurate and to the degree that the person is willing to express them honestly" (Borg & Gall, 1971, p. 178).

Closely related to the problem of self-reporting is the possibility of bias resulting from the voluntary nature of this study. One weakness of questionnaire surveys is that respondents must be considered volunteers who will often report differently from nonrespondents. Best (1970) stated that "volunteers are usually more highly motivated than non-volunteers" (p. 148). In a study of this nature, one must consider the possibility that if those who responded were indeed "highly motivated", then those less motivated, possibly the more burned-out individuals in the population, did not participate.

Definitions

Burnout - "A syndrome of emotional exhaustion and cynicism that occurs

frequently among individuals who do people work of some kind"

(Maslach & Jackson, 1981b, p. 99).

Helper - one employed in a helping profession.

Helping profession - Those professions "whose primary function is to

define or alter the person's behavior, attributes, and social status

in order to maintain or enhance his well-being" (Hasenfeld &

English, 1974, p. 1); also known as human service organizations.

Normative structure - "The goals, norms, and ideologies" of the organiza-

tion (Cherniss, 1980b, p. 102).

Organizational design - "The formal, rational properties of an organiza-

tion that can be readily controlled by those responsible for design-

ing and/or managing a program" (Cherniss, 1980b, p. 70).

Power structure - The source of decision-making in an organization

(Cherniss, 1980b).

Role structure - "The way tasks and duties are allocated among specific

roles" (Cherniss, 1980b, p. 74).

Stress - "The nonspecific response of the body to any demand made upon

it" (Selye, 1974, p. 27).

Stressor - Any event that produces stress (Selye, 1974).

CHAPTER II

REVIEW OF THE LITERATURE

Hans Selye, the leading authority on stress, emphasized the role
stress plays in modern life by stating that response to stress "often
determines the quality of [one's] life and health" (1980, p. 127).
Consequently, it is important to closely examine the concept of stress.

Selye introduced the concept of stress in 1936. He originally
believed that stress was the result of "diverse noxious agents" (1979,
p. 11), but later defined stress as "the nonspecific response of the
body to any demand made upon it" (1974, p. 27). Though other definitions
of stress are myriad (see, for example, Lazarus, 1980; Rinehart, 1980;
Tanner, 1976; Welford, 1974), Selye's is the most widely accepted.

According to Selye, stress is manifested by a General Adaptation
Syndrome (GAS). The body reacts to a stimulus (the stressor) in three
stages:

> Alarm Reaction. The organism's reaction when it is suddenly
> exposed to diverse stimuli to which it is not adapted. The
> reaction has two phases:
> a. Shock phase. The initial and immediate reaction to the
> noxious agent. Various signs of injury--such as tachycardia,
> loss of muscle tone, decreased temperature, and decreased
> blood pressure--are typical symptoms.
> b. Countershock phase. A rebound reaction marked by the
> mobilization of defensive phase, during which the adrenal
> cortex is enlarged and secretion of corticoid hormones is
> increased. (Most of the acute stress diseases correspond
> to these two phases of the alarm reaction.)
> Stage of Resistance. The organism's full adaptation to the
> stressor and the consequent improvement or disappearance of
> symptoms. At this stage, however, there is a concurrent
> decrease in resistance to most other stimuli.

Stage of Exhaustion. Since adaptability is finite, exhaustion inexorably follows if the stressor is sufficiently severe and prolonged. Symptoms reappear, and, if stress continues unabated, death ensues (1980, p. 129).

Causes of Stress

Many authors (Appley & Trumbull, 1967; Lazarus, 1966; and Sutterly & Donnelly, 1982) believe that stress cannot be examined by viewing the individual and his environment independently. They agree that stress "involve[s] awareness of demands that tax or exceed available resources as appraised by the individual" (Scott, Oberst, & Dropkin, 1982, p. 4). Close attention must be given to the phrase "as appraised by the individual" because it is the individual's perception of the stressor that determines whether the stress is distress (negative) or eustress (positive) (Selye, 1980).

Distress, hereafter referred to simply as stress, often originates in the organizational design of the work place. Cooper and Marshall (1976) developed a model of the stress of work. They presented five categories of sources of work stress: factors intrinsic to the job such as working conditions, time pressures, or physical danger; the individual's role in the organization; problems in career development; relationships at work; and organizational climate.

The physical environment itself may be a source of stress. Tanner (1976), Beech, Burns, and Sheffield (1982), and Kahn (1981) reported a correlation between noise and stress-induced disease. Flickering lights (Kahn, 1981), too much or too little light, high humidity, and temperatures in excess of 80° F and below 55° F can cause physiological changes such as loss of motor coordination and loss of powers of concentration (Beech, Burns, & Sheffield, 1982).

Isolation is a source of stress to some individuals (Lazarus, 1966) and so is overcrowding (Pelletier, 1979). Taylor (in Pelletier, 1979) discussed the phenomenon of "population crash" in which animals suddenly die apparently due to overcrowding. Autopsies of the dead animals showed physiological changes that were indicative of prolonged stress. Pelletier (1979) theorized that "perhaps the increased incidence of the 'afflictions of civilization' (cardiovascular disease, cancer, arthritis, respiratory problems, and depression) with their unknown etiologies presage a form of population crash" (p. 106).

Yates (1979) reported that other stressors intrinsic to some jobs are "boredom, time pressures and deadlines, exorbitant work demands, information overload, and job design and technical problems" (p. 37).

Much writing and research has been done about the other sources of stress identified by Cooper and Marshall (1976). They will be discussed in detail within a later section of this chapter.

Consequences of Stress

Stress can result in both physiological and psychological damage to the individual. The work place is, of course, affected by both. Physiologically, the results of stress can be as minor as an upset stomach or as threatening as coronary heart disease.

"The cardiovascular system is thought by many researchers and clinicians to be the prime target end-organ for the stress response" (Everly & Rosenfeld, 1981, p. 38), and "the most evident single factor" (Pelletier, 1979, p. 10) in cardiovascular disease is stress. Since almost 55% of the mortality rate in the United States is attributed to cardiovascular disease (Yates, 1979), the consequences of stress are proven severe indeed.

Two often-cited teams who relate coronary heart disease and stress are Holmes and Rahe and Friedman and Rosenman.

Holmes and Rahe (1967) developed the Social Readjustment Rating Scale which ranks life events according to their potential as stressors, using life change units (LCUs) as a measuring device. In a Finnish study, individuals who survived a myocardial infarction as well as individuals who succumbed to coronary heart disease were found to have significant life change elevations in the last six months of their lives. LCU scores were elevated between 42% and 69% during the six months prior to myocardial infarctions and between 71% and 143% during the six months prior to coronary death (Rahe & Romo, 1974).

Friedman and Rosenman (1974) have dichotomized personality or behavior traits as they relate to coronary heart disease. Type A individuals are prone to high stress; Type B to low stress. Type A individuals are competitive, impatient, easily aroused to hostility and aggression, always under time pressures, and often poorly define their work objectives. Type B individuals are relaxed and more likely to enjoy life. Type B individuals clearly formulate career goals and are often more successful in attaining goals than are Type A individuals. Type B individuals strive for personal satisfaction, not just to excel in competition. They take time to consider issues clearly. The Type B individual is "more thoughtful, original, equally competent, and less abrasive personally" than the Type A individual (Pelletier, 1977, p. 131). Researchers characterized 3500 men ages 39-59 as Type A or Type B. Of those thought to be Type A's, 85% developed coronary heart disease (Beech, et al., 1982).

Besides its association with the often-fatal coronary heart disease, stress is considered to be a factor in the development of cancer (Tanner, 1976). While the role stress plays in cancer is not completely understood, Selye (1979) states that "stress can cause or aggravate cancer" (p. 13). Dr. Eugene Pendergrass, former president of the American Cancer Society, reported (in Selye, 1979) that many individuals who had seemingly been successfully treated for cancer had their cancers reactivated by the influence of acute stress.

Stress is also related to illnesses less critical than coronary heart disease and cancer. Gastrointestinal disorders such as peptic ulcers and ulcerative colitis are linked to stress (Brady, 1980; Frolich, 1972). Respiratory problems such as allergies and asthma (Everly & Rosenfeld, 1981; Minter & Kimball, 1980), musculoskeletal disorders such as arthritis and inflammatory joint disease (Morraco, Gray, & D'Arienzo, 1981; Selye, 1956), and skin disorders such as acne and psoriasis (Beech, et al., 1982; Everly & Rosenfeld, 1981) have all been related to occurrences of stress.

Psychological consequences of stress can include anxiety, insecurity, nightmares (Bloch, 1980), manic behavior patterns, insomnia, depression, and schizophrenia (Everly & Rosenfeld, 1981), fear, guilt, anger, and aggression (Lazarus, 1966). The psychological results of stress can also include "impair[ed] skilled performance and cognitive activity" (Lazarus, 1966, p. 7). The latter two will be discussed later in this chapter.

Teacher Stress

Teaching is losing its attractiveness. A recent NEA study reported that one-third of those in teaching would not re-enter the teaching profession if they rechose their professions. Only six out of ten teachers plan to remain in teaching until their retirement. The number of teachers with 20 or more years of experience has dropped almost 50% in 15 years (McGuire, 1979). While there is no single factor which has caused teachers to abandon or plan to abandon their profession, the stress that is caused by the many problems of the job is easily identifiable as a major result of teacher discontent.

The close relationship between stress and classroom teaching was made clear by Alschuler (1980) who stated that "stress could be a one word definition of teaching" (p. 7). Since stress results from the plethora of problems teachers face, since these many problems cause teachers to leave the profession, and since stress is reported to be the number one health problem of teachers (Slywester, 1977), the study of teacher stress is necessary.

Two major studies on teacher stress were those conducted by the Chicago Teachers Union in 1978 and the New York State United Teachers in 1979.

The Chicago study involved 4,934 teachers who rated 35 teaching events as stressors. Pedagogical issues such as working on lesson plans or grading students were found to be less stressful than events dealing with the teacher's physical or psychological well-being: the threat of personal injury and notification of unsatisfactory performance. Involuntary transfer and the management of disruptive children were the two

highest-rated stressors. Of those questioned, 56% felt that some physical illness they had experienced was related to job stress; one-fourth (26.4%) felt they had experienced mental illness that was job-related (Cichon & Koff, 1978).

The New York survey found that disruptive students and incompetent administration were the first two causes of stress. The third highest stress-related item was maintaining self-control when angry. Urban teachers were found to perceive more stress than rural or suburban teachers. Those ages 31-40 felt more stress than did any other group; teachers ages 41-50 felt more stress than did those older than 50 (NYSUTSS, 1979).

Another wide-scale survey drew responses from 3,789 teachers in northwestern Ohio and western Pennsylvania. This study surveyed teachers in small and middle-sized cities and can be viewed as a balance to the Chicago and New York City studies which used urban areas as their data base. In this study 16.5% of the teachers found their jobs to be very stressful or extremely stressful. Of those just cited, stress was reported most often by high school teachers, more often by middle school teachers, and least often by elementary teachers. The most stressful teaching situations were found in urban, suburban, and rural schools respectively. Decreasing amounts of stress were felt by teachers ages 31-44, 45 or older, and those under 30. The most experienced teachers (ten or more years of service) felt the most stress; those who had taught 5-10 years felt more stress than those who had taught 0-4 years who felt the least stress. Implying that job satisfaction and stress are polar conditions, this study questioned teachers about overall job satisfaction. The highest degree of overall job satisfaction was reported

by teachers in elementary schools, rural schools, either under 30 or over

45 years of age, and with 0-4 years of experience. The lowest degree of

overall job satisfaction was reported by teachers in high schools, urban

schools, ages 31-44, and with ten or more years of experience.

Eight sources of stress were ranked by the respondents: continual

pupil misbehavior (57.1%), too much work (52.3%), trying to uphold/main-

tain values and standards (48.3%), noisy pupils (45.8%), difficult class

(34.9%), inadequate salary (30.3%), inadequate disciplinary policy of

school (26.1%), and little chance for advancement (18.8%) (Feitler &

Tokar, 1981).

A Pittsburgh study of 967 elementary teachers ranked 127 professional

problems. In order, the 12 highest-ranked problems were finding time for

individual and remedial work, working without a planning period, money

for extra classroom materials, finding time for creative teaching, doing

schoolwork at home, obtaining materials for slow students, dealing with

children with emotional problems, learning about promotions and pro-

fessional policies, acquiring written evaluations from supervisors about

teaching effectiveness, obtaining guidance and counseling services for

students, adapting instruction to meet the needs of special students, and

obtaining funds for field trips. Of eight areas of teaching problems

proposed by the authors, teachers had the "most difficulty with materials

of instruction and discipline and control" (Olander & Farrell, 1970,

p. 277).

A study of 500 teachers in Indiana found that student misbehavior

was the most prevalent source of teacher stress. Teachers reported

the next most highly rated stressors to be time pressures, poor working condi-

tions, and poor school atmosphere. No significant differences were found

in perceived amounts of stress felt by elementary and secondary teachers. For rural and surburban teachers, pupil misbehavior caused the most stress, followed by time pressure. Poor working conditions and poor school atmosphere caused this group little stress. Urban teachers reported that most stress was caused by pupil misbehavior. For urban teachers, equal amounts of stress were caused by time pressure, poor school atmosphere, and poor working conditions. No significant differences were found across any group when compared on physical or emotional illness due to occupational stress (Creekmore, 1981).

Teacher stress was found to be "prevalent" (Bucklew, 1981, p. 4898A) in a study of 248 Florida teachers. Very stressful or extremely stressful teaching situations were reported by 41% of the respondents. The most important teacher-perceived sources of stress were dissatisfaction with salary and pupil misbehavior. No significant differences were found across any demographic group when compared on the causes and symptoms of stress.

In order, the most frequent causes of stress for 365 Connecticut special education teachers were inadequate salaries, short-changed personal priorities, lack of professional recognition, need for enhanced job status, lack of advancement opportunities, inability to meet others' expectations, inadequate time to devote to individual students, frustration over student behavior and poorly motivated students, and discipline policies. Of this sample, 32.1% reported moderate stress, 27.7% reported much stress, and 18.1% reported very much stress. Almost one-half of the respondents (49.3 reported absenteeism due to job-related stress (Fimian & Santoro, 1982).

A similar finding was reported in a study of 675 teachers near Washington, D.C. Of that sample, 43% reported that stress was a factor in absences from school. One-half (51%) of the sample reported that they would not rechoose the teaching profession (Moracco, Gray, & D'Arienzo, 1981).

In a Houston, Texas, study, 164 secondary teachers rated potential stressors. In order, the ten highest rated stressors were lack of administrative support in disciplinary matters, disruptive student behavior, too much administrative paperwork, student absenteeism, lack of administrative support in dealing with parents, inadequate security measures, noisy halls during class time, no permanent classroom, vague and conflicting instructions, and too many students. The authors Bruner, Felder, and Hollis (1982) commented "most of the identified difficulties in this study lie within the control of school district personnel" (p. 4).

Youngs (1978), commenting on teacher stress, stated:

> With additional burdens being placed upon schools, the
> bottom line still reads: "The classroom teacher is
> responsible." The teacher must assure the student's
> attendance, his adjustment, his values, and his physi-
> cal whereabouts. He must also demonstrate genuine
> concern for him as another human being, conducting
> evaluations, preparing paperwork, modifying program
> objectives for each student, and planning his education---
> that is, studying the youngster to identify what may be
> the best paths of learning for him to stimulate, cor-
> rect, clarify, enrich, extend, and create quest (p. 81).

Such awesome responsibilities would indeed generate teacher stress.

While there is no question that teachers are affected by stress, there is considerable question about the effects of teacher stress on teaching effectiveness. Youngs (1978) reported that there is an associa- tion between teacher anxiety and stress and student misbehavior, decreased

student performance, and less verbal support of students. Doyal and Forsyth (1973) reported that teacher anxiety appears to affect the anxiety students feel when they take tests. However, findings of other studies are not so clear. Keavney and Sinclair (1978) reviewed literature on the consequences of teacher anxiety and while they believe that findings suggest a negative relationship between teacher anxiety and student achievement and a positive relationship between teacher anxiety and attrition, they have stated that "research to date on teacher anxiety suggests that this area is still at a very early stage of development" (p. 273) and "much further clarification...is required" (p. 286).

Burnout

Richard H. Price stated that "'the term burnout is an evocative but imprecise metaphor'" (Cherniss, 1980b, p. 7). That the term is imprecise is proven by the glut of definitions currently existing (see, for example, Carroll & White, 1982; Edelwich & Brodsky, 1980; Kahn, 1978).

The term itelf was not used in print until the early 1970's (Maslach, 1982) and did not become an ERIC descriptor until 1980. In the three years that have elapsed, hundreds of burnout citations have appeared in the ERIC system, but burnout surely existed before the term was given life by the print media.

An examination of the literature shows that what a contemporary populace calls burnout is sometimes also called stress. The close relationship between stress and burnout is apparent in a comparison of Selye's GAS (1974) and the three stages of burnout discussed by Cherniss (1980b). While the terms burnout and stress are used interchangeably in much literature, for the purposes of this study, burnout will be viewed as the result of stress.

Maslach and Jackson (1981a) state that "chronic stress...can lead
to burnout" (p. 1) and their definition of burnout--"a syndrome of
emotional exhaustion and cynicism that occurs frequently among individuals
who do people work of some kind" (1981b, p. 99)--will be employed here.

The burned-out worker exhibits feelings of depersonalization,
emotional exhaustion, and loss of personal accomplishment (Maslach &
Jackson, 1981b).

