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A comparison of the teaching behaviors of low-burnout and high-burnout elementary physical education teachers

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A COMPARISON OF THE TEACHING BEHAVIORS OF LOW-BURNOUT AND HIGH-BURNOUT ELEMENTARY PHYSICAL EDUCATION TEACHERS

by

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An Abstract

of a thesis submitted in partial fulfillment of the requirements for the degree of Master of Science in the School of Health, Physical Education, and Recreation at Ithaca College

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ABSTRACT

The purpose of this study was to compare the teaching behaviors of high-burnout and low-burnout male elementary physical education teachers. Initially 20 male elementary physical education teachers from the southern tier section of New York State served as subjects. All subjects were administered the Maslach Burnout Inventory (MBI) (Maslach & Jackson, 1981). Teachers were classified as high-burnout or low-burnout on the basis of their MBI score, by the median split technique. Five high-burnout and five low-burnout teachers were randomly selected to represent each group. Each teacher was videotaped three times while teaching an entire physical education class. Cheffers' Adaptation of Flanders' Interaction Analysis System (CAFIAS) (Cheffers, 1972) was used to measure the interaction and behavior patterns between the teacher and the students. The data from the coding of CAFIAS were analyzed using the computer. Percentages were computed for the major CAFIAS parameters, behaviors, and predominant interaction patterns. Descriptive statistics were calculated, and visual comparisons were made to determine the relative standings of each group on each CAFIAS variable. Results led to the acceptance of the research hypothesis that the teaching behaviors of male low-burnout and male high-burnout elementary physical education teachers would differ significantly. Results showed that the low-burnout teachers exhibited more praise and acceptance of their students' ideas and actions and gave more feedback to the students. The low-burnout teachers

were also more varied in their teaching behaviors and interacted more with their students. The high-burnout teacners tended to give more directions than information to their students and also were more critical of their students' ideas and actions. Students in the high-burnout teachers' classes exhibited more nonverbal predictable responses.

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Requirements for the Degree
Master of Science

by
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CERTIFICATE OF APPROVAL

MASTER OF SCIENCE THESIS

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DEDICATION

This thesis is dedicated to my parents, Raymond and Doreen Craven. With this study I show my love, thanks and appreciation for all they have done for me and for putting up with all the crazy things I do. Thanks for everything Mum and Dad!

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Chapter 1

INTRODUCTION

Burnout is a serious problem in professions concerned with "people work" and is very apparent in the teaching profession (Maslach & Jackson, 1981). Burnout has already stricken thousands of sensitive, thoughtful, and dedicated teachers who are now leaving teaching (McGuire, 1979). Additional thousands may join their peers because they fear for their physical and mental health. The extent and seriousness of this problem is supported by the fact that some authorities consider teacher burnout to be one of the most critical problems in education today (McGuire, 1979; Truch, 1980).

Burnout can be defined as a condition that results from stress, tension, and anxiety (McGuire, 1979). Maslach and Jackson (1981) defined burnout as a syndrome of emotional exhaustion and cynicism. Burned out individuals may feel dissatisfied with their job performance and unhappy with their personal accomplishments.

The major factor in job burnout is considered to be stress. The New York State United Teachers Organization ("Stress," 1980) investigated the causes of teacher stress. Three major causes of stress which were evident across all situations of teaching (i.e., age, sex, grade level, and school size) were managing "disruptive" children, incompetent administrators, and maintaining self-control when angry. Additional sources of stress included student violence,

overcrowded classrooms, inadequate salaries, and racial issues (Farber & Miller, 1981; McGuire, 1979; Ricken, 1980).

The potential consequences of burnout are very serious for teachers in terms of their personal health as well as their attitude toward teaching. Burnout may lead to a deterioration of physical well-being with symptoms such as insomnia, allergies, and withdrawal becoming prevalent. However, Farber and Miller (1981) asserted that the greatest impact of teacher burnout will be on the delivery of educational services--instruction. Maslach and Jackson (1981) stated that burned out teachers may display impersonal or negative attitudes as well as a detached image to their students and also to their colleagues. Burned out teachers may also display certain characteristics such as giving little praise to their students and being critical of them (Farber & Miller, 1981). Veninga and Spradley (1981) found that burned out teachers have lower expectations for students and have a distinct lack of classroom interaction.