Depersonalization is the "development of negative, cynical attitudes
and feelings about one's clients" (Maslach & Jackson, 1981b, p. 99). When
burned-out, the worker feels that his clients deserve their problems
(Maslach & Jackson, 1981b) and views his clients as cases, not people,
and gives them dehumanizing labels (Daley, 1979a; Freudenberger, 1977).

Emotional Exhaustion is the inability "to give of [oneself] at a
psychological level" (Maslach & Jackson, 1981b, p. 99). Workers who
are emotionally exhausted "move into a resistance state and become petty
bureaucrats, isolated and inflexible" (Daley, 1979a, p. 21).

The loss of feelings of Personal Accomplishment refers "to a
tendency to evaluate oneself negatively, particularly with regard to one's
work with clients" (Maslach & Jackson, 1981b, p. 99).

Carroll (1980) offered an exhaustive list of the symptoms of
burnout:

> Physical. Among the most common physical symptoms encountered
> are feelings of exhaustion and fatigue; being unable to
> shake a cold; feeling physically run-down; frequent headaches
> and gastrointestinal disturbances; sudden weight loss or gain;
> increase in blood pressure; sleeplessness; shortness of breath;
> and increased susceptibility to various illnesses, including
> the common cold.
>
> Psychological. Among the common psychological symptoms of
> staff burnout are increased feelings of depression, exhaus-
> tion, hopelessness, disillusionment, boredom, being trapped

in one's job, helplessness, self-doubt about one's ability
to heal (effectiveness) and the value of one's work,
isolation (aloneness), not being appreciated for one's
hard work and dedication (being taken for granted), or
simply being ignored; increased rigidity, stubborness,
and judgemental thinking; hyperirritability and quick-
ness to anger; increased suspiciousness and distrust;
loss of one's initial enthusiasm for the job, loss of
charisma, and loss of control over the expression of
feelings; change from optimism to pessimism, cynicism;
change from basic acceptance and respect for clients
to rejection and disrespect; change from being a creative,
flexible thinker to a mechanical, petty bureaucrat;
increased drinking, drug-taking, gambling; diminished
control over such basic drives as hunger and sex; and
a significant decrease in judgement and reasoning,
including the inability to consider the likely con-
sequences of certain acts.

Social. The most commonly observed social symptoms include
a significant decrement in the ability to relate to one's
clients as individuals, especially in a constructive, friendly,
and caring manner; people in treatment begin to be responded
to in terms of labels and categories; generally withdrawing
and isolating oneself from others; overbonding with other staff
members, that is, seeking to satisfy one's most basic human
needs (e.g., recognition, friendship, love, and sex) almost
exclusively through contacts with one's co-workers; the
severing of long-term relationships (e.g., through divorce);
increased sexual promiscuity; increased interpersonal conflicts,
both on the job and at home; centering one's life around the
job (e.g., by working an inordinate number of overtime hours
and then "justifying" this behavior as a form of "dedication"
to one's work and a reflection of just how "important" one is to
the organization); just hanging around the institution after
normal work hours with no special purpose; and taking repeated
risks that endanger one's physical and psychological health
(pp. 187-188).

Maslach and Jackson's (1981b) burnout study of 1,025 helping pro-

fessionals resulted in significant differences in demographic groups

when compared on Depersonalization, Emotional Exhaustion, and Personal

Accomplishment scores, but they warn that the findings "must be

interpreted with caution since some of the variables are clearly con-

founded with type of occupation" (p. 110) (e.g., most police are men;

most nurses are women).

Males reported more frequent and intense feelings of Depersonalization than did females. Females reported more frequent and intense feelings of Emotional Exhaustion than did males. Males reported more intense and frequent feelings of Personal Accomplishment than did females.

Younger people (age ranges unreported) reported more frequent and intense feelings of Depersonalization than did older people (age ranges unreported). Younger people reported more frequent and intense feelings of Emotional Exhaustion than did older people. These findings are in conflict with those on burnout and mid-life crises (see, for example, Cardinell, 1981).

People who were single or divorced reported more frequent and intense feelings of Emotional Exhaustion than did those who were married.

Those who had not completed college reported more frequent and intense feelings of Depersonalization than did those who had completed college or had done postgraduate work. Those who had completed college or had done postgraduate work reported more frequent and intense feelings of Emotional Exhaustion than did those who had not completed college. Postgraduates reported the most frequent and intense feelings of Personal Accomplishment, followed by those who had not completed college, and then by those who had completed college.

There were no significant differences in races when compared on any measure in this study which included 89% Caucasians. However, Maslach (1982) later reported that "compared to whites, blacks do not burn out as much. They experience much less emotional exhaustion and much less depersonalization" (p. 59).

With similar findings, Daley (1979b) reported that younger workers burn out more frequently than older ones, that males appear to burn out

more frequently than females, and that those with lower degrees burn out

more frequently that masters-level workers.

Burnout is a serious problem for those in the helping professions.

Individuals who enter these professions generally do so because of a

desire to help others. These individuals bring with them certain personal

characteristics that make them more prone to burnout than others, but

there is disagreement as to what these characteristics are.

Freudenberger (1980) believes that only "dynamic, charismatic,

goal-oriented men or women or...determined idealists" (p. 19) will suffer

from burnout.

Maslach (1982) however, citing the work of Gann and Heckman, believes

that the burnout-prone individual is someone "weak and unassertive in

dealing with people," (p. 62) who is unable to set limits in the helping

relationship and then overextends himself emotionally. This individual

is "impatient and intolerant" (p. 62) and transfers these feelings to

his dealings with clients. This individual "lacks self-confidence, has

little ambition, and is more reserved and conventional" (p. 63). This

individual does not formulate goals and most likely would not attain

them and, therefore, has a low sense of personal accomplishment. Clearly,

more research is needed in this area.

Conditions inherent in the job of a helping professional make the

helper prone to burnout. First, the helper must work long hours

(Maslach & Jackson, 1981b; Greenberg & Valletutti, 1980). He is

expected to perform activities only tangential to his job; for example,

a teacher is expected to respond to the family problems of his students.

The helper is charged with the responsibility of making referrals to

other human service organizations (Greenberg & Valletutti, 1980). The

helper is generally unable to determine with which clients he will work, a situation that often leads to unpleasant helper-client relationships (Maslach & Jackson, 1978). Finally, the helper is employed in a profession in which salaries and other funds are subject to changes in the political climate (Edelwich & Brodsky, 1980).

These situations illustrate the paradox of working in a helping profession: at one instance, the helper is a responsible professional working long hours and making decisions, and at another time, the helper is unable to exercise his decision-making abilities and is subjected to the control of others. Such situations lead to burnout.

Helpers are prone to burnout as a result of the intense involvement they have with clients (Maslach & Jackson, 1981b; Greenberg & Valletutti, 1980). Helpers must spend long hours dealing with clients' problems and the time is often "charged with feelings of anger, embarrassment, fear or despair" (Maslach & Jackson, 1981b, p. 99). Helpers often begin to view clients only in light of whatever negative quality they show to the worker (Masalch, 1978), hardly a situation that would foster good interpersonal relationships.

Also, those in helping professions have the same needs for positive reinforcement as the general populace; yet helpers rarely receive positive reinforcement. Clients seem to feel that a good job is what is expected from the helper and that it merits no acknowledgement of appreciation. However, the helper is likely to hear from the client if the service provided does not meet the client's expectations (Maslach, 1982, 1978; Cherniss, 1980a).

Simply stated, one of the most stressful areas of the helping professions is its client-centered orientation.

> Most human relationships are symmetrical, but the thera-
> peutic relationship is not; it is complementary: the
> professionals give and the clients receive. In many of
> the professions, work is not seen as a job, but as a
> calling, and the reward is supposed to be inherent in
> giving (Pines et al., 1981, p. 53).

The reward is not always inherent though, and the helper may begin to experience burnout. The burnout experience is progressive according to Edelwich & Brodsky (1980). It begins with the initial enthusiasm of the novice; progresses to stagnation, a stage marked by a locked-in-the-job feeling; continues to frustration, a period of feeling unappreciated and powerless; and finally to apathy, the stage where a job is a job is a job. The apathetic helper may give up his job or give up on his job and remain to collect salary until retirement. Cherniss (1980b) identified only three stages: a resource-demand imbalance, stage one; the resulting responses to the imbalance: anxiety, tension, fatigue, stage two; and attitudinal and behavioral changes, stage three.

Regardless of disagreement about stage nomenclature, there is no question about the toll that burnout takes. Helpers experiencing burnout are likely to place emotional distance between themselves and their clients (Alschuler, 1980; Cherniss, 1980a; Maslach & Pines, 1977; Pines et al., 1981). They will experience emotional and physical fatigue (Alschuler, 1980; Mattingly, 1977) and will develop a cynical attitude toward their clients (Cherniss, 1980b; Maslach & Jackson, 1981b).

The helper's perceptions become impaired. When the helper begins to have problems at work due to burnout, he feels that he alone has these problems and that he is at fault. In contrast, sometimes the helper loses faith in the ability of his peers, feeling that he alone can

perform the job adequately. This feeling isolates the worker from a peer support system and forces him to work even harder if he is working alone (Freudenberger, 1977; Mattingly, 1977).

The burned-out worker is also marked by resistance to change and a loss of creativity, a decline in motivation and involvement with his work, a preoccupation with his own comfort and welfare on the job, a decrease in feelings of job satisfaction, and the resulting increase in absenteeism and turnover (Cherniss, 1980a, 1980b; Pines et al., 1980).

Burnout is also damaging in that it is contaminative: all individuals are affected by burnout that is present in the organization (Carroll & White, 1982).

Argyris (1964) discussed "the energy that human beings contribute" (p. 20) to the organization. His thoughts are particularly applicable in a consideration of the labor-intensive helping professions. Argyris stated that psychological energy, "observable human energy that is not adequately explained by physiological energy" (p. 20) exists in all individuals and that it will always be expressed.

The expression of psychological energy in the organization often comes in the form of "unintended" activities (p. 59) which are the psychological coping activities of the worker in an attempt to integrate himself within the organization. Research by Argyris shows that lower-level workers, those on the bottom of the organizational pyramid, are more dissatisfied than those on the upper levels. Lower-level workers are capable of "modifying their working world" (p. 59) in order to express, decrease, or avoid their frustrations. Absenteeism, turnover, aggression, asking for increased compensation, and alienation are four forms of this

adaptive behavior. The organization suffers when these coping skills are in practice because a part of the worker's total energy is being directed away from organizational goals.

Cherniss (1980b) also discussed the organization. He views organizational design as a source of burnout. He cited the role structure, power structure, and the normative structure of the organization as specific areas which influence job satisfaction and performance.

Role structure refers to the various methods of allocating tasks and duties within specific jobs within the organization. It can influence the degree of burnout through role conflict and ambiguity and through the motivating potential of the role.

Helping professionals often experience role overload, one form of role conflict. Overload occurs when the job's demands exceed the time and effort of the worker. The worker experiences stress when there is not enough time for the job, and unfortunately, experiences even more stress when this same time conflict prohibits successful coping with the original stress (Cherniss, 1980b). One of the most frequently experienced forms of role conflict, overload has been found to correlate positively with burnout (Pines, 1982).

Role overload can result in irritability, physical and mental fatigue, indecisiveness, loss of objectivity, a propensity to make errors, memory lapses, and strained interpersonal relationships (Kiev & Kohn, 1979). The overloaded worker may abandon difficult tasks or direct aggression at the source of the overload (Welford, 1974). Results can also include "omission of information, error in processing information, delaying responses during busy times and catching up during lull periods, giving

an imprecise response, and escape either by leaving the situation or cutting off the information input" (Pines et al., 1981).

Role conflict also occurs when the worker is given incompatible demands; one demand cannot be met without sacrificing the other, and the result is stress (Daley, 1979a). French and Caplan (1972) found that role conflict produces job dissatisfaction and job-related tension.

Tosi and Tosi (1970) reported that role conflict is negatively correlated with teacher job satisfaction, and Westerhouse (1979) found that role conflict is a significant variable in predicting teacher burnout.

Teachers often experience role conflict when they want to be liked by their students and also maintain high academic standards (Partin & Gargiulo, 1980). Corwin (1969) proposed that teachers can experience professional-employee role conflicts. For example, as a professional, the teacher will defend his students' rights to read certain materials while as an employee, the teacher is expected to uphold the norms of the administration and the community.

Schwab and Iwanicki (1982) found that role conflict accounted for 20% of the variance in the MBI emotional exhaustion frequency scores and 24% of the variance in the MBI emotional exhaustion intensity scores in a study of 469 teachers. Role conflict also accounted for a significant amount of the variance in teachers' MBI depersonalization scores (8% frequency, 9% intensity).

One major cause of role ambiguity is poorly defined job parameters (Cherniss, 1980b; Daley, 1979a). Helpers will overextend themselves when they do not know the boundaries of their jobs (Greenberg & Valletutti,

1980). A communication problem, role ambiguity occurs when the worker

is not given the information necessary for adequate job performance.

The helping professional's job has built-in sources of ambiguity.

The helper labors in a field where there are no "right" methods, only

many suggested avenues of approach to problems. Results may take years

to become apparent so the helper may never know he was successful.

Helpers get inadequate notification about the results of their work, and

if the client achieves success, the helper often does not know if he or

another helper deserves credit (Cherniss, 1980b). This lack of know-

ledge about the success of one's work denies the helper the opportunity

to feel successful and thus can lead to burnout (Maslach & Pines, 1977).

Kahn, Wolfe, Quinn, Snoek, and Rosenthal (1964) identified six areas

of role ambiguity: expectations of peer group, undefined job parameters,

knowledge to perform the job, information about occurrences within the

organization, apprisal of advancement opportunities, and knowledge of

evaluations. Lower job satisfaction, an increase in job-related tension,

and lower self-confidence were identified by the group as results of job

ambiguity. French and Caplan (1972) reported similar findings.

The second major area in which role structure is an antecedent of

burnout is in the motivating potential of the job. Cherniss (1980b)

identified variety, task identity, and opportunities for learning as

factors which determine the motivating potential of the job and decrease

the likelihood of the worker experiencing burnout.

Variety in a job refers to the number of different tasks performed

and the number of clients the worker sees in a day. Pines (1982) reported

a moderate negative correlation between variety and burnout ($r=-.35$; $r=-.32$).

Task identity is the worker's understanding of how his specific job fits into the organizational goal. If the work process is divided among several workers, they do not feel total involvement with their clients and would be more likely to burnout than a worker who is in a nonfragmented work setting.

Opportunities for learning exist in some work settings, but where they do not exist, boredom will commence (Cherniss, 1908b). Pines et al., (1981) related that individuals placed in situations where forms of stimulation were severely reduced experienced reduced cognitive capability, irritation, and emotional dysfunction. A problem associated with bureaucracy (Cherniss, 1980a), boredom can lead to "feelings of exasperation, frustration, detachment, and a desire to escape to something more stimulating" (Gherman, 1981, p. 29).

Sarason (1971) reported similar findings. He questioned teachers with five or more years of teaching experience. The teachers reported their teaching roles no longer generated "enthusiasm, excitement, sense of mission and challenge" (p. 163). Sarason reported the teachers were aware of a lack of "personal and intellectual growth" (p. 164) and that each considered, or was considering, leaving the classroom. He questioned one's abilities to make learning exciting and interesting if the teaching experience has lost those qualities.

Opportunities for learning on the job have been positively correlated with overall job satisfaction (Sarata & Jeppersen, 1977). Furthermore, Pines (1982) believes that organizations that facilitate self-actualization and professional growth of employees will see a reduction in burnout.

The power structure of an organization is the second major area which influences burnout according to Cherniss (1980b). The power

structure is the source of decision-making in the organization. Decision-making may be autonomous, collective, or hierarchical (Cherniss, 1980b).

Lack of autonomy is a common complaint in bureaucratic organizations (Pines, et al., 1981). One result from continual powerlessness in the organization is "learned helplessness". Garber and Seligman (1980) postulate three outcomes from learned helplessness: voluntary responses from the worker wane because he has learned that responding is futile; the worker has increased difficulty in learning that responses will ever produce goals; and the worker suffers depression upon learning that responses and outcomes are not related. Learned helplessness results in a loss of self-esteem for the worker.

Inability to participate in decision-making results in job dissatisfaction and alienation when the worker loses a sense of responsibility and involvement with the job (Cherniss, 1980b). Also, in a work setting low in autonomy, the worker cannot extricate himself from stressful situations (Maslach, 1982) and is thus placed under more stress.

Cooper (1981) reported that "nonparticipation at work was the most consistent and significant predictor or indicator of strain and job-related stress" (p. 33). French and Caplan (1972) reported that a lack of opportunity to participate in decision-making can result in job-related stress and can even retard productivity. Pines (1982) reported finding negative correlations (r = -.32, r = -.35) between burnout and autonomy in two studies. She believes that a worker who feels he has some control over his work will be unlikely to experience burnout.

The normative structure is the third aspect of organizational design than can influence staff burnout according to Cherniss (1980b).

Norms are "group standards of behavior" (Mink, Schultz, & Mink, 1979, p. 58). Of the two types of norms, written and unwritten, the unwritten which emanate from the cultural mores of the organization are the more powerful. Workers become aware of the norms of an organization through a period of socialization (Bertrand, 1972).

Cherniss (1980b) identified four areas in which the normative structure affects the work setting: the guiding philosophy of treatment, the strength of bureaucratic mentality, the extent to which production of knowledge is a goal, and the norms concerning organizational health and staff needs.

The guiding philosophy of treatment is the method by which organizational goals will be met. Cherniss believes that stress arises when workers are unaided in developing and implementing a day-to-day method of handling clients that will follow the stated goals of the organization. He feels that a "distinctive [staff-] endorsed and constantly used guiding treatment of philosophy appears to reduce job stress and burnout...by increasing goal clarity and lowering role ambiguity" (p. 104).

Bureaucracy "is a way of thinking as well as a formal mode of organization" according to Cherniss (1980b, p. 105). The strength of bureaucratic mentality in the organization can influence the autonomy the worker feels by placing unspoken restraints on creativity and innovation. Cherniss uses the public schools as an example of bureaucratic mentality in conflict with a situation seemingly high in role autonomy. Public schools are noted for emphasis on avoiding risks, creating order, accountability, quiet, and a degree of conformity. All these factors inherent in the culture of the school limit the freedom teachers really have.

The production of new knowledge as an organizational goal is believed to lessen burnout. While studies in this area are not conclusive, Cherniss (1980b) believes that allowing the staff to participate in research which involves their work problems would offer mental stimulation and more opportunities for worker success.

According to Cherniss (1980b), the fourth dimension of the normative structure is the set of norms concerning organizational health and staff needs. Human service organizations often concentrate on the needs of clients to the exclusion of those of the staff. Where the needs of staff are given little priority, staff morale will deteriorate. Burnout is likely to occur in situations where staff needs are ignored and no opportunities for discussion of feelings exist.

The importance of group discussion was emphasized by House and Wells (1978) who stated that "social support should reduce known occupational stressors such as role conflict and ambiguity, job dissatisfaction and low occupational self-esteem" (p. 10). Pines (1982) found a negative correlation between peer support and burnout in a study of elementary teachers.

Neale, Bailey and Ross (1981) labeled consideration of staff feelings "benevolence" (p. 19) and stated simply that satisfied workers are more productive than dissatisfied ones. They challenged school management to foster new attitudes in developing human resources.

Teacher Burnout

Welch, Medeiros and Tate (1982) discussed several causes of teacher burnout. Inadequate salary is one cause. They believe that teachers perceive their inadequate salaries to be a reflection of society's view

of their worth. Annual, and often unsuccessful, struggles for salary improvement reinforce this belief. Teachers, receiving messages of their limited worth, eventually begin to doubt their self-worth and move toward burnout.

A second factor related to teacher burnout is the problem of discipline. Citing NEA reports on the problems of violence in schools, the authors believe that the "combat neurosis" (p. 19) many teachers face leads to burnout.

Teachers are also disturbed by the lack of respect they receive from society. Quoting the ill-conceived adage "those who can, do; those who can't, teach," the authors maintained that "to be a public school teacher in the United States is to work in the least respected of all the professions" (p. 19). Whether teaching is truly the least respected of all professions or not, there is a lack of respect for teachers and this lack of respect contributes to burnout.

Poor working conditions are another problem faced by teachers. Occasionally, the physical environment is a poor one, but more often, the teachers' lot is made difficult by psychosocial factors. The teaching day is a long one and is spent almost entirely in direct contact with students. Teachers are unable to withdraw even temporarily from stressful situations and must make immediate decisions at work even when they are psychologically ill-prepared to do so. The pressures created by the constant constraints of monitoring students and a structure that requires their eternal presence can lead teachers to burn out.

The adversarial teacher-student relationship can also result in burn-out. Since teachers have no choice as to whom they teach, they must often

deal with students who do not value learning and who are disruptive to the learning process.

Teachers work in isolated situations. For most of the school day, teachers are alone with their thirty students. They rarely see other adults at work and are not encouraged to develop a collegial support system.

The changing educational philosophies in the United States are another contributor to burnout. School systems are susceptible to the changing political and social tides in America, and as a result, teachers have been bombarded with ideas such as new math, mastery learning, management by objectives, learning centers, etc., and the in-service training that results. Teachers have also been faced with the growing influence of extra-professional groups in determining curriculum and educational policies. The struggle to keep abreast of these changes and the awareness of declining power can result in frustration and stress which, unabated, leads to burnout.

While much literature on burnout is anecdotal in nature (see, for example, Bardo, 1979; Walsh, 1979), increasing numbers of empirical studies are being published.

Fielding (1982) surveyed 162 middle and junior high teachers in Oregon. Of those sampled, 36% reported feelings of burnout and because of these feelings, 21% considered leaving the teaching profession. Teachers who reported the most stress and burnout were those with negative attitudes toward students, an external locus of control, and an intolerance for ambiguity.

A study of 446 junior and senior high teachers in Tuscon, Arizona, was done to analyze the educational stressors that lead to burnout. Bausch (1981) found that junior high and high school teachers differed on causes of stress and burnout. Junior high teachers reported problems with teaching materials and personnel while high school teachers reported more problems with the school's power structure.

Males reported inadequate salary and changes in educational methodology and philosophy as the two strongest stressors while females reported 18 various sources of stress. The least experienced teachers reported the most distress and burnout. Holders of a bachelor's degree reported policy-making and lack of parental support as their two most significant stressors, while holders of an advanced degree reported distress from teaching assignments.

Metz (1980) surveyed 200 teachers in Colorado and found the major sources of burnout to be administrative incompetence, discipline problems, inadequate support from the administration, lack of positive feedback, lack of power, and the bureaucratic nature of the school.

Results of a number of studies using the MBI to assess teacher burnout have been published within the last few years.

Borthwick (1982) analyzed data from 1,091 elementary and secondary teachers in Mississippi which resulted in several significant findings. Secondary teachers reported a higher degree of burnout than did elementary teachers. Teachers with fewer years of experience reported a higher degree of burnout than did teachers with more years of experience, and younger teachers reported more burnout than did older teachers. Females reported higher levels of burnout than males, and Caucasians reported higher levels of burnout than did non-Caucasians.

Zebel and Zebel's (1981) study of 601 Kansas teachers of exceptional
children found that junior high teachers reported higher levels of burn-
out than did intermediate teachers who reported higher levels than did
preschool teachers. Younger teachers reported more burnout than did
older teachers. Teachers with fewer years of experience reported more
burnout than did teachers with more years of experience. Teacher per-
ceptions about the sizes of their classes (about right, too small, too
large) were significantly related to their feelings of emotional exhaustion.

A study of 246 North Dakota teachers (Arreenich, 1981) found that
males reported more frequent feelings of Emotional Exhaustion and more
frequent and intense feelings of Depersonalization than females. Females
reported more frequent and intense feelings of Personal Accomplishment.

Those with an Ed.S reported less frequent feelings of Emotional
Exhaustion than did holders of a bachelor's or master's degree. Master's
degree holders experienced the most intense feelings of Emotional
Exhaustion, followed by bachelor's holders and Ed.S holders.

Teachers with 7-9 years of experience reported that the most intense
feelings of Emotional Exhaustion, followed by those who had taught 12 or
more years, and then by those who had taught 1-3 years.

There were no significant differences in MBI scores when teachers
were grouped by marital status, age, or number of students.

A San Diego study of 215 elementary and secondary teachers (Colasurdo,
1981) found that only 16.7% of the sample was burned out as measured by
the MBI, but that 47.8% of the sample reported self-perceived feelings
of burnout as measured by variable #44 on the MBI: "I feel burned out
from my work." No significant differences were found in MBI scores when

teachers were grouped by sex, age, grade level taught, race, marital status, years of marriage, level of education, tenure or non-tenure, hours devoted to teaching, and years of experience.

Schwab (1980) surveyed 469 teachers in Massachusetts. When grouped by age, those over 50 reported less intense feelings of Emotional Exhaustion than did those 20-29 and those 30-39. Males reported more frequent and intense feelings of Depersonalization than did females. Females reported more frequent feelings of Personal Accomplishment than did males. Elementary teachers reported less frequent and intense feelings of Depersonalization than did middle or junior teachers or high school teachers. Elementary teachers also reported more frequent and intense feelings of Personal Accomplishment than did high school teachers. There were no significant differences when teachers were grouped by marital status, years of teaching, and level of education.

Malanowski (1981) surveyed 211 teachers in Ohio. When grouped by sex, respondents were significantly different with respect to their degree of overall burnout, but there was no significant difference on the separate MBI scores. No difference was found on MBI scores due to marital status, age, or educational background. Grouping by the variable grade level taught resulted in intermediate and secondary teachers reporting higher scores on Depersonalization than reported by elementary teachers and intermediate teachers reporting lower scores on Personal Accomplishment than elementary teachers. Teachers with 0-3 and 8-12 years of experience reported higher scores on Emotional Exhaustion than those teachers with 13 or more years of experience. Teachers with 8-12 years of experience reported higher scores on Depersonalization than teachers

with 13 or more years of experience. Teachers of 91-120 students reported more Depersonalization than teachers of 1-30, 61-90, and 31-60 students.

CHAPTER III

METHODOLOGY OF THE STUDY

Demographic Information on Geographic Area

This study was conducted in Surry County in northwestern North Carolina. The urban area is composed of Mount Airy, the largest town with a population of 7,200. Dobson, Pilot Mountain, Toast, Flat Rock, and Bannertown are the other towns in the county. The total county population in 1983 was 59,449.

The county combines a growing industrial base with an established rural, small-farm economy. Major sources of income for the county in 1983 were retail sales, $345,000,000; industrial income, $90,000,000; farm income, $60,000,000; and tourism, $11,000,000.

Surry County houses 109 manufacturing plants which employ over 15,000 people. Major industries are textiles, furniture, and small appliances. Per capita income in Surry County in 1982 was $7,403 compared to a 1982 national per capita income of $9,511 (Grimes, 1983).

Demographic Information on Sample

All teachers, including librarians and guidance counselors, in the Mount Airy City School System and the Surry County School System were invited to participate in this study. Schools in these systems include 4 high schools, 1 junior high school, 1 middle school, and 13 elementary schools.

In 1982-1983 the Mount Airy City School System employed 73 teachers and had a student population of 2,156. Surry County School system employed 456 teachers and had a student population of 8,760.

Of the teachers who completed usable surveys (58% of the original group), 31 were from Mount Airy City Schools and 275 were from Surry County schools. All participants filled out demographic information sheets. Demographic data is presented in Table 1.

This sample of teachers was comprised of 77.8% women and 22.2% men. The majority of this sample (79.4%) were married; 12.7% were single; 8.4% were divorced, widowed, or separated. Almost one-third of this sample (30.1%) were between the ages of 20 and 30; 39.9% were between 31 and 40; 21.2% were between 41 and 50; and 8.9% were 51 years and older. This sample was predominantly Caucasian (97.4%).

Of this sample, three fourths (75.8%) had earned a Bachelor's degree; 20.3% had earned a Master's degree; 1.6% had earned an Ed.S; and 2.3% had earned less than a Bachelor's degree. Of this sample, 10% were in graduate school at the time of the survey's administration.

Respondents were employed at elementary schools (48.0%), middle or junior high schools (20.9%), and high schools (31.0%). The survey was answered by classroom teachers (86.6%), guidance counselors and librarians (2.6%), and by others (10.8%). The others were employed as resource teachers, music teachers, art teachers, and reading teachers. Of those responding to a question about the type of courses taught, 51.6% taught academic courses and 9.5% taught vocational.

Of this sample, one-third (35.3%) taught 1-30 students daily; 14.4% taught 31-60 students daily; 14.7% taught 61-90 students daily; 14.1% taught 91-120 students daily; 15.4% taught 121-150 students daily; and 5.2% taught more than 150 students daily.

TABLE 1

DEMOGRAPHIC DATA

Variable	Category	Frequency	Percent
2. Sex	Male	68	22.2
	Female	238	77.8
3. Age	20-30	92	30.1
	31-40	122	39.9
	41-50	65	21.2
	51-60	21	6.9
	60+	6	2.0
4. Race	Asian	1	0.3
	Black	7	2.3
	White	298	97.4
5. Marital Status	Single	39	12.7
	Married	243	79.4
	Divorced	15	4.9
	Widowed	5	1.6
	Separated	4	1.3
6. Level of Education	High school diploma	3	1.0
	A.A.	4	1.3
	B.A.	232	75.8
	M.A.	62	20.3
	Ed.S.	5	1,6
7. In graduate school	Yes	30	9.8
	No	276	90.2
8. Job held	Classroom teacher	265	86.6
	Guidance counselor	5	1.6
	Librarian	3	1.0
	Other	33	10.8
9. Grade level taught	Elementary	147	48.0
	Middle/Junior	64	20.9
	Senior high	95	31.0
10. Type of teaching	Academic	158	51.6 *
	Vocational	29	9.5

Table 1 (Cont'd.)

Variable	Category	Frequency	Percent
11. Number of students	1-30	108	35.3*
	31-60	44	14.4
	61-90	45	14.7
	91-120	43	14.1
	121-150	47	15.4
	150+	16	5.2
12. Years of experience	0-2	22	7.2
	3-5	44	14.4
	6-10	103	33.7
	11-15	66	21.6
	16-20	29	9.5
	20+	42	13.7
13. Satisfied with salary	Yes	33	10.8
	No	273	89.2
14. Would re-enter teaching profession	Yes	176	57.5
	No	130	42.5

*Percentages do not total 100. These two categories were not applicable to all respondents.

Years of experience reported by respondents were 0-2 years, 7.2%; 3-5 years, 14.4%; 6-10 years, 33.7%; 11-15 years, 21.6%; 16-20 years, 9.5%; and more than 20 years, 13.7%.

Respondents were asked to indicate satisfaction with their salary: 89.2% were not satisfied, but more than one-half (57.5%) would enter the teaching profession again if they could rechoose their profession.

Description of Instruments

Two instruments were used in this survey: an organizational design survey (ods) developed by the present author (see Appendix A) and the Maslach Burnout Inventory (Maslach & Jackson, 1981b).

Organizational Design Survey

The organizational design survey (hereafter ods) was developed to assess the attitudes of teachers toward the organizational design of their school systems. The survey was based on a theory proposed by Cherniss (1980b). Cherniss identified role structure, power structure, and norm structure as components of organizational design. The survey was designed to examine the various aspects of these structures as they apply to public school settings.

Items were developed on an a priori basis in an attempt to sample from the domains of role, power, and norm structure as postulated by Cherniss. Analysis of data derived from the ods was directed toward construct validation.

The ods was composed of 30 statements, 11 of which were multidivisioned for a total of 58 items. Each statement was rated to the extent that it was applicable to the respondent's work situation from

0 (none) to 7 (a great deal) on a Likert-type scale. A response of NA
for "Not Applicable" was also permissible.

The ods was field tested in December 1982 in one elementary school
and one junior high school in Rowan County, North Carolina. Thirty-
six teachers participated in the field test which was given to determine
the reliability of the ods. The method of analysis used was Cronbach's
Coefficient Alpha, "perhaps the most widely used reliability coefficient"
(Hull & Nie, 1979, p. 83). Cronbach's Coefficient Alpha computed
reliability based on internal consistency. This analysis was recommended
for use with all untested measurement instruments (Nunnally, 1978).

Alpha for the ods was .85353, and thus the ods was considered
reliable enough to use in the major part of this research study.

For use in data analysis, a mean score of all participants' responses
was computed. A score of 7 indicated the maximum negative influence of
the organization. A score of 0 indicated an absence of negative influence.
Items 4, 5, 7a-f, 8a-c, 10a-d, 11a-b, 15, 16, 17, 19a-c, 20, 21, 22, 25a-c,
26a-c, 27a-d, 28, and 29a-d were reverse scored.

Maslach Burnout Inventory

The MBI (see Appendix B) is a 22-item scale designed to measure
experienced burnout. Each item, a statement about the respondent's
feelings and attitudes, is rated once for intensity of feelings and once
for frequency of feelings. The intensity scale ranges from 0 (never) to
7 (major, very strong); the frequency scale ranges from 0 (never) to
6 (every day). The inventory, which was designed for use with all helping
professions, uses the general term recipients to refer to those under
the care of the respondent. Special permission was received from the
publishers to replace the term recipient with the term student for the

purposes of this study because it was believed that teachers would respond more easily and genuinely to the term student.

Maslach and Jackson (1981a) stated that the construct burnout is the aggregate of three components: Depersonalization, Emotional Exhaustion, and Personal Accomplishment. Depersonalization is the degree to which one has become "unfeeling and impersonal" (p. 1) in dealings with recipients. Emotional Exhaustion refers to "feelings of being emotionally overextended and exhausted by one's work" (p. 1). Personal Accomplishment is "feelings of competence and successful achievement in one's work" (p. 1). The MBI measures each of these components for intensity and frequency; therefore, the test is composed of six subscales. The following discussion of psychometric properties is taken from the MBI test manual (Maslach & Jackson, 1981a).

The MBI measures burnout as a continuous variable which ranges from low (scores in the lowest third of normative distribution) to moderate (scores in the middle third of normative distribution) to high (scores in the upper third of normative distribution). Low scores on the Depersonalization and Emotional Exhaustion subscales and a high score on the Personal Accomplishment subscale indicate a low degree of burnout. Scores in the middle thirds of normative distribution on all subscales indicate a moderate degree of burnout. High scores on the Depersonalization and Emotional Exhaustion subscales and low scores on the Personal Accomplishment subscale indicate a high degree of burnout.

The MBI was developed after interviews, research, and perusal of established attitude scales. The initial form of the MBI with 47 items was administered to a sample of 605 people from various helping professions.

Factor analysis on data from this first study resulted in identification of ten factors and a reduction of the items from 47 to 25.

The new format was administered to 420 people and factor analysis of both samples resulted in four factors. Three factors, Depersonalization, Emotional Exhaustion, and Personal Accomplishment, had eigenvalues greater than one and were retained. The fourth factor composed of three items was not included in the new MBI format.