Despite the apparent interest in burnout there are few instruments available to measure burnout. One instrument is the Maslach Burnout Inventory (MBI) (Maslach & Jackson, 1981). In developing the MBI, Maslach and Jackson (1981) conceptualized burnout as a continuous rather than dichotomous variable. Thus, burnout is described in terms of low, moderate, and high degrees. The MBI assesses burnout in terms of three characteristics: emotional exhaustion, depersonalization, and personal accomplishment. The

dimensions are assessed by two subscales: the intensity of the feeling and the frequency of the feeling.

Systematic observation is a means by which teachers can be observed and their actions described. The Flanders' Interaction Analysis System (FIAS) (Flanders, 1960) has been the most widely used interaction analysis system in education. Cheffers (1972) modified FIAS to describe behavior in physical education classes more effectively. Cheffers (1972) developed the Cheffers' Adaptation of Flanders' Interaction Analysis System (CAFIAS). This modification expanded FIAS to permit the coding of verbal and nonverbal behaviors, teaching agencies, and class structure. CAFIAS is the most widely used instrument to describe interactions in the physical education setting. To date there has been little research conducted on the teaching behaviors and interactions of burned out teachers utilizing both CAFIAS and the MBI. A study by Mancini, Wuest, Clark, and Ridosh (1983) revealed that low-burnout secondary physical educators exhibited more positive interactions with their students than the high-burnout teachers. The high-burnout teachers were more critical of their students' ideas and actions. Also, students in the low-burnout teachers' classes exhibited more interpretive behavior than students in the high-burnout teachers' classes.

This study was undertaken to compare the teaching behaviors of male high-burnout and male low-burnout elementary physical education teachers. This study is a follow-up of the study by Mancini et al. (1983) which compared the teaching

behaviors of low-burnout and high-burnout secondary physical education teachers.

Scope of Problem

This study was conducted to compare the teaching behaviors of male elementary physical education teachers (N = 20) who exhibited characteristics of low-burnout and high-burnout. Twenty elementary physical education teachers from the southern tier section of New York State served as subjects for this study.

After being contacted and agreeing to participate in the study, each teacher completed the Maslach Burnout Inventory (MBI) (Maslach & Jackson, 1981). The median split technique was utilized to classify the teachers as either low-burnout or high-burnout based on their MBI scores. Five teachers from each group were then randomly selected for further participation in the study.

The study required that each teacher be videotaped three times during the 1983-84 school year. The three tapes were coded using Cheffers' Adaptation of Flanders' Interaction Analysis System (CAFIAS) (Cheffers, Amidon, & Rodgers, 1974).

Statement of Problem

This study was conducted to compare the teaching behaviors of male high-burnout and male low-burnout elementary physical education teachers.

Major Hypothesis

The teaching behaviors of male high-burnout elementary physical education teachers will differ significantly from the teaching behaviors of male low-burnout elementary physical education teachers.

Assumptions of Study

The following assumptions were made relative to this study:

1. The subjects were representative of elementary physical education teachers in the southern tier section of New York State.

2. The coding of three physical education classes using CAFIAS was adequate to yield valid data on the observed teaching behaviors for each teacher.

3. The MBI yielded valid data on which to classify teachers as low-burnout or high-burnout.

4. The teachers were not aware of their classification as low-burnout or high-burnout as measured by the MBI.

Definition of Terms

The following terms were operationally defined for the purpose of this study:

1. Interaction analysis is an observational technique that records the frequency of teacher-pupil interpersonal behaviors (Amidon & Hough, 1967).