Cronbach's Coefficient Alpha was used to determine the reliability of the six subscales. Analysis of two samples of $\underline{n}$ = 1316 and $\underline{n}$ = 1789 resulted in reliability coefficients of .79 (frequency) and .76 (intensity) for Depersonalization, of .90 (frequency) and .87 (intensity) for Emotional Exhaustion, and of .71 (frequency) and .73 (intensity) for Personal Accomplishment. Test-retest reliability coefficients for a sample of $\underline{n}$ = 53 were .60 (frequency) and .69 (intensity) for Depersonalization, .82 (frequency) and .53 (intensity) for Emotional Exhaustion, and .80 (frequency) and .68 (intensity) for Personal Accomplishment. All coefficients were significant at the .001 level.

Convergent validity of the MBI was shown in three ways. First, correlation was computed between an individual's MBI scores and behavioral ratings (for example, how did the worker respond to clients) made by a co-worker ($\underline{n}$ = 40) and also between MBI scores and a spouse's rating of behaviors believed to be predictive of burnout ($\underline{n}$ = 142). Second, MBI scores were correlated with "the presence of certain job characteristics such as the number of clients that were expected to contribute to experienced burnout" (Maslach & Jackson, 1981a, p. 7). Third, MBI scores were correlated to subscales of the Job Diagnostic Survey (JDS) (Hackman

& Oldman, 1974, 1975) that measure outcomes or feelings one would predict from a burned-out worker. Other correlations also support the relationship between measured burnout and certain personal characteristics that mark the burned-out individual, i.e., desire to leave job, increased absenteeism from work, and use of alcohol and other drugs.

Use of the JDS also furnished proof of the MBI's discriminant validity. Correlations were computed between a JDS subscale and the MBI subscales in an attempt to disprove the theory that burnout is synonymous with job dissatisfaction. The JDS measure of general job satisfaction had negative correlations with Depersonalization (r = -.22) and Emotional Exhaustion (r = -.23) frequency subscales and a slightly positive correlation (r = .17) with the Personal Accomplishment frequency subscale.

To discount the possibility that MBI scores might be influenced by the respondent's reluctance to admit to feelings contrary to those generally considered professional, the relationship between the MBI and the Crowne-Marlowe Social-Desirability (SD) Scale (1964) was examined. Some of the MBI subscales were significantly correlated at the .05 level.

Iwanicki and Schwab (1981) examined the reliability and validity of the MBI in a study of 469 teachers. Cronbach's Coefficient Alpha was used to test reliability. Reliabilities for the six subscales were as follows: Depersonalization, .76 (frequency) and .75 (intensity); Emotional Exhaustion, .90 (frequency) and .89 (intensity); Personal Accomplishment, .76 (frequency) and .79 (intensity). Construct validity was tested through factor analysis with iteration and a varimax rotation. Four factors were extracted. Iwanicki and Schwab's factors differed from Maslach and Jackson's in that Iwanicki and Schwab's Depersonalization was

subdivided into two factors. The third factor, Depersonalization as it relates to the job, was reliable with an alpha of .79, but the fourth factor, Depersonalization as it relates to students, was unreliable with an alpha of .66. Iwanicki and Schwab recommended either combining Factors III and IV or increasing the number of items in Factor IV to improve its reliability.

Golembiewski and Muzenrider (1981) tested three methods of scoring the MBI by examining their covariance with 22 scales that measure various aspects of the workplace such as satisfaction with work motivation, job security, supervisors, pay, promotion, and knowledge of results. The scales included six measures from the Job Descriptive Index (JDI) (Smith et al., 1969), ten measures from the JDS, and six other varied measures.

The first method was to compute a total MBI score. The total score "covar[ied] with the 22 scales in the expected ways" (p. 232); for example, the correlation between satisfaction with work in general and the MBI score and the 21 significant scales accounted for 13% of the common variance.

The second method was to compute three subscale scores on the MBI disregarding the distinction between the separate frequency and intensity measures. Correlations were computed and 56 of 66 were significant at the .05 level. The correlations were again as expected; for example, the correlations between satisfaction with the meaningfulness of work and the MBI subscores were -.20 for Depersonalization, -.30 for the reverse-scored Personal Accomplishment, and -.31 for Emotional Exhaustion.

A third method postulated that the three subscales represented
stages of burnout progressing from Depersonalization to loss of Personal
Accomplishment to Emotional Exhaustion. Eight phases were developed
and three were correlated with the 22 job-related scales.   The
authors concluded that the results of this approach were "attractive
in principle but not yet conclusive" (p. 241).

Collection of Data

The intent of this researcher was to sample to exhaustion the popula-
tion of teachers in Mount Airy City School System and Surry County School
System.   To this end, permission was received from superintendents of
both systems in the summer and fall of 1982 for the researcher to poll
all faculty members. Superintendents were assured that no comparison
of the two systems involved would be made nor would results from any
individual school be presented in any form. Each superintendent was
promised a copy of the results after the analysis of data was completed.

In January 1983 letters were sent to principals in each system
informing them of their superintendent's permission to survey, explain-
ing methods of data collection, and asking for their cooperation (see
Appendix C). Most principals were also contacted personally by the
researcher in an effort to secure maximum assistance.

Contact teachers in each of the 19 schools involved were chosen
after telephone conversations in January 1983. Each contact teacher
agreed to assist his/her principal in distributing the survey packets
and to be responsible for their collection.

Each survey packet contained a cover letter to the teacher (see
Appendix D); the research instrument itself, a six page document

composed of the demographic data sheets, the MBI, the ods, and direction

sheets (see Appendices E, B, and A); and a manila envelope which could

be sealed to assure the respondent's anonymity. Packets were distributed

by several methods: placement in teachers' mailboxes, placement in the

school office, and distribution at faculty meetings. The method of

distribution was determined by each school principal.

The survey packets were distributed in Surry County schools on

January 25, 1983, and were collected on January 28, 1983. Packets were

distributed in Mount Airy City schools on February 1, 1983, but due to

snow-related school closings, were not collected until February 11, 1983.

Permission was received from the Human Subjects Research Committee

at UNC-G to conduct this research.

Analysis of Data

ANOVA

Analysis of variance (ANOVA) was employed using the Statistical

Package for the Social Sciences (SPSS) (Nie, Hull, Jenkins, Steinbrenner,

& Bent, 1975) to compare each of the demographic variables on the MBI

and on the ods.

ANOVA, an inferential statistical procedure, was used to determine

if there was a significant difference between the mean scores of groups

(Huck, Cormier, & Bounds, 1974). An F ratio was derived from a com-

parison of the between-group variance and the within-group variance.

An F ratio significant at the .05 level resulted in rejection of the

null hypotheses.

When the ANOVA resulted in a significant F ratio, an a posteriori

contrast test was performed on all groups of three or more levels to

determine where the significant differences lie. Tukey's Honestly
Significant Differences (HSD), a fairly conservative measure, was used
(Nie et al., 1975).

One-way ANOVAs were performed with each of the thirteen demographic
measures functioning as an independent variable and the means of the
six subscales of the MBI as the dependent variables.

ANOVA was also employed to relate the ods to the demographic
variables. One-way ANOVAs were performed with the mean score of the
ods functioning as the dependent variable and the demographic variables.
This procedure was repeated using each ods mean factor score as a
dependent variable and each of the demographic measures as an independent
variable.

Factor Analysis

Factor analysis, "one of the most frequently used techniques in
multivariate research" (Borg & Gall, 1971, p. 505) is generally used for
the purpose of data reduction. Specifically, the subprogram FACTOR (SPSS)
was employed to help determine the "underlying pattern of relationships"
(Nie et al., 1975, p. 469) in the items of the ods.

Factor analysis is a triparte operation: the production of a
correlation matrix, the extraction of factors, and a rotation of factors
(Nie et al., 1975).

An R type factor analysis was performed in the preparation of the
correlation matrix. The R type analysis computes a correlation between
variables; in this study correlations were computed between the 58 items
of the ods.

The analysis continued with the extraction of initial factors. The principal-component model was used which defines the factors as "exact mathematical transformations of the original data" (Nie et al., 1975, p. 470). In component analysis, the total variance of a model is considered. Factors will contain small amounts of specific and error variance (Hair, Anderson, Tatham, & Grablowsky, 1979).

Factors were extracted by an orthogonal solution in order to leave each factor independent of the others (Nie et al., 1975). The unrotated factor matrix was examined and following the latent root criterion, all factors with an eigenvalue greater than one were retained for rotation (Hair et al., 1979).

An orthogonal rotation method was used to transfer the initial factor solution into a terminal one. Rotation was performed to reduce the ambiguities that were present in the unrotated factor solution (Hair et al., 1979). The VARIMAX method of rotation was used. VARIMAX simplifies the columns of the factor matrix. "The maximum possible simplification is reached if there are only ones and zeroes in a single column" (Hair et al., 1979, p. 230).

The rotated factor matrix was examined, and variables with a loading of ± .40 or greater were considered significant for use in defining the factors.

Chi-square

Chi-square, a nonparametric test of significance, was used to investigate the relationships among the 13 demographic variables and respondents' self-perceived feelings of burnout as measured by variable #44 of the MBI: "I feel burned out from my work." In this instance, chi-square is a test of independence (Downie & Heath, 1970).

Chi-square was performed by computing the cell frequencies which would have been expected if no relationship had existed between the variables. Those frequencies were then compared to actual frequencies through application of the chi-square formula (Nie et al., 1975).

Spearman's Correlation Coefficient

Spearman's correlation coefficient rho was used to determine if significant relationships existed among any of the following: mean scores on variable #44 of the MBI, the ods mean scores, and any of the six MBI subscale mean scores.

The SPSS subprogram NONPAR CORR replaced the above numerical values with ordinal rankings for the Spearman computation.

Canonical Correlation

Canonical correlation analysis was employed to examine the relationship between the MBI subscales and the ods factors.

Canonical correlation analysis, a multivariate statistical technique, examined the relationship between the two sets of multiple variables and produced a correlation coefficient which "measures the strength of the overall relationships between the linear composites of the predictor and criterion sets of variables" (Hair et al, 1979, p. 178). When squared, the canonical correlation represents the amount of variance in one set of variables that is explained by the other set of variables (Nie et al., 1975).

CHAPTER IV

RESULTS

The major purpose of this study was to examine the relationship between teacher burnout and organizational design, one of the factors purported to cause it.

The relationships among demographic variables, the MBI subscales, and the _ods_ mean score and factors were also examined. All testing for significance was done at the .05 level.

Testing of Hypothesis I

Hypothesis I states that there is no significant relationship between teacher burnout as measured by the MBI and organizational design as measured by the _ods_.

Factor Analysis

To this end, factor analysis using varimax rotation was employed to determine the underlying pattern of relationships in the 58 items of the _ods_.

Seventeen factors were retained because their eigenvalues were greater than one. The 17 factors explained 69% of the total variance (see Table 2).

The factors were composed after examination of item factor loadings. Items with a loading of .40 or above were considered for inclusion, and all such items were included.

Each factor was named to best present its "common theme or character" (Kerlinger, 1979, p. 205). Each factor is identified below by name,

TABLE 2

Factors with Eigenvalues, Percentages, and

Cumulative Percentage of Variance

Factor	Eigenvalue	Percentage of Variance	Cumulative Percentage of Variance
Factor I	9.00947	15.5	15.5
Factor II	3.81917	6.6	22.1
Factor III	3.37600	5.8	27.9
Factor IV	3.11082	5.4	33.3
Factor V	2.34338	4.0	37.3
Factor VI	2.12608	3.7	41.0
Factor VII	2.07875	3.6	44.6
Factor VIII	1.90228	3.3	47.9
Factor IX	1.85205	3.2	51.1
Factor X	1.66513	2.9	53.9
Factor XI	1.55032	2.7	56.6
Factor XII	1.38532	2.4	59.0
Factor XIII	1.32758	2.3	61.3
Factor XIV	1.20702	2.1	63.4
Factor XV	1.16235	2.0	65.4
Factor XVI	1.09170	1.9	67.3
Factor XVII	1.03274	1.8	69.0

included items, and factor loadings.

Factor I. Evaluation. Low scores indicated that evaluations were not helpful.

Factor Loading	Item Number	Item
.707	8a	Are your department chairman's evaluations helpful in improving teaching?
.677	8b	Are your principal's evaluations helpful in improving teaching?
.598	8c	Are your supervisor's evaluations helpful in improving teaching?
.753	9a	Do evaluations provide helpful feedback on performing clerical duties?
.817	9b	Do evaluations provide helpful feedback on improving teaching skills?
.845	9c	Do evaluations provide helpful feedback on developing lesson plans?

Factor II. Peer Assistance. Low scores indicated that use of peer assistance was not optimum.

Factor Loading	Item Number	Item
.829	29a	Are you comfortable in asking your peers for assistance with discipline?
.852	29b	Are you comfortable in asking your peers for assistance with planning lessons?
.877	29c	Are you comfortable in asking your peers for assistance with selecting teaching materials?
.851	29d	Are you comfortable in asking your peers for assistance with conflicts with students?
.438	27d	Are you assisted in developing lesson plans and teaching methods that reflect your school philosophy by other teachers?

Factor III. Decision-making/Hiring. Low scores indicated that respondents were not allowed to participate in the choosing or hiring of those in authority.

Factor Loading	Item Number	Item
.576	19b	Can you participate in the choosing or hiring of supervisors?
.930	19c	Can you participate in the choosing or hiring of your principal?
.940	19d	Can you participate in the choosing or hiring of the assistant superintendent?
.857	19e	Can you participate in the choosing or hiring of the superintendent?

Factor IV. Professional treatment Low scores indicated that respondents perceived their treatment by those in authority as less than professional.

Factor Loading	Item Number	Item
.796	25a	Does your department chairman treat you as a professional: one who is able to make decisions, initiate activity, etc.?
.668	25b	Does your principal treat you as a professional: one who is able to make decisions, initiate activity, etc.?
.418	25c	Does your superintendent treat you as a professional: one who is able to make decisions, initiate activity, etc.?
.788	26a	Does your department chairman have a genuine interest in your professional well-being?
.572	26b	Does your principal have a genuine interest in your professional well-being?

Factor V. Role conflict. Low scores indicated that respondents labored under conditions of role conflict and role overload.

Factor Loading	Item Number	Item
.784	1	Do you have too much job-related work to do?
.766	2	Do others expect too much work from you on your job?
.646	3	Are the various job-related duties you have in conflict with each other?
.508	6	Does teaching several levels of students interfere with preparing adequately for classes?
.530	18	Do clerical duties and paperwork take away from teaching?

Factor VI. Feedback. Low scores indicated that respondents did not receive positive comments about their work.

Factor Loading	Item Number	Item
.659	10a	Do you receive positive comments about your work from your colleagues?
.544	10b	Do you receive positive comments about your work from your principal?
.756	10c	Do you receive positive comments about your work from your students?
.686	10d	Do you receive positive comments about your work from your students' parents?

Factor VII. Source of information. Low scores indicated that the information from a particular source was inadequate in aiding job performance.

Factor Loading	Item Number	Item
.592	7a	Do you find out from personal contact with central office staff what you need to know to do your job?
.511	7c	Do you find out from informal sources, i.e., teacher's lounge, what you need to know to do your job?

Factor Loading	Item Number	Item
.821	7d	Do you find out from news reports of school board meetings what you need to know to do your job?
.794	7e	Do you find out from school board reports what you need to know to do your job?

Factor VIII. <u>Sources of information/regular school channels.</u> Low scores indicated that the information from a particular source was inadequate in aiding job performance.

Factor Loading	Item Number	Item
.742	7b	Do you find out from written announcements within your school what you need to know to do your job?
.728	7f	Do you find out from faculty meetings what you need to know to do your job?

Factor IX. <u>Staff needs.</u> Low scores indicated that professional and psychological needs of respondents were not being adequately met.

Factor Loading	Item Number	Item
.609	27a	Are you assisted in developing lesson plans and teaching methods that reflect your school philosophy by the principal?
.668	27b	Are you assisted in developing lesson plans and teaching methods that reflect your school philosophy by the supervisor?
.629	27c	Are you assisted in developing lesson plans and teaching methods that reflect your school philosophy by the department chairman?
.484	27d	Are you assisted in developing lesson plans and teaching methods that reflect your school philosophy by other teachers?
.464	28	Are the psychological needs of teachers attended to in the same degree as the psychological needs of students?

Factor X. Conformity/teaching. Low scores indicated that the respondents'
school or department placed an emphasis on conformity in teaching.

Factor Loading	Item Number	Item
.884	23a	Does your department place an emphasis on conformity in teaching?
.871	23b	Does your school place an emphasis on conformity in teaching?

Factor XI. Decision-making/work days. Low scores indicated that
respondents were not able to help determine the school calendar nor use
work days as they deemed advisable.

Factor Loading	Item Number	Item
.599	15	Does the input of either you or your elected representative influence the calendar for your school system?
.742	16	Do either you or your elected representative determine how work days will be used?
.707	17	Are you able to use work days in the manner that would help you most?

Factor XII. Decision-making/teaching. Low scores indicated that
respondents did not determine the specific courses or levels of students
they taught.

Factor Loading	Item Number	Item
.860	11a	Do you determine which levels of students you will teach each year?
.982	11b	Do you determine which specific courses you will teach each year?

Factor XIII. Professional treatment/superintendent. Low scores
indicated that respondents believed their superintendent treated them
less than professionally.

Factor Loading	Item Number	Item
.585	25c	Does your superintendent treat you as a professional: one who is able to make decisions, initiate activity, etc.?
.633	26c	Does your superintendent have a genuine interest in your professional well-being?
.554	30	Are teachers not allowed to do certain things because students cannot do them?

Factor XIV. Nature of job. Low scores indicated that the job was not challenging or was not what the respondent expected it to be.