2. Flanders' Interaction Analysis System (FIAS) is a system designed to objectively record the verbal interaction between teachers and pupils as it occurs in the classroom (Amidon & Flanders, 1971).

3. Cheffers' Adaptation of Flanders' Interaction Analysis System (CAFIAS) is a validated extension of FIAS developed to measure verbal and nonverbal behaviors found predominantly in physical education classes (Cheffers et al., 1974).

4. Elementary physical education teacher is a teacher certified by the State of New York to teach physical education in grade levels kindergarten through six.

5. Burnout is a syndrome of emotional exhaustion and cynicism that occurs frequently among individuals who do "people work" (Maslach & Jackson, 1981).

6. Maslach Burnout Inventory (MBI) is an instrument used to assess the perceived level of burnout of an individual (Maslach & Jackson, 1981). There are three subscales in this inventory: depersonalization, emotional exhaustion, and personal accomplishment. The three subscales are measured in terms of two dimensions: frequency and intensity.

7. High-burnout teacher is an individual whose score on the six subscales of the MBI placed him in the top 50th percentile of the subjects who took the MBI.

8. Low-burnout teacher is an individual whose score on the six subscales of the MBI placed him in the bottom 50th percentile of the subjects who took the MBI.

Delimitations of Study

The following were the delimitations of this study:

1. The subjects were male elementary physical education teachers from the southern tier section of New York State.

2. Each subject was observed three times while instructing an entire physical education class.

3. CAFIAS was the only instrument used to record the actual teaching behaviors.

4. The MBI was the only instrument used in this study to classify teachers as low-burnout or high-burnout.

Limitations of Study

The following were the limitations of this study:

1. The findings may only be valid for male physical education teachers in the southern tier section of New York State.

2. The findings related to teaching behaviors may only be valid for comparison when CAFIAS is used as the observation instrument.

3. Different tests to measure burnout other than the MBI may yield different results.

Chapter 2

REVIEW OF RELATED LITERATURE

This chapter is a review of literature related to the study and is divided into four main sections: the use of systematic observation in physical education, teacher burnout, the Maslach Burnout Inventory, and a summary.

The Use of Systematic Observation in Physical Education

Few observation systems were available to record behaviors in physical education classes prior to 1970. Since that time many researchers have proceeded to develop different systematic observation instruments to record behaviors in physical education (Anderson, 1975; Johnson, 1975; Laubach, 1974; Siedentop & Hughley, 1975; Tobey, 1975).

Anderson (1975) initiated the Videotape Data Bank Project at the Teachers College at Columbia University. Under the auspices of the project, videotapes of 83 elementary and secondary physical education classes from 60 different schools were collected. To describe the behaviors that occurred during physical education classes, descriptive-analytic instruments were developed and utilized. Anderson (1975) utilized the Occurrence of Physical Activities System as a means of analyzing the videotapes. This system is designed to classify the length and occurrence of observed physical education activities.

Previously Laubach (1974) had developed the Behavior of Students in Physical Education (BESTPED) System to monitor the behavior of an individual student in a physical education class. This system sought to identify the actual length of time a student was actively involved performing movement tasks and the amount of time the student was inactive. Costello (1977) employed the BESTPED system to describe the behavior of 193 students in 20 different physical education classes.

The Flow of Teacher Operational Procedures (FOTOP) System was developed by Johnson (1975) to describe the manner in which a teacher utilized specific categories of the operational procedures found in physical education classes. The system classified the frequency and recorded in chronological order the teachers' use of the operational procedures necessary for the function of the class.

At The Ohio State University Siedentop and Hughley (1975) developed the O.S.U. Teacher Behavior Rating Scale. This was an eight-category system designed to gather data on the teaching behavior of physical education teachers. A number of researchers under the direction of Siedentop at The Ohio State University have trained physical education teachers to modify their behaviors using this instrument (Cramer, 1977; Hutslar, 1976).