Factor Loading	Item Number	Item
.619	4	Is your job as a teacher what you expected it to be?
.726	5	Is your job challenging?

Factor XV. Decision-making/department chairman. Low scores indicated that respondents could not participate in the choosing or hiring of their department chairman.

Factor Loading	Item Number	Item
.746	19a	Can you participate in the choosing or hiring of your department chairman?

Factor XVI. After-hours activities. Low scores indicated that respondents were not obligated to participate in after-hours school activities.

Factor Loading	Item Number	Item
.748	14	Must you participate in after-hours school activities such as chaperoning dances, working at ballgames, P.T.A. events, etc.?

Factor XVII. Decision-making/syllabus. Low scores indicated that respondents were not required to follow a predetermined course syllabus.

Factor Loading	Item Number	Item

- .782   12   Must you follow a predetermined course syllabus?

Canonical correlation

The 17 factors identified by factor analysis were used in canonical correlation analysis whose purpose was to determine if a significant relationship existed between two sets of multiple variables: teacher burnout as measured by the MBI and organizational design as measured by the ods to test Hypothesis I.

The canonical correlation (F = 2.2732, df = 102, p < .01) between the MBI and the ods was .6219. Of the total variance in the MBI, 39% was explained by the ods factors (see Table 3).

TABLE 3

Canonical Correlation of MBI to ods

Canonical corr.	Standard error	Variance ratio	Canonical R-squared	F	DF	P-value
.6219084	.0443718	.6307	.3867701	2.2732	102	.0001

Due to the strong relationship between the MBI and the ods, Hypothesis I was rejected.

Testing of Hypothesis II

Hypothesis II states that there is no significant difference in any of the demographic subgroups when compared on any of the MBI subscales.

ANOVA

Analysis of variance was used to compare each of the thirteen demographic variables to the six MBI subscales to test Hypothesis II. Results are summarized in Tables 4, 5, and 6.

Depersonalization

Respondents did not differ significantly on either the Depersonalization frequency or intensity subscales when grouped by sex, age, race, marital status, level of education, current enrollment in graduate school, level of teaching, number of students or years of experience. Respondents did not differ significantly on the Depersonalization frequency scale when grouped by job held.

Significant differences were found in a comparison of the Depersonalization intensity scores with the job held, $F(3,302) = 2.663$, $p < .05$. Tukey's HSD, a multiple range test, showed that no two groups differed significantly.

Significant differences were found in a comparison of the Depersonalization frequency scores with the type of teaching, $F(1,185) = 4.657$, $p < .05$. Middle/junior high and high school academic teachers reported more frequent feelings of Depersonalization ($\bar{x} = 7.8101$) than did vocational teachers ($\bar{x} = 5.5172$).

Significant differences were found in a comparison of both Depersonalization frequency, $F(1,304) = 3.881$, $p < .05$, and intensity $F(1,304) = 10.52$, $p < .01$, scores with the variable satisfaction with salary. Those who were not satisfied with their salaries reported more frequent feelings of Depersonalization ($\bar{x} = 7.1648$) than did those who were satisfied with their salaries ($\bar{x} = 5.1818$). Those who were not satisfied with their salaries also reported more intense feelings of Depersonalization ($\bar{x} = 10.1026$) than did those were were satisfied with their salaries ($\bar{x} = 5.697$).

TABLE 4

Comparison of Demographic Groups on

MBI Depersonalization Subscales

Variable	Depersonalization Frequency	Depersonalization Intensity
Sex	$F(1,304) = 0.704$	$F(1,304) = 1.443$
Age	$F(4,301) = 1.404$	$F(1,304) = 0.924$
Race	$F(1,303) = 2.267$	$F(1,303) = 2.256$
Marital Status	$F(4,301) = 0.971$	$F(4,301) = 0.977$
Level of Education	$F(4,301) = 1.640$	$F(4,301) = 1.263$
In graduate school	$F(1,304) = 0.222$	$F(1,304) = 0.082$
Job held	$F(3,302) = 2.332$	$F(3,302) = 2.663^*$
Grade level	$F(2,303) = 0.408$	$F(2,303) = 1.541$
Type of teaching	$F(1,185) = 4.657^*$	$F(1,185) = 0.025$
Number of students	$F(5,297) = 1.630$	$F(5,297) = 1.157$
Years of experience	$F(4,259) = 0.543$	$F(4,259) = 1.668$
Satisfaction with salary	$F(1,304) = 3.881^*$	$F(1,304) = 10.520^{**}$
Choice to teach again	$F(1,304) = 23.361^{**}$	$F(1,304) = 15.174^{**}$

$^*p < .05$

$^{**}p < .01$

TABLE 5

Comparison of Demographic Groups on MBI

Emotional Exhaustion Subscales

Variable	Emotional Exhaustion Frequency	Emotional Exhaustion Intensity
Sex	$F(1,304) = 2.011$	$F(1,303) = 0.695$
Age	$F(4,301) = 0.899$	$F(4,300) = 0.863$
Race	$F(1,303) = 5.960^{*}$	$F(1,302) = 6.948^{*}$
Marital status	$F(4,301) = 0.642$	$F(4,300) = 0.594$
Level of education	$F(4,301) = 1.182$	$F(4,300) = 1.068$
In graduate school	$F(1,304) = 0.077$	$F(1,303) = 0.846$
Job held	$F(3,302) = 1.267$	$F(3,301) = 1.605$
Grade level	$F(2,302) = 0.004$	$F(2,302) = 0.078$
Type of teaching	$F(1,185) = 1.676$	$F(1,185) = 0.045$
Number of students	$F(5,297) = 0.907$	$F(5,296) = 0.491$
Years of experience	$F(4,259) = 0.288$	$F(4,259) = 0.892$
Satisfaction with salary	$F(1,304) = 6.686^{*}$	$F(1,303) = 9.200^{**}$
Choice to teach again	$F(1,304) = 26.435^{**}$	$F(1,303) = 33.046^{**}$

$^{*}p < .05$

$^{**}p < .01$

TABLE 6

Comparison of Demographic Groups on MBI

Personal Accomplishment Subscales

Variable	Personal Accomplishment Frequency	Personal Accomplishment Intensity
Sex	$F(1,304) = 3.500$	$F(1,303) = 0.215$
Age	$F(4,301) = 2.549^{*}$	$F(4,300) = 1.749$
Race	$F(1,303) = 0.497$	$F(1,302) = 2.809$
Marital status	$F(4,301) = 0.261$	$F(4,300) = 0.870$
Level of education	$F(4,301) = 0.670$	$F(4,300) = 2.009$
In graduate school	$F(1,304) = 11.111^{**}$	$F(1,303) = 10.909^{**}$
Job held	$F(3,302) = 1.128$	$F(3,301) = 1.718$
Grade level	$F(2,303) = 2.915$	$F(2,302) = 0.518$
Type of teaching	$F(1,185) = 2.640$	$F(1,185) = 0.086$
Number of students	$F(5,297) = 1.165$	$F(5,296) = 0.407$
Years of experience	$F(4,259) = 1.491$	$F(4,258) = 1.496$
Satisfaction with salary	$F(1,304) = 2.685$	$F(1,303) = 0.050$
Choice to teach again	$F(1,304) = 28.830^{**}$	$F(1,303) = 9.257^{**}$

$^{*}p < .05$

$^{**}p < .01$

Significant differences were found in a comparison of both Depersonali-zation frequency, $F(1,304) = 23.361$, p = .0000 and intensity scores $F(1,304)= 15.174$, p = .001 with the variable would choose to teach again. Those who would not choose the teaching profession again reported more frequent feelings of Depersonalization ($\bar{x}$ = 8.6538) than did those who would choose the teaching profession again ($\bar{x}$ = 5.6932). Those who would not choose the teaching profession again reported more intense feelings of Deper-sonalization ($\bar{x}$ = 11.5231) than did those who would choose the teaching profession again ($\bar{x}$ = 8.2273).

Emotional Exhaustion

Respondents did not differ significantly on either the Emotional Exhaustion frequency or intensity subscales when grouped by sex, age, marital status, level of education, current enrollment in graduate school, job held, grade level taught, type of teaching, number of students, or years of experience.

Significant differences were found in a comparison of both the Emotional Exhaustion frequency $F(1,303) = 5.960$, p $<.05$ and intensity scores $F(1,302) = 6.498$, p $<.05$ and the variable race. Caucasians reported more frequent feelings of Emotional Exhaustion ($\bar{x}$ = 23.0067) than did non-Caucasians ($\bar{x}$ = 12.5714). Caucasians reported more intense feelings of Emotional Exhaustion ($\bar{x}$ = 29.2323) than did non-Caucasians ($\bar{x}$ = 16.6714) (See Table 1 for demographic data).

Significant differences were found in a comparison of both the Emotional Exhaustion frequency, $F(1,304) = 6.686$, p $<.05$, and intensity, $F(1,303) = 9.200$, p $<.01$, scores and the variable satisfaction with salary. Those who were not satisfied with their salaries reported more frequent

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feelings of Emotional Exhaustion ($\bar{x}$ = 23.3846) than did those who were

satisfied with their salaries ($\bar{x}$ = 18.0606). Those who were not satisfied

with their salaries reported more intense feelings of Emotional Exhaus-

tion ($\bar{x}$ = 29.7353) than did those who were satisfied with their salaries

($\bar{x}$ = 21.5152).

Significant differences were found in a comparison of both the

Emotional Exhaustion frequency $F(1,304)$ = 26.435, p = .0000 and intensity

scores $F(1,303)$ = 33.046, p = .0000 with the variable choose to teach

again. Those who would not choose the teaching profession again reported

more frequent feelings of Emotional Exhaustion ($\bar{x}$ = 26.5154) than did

those who would choose the teaching profession again ($\bar{x}$ = 20.0739). Those

who would not choose the teaching profession again reported more fre-

quent feelings of Emotional Exhaustion ($\bar{x}$ = 33.7077) than did those who

would choose the teaching profession again ($\bar{x}$ = 25.4229).

Personal Accomplishment

Respondents did not differ significantly on either the Personal

Accomplishment frequency or intensity subscales when grouped by sex,

race, marital status, level of education, job held, grade level taught,

type of teaching, number of students, years of experience, or satisfaction

with salary. There was no significant difference in a comparison of the

Personal Accomplishment intensity subscale and age.

Significant differences were found in a comparison of the Personal

Accomplishment frequency subscales scores and the variable age, $F(4,301)$ =

2.549, p < .05. Tukey's HSD showed no significant group differences.

Significant differences were found in a comparison of both the

Personal Accomplishment frequency scores, $F(1,304)$ = 11.111, p < .01,

and intensity scores, $F(1,303)$ = 10.909, p < .01, and the variable current

enrollment in graduate school. Those currently enrolled in graduate school reported more frequent feelings of Personal Accomplishment ($\bar{x}$ = 42.0667) than did those not enrolled in graduate school ($\bar{x}$ = 37.7862). Those currently enrolled in graduate school reported more intense feelings of Personal Accomplishment ($\bar{x}$ = 44.2333) than did those not enrolled in graduate school ($\bar{x}$ = 39.5673).

Significant differences were found in a comparison of both the Personal Accomplishment frequency scores, $F(1,304)$ = 28.830, p = .0000, and intensity scores, $F(1,303)$ = 9.257, p < .01, and the choice to teach again. Those who would not choose the teaching profession again reported less frequent feelings of Personal Accomplishment ($\bar{x}$ = 35.8846) than did those who would choose the teaching profession again ($\bar{x}$ = 39.9205). Those who would not choose the teaching profession again reported less intense feelings of Personal Accomplishment ($\bar{x}$ = 38.5271) than did those who would choose the teaching profession again ($\bar{x}$ = 41.1250).

Hypothesis II was rejected since more significant differences were found than would be found due only to chance.

Chi-square

Related to Hypothesis II, chi-square analysis was employed to investigate the relationships among the 13 demographic variables and respondents' self-perceived feelings of burnout as measured by variable #44 of the MBI: "I feel burned out from my work."

The relationships between self-perceived feelings of burnout and sex, age, race, marital status, level of education, current enrollment in graduate school, job held, grade level taught, type of teaching, number of students, and years of experience were not significant.

The relationship between self-perceived feelings of burnout and satisfaction with salary was significant (x^2 = 12.24286, df = 2, p < .01). Of those who were satisfied with their salaries, 60.6 percent reported mild feelings of burnout, 12.1 percent reported moderate feelings of burnout, and 27.3 percent reported strong feelings of burnout. Of those who were not satisfied with their salaries, 31.1 percent reported mild feelings of burnout, 33.0 percent reported moderate feelings of burnout, and 35.9 percent reported strong feelings of burnout. Of those who reported strong feelings of burnout, 91.6 percent were not satisfied with their salaries. Of those who reported moderate feelings of burnout, 95.7 percent were not satisfied with their salaries. Of those who reported mild feelings of burnout, 81 percent were not satisfied with their salaries. This chi-square analysis is presented in Table 7.

The relationship between self-perceived feelings of burnout and the choice to teach again was significant (x^2 = 41.61056, df = 2, p = .0000). Of those who would re-enter the teaching profession, 46.6 percent reported mild burnout, 32.4 percent reported moderate burnout, and 21.0 percent reported strong feelings of burnout. Of those who would not re-enter the teaching profession, 17.7 percent reported mild feelings of burnout, 28.5 percent reported moderate feelings of burnout, and 53.8 percent reported strong feelings of burnout.

Of those who reported strong feelings of burnout, 65.4 percent would not re-enter the teaching profession. Of those who reported moderate feelings of burnout, 39.4 percent would not re-enter the teaching profession. Of those who reported mild feelings of burnout, 21.9 percent would not re-enter the teaching profession. This chi-square analysis is presented in Table 8.

TABLE 7

Chi-square Analysis of Degrees of Burnout in

Relation to Salary Satisfaction

Satisfaction with Salary		Mild	Moderate	Strong	Row Total
Yes	Count	20	4	9	33
	Row Pct.	60.6	12.1	27.3	
	Column Pct.	19.0	4.3	8.4	
	Total Pct.	6.5	1.3	2.9	10.8
No	Count	87	90	98	273
	Row Pct.	31.1	33.0	35.9	
	Column Pct.	81.0	95.7	91.6	
	Total Pct.	27.8	29.4	32.0	89.2
Column total		105	94	107	306
		34.3	30.7	35.0	100.0

Chi-square = 12.24286   df = 2 $p = 0.0022$

TABLE 8

Chi-square Analysis of Degrees of Burnout in

Relation to Choice to Teach Again

Choice to teach again		Mild	Moderate	Strong	Row Total
Yes	Count	82	57	37	176
	Row Pct.	46.6	72.4	21.0	
	Column Pct.	78.1	60.6	34.6	
	Total Pct.	26.8	18.6	12.1	57.5
No	Count	23	37	70	130
	Row Pct.	17.7	28.5	53.8	
	Column Pct.	12.9	39.4	65.4	
	Total Pct.	7.5	12.1	22.9	42.5
Column total		105	94	107	306
		34.3	30.7	35.0	100.0

Chi-square = 41.61056   df = 2 $p = 0.0000$

Spearman's correlation

An additional analysis centering on self-perceived feelings of burnout was the computation of Spearman's correlation coefficient to determine if significant relationships existed among any of the following: mean scores on variable #44 of the MBI, the ods mean score, and any of the six MBI subscale mean scores.

Significant relationships at the .001 level were found between variable #44 of the MBI and all of the MBI subscales. There was no significant relationship between variable #44 and the ods mean score. Significant relationships were found between all pairs of MBI subscales. The ods mean score was not significantly related to any MBI subscales except Personal Accomplishment intensity, rho = .2121, p < .001.

Testing of Hypothesis III

Hypothesis III states that there is no significant difference in demographic subgroups when compared on the ods.

ANOVA

Analysis of variance was used to compare each of the thirteen demographic variables to the ods mean score and to the ods factor scores to test Hypothesis III.

Mean ods score

ANOVA was used to compare each of the demographic variables to the mean ods score. Results are summarized in Table 9.

Respondents did not differ significantly on the mean ods score when grouped by sex, age, race, marital status, level of education, current enrollment in graduate school, job held, grade level taught, type of teaching, number of students, salary satisfaction, and the choice to teach again.

Significant differences were found in a comparison of the mean ods score and the variable years of experience. Tukey's HSD found two significant group differences at the .05 level. Those with 6-10 years of experience reported the most negative attitudes about the organizational design of their schools ($\bar{x}$ = 5.3628); those with 11-15 years of experience reported more negative feelings about the organizational design of their schools ($\bar{x}$ = 5.3628); those with 11-15 years of experience reported more negative feelings about the organizational design of their schools ($\bar{x}$ = 5.3557) than did the other non-significant groups of 0-2 years, 3-5 years, 16-20 years, and more than 20 years.

TABLE 9

Comparison of the Demographic Variables

on the Mean ods Score

Variable	Mean ods score
Sex	$F(1,304) = .173$
Age	$F(4,310) = 1.252$
Race	$F(1,303) = .240$
Marital status	$F(4,310) = .865$
Level of education	$F(4,301) = .857$
In graduate school	$F(1,304) = .059$
Job held	$F(3,302) = .856$
Grade level	$F(2,302) = 1.634$
Type of teaching	$F(1,185) = 1.075$
Number of students	$F(5,297) = .876$
Years of experience	$F(4,259) = 4.867$**
Satisfaction with salary	$F(1,304) = 2.291$
Choice to teach again	$F(1,304) = 1.928$

**$p < .01$

Factor scores of <u>ods</u>
_____

Analysis of variance was used to compare each of the demographic

variables to the <u>ods</u> factor scores. Results are summarized in Table 10.

Factor I
_____

Respondents did not differ significantly on Factor I scores when

grouped by sex, age, race, marital status, current enrollment in graduate

school, grade level taught, type of teaching, number of students, years of

experience, or satisfaction with salary.

Significant differences were found in a comparison of Factor I

scores, $F(4,299) = 2.90$, $p < .05$, and the level of education of the

respondents. Tukey's HSD showed no significant group differences.

Significant differences were found in a comparison of Factor I

scores, $F(3,300) = 4.75$, $p < .01$, and the job held by the respondents.

Tukey's HSD showed no significant group differences.

Significant differences were found in a comparison of Factor I

scores, $F(1,302) = 7.09$, $p < .01$, and the choice to teach again. Tukey's

HSD showed significant group differences. Those who would not choose to

teach again reported that evaluations were less helpful $(\bar{x} = -.24855)$

than did those who would choose to teach again $(\bar{x} = .06340)$.

TABLE 10

Comparison of the Demographic Variables

on the ods Factors

Variable	Factor I	Factor II
Sex	$F(1,302) = 0.04$	$F(1,303) = 6.05^{*}$
Age	$F(4,299) = 0.67$	$F(4,300) = 0.16$
Race	$F(1,301) = 1.84$	$F(1,302) = 0.05$
Marital status	$F(4,299) = 1.63$	$F(4,301) = 0.02$
Level of education	$F(4,299) = 2.90^{*}$	$F(4,300) = 16.64^{**}$
In graduate school	$F(1,302) = 0.71$	$F(1,303) = 0.32$
Job held	$F(3,300) = 4.75^{**}$	$F(3,301) = 0.40$
Grade level	$F(2,301) = .064$	$F(2,302) = 2.91$
Type of teaching	$F(1,183) = 0.35$	$F(1,184) = 0.00$
Number of students	$F(5,295) = 1.89$	$F(5,296) = 1.72$
Years of experience	$F(5,298) = 2.01$	$F(5,299) = 1.01$
Satisfaction with salary	$F(1,302) = 0.16$	$F(1,303) = 0.39$
Choice to teach again	$F(1,302) = 7.09^{**}$	$F(1,303) = 2.87$

$^{*}p < .05$

$^{**}p < .01$

TABLE 10 (cont'd.)

Comparison of the Demographic Variables

on the ods Factors

Variable	Factor III	Factor IV
Sex	$F(1,279) = 0.20$	$F(1,304) = 0.05$
Age	$F(4,276) = 0.26$	$F(4,301) = 0.57$
Race	$F(1,278) = 0.20$	$F(1,303) = 0.19$
Marital status	$F(4,276) = 0.26$	$F(4,301) = 0.90$
Level of education	$F(4,276) = 0.60$	$F(4,301) = 0.19$
In graduate school	$F(1,279) = 0.44$	$F(1,304) = 0.18$
Job held	$F(3,277) = 0.30$	$F(3,302) = 3.02^{*}$
Grade level	$F(2,278) = 0.01$	$F(2,303) = 7.85^{**}$
Type of teaching	$F(1,171) = 0.72$	$F(1,185) = 2.00$
Number of students	$F(5,272) = 0.84$	$F(5,297) = 5.76^{**}$
Years of experience	$F(5,275) = 1.74$	$F(5,300) = 1.64$
Satisfaction with salary	$F(1,279) = 0.37$	$F(1,304) = 0.24$
Choice to teach again	$F(1,279) = 1.05$	$F(1,304) = 12.18^{**}$

$^{*}p < .05$

$^{**}p < .01$

TABLE 10 (cont'd.)

Comparison of the Demographic Variables

on the ods Factors

Variable	Factor V	Factor VI
Sex	$F(1,304) = 3.25$	$F(1,304) = 0.05$
Age	$F(4,301) = 1.78$	$F(4,301) = 0.29$
Race	$F(1,303) = 0.01$	$F(1,303) = 5.79^{*}$
Marital Status	$F(4,301) = 1.11$	$F(4,301) = 0.57$
Level of education	$F(4,301) = 1.78$	$F(4,301) = 0.44$
In graduate school	$F(1,304) = 0.02$	$F(1,304) = 3.61$
Job held	$F(3,302) = 5.14^{**}$	$F(3,302) = 0.29$
Grade level	$F(2,303) = 0.65$	$F(2,303) = 1.69$
Type of teaching	$F(1,185) = 1.01$	$F(1,185) = 0.23$
Number of students	$F(5,297) = 1.46$	$F(5,297) = 1.71$
Years of experience	$F(5,300) = 1.92$	$F(5,300) = 0.67$
Satisfaction with salary	$F(1,304) = 12.01^{**}$	$F(1,304) = 2.70$
Choice to teach again	$F(1,304) = 0.17$	$F(1,304) = 22.04^{**}$

$^{*}p < .05$

$^{**}p < .01$

TABLE 10 (cont'd.)

Comparison of the Demographic Variables

on the ods Factors

Variable	Factor VII	Factor VIII
Sex	$F(1,304) = 0.19$	$F(1,304) = 2.92$
Age	$F(4,301) = 0.92$	$F(4,301) = 0.55$
Race	$F(1,303) = 1.38$	$F(1,303) = 0.03$
Marital status	$F(4,301) = 1.20$	$F(4,300) = 0.48$
Level of education	$F(4,301) = 0.28$	$F(4,301) = 0.17$
In graduate school	$F(1,304) = .078$	$F(1,304) = 0.01$
Job held	$F(3,302) = 3.94^{**}$	$F(3,302) = 1.92$
Grade level	$F(2,303) = 0.21$	$F(2,303) = 0.83$
Type of teaching	$F(1,185) = 0.06$	$F(1,185) = 5.55^{*}$
Number of students	$F(5,297) = 1.01$	$F(5,297) = 0.94$
Years of experience	$F(5,300) = 0.32$	$F(5,300) = 0.54$
Satisfaction with salary	$F(1,304) = 0.72$	$F(1,304) = 5.62^{*}$
Choice to teach again	$F(1,304) = 1.91$	$F(1,304) = 19.20^{**}$

$^{*}p < .05$

$^{**}p < .01$

TABLE 10 (cont'd)

Comparison of Demographic Variables

on the <u>ods</u> Factors

Variable	Factor IX	Factor X
Sex	$F(1,304) = 3.29$	$F(1,298) = 3.65$
Age	$F(4,301) = 0.98$	$F(4,295) = 0.29$
Race	$F(1,303) = 0.24$	$F(1,297) = 0.14$
Marital status	$F(4,301) = 0.94$	$F(4,295) = 0.20$
Level of education	$F(4,301) = 2.12$	$F(4,295) = 0.42$
In graduate school	$F(1,304) = 1.67$	$F(1,298) = 0.15$
Job held	$F(3,302) = 2.50$	$F(3,296) = 1.17$
Grade level	$F(2,303) = 2.33$	$F(2,297) = 0.88$
Type of teaching	$F(1,185) = 1.19$	$F(1,182) = 1.73$
Number of students	$F(5,297) = 0.86$	$F(5,291) = 0.17$
Years of experience	$F(5,300) = 2.24^*$	$F(5,294) = 0.46$
Satisfaction with salary	$F(1,304) = 1.46$	$F(1,298) = 0.28$
Choice to teach again	$F(1,304) = 19.23^{**}$	$F(1,298) = 0.07$

$^*p < .05$

$^{**}p < .01$

TABLE 10 (cont'd)

Comparison of the Demographic Variables

on the ods Factors

Variable	Factor XI	Factor XII
Sex	$F(1,304) = 0.25$	$F(1,286) = 0.14$
Age	$F(4,301) = 1.68$	$F(4,283) = 0.64$
Race	$F(1,303) = 0.22$	$F(1,285) = 0.32$
Marital status	$F(4,301) = 1.27$	$F(4,283) = 2.12$
Level of education	$F(4,301) = 1.19$	$F(4,283) = 0.84$
In graduate school	$F(1,304) = 0.13$	$F(1,286) = 2.35$
Job held	$F(3,302) = 0.20$	$F(3,284) = 4.34^{**}$
Grade level	$F(2,303) = 2.71$	$F(2,285) = 8.91^{**}$
Type of teaching	$F(1,185) = 0.00$	$F(1,177) = 5.05^{*}$
Number of students	$F(5,297) = 0.88$	$F(5,281) = 7.47^{**}$
Years of experience	$F(5,300) = 1.19$	$F(5,282) = 0.55$
Satisfaction with salary	$F(1,304) = 3.87$	$F(1,286) = 0.04$
Choice to teach again	$F(1,304) = 10.11^{**}$	$F(1,386) = 0.67$

$^{*}p < .05$

$^{**}p < .01$

TABLE 10 (cont'd.)

Comparison of the Demographic Variables

on the ods Factors

Variable	Factor XIII	Factor XIV
Sex	$F(1,304) = 3.26$	$F(1,304) = 1.16$
Age	$F(4,301) = 2.00$	$F(4,301) = 0.94$
Race	$F(1,303) = 1.92$	$F(1,303) = 0.31$
Marital status	$F(4,301) = 0.25$	$F(4,301) = 0.54$
Level of education	$F(4,301) = 1.30$	$F(4,301) = 1.14$
In graduate school	$F(1,304) = 0.06$	$F(1,304) = 1.75$
Job held	$F(3,302) = 1.76$	$F(3,302) = 0.40$
Grade level	$F(2,303) = 1.33$	$F(2,303) = 0.62$
Type of teaching	$F(1,185) = 0.32$	$F(1,185) = 0.09$
Number of students	$F(5,297) = 0.76$	$F(5,297) = 0.91$
Years of experience	$F(5,300) = 1.23$	$F(5,300) = 0.76$
Satisfaction with salary	$F(1,304) = 7.38^{**}$	$F(1,304) = 3.78$
Choice to teach again	$F(1,304) = 21.69^{**}$	$F(1,304) = 53.24^{**}$

$^{*}p < .05$

$^{**}p < .01$

TABLE 10 (cont'd.)

Comparison of the Demographic Variables

on the ods Factors

Variable	Factor XV	Factor XVI
Sex	$F(1,222) = 0.67$	$F(1,288) = 0.72$
Age	$F(4,219) = 0.78$	$F(4,285) = 0.40$
Race	$F(1,222) = 0.48$	$F(1,287) = 0.03$
Marital status	$F(4,219) = 0.32$	$F(4,285) = 0.97$
Level of education	$F(4,219) = 0.35$	$F(4,285) = 2.83^{*}$
In graduate school	$F(1,222) = 0.13$	$F(1,288) = 0.19$
Job held	$F(3,220) = 0.95$	$F(3,286) = 1.82$
Grade level	$F(2,221) = 3.07^{*}$	$F(2,287) = 9.22^{**}$
Type of teaching	$F(1,147) = 0.00$	$F(1,180) = 3.91^{*}$
Number of students	$F(5,216) = 1.72$	$F(5,281) = 2.05$
Years of experience	$F(5,218) = 2.02$	$F(5,284) = 0.94$
Satisfaction with salary	$F(1,222) = 0.00$	$F(1,288) = 0.18$
Choice to teach again	$F(1,222) = 1.87$	$F(1,288) = 0.59$

$^{*}p < .05$

$^{**}p < .01$

TABLE 10 (cont'd.)

Comparison of the Demographic Variables

on the ods Factors

Variable	Factor XVII
Sex	$F(1,288) = 0.62$
Age	$F(4,285) = 2.50^*$
Race	$F(1,287) = 1.21$
Marital status	$F(4,285) = 0.23$
Level of education	$F(4,285) = 3.09^*$
In graduate school	$F(1,288) = 1.10$
Job held	$F(3,286) = 6.68^{**}$
Grade level	$F(2,287) = 1.40$
Type of teaching	$F(1,177) = 15.42^{**}$
Number of students	$F(5,283) = 1.18$
Years of experience	$F(5,284) = 1.37$
Satisfaction with salary	$F(1,288) = 4.59^*$
Choice to teach again	$F(1,288) = 0.12$

$^*p < .05$

$^{**}p < .01$

Factor II

Respondents did not differ significantly on Factor II scores when grouped by age, race, marital status, current enrollment in graduate school, job held, grade level taught, type of teaching, number of students, years of experience, satisfaction with salary, or the choice to teach again.

Significant differences were found in a comparison of the Factor II scores, $F(1,303) = 6.05$, $p < .05$, and the sex of the respondent. Tukey's HSD showed a significant group difference. Males reported less use of peer assistance ($\bar{x} = -.67472$) than did females ($\bar{x} = 0.4220$).

Significant differences were found in a comparison of Factor II scores, $F(4,300) = 16.64$, $p < .01$, and the variable level of education. Tukey's HSD showed significant group differences at the .05 level. Those with an Ed.S reported less use of peer assistance ($\bar{x} = -7.1039$) than did all other groups.

Factor III

Respondents did not differ significantly on Factor III scores when grouped on any demographic variable.

Factor IV

Respondents did not differ significantly on Factor IV scores when grouped by sex, age, race, marital status, level of education, current enrollment in graduate school, type of teaching, years of experience, and satisfaction with salary.

Significant differences were found in a comparison of Factor IV scores, $F(3,302) = 3.02$, $p < .05$, and the variable job held. Tukey's HSD showed no significant group differences.

Significant differences were found in a comparison of Factor IV scores, $F(3,302) = 7.85$, p$<$.05, and grade level taught. Tukey's HSD showed significant group differences. Elementary teachers reported receiving less professional treatment from those in authority ($\bar{x} = -.65924$) than did high school teachers ($\bar{x} = .12713$).

Significant differences were found in a comparison of Factor IV scores, $F(5,297) = 5.76$, p$<$.001, and the number of students taught. Tukey's HSD showed significant group differences. Those who taught 31-60 students reported receiving less professional treatment from those in authority ($\bar{x} = .87930$) than was reported by those who taught 91-120 students ($\bar{x} = .28222$) and 121-150 students ($\bar{x} = .32005$).

Significant differences were found in a comparison of Factor IV scores, $F(1,304) = 12.18$, p$<$.001, and the choice to teach again. Tukey's HSD showed significant group differences. Those who would not teach again reported receiving less professional treatment from those in authority ($\bar{x} = -.69519$) than did those who would teach again ($\bar{x} = -.08385$).

Factor V

Respondents did not differ significantly on Factor V scores when grouped by sex, age, race, marital status, level of education, current enrollment in graduate school, grade level taught, type of teaching, number of students, years of experience, or the choice to teach again.

Significant differences were found in a comparison of Factor V scores, $F(3,302) = 5.14$, p$<$.01, and the job held. Tukey's HSD showed significant group differences. Librarians reported working under conditions of more role conflict and overload ($\bar{x} = -1.2942$) than did all other groups.

Significant differences were found in a comparison of Factor V scores, $F(1,304) = 12.01$, $p < .001$, and satisfaction with salary. Those who were not satisfied with their salaries reported working under conditions of more role conflict and overload ($\bar{x} = -.42156$) than did those who were satisfied with their salaries ($\bar{x} = .04273$).

Factor VI

Respondents did not differ significantly on Factor VI scores when grouped by sex, age, marital status, level of education, current enrollment in graduate school, job held, grade level taught, type of teaching, number of studnets, years of experience, and satisfaction with salary.

Significant differences were found in a comparison of Factor VI scores, $F(1,303) = 5.79$, $p < .05$, and race. Caucasians reported receiving fewer positive comments about their work ($\bar{x} = -.01385$) than did non-Caucasians ($\bar{x} = .65468$).

Significant differences were found in a comparison of Factor VI scores, $F(1,304) = 22.04$, $p < .0001$, and the choice to teach again. Tukey's HSD showed significant group differences. Those who would not choose to teach again reported receiving fewer positive comments about their work ($\bar{x} = -.22250$) than did those who would choose to teach again ($\bar{x} = .16220$).

Factor VII

Respondents did not differ significantly on Factor VII scores when grouped by sex, age, race, marital status, level of education, current enrollment in graduate school, grade level taught, type of teaching, number of students, years of experience, satisfaction with salary, and the choice to teach again.

Significant differences were found in a comparison of Factor VII scores, $F(3,302) = 3.94$, $p < .01$, and the job held. Guidance counselors

reported that information from several sources was the least adequate in aiding job performance (x̄ = -.43310). Information from several sources was increasingly helpful to others (x̄ = -.37695) and to librarians (x̄ = .76888).

Factor VIII

Respondents did not differ significantly on Factor VIII scores when grouped by sex, age, race, marital status, level of education, current enrollment in graduate school, job held, grade level taught, number of students, and years of experience.

Significant differences were found in a comparison of Factor VIII scores, $F(1,185) = 5.55$, $p < .05$, and the type of teaching. Vocational teachers indicated that information received through regular school channels was less helpful in aiding job performance (x̄ = -.36611) than did academic teachers (x̄ = -.01698).

Significant differences were found in a comparison of Factor VIII scores, $F(1,304) = 5.62$, $p < .05$, and satisfaction with salary. Those not satisfied with their salaries reported that information received through regular school channels was less helpful (x̄ = -.05520) than did those who were satisfied with their salaries (x̄ = .31890).

Significant differences were found in a comparison of Factor VIII scores, $F(1,304) = 19.20$, $p < .0001$, and the choice to teach again. Those who would not teach again reported that information received through regular school channels was less helpful (x̄ = -25918) than did those who would choose to teach again (x̄ = .16561).

Factor IX

Respondents did not differ significantly on Factor IX scores when grouped by sex, age, race, marital status, level of education, current

enrollment in graduate school, job held, grade level taught, type of teaching, number of students, and satisfaction with salary.

Significant differences were found in a comparison of Factor IX scores, $F(5,300) = 2.24$, $p < .05$, and years of experience. Tukey's HSD showed no significant group differences.