The behaviors that occur between the teacher and the students can also be analyzed using the Flanders' Interaction Analysis System (FIAS) which was developed by Flanders in 1960. FIAS was designed to analyze verbal behaviors in the

classroom by placing the classroom behaviors into any one of 10 categories, with seven categories concerned with teacher talk, two with student talk, and the remaining category describing confusion or silence. Flanders (1970) categorized teacher behavior as either direct or indirect. Utilizing FIAS requires numerically recording behaviors every 3 seconds on a tally sheet. The behaviors are then transferred to a 10 x 10 matrix and analyzed. However, FIAS did not account for nonverbal behaviors between teacher and student; only verbal behaviors were able to be analyzed. A number of researchers (Cheffers, 1972; Dougherty, 1971; Mancuso, 1972) have modified FIAS so that nonverbal behaviors common to physical education may be coded and analyzed.

The most widely utilized interaction analysis system in physical education is the adaptation by Cheffers (1972) of FIAS known as Cheffers' Adaptation of Flanders' Interaction Analysis System (CAFIAS). Cheffers cited three major limitations of FIAS:

1. It was concerned with verbal behavior only.
2. It was concerned only with classes which were conducted with the class structure as a whole.
3. It was concerned with the teacher as a sole teaching agent.

The use of CAFIAS allowed for a more complete description of the behaviors and interaction patterns which occur in physical education classes by permitting the recording of both the verbal and the nonverbal behaviors of the teacher and the

student.

Cheffers and Mancini (1978) used CAFIAS to describe the interaction patterns and teaching behaviors on the 83 videotapes of the Videotape Data Bank Project to provide raw data for descriptive-analytic research. Results indicated minimal differences between male and female teachers and between elementary and secondary teachers in category usage, parameters, and interaction patterns. Teachers' direction-giving and teachers' information-giving predominated teaching. Little praise and acceptance of students' ideas and efforts was found, and virtually no criticism and correction of students' behaviors was recorded. Student initiated activity was found to be minimal.

Numerous studies have utilized CAFIAS in investigations to compare the effects of two decision-making models (Lydon, 1978; Mancini, 1974; Martinek, 1976; Piraino, 1977; Schempp, 1977, 1981; Viglione, 1977) and also to describe differences in teachers' interactions with low-skilled and high-skilled students (Reisenweaver, 1980; Streeter, 1980).

Recently, CAFIAS has been used to describe the effects of burnout on the teaching behaviors of physical educators and the effects of receiving supervisory feedback as an intervention technique with burned-out physical educators. Mancini et al. (1983) investigated the teaching behaviors of low-burnout and high-burnout secondary physical education teachers. Ten teachers were assigned to the high-burnout and 10 to the low-burnout group according to the Maslach Burnout

Inventory. All teachers were videotaped three times. Each videotape was analyzed using CAFIAS. Results showed that low-burnout teachers exhibited significantly more praise and acceptance of their students' ideas and actions and had greater amounts of interaction with their students than the high-burnout teachers. The low-burnout teachers exhibited more varied behaviors than the high-burnout teachers. The high-burnout teachers were more critical of their students' ideas and actions and less encouraging of their students' efforts. Students in the low-burnout teachers' classes exhibited more interpretive behavior than the students in the high-burnout teachers' classes.

Using the same population from the previous study by Mancini et al. (1983), Mancini, Wuest, Vantine, and Clark (1984) investigated the effects of instruction and supervision in CAFIAS on the teaching behaviors of high-burnout secondary physical education teachers. Six of the high-burnout teachers were assigned randomly to treatment (n = 3) and control (n = 3) groups. All teachers were videotaped nine times. The control group received conventional supervisory feedback to analyze their teaching; the treatment group received conventional supervisory feedback along with instruction, supervision, and feedback in CAFIAS and an analysis in the form of a computer printout for each class videotaped. Results showed that the treatment group teachers were characterized by increased teacher acceptance and praise, teacher use of questioning, and teacher empathetic behavior,

along with increased student-to-student interaction. Treatment group teachers also reported a larger decrease in their level of burnout.