Significant differences were found in a comparison of Factor IX scores, $F(1,304) = 19.23$, $p < .0001$, and the choice to teach again. Those who would not teach again reported their professional and psychological needs were being less adequately met ($\bar{x} = -.35888$) than did those who would teach again ($\bar{x} = .12860$).

Factor X

Respondents did not differ significantly on Factor X scores when grouped by any demographic variable.

Factor XI

Respondents did not differ significantly on Factor XI scores when grouped by sex, age, race, marital status, level of education, current enrollment in graduate school, job held, grade level taught, type of teaching, number of students, years of experience, and satisfaction with salary.

Significant differences were found in a comparison of Factor XI scores, $F(1,304) = 10.11$, $p < .01$, and the choice to teach again. Those who would not teach again reported less power to make decisions about school calendars and work days ($\bar{x} = -.17022$) than did those who would teach again ($\bar{x} = .10347$).

Factor XII

Respondents did not differ significantly on Factor XII scores when grouped by sex, age, race, marital status, level of education, current

enrollment in graduate school, years of experience, satisfaction with salary, and the choice to teach again.

Significant differences were found in a comparison of Factor XII scores, $F(3,284) = 4.34$, $p < .01$, and the job held. Tukey's HSD found no significant group differences.

Significant differences were found in a comparison of Factor XII scores, $F(2,285) = 8.91$, $p < .001$, and the grade level taught. Tukey's HSD showed significant group differences. High school teachers reported more power to make decisions about the courses and students they taught $(\bar{x} = .34870)$ than did elementary and junior high teachers.

Significant differences were found in a comparison of Factor XII scores, $F(1,277) = 5.05$, $p < .05$, and the type of teaching. Academic teachers reported more power to make decisions about the courses and students they taught $(\bar{x} = .52368)$ than did vocational teachers $(\bar{x} = .07367)$.

Significant differences were found in a comparison of Factor XII scores, $F(5,281) = 7.47$, $p < .001$, and number of students. Tukey's HSD showed significant group differences. Those who taught 1-30 students $(\bar{x} = -.35611)$, more than 150 students $(\bar{x} = -.27213)$, and 61-90 students $(\bar{x} = -.02863)$ reported less power to make decisions than did those who taught 31-60 students $(\bar{x} = .61682)$.

Factor XIII

Respondents did not differ significantly on Factor XIII scores when grouped by sex, age, race, marital status, level of education, current enrollment in graduate school, job held, grade level taught, type of teaching, number of students, and years of experience.

Significant differences were found in a comparison of Factor XIII scores, $F(1,304) = 7.38$, $p < .01$, and satisfaction with salary. Those who

were not satisfied with their salaries believed their treatment by their superintendent was less professional ($\bar{x}$ = -.09625) than did those who were satisfied with their salaries ($\bar{x}$ = .35466).

Differences were also found in a comparison of Factor XIII scores, $F(1,304) = 21.69$, $p < .001$, and the choice to teach again. Those who would not teach again believed their treatment by their superintendent was less professional ($\bar{x}$ = -.32014) than did those who would teach again ($\bar{x}$ = .15387).

Factor XIV

Respondents did not differ significantly on Factor XIV scores when grouped by sex, race, age, marital status, level of education, current enrollment in graduate school, job held, grade level taught, type of teaching, number of students, years of experience, and satisfaction with salary.

Significant differences were found in a comparison of Factor XIV scores, $F(1,304) = 53.23$, $p < .0001$, and the choice to teach again. Those who would not teach again were more troubled about the nature of their jobs ($\bar{x}$ = -.37616) than were those who would teach again ($\bar{x}$ = .27615).

Factor XV

Respondents did not differ significantly on Factor XV scores when grouped by sex, age, race, marital status, level of education, current enrollment in graduate school, job held, type of teaching, number of students, years of experience, satisfaction with salary, and the choice to teach again.

Significant differences were found in a comparison of Factor XV scores, $F(2,221) = 3.07$, $p < .05$, and the grade level taught. Tukey's HSD showed no significant group differences.

Factor XVI

Respondents did not differ significantly on Factor XVI scores when grouped by sex, age, race, marital status, current enrollment in graduate school, job held, number of students, years of experience, satisfaction with salary, and the choice to teach again.

Significant differences were found in a comparison of Factor XVI scores, $F(2,287) = 9.22$, $p < .0001$, and the grade level taught. Elementary teachers ($\bar{x} = -.08204$) and middle or junior high teachers ($\bar{x} = -.08167$) reported less obligation to participate in after-hours school activities than did high school teachers ($\bar{x} = .42284$).

Significant differences were found in a comparison of Factor XVI scores, $F(1,180) = 3.91$, $p < .05$, and the type of teaching. Academic teachers ($\bar{x} = .13274$) reported less obligation to participate in after-hours school activities than did vocational teachers ($\bar{x} = .52817$).

Significant differences were found in a comparison of Factor XVI scores, $F(4,285) = 2.83$, $p < .05$, and level of education. Those with an Ed.S ($\bar{x} = -.7720$) reported less obligation to participate in after-hours school activities than did those with an associate of arts degree ($\bar{x} = 1.0660$).

Factor XVII

Respondents did not differ significantly on Factor XVII scores when grouped by sex, race, marital status, current enrollment in graduate school, grade level taught, number of students, years of experience, and the choice to teach again.

Significant differences were found in a comparison of Factor XVII scores, $F(4,285) = 2.50$, $p < .05$, and age. Tukey's HSD showed no significant group differences.

Significant differences were found in a comparison of Factor XVII scores, $F(1,177) = 15.42$, $p < .0001$, and the type of teaching. Tukey's HSD showed significant group differences. Academic teachers ($\bar{x} = -.08845$) reported fewer instances of following a predetermined curriculum than did vocational teachers ($\bar{x} = .66151$).

Significant differences were found in a comparison of Factor XVII scores, $F(3,286) = 6.68$, $p < .001$, and the job held. Tukey's HSD showed no significant group differences.

Significant differences were found in a comparison of Factor XVII scores, $F(4,285) = 3.09$, $p < .05$, and the level of education. Tukey's HSD showed significant group differences. Those with an MA ($\bar{x} = -.1294$) and those with an Ed.S ($\bar{x} = -.1219$) reported fewer instances of following a predetermined curriculum than did those with an associate of arts degree ($\bar{x} = 1.5232$).

Significant differences were found in a comparison of Factor XVII scores, $F(1,288) = 4.59$, $p < .05$, and satisfaction with salary. Tukey's HSD showed significant group differences. Those who were not satisfied with their salaries ($\bar{x} = .02465$) reported fewer instances of following a predetermined curriculum than did those who were satisfied with their salaries ($\bar{x} = .42296$).

Hypothesis III was rejected since more significant differences were found than would be found due only to chance.

CHAPTER V

DISCUSSION, SUMMARY, AND RECOMMENDATIONS

This study was designed to examine the relationship between teacher burnout and organizational design. An organizational design survey (ods) was developed by the present author to test the theory proposed by Cherniss (1980b) that organizational design is one of the causes of burnout. The Maslach Burnout Inventory (Masalch & Jackson, 1981b) was used to measure burnout.

This study also investigated demographic differences within the sample when compared on the ods and MBI. Three null hypotheses were developed and tested. A discussion of the testing of each hypothesis, a summary of the study, and recommendations for future research follow.

Discussion of the Results

Hypothesis I

The hypothesis that there was no relationship between teacher burnout as measured by the MBI and organizational design as measured by the ods was rejected.

Canonical correlation analysis found a strong relationship between the MBI and the ods; in fact, 39% of the total variance in the MBI was explained by the ods.

The finding that there was a relationship between burnout and organizational design was expected. Cherniss (1980b) postulated that such a relationship existed citing the role, power, and normative structures of the organization as sources of burnout.

Previous studies by Pines (1982), Westerhouse (1979), and Schwab
(1981) all found a relationship between the role structure of an organiza-
tion and burnout.

Pines (1982) reported a negative correlation between the degree of
autonomy within the organization and burnout. French and Caplan (1972)
and Cooper (1981) all found that powerlessness in decision-making was a
significant contributor to job-related stress.

The normative structure of the organization as defined by Cherniss
(1980b) has been largely ignored by researchers. Cherniss believes that
giving workers an opportunity to participate in research related to their
jobs allows them more opportunities for success and would offer mental
stimulation that would lessen burnout. Research by Pines (1982) found
a negative correlation between peer support and burnout.

Hypothesis II

The hypothesis that there was no difference in any demographic sub-
group when compared on any of the MBI subscales was rejected. Of the
ANOVA's performed to test this hypothesis, 17 resulted in significant
differences.

Most researchers (Arreenich, 1981; Borthwick, 1982; Daley, 1979b;
Maslach & Jackson, 1981b; and Schwab, 1980) found significant differences
in the degrees of burnout felt by men and women; however, results were
conflicting. This study found that no difference existed. A finding of
no difference was also reported by Colasurdo (1981).

Borthwick (1982), Daley (1979b), Maslach & Jackson (1981b), and
Zebel & Zebel (1981) found that younger teachers reported more burnout
than did older teachers. Arreenich (1981), Colasurdo (1981), and

Malanowski (1981) found no significant differences in MBI scores when respondents were grouped by age. Schwab (1981) found that older teachers reported less intense feelings of Emotional Exhaustion than did younger teachers. This study found a significant overall ANOVA difference on the Personal Accomplishment frequency scale when respondents were grouped by age, but Tukey's HSD failed to declare any two groups significantly different.

Maslach reports conflicting results in discussions of racial differences in burnout. Masalach and Jackson (1981b) reported no significant difference in racial groups on the MBI subscales, but Maslach (1982) reported Blacks "experience less emotional exhaustion and much less depersonalization" than Whites (p. 59). Borthwick (1982) found that Caucasians reported higher levels of burnout than did non-Caucasians. Colasurdo (1981) found no difference in racial groups' levels of burnout. This study found that Blacks reported less frequent and intense feelings of Emotional Exhaustion than did Whites.

Maslach (1982) hypothesized that the community and family support Blacks enjoy makes them less likely to experience burnout than Whites.

Maslach and Jackson (1981b) reported that single or divorced individuals reported more frequent and intense feelings of Emotional Exhaustion than did married individuals. This study found no significant difference on MBI scores when respondents were grouped by marital status as did studies by Arreenich (1981), Colasurdo (1981), Malanowski (1981), and Schwab (1980).

Maslach (1982) reported that those who had completed college but had not had postgraduate training experience more burnout than groups with other educational backgrounds. Daley (1979b) reported that Master's-level workers burned out less frequently than other workers. Arreenich

(1981) reported differences only on MBI Emotional Exhaustion scores:
Ed.S holders reported the least frequent and intense feelings of emotional
exhaustion. This study found no significant difference in MBI scores
when respondents were grouped by educational level. Colasurdo (1981),
Malanowski (1981), and Schwab (1981) reported the same finding. This
study found that those currently enrolled in graduate school reported
more intense and frequent feelings of Personal Accomplishment than did
those who were not in graduate school.

The finding that those currently enrolled in graduate school reported
more feelings of Personal Accomplishment than others is expected. The
knowledge gained in graduate classes as well as the support system of
faculty and other graduate students can be used as a source of professional
renewal by teachers -- a long-lasting "workshop high." Also, it is
likely that knoweldge gained in graduate classes affects practice within
the classroom and thus helps afford the teacher more personal accomplish-
ment.

Borthwick (1982) found that secondary teachers reported more burn-
out than did elementary teachers. Zebel and Zebel (1981) found junior
high teachers reported more burnout than did intermediate or preschool
teachers. Schwab (1980) found that secondary teachers reported more
Depersonalization and less Personal Accomplishment than did elementary
teachers. Malanowski (1981) found that intermediate and secondary teachers
reported higher Depersonalization scores than elementary teachers and that
intermediate teachers reported lower Personal Accomplishment scores than
elementary teachers. This study found no significant differences in MBI
scores when respondents were grouped on grade levels taught as did
Colasurdo (1981). This study did find that academic teachers (middle,

junior high, and high school) reported more frequent feelings of Depersonalization than did vocational teachers. A significant difference was also found in a comparison of Depersonalization intensity scores and the job held, but Tukey's HSD failed to declare any two groups significantly different.

The finding of no significant difference when respondents were grouped by grade level taught was expected. Teachers on each level, elementary, middle, or secondary, must deal with complex issues and organizational structures unique to that level. If the fit between the person and his environment is adequate, burnout should not occur more on one level than on another. The challenge for the educational organization is to direct teachers into an area where the person-environment fit will be adequate.

The finding that academic teachers reported more Depersonalization than vocational teachers was expected. Maslach (1978) reported on the poor relationship that develops when one sees the client only in light of his problems. This situation is more typical of that between the academic teacher and the student than between the vocational teacher and the student. Part of the curriculum requirements in vocational education is student membership in vocational clubs and participation in skills contests. While these learning experiences do provide additional work for the vocational teacher, they also mandate opportunity for the teacher and the student to work together outside the classroom. It appears that these extra-curricular activities may be beneficial in allowing teachers to view their pupils as individuals, not just students. This experience may lessen the Depersonalization felt by vocational teachers.

This study found no significant differences in MBI scores when respondents were grouped according to the number of students taught. Arreenich (1981) reported an identical finding. Coates and Thoresen (1976) reported that NEA studies found inappreciable differences between teachers under high stress or low stress when compared on the number of students taught. These findings are in conflict with Maslach's (1982) study on burnout within the helping professions in general which found that higher caseloads resulted in more experienced burnout. Only Malanowski (1981) found differences when respondents were grouped by numbers of students taught. He found that teachers of 91-120 students reported more Depersonalization than teachers of other numbers of students.

Borthwick (1982), Bausch (1981), and Zebel and Zebel (1981) found that the least experienced teachers reported the most burnout. This study, as well as those of Colasurado (1981) and Schwab (1980) found no significant difference in degrees of burnout when respondents were grouped according to years of experience. Malanowski (1981) found that teachers with 0-3 years and 8-12 years of experience reported more Emotional Exhaustion than did those with 13 or more years of experience. Teachers with 8-12 years of experience reported more Depersonalization than teachers with 13 or more years of experience.

Results relating teacher burnout and years of experience are inconclusive. It does seem likely though that inexperienced teachers would report the most burnout. This group would be in the midst of an ideal-reality conflict and would be psychologically weakened by this conflict. This group would also have yet to develop effective coping strategies to ward off the ill-effects of teacher stress and so would seem likely to be prone to burnout.

Dissatisfaction with salary is frequently reported to be a cause of teacher stress (Bucklew, 1981; Feitler & Tokar, 1981; Fimian & Santoro, 1981). This study found that teachers who were dissatisfied with their salaries reported more frequent and intense feelings of Depersonalization and Emotional Exhaustion than did those who were satisfied with their salaries.

This study found a strong relationship between an individual's feeling that he would rechoose the teaching profession and his degree of burnout. Individuals who would not rechoose the teaching profession reported more frequent and intense feelings of Depersonalization and Emotional Exhaustion than did those who would teach again. Those who would not rechoose the teaching profession also reported less frequent and intense feelings of Personal Accomplishment than those who would teach again.

An individual's feeling that he would not rechoose the teaching profession is strongly related to that individual's degree of burnout. This finding was expected. What cannot be determined at this point is the cause and effect relationship between these variables. Does a general unhappiness with one's profession render one susceptible to burnout, or does the presence of burnout with its accompanying feelings of Depersonalization, Emotional Exhaustion, and loss of Personal Accomplishment make one generally unhappy with his job?

Hypothesis III

As the reader is aware, the ods was developed for this study and hence no other research using this instrument has been conducted.

The hypothesis that there was no significant difference in any demographic subgroup when compared on the ods was rejected.

ANOVA resulted in significant differences in a comparison of the mean _ods_ score and the variable years of experience. Individuals who had taught 6-10 and 11-15 years reported more negative feelings about the organizational design of their schools than did other groups.

This finding was not unexpected. Individuals who had taught 6-15 years have gained enough experience to have insight into the problems of their organization and to have determined that either (a) there are no solutions to the problems or (b) solutions are not being properly sought. Either belief by a worker would lead to frustration and negative feelings toward the organization. Less experienced workers would believe that the problem was in their performance, not in the organization; and more experienced workers would have learned to accept the status quo and so these two groups would not have such negative feelings toward the organization.

When respondents were grouped by sex for comparison to _ods_ factors, significant differences were found in a comparison to Factor II scores. Males reported less use of peer assistance than did females. This finding is not unexpected. Males are known generally to have only superficial relationships with their peers; women are known to seek in-depth peer relationships and to view their peers as a source of problem-solving strategies (Rubin, 1983).

When respondents were grouped by age, significant differences were found in a comparison to Factor XVII, the charge to follow a predetermined course syllabus; however, Tukey's HSD showed no significant group differences.

When respondents were grouped by race, significant differences were found in a comparison to Factor VI. Caucasians reported fewer instances of receiving positive comments about their work than did non-Caucasians.

When respondents were grouped by marital status, there were no significant differences found.

When respondents were grouped by level of education, significant differences were found in a comparison to Factor I scores which dealt with the helpfulness of evaluations. Tukey's HSD showed no significant group differences. Results of ANOVA scores on Factor II were that individuals with an Ed.S reported less use of peer assistance than did all other groups. Persons with advanced degrees are usually perceived as sources of assistance rather than recipients of assistance by their peers group. This finding indicates that persons with advanced degrees live up to this expectation. Those with an Ed.S reported less obligation to participate in after-school activities (Factor XVI) than did those with an associate of arts degree. Those with a Master's degree or an Ed.S also reported fewer instances of following a predetermined curriculum (Factor XVII) than did those with an associate of arts degree.

Within North Carolina public schools, holders of less than a Bachelor's degree can be certified only as vocational teachers. Accordingly, the above findings of significance dealing with holders of an A.A. degree are differences that involve vocational teachers. As discussed earlier, vocational teachers are required to participate in after-school activities and vocational teachers must also work with a predetermined curriculum due to state and federal guidelines.

When respondents were grouped by current enrollment in graduate school, there were no significant differences.

When respondents were grouped by the jobs they held, significant differences were found.

Comparisons to Factor I, Evaluation; Factor IV, Professional treatment; Factor XV, Decision-making/Teaching; and Factor XVII, Decision-making/Syllabus all resulted in overall significant differences but in no significant group differences. Results of ANOVA on Factor V were that librarians reported working under conditions of more role conflict and overload than did all other groups. Although this finding was unexpected, an examination of the librarian's job shows that librarians are at the mercy of the diverse and conflicting demands of staff needs and would experience a great deal of role conflict and overload. Results of ANOVA on Factor VII were that the two counselors reported that information from several varied sources was of the least value in aiding job performance.

When respondents were grouped by grade level taught, a significant difference was reported in comparison to Factor XV scores which dealt with the choosing or hiring of a department chairman; however, Tukey's HSD showed no significant group differences.

Results on ANOVA of Factor IV scores were that elementary teachers reported receiving less professional treatment from those in authority than did high school teachers. Results of ANOVA on Factor XII scores were that high school teachers reported more power to make decisions about the courses and students they taught than did elementary and junior high teachers. Results of ANOVA on Factor XVI scores were that elementary and middle or junior high teachers reported less obligation to participate in after-school activities than did high school teachers.

When respondents were grouped according to the type of teaching, significant differences were found. Results of ANOVA on Factor VIII scores

were that vocational teachers reported that information received through regular school channels was less helpful in aiding job performance than did academic teachers. Results of ANOVA on Factor XII scores were that academic teachers reported more power to make decisions about the courses and students they taught than did vocational teachers. Results of ANOVA on Factor XVI scores were that academic teachers reported less obligation to participate in after-school activities than did vocational teachers. Results of ANOVA on Factor XVII scores were that academic teachers reported fewer instances of following a predetermined curriculum than did vocational teachers.

When respondents were grouped according to the number of students taught, significant differences were found. Results of ANOVA on Factor IV scores were that those who taught 31-60 students reported receiving less professional treatment from those in authority than was reported by those who taught 91-120 students and 121-150 students. Results of ANOVA on Factor XII scores were that those who taught 1-30 students, more than 150 students, and 61-90 students reported less power to make decisions about the courses and levels of students they taught than did those who taught 31-60 students.

When grouped according to years of experience, a significant difference was found in a comparison to Factor IX scores, the meeting of professional and psychological needs of teachers; however, Tukey's HSD showed no significant group difference.

When grouped according to salary satisfaction, significant differences were found. Results of ANOVA of Factor V scores were that those who were not satisfied with their salaries reported working under

conditions of more role conflict and overload than did those who were satisfied with their salaries. Results of ANOVA of Factor VIII scores were that those not satisfied with their salaries reported that information received from regular school channels was less helpful than did those who were satisfied with their salaries. Results of ANOVA of Factor XIII scores were that those not satisfied with their salaries believed their treatment by those in authority was less professional than did those who were satisfied. Results of ANOVA for Factor XVII scores were that those who were not satisfied with their salaries reported fewer instances of following a predetermined curriculum than did those who were satisfied.

When grouped according to their decision to rechoose the teaching profession, significant differences were found. When compared to those who would rechoose the teaching profession, those who would not rechoose the teaching profession reported that evaluations were less helpful, that they received less professional treatment from those in authority, that they received fewer positive comments about their work, and that information received through regular school channels was less helpful. This group also felt that their professional and psychological needs were being less adequately met, that they had less power to make decisions about school calendars and work days, that they received less professional treatment from their superintendents, and they were also more troubled about the nature of their jobs.

Summary

The purpose of this study was to test a theory that organizational design is one of the causes of teacher burnout. To that end, the Maslach

Burnout Inventory (MBI) (Maslach & Jackson, 1981b) and the organizational
design survey developed by the present author (ods) were administered
to 529 teachers in Surry County, North Carolina.

Of that group, 306 (58%) returned usable surveys. The sample for
this study was 77.8% women and 22.2% men. The majority of the sample
(79.4%) were married. The age ranges were 20-30 years, 31.1%; 31-40,
39.9%; 41-50, 21.2%; and 51 years and older, 8.9%. The group was pre-
dominantly Caucasian (97.4%).

Of this sample, three-fourths (75.8%) held a Bachelor's degree and
21.9% held postgraduate degrees. Ten percent of the respondents were in
graduate school at the time of the survey's administration.

Teachers were employed at elementary schools (48.0%), middle or
junior high schools (20.9%), and high schools (31.0%). The survey was
answered by classroom teachers (86.6%), guidance counselors and librarians
(2.6%), and others such as resource and music teachers (10.8%). More
than one-half of the respondents (55.3%) had between 6-15 years of
experience.

Of this sample, three-fourths (75.8%) held a bachelor's degree and
21.9% held postgraduate degrees. At the time of the survey's administra-
tion, 10% of the respondents were in graduate school.

Three hypotheses were tested in this study: that no relationship
would exist between the MBI and the ods, the MBI subscales and demo-
graphic variables, and the ods and demographic variables.

To test for a relationship between the MBI and the ods, factor
analysis using varimax rotation was performed to determine which factors
existed in the ods. Seventeen factors were extracted. Canonical

correlation analysis between the ods and the MBI resulted in a correlation
of .6219. It was determined that a strong relationship existed between
the MBI and the ods.

Analysis of variance was employed to test for significant differences
in demographic subgroups when compared on the MBI. Of the 78 ANOVA's
performed, 17 resulted in significant differences. Differences were found
in the MBI Depersonalization scores when compared to the variables job
held, type of teaching, satisfaction with salary, and the choice to teach
again. Differences were found in the MBI Emotional Exhaustion scores
when compared to the variables race, satisfaction with salary, and the
choice to teach again. Differences were found in the MBI Personal Accom-
plishment scores when compared to the variables age, current enrollment
in graduate school, and the choice to teach again. It was determined
that there were significant differences in demographic subgroups when
compared on the MBI subscales.

Chi-square analysis between the demographic variables and a self-
report measure of burnout within the MBI found significant difference
between the degree of reported burnout and satisfaction with salary and
with the choice to teach again.

Spearman's correlation coefficient was computed and determined that
no relationship existed among mean scores on the MBI self-report measure
of burnout, the ods mean scores, and any of the MBI mean subscale scores.

ANOVA was performed to test for significant differences in demographic
subgroups when compared on the mean ods score and on the ods factor scores.

ANOVA performed using the mean ods score resulted in a significant
difference only when respondents were grouped by years of experience.

ANOVA performed using the ods factor scores resulted in significant differences when respondents were grouped by sex (Factor II), age (Factor XVII), race (Factor VI), level of education (Factors I, II, XVI, XVII), job held (Factors 1, IV, V, VII, XII, XVII), grade level (Factors IV, XII, XV, XVI), type of teaching (Factors VIII, XII, XVI, XVII), number of students (Factors IV, XII), years of experience (Factor IX), satisfaction with salary (Factors V, VIII, XIII, XVII), and with the choice to teach again (Factors I, IV, VI, VIII, IX, XI, XIII, XIV). It was determined that there were significant differences in demographic subgroups when compared on the ods.

Recommendations

Results of this study indicate a need for refinement of the ods. Elimination of some items and addition of others should result in extraction of fewer factors. Also, results of factor analysis showed that the items did not fall into a triparte division of role, power, and norm as was hoped. Advisement by scholars in the area of organizational studies as to the construct validity of the ods should result in a more precise instrument.

A more global recommendation is for additional research on teacher burnout using the MBI. Of the six studies cited in Chapter IV, conflicting results were found between MBI scores and all demographic variables reported. Are the conflicting results genuine differences in population groups or the artificial results of varied methods of data analysis? Is knowledge about burnout at such an undeveloped stage that a profile of the burnout-prone teacher cannot be developed? Only much additional research will give educators a solid foundation of knowledge on burnout.

Research is needed to determine what personal characteristics will render one prone to burnout. At this time, Maslach and Freudenberger, two of the leading authorities on burnout, are in total disagreement as to who will be most likely to burn out. Even if future research does help define the typical burnout-prone individual via demographic data, it will be the fit between the person and his environment that will determine who burns out. Development of something similar to the Type A-Type B dichotomy would be useful (see Friedman & Rosenman, 1974).

A longitudinal study of teachers to assess the effects of burnout would have great utility. Various theories about the stages of burnout and the effects within each stage have been offered, but these theories are as yet untested. The implications for practice in this area are tremendous. Various strategies for reducing burnout would be more effective at certain stages of burnout, but at this time, knowledge of how and when to best assist the burned-out teacher is unavailable.

There is a need for development and clarification of other methods of reporting burnout. The MBI is hindered by its self-report feature and its reliance on accurate responses from the sample. A truer picture of burnout would exist if other types of reporting (interviews or observations, for example) were used along with the MBI.

Additional research on the relationship between organizational design and teacher burnout is indicated. There are substantial reasons to believe that burnout flourishes in the helping professions which include teaching. Since features of organizational design are those that can be controlled by those in administration, research as to how manipulation of those features affects burnout would be useful.

Finally, this study presents evidence that enrollment in graduate school resulted in teachers feeling more successful in their work. Research to determine how and why graduate studies affect teacher burn-out is indicated.

Another area of related questioning would be to determine if attendance at in-service workshops would provide the same benefits as enrollment in graduate school in creating a sense of personal accomplishment. Would benefits accrue from one learning situation rather than the other as a result of duration and intensity of instruction or from the difference in an extra-school support system as opposed to an intra-school support system?

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APPENDIX A

ORGANIZATIONAL DESIGN SURVEY (<u>ods</u>)

Organizational design survey

This survey contains a number of statements about your job. Read each statement and decide if it applies to your job situation. If it does not apply, mark NA for not applicable in the blank to the left of the statement. If the statement does apply in your situation, decide to what extent the statement reflects your working situaticn. Use the numbers from 0 (zero) to 7 (a great deal) to rate the statements. An example is given below.

Levels of extent

NA	0	1	2	3	4	5	6	7
	none	very little		some				a great deal

TO WHAT EXTENT:

_____ Does after-hours work affect your salary?

NA	0	1	2	3	4	5	6	7
	none	very little			some			a great deal

TO WHAT EXTENT:

_____ 1. Do you have too much job-related work to do?

_____ 2. Do others expect too much work from you on your job?

_____ 3. Are the various job-related duties you have in conflict with each other?

_____ 4. Is your job as a teacher what you expected it to be?

_____ 5. Is your job challenging?

_____ 6. Does teaching several levels of students interfere with preparing adequately for your classes?

_____ 7a. Do you find out---from personal contact with central office staff---what you need to know to do your job?

_____ b.   (7b)from written announcements within your school

_____ c.   (7c)from informal sources, i.e., teacher's lounge

_____ d.   (7d)from news reports of school board meetings

_____ e.   (7e)from school board reports

_____ f.   (7f)from faculty meetings

_____ 8a. Are your---department chairman's---evaluations helpful in improving teaching?

_____ b.   (8b)principal's

_____ c.   (8c)supervisor's

_____ 9a. Do evaluations provide helpful feedback on---performing clerical duties?

_____ b.   (9b)improving teaching skills?

_____ c.   (9c)developing lesson plans?

_____ 10a. Do you receive positive comments about your work from your---colleagues?

_____ b.   (10b)principal?

_____ c.   (10c)students?

_____ d.   (10d)students' parents?

_____ 11a. Do you determine which----levels of students----you will teach each year?

_____ b.   (11b)specific courses

_____ 12. Must you follow a predetermined course syllabus?

_____ 13. Can you decide which extra-curricular activities you direct?

_____ 14. Must you participate in after-hours school activities such as chaperoning dances, working at ballgames, P.T.A. events, etc.?

_____ 15. Does the input of either you or your elected representative influence the calendar for your school system?

_____ 16. Do either you or your elected representative determine how work days will be used?

_____ 17. Are you able to use work days in the manner that would help you most?

_____ 18. Do clerical duties and paperwork take time away from teaching?

_____ 19a. Can you participate in the choosing or hiring of----department chairman?

_____ b.   (19b)supervisors?

_____ c.   (19c)principal?

_____ d.   (19d)assistant superintendent?

_____ e.   (19e)superintendent?

_____ 20. Do rules or regulations affecting the daily working conditions of teachers, i.e., leaving early for appointments or signing in and out, originate with teachers?

_____ 21. Are you free to try innovative teaching approaches?

_____ 22. Are innovative, creative teaching methods used in your school?

_____ 23a. Does your----department----place an emphasis on conformity in teaching?

_____ b.   (23b)school

_____ 24. Do you feel uneasy when your class gets noisy?

_____ 25a. Does your----department chairman----treat you as a professional: one who is able to make decisions, initiate activity, etc.?

_____ b.   (25b)principal

_____ c.   (25c)superintendent

_____ 26a. Does your----department chairman----have a genuine interest in your professional well-being?

_____ b.   (26b)principal

_____ c.   (26c)superintendent

_____ 27a. Are you assisted in developing lesson plans and teaching methods that reflect your school philosophy by the----principal?

_____ b.   (27b)supervisor?

_____ c.   (27c)department chairman?

_____ d.   (27d)other teachers?

_____ 28. Are the psychological needs of teachers attended to in the same degree as the psychological needs of the students?

_____ 29a. Are you comfortable in asking your peers for assistance with----discipline?

_____ b.   (29b)planning lessons?

_____ c.   (29c)selecting teaching materials?

_____ d.   (29d)conflicts with students?

_____ 30. Are teachers not allowed to do certain things because students cannot do them?

APPENDIX B

MASLACH BURNOUT INVENTORY (MBI)

APPENDIX C

LETTER TO PRINCIPALS

January 14, 1982

Dear (name of principal),

I have been given permission by your superintendent to conduct doctoral research within your school system. My research instrument consists of four pages of items to be checked or rated and usually can be completed in ten to fifteen minutes.

A cover letter on each survey asks the teacher to answer the survey and instructs the teacher to return the surveys to a designated assistant within your school or to the office for pick-up. You can assist me by placing the surveys in teacher mailboxes, passing them out at a faculty meeting, or by announcing that they have been placed in a central location.

The surveys will be collected by the assistant within your school at the end of the day on Friday, January 28.
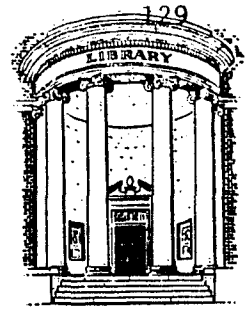
I appreciate your help in this matter.

                                        Sincerely,

                                        Michele A. Crews

MAC/psr

APPENDIX D

COVER LETTER TO TEACHERS

THE UNIVERSITY OF NORTH CAROLINA

AT GREENSBORO

January 14, 1983

Dear Fellow Teacher:

I would appreciate your help in a research project I am involved with
at UNC-G. I am trying to assess teacher opinion on various issues, and
you can help by filling out the enclosed survey. Completing the survey
will only take about ten minutes of your time, but to be valid for
research purposes, the survey must be returned with <u>every</u> question answered.

When you have finished the survey, place it in the envelope provided and
return it to the office or to the teacher collecting the surveys at your
school. The envelope may be fastened or sealed to assure your anonymity.

If you would like a copy of the results of this survey, write your school's
name on the bottom of this sheet or contact me personally. I will send
the results to be posted at your school.

                                    Michele Crews
                                    North Surry High School

MC/psr

APPENDIX E

DEMOGRAPHIC DATA SHEET

Demographic Data

Check only one response in each category.

Your sex:

_____ (1) Male

_____ (2) Female

Your age:

_____ (1) 20-30

_____ (2) 31-40

_____ (3) 41-50

_____ (4) 51-60

_____ (5) 60+

Are you:

_____ (1) Asian, Asian American

_____ (2) Black

_____ (3) Latino, Mexican

_____ (4) Native American, Am. Indian

_____ (5) White, Caucasian

_____ (6) Other (specify _____)

Marital status:

_____ (1) Single

_____ (2) Married

_____ (3) Divorced

_____ (4) Widowed

_____ (5) Separated

Level of education:

_____ (1) high school diploma

_____ (2) AA

_____ (3) BA/BS

_____ (4) MA/MS/M.Ed.

_____ (5) Ed.S.

_____ (6) Ph.D/ Ed.D

Currently enrolled in graduate school:

_____ (1) Yes

_____ (2) No

Are you:

_____ (1) classroom teacher

_____ (2) guidance counselor

_____ (3) librarian

_____ (4) other (specify _____)

Grade level taught: If you teach more than one level, check the level at which the majority of your work is done.

_____ (1) Elementary

_____ (2) Middle or junior high

_____ (3) High school

Type of courses taught: This will apply only to some middle school teachers and to junior and senior high teachers.

_____ (1) Academic

_____ (2) Vocational

Number of students taught per day

_____ (1) 1-30

_____ (2) 31-60

_____ (3) 61-90

_____ (4) 91-120

_____ (5) 121-150

_____ (6) 150+

Completed years of teaching experience

_____ (1) 0-2

_____ (2) 3-5

_____ (3) 6-10

_____ (4) 11-15

_____ (5) 16-20

_____ (6) 20+

Are you satisfied with your salary?

_____ (1) Yes

_____ (2) No

If you could make your choice again, would you still become a teacher?

_____ (1) Yes

_____ (2) No