Teacher Burnout

Burnout has already stricken thousands of sensitive, thoughtful, and dedicated teachers who are now leaving the profession. Additional thousands may join their peers because they fear for their physical and mental health (McGuire, 1979). Burnout has not only become increasingly prevalent in the teaching profession but has also become common in professions with a high degree of people contact or people orientation, particularly in the helping professions such as nursing and social work (Maslach & Jackson, 1981). Burnout has caused teachers, in many instances, to teach by simply "going through the motions" (Ricken, 1980).

Definitions, Aspects, and Symptoms of Burnout

Burnout can be defined as a condition that results from stress, tension, and anxiety (McGuire, 1979). Austin (1981) defined burnout as a condition that occurs when constant stress coupled with a lack of independence interacts with a feeling of isolation from fellow teachers and long work hours. Burnout can also be defined as chronic stress that accumulates without compensatory relaxation resulting in somatic, psychological, and or behavioral problems (Maslach & Jackson, 1981). Thus, an individual may exhibit a variety of psychological and/or behavioral symptoms and may be affected by burnout differently.

There are numerous causes of burnout. One of the major causes is stress. The New York State United Teachers Organization conducted a survey in 1979 ("Stress," 1980) to determine the causes of teacher stress. The respondents identified three major causes of stress which were evident across all situations of teaching (i.e., age, grade level, school size, and sex). The major stressors cited were managing "disruptive" children, incompetent administrators, and maintaining self-control when angry. Stress also occurs when teachers feel that insufficient resources have been allocated to meet performance expectations or when curriculum or instructional directives conflict with what teachers believe is best for their students (Iwanicki, 1983). Stress is also caused by future-shock; teachers are not able to cope with the "new breed" of students or changing educational methods and philosophies. These stressors as well as additional stressors such as student violence, overcrowded classrooms, inadequate salaries, and racial issues contribute to teacher stress and, subsequently, teacher burnout (Farber & Miller, 1981; McGuire, 1979; Picken, 1980).

The three major aspects of burnout, as defined by Maslach and Jackson (1981), are emotional exhaustion, negative attitudes towards clients (i.e., students) or depersonalization, and a loss of accomplishment. Feelings of emotional exhaustion are a key aspect of the burnout syndrome. Teachers after intensive interactions find their emotional energies drained. A teacher stated, "I feel emotionally

drained and fatigued at the end of the week. It's to the point where I can't get up anymore" (Schwab, 1983, p. 22). Maslach and Jackson (1981) characterized emotional exhaustion as the depletion of a teacher's emotional resources and the feeling that the teacher has nothing left to give to others at the psychological level.

The depersonalization phase consists of developing negative, cynical, and sometimes callous attitudes toward students, colleagues, and parents. As one teacher stated, "It is extremely stressful to try and remain calm, pleasant, and ever encouraging and supportive of children" (Schwab, 1983, p. 22).

Additionally, burned out teachers feel that they have nothing left to offer to the profession and experience a feeling of reduced sense of accomplishment. Burned out teachers perceive themselves as no longer making a meaningful contribution in working with students and in fulfilling other school responsibilities. The feeling of loss of accomplishment is extremely detrimental and stressful to teachers as they enter the profession not for financial gain but because they feel they can help students (Schwab, 1983).

The level of burnout experienced by a teacher is a function of the frequency and intensity of one's feeling of the three aspects of the burnout syndrome. An individual, however, may experience one aspect of burnout to a greater or lesser degree than other aspects (Maslach & Jackson, 1981). Burnout seems to occur to males to a greater extent than to

females, and teachers in middle schools are more susceptible to burnout than teachers in elementary or secondary schools (Vayda, 1983).

Consequences of Burnout

The potential consequences of burnout are very serious for teachers in terms of their personal health as well as their attitudes toward teaching. Burnout may lead to a deterioration of physical well-being with symptoms such as insomnia, headaches, depression, impotence, allergies, and withdrawal becoming prevalent. Teachers who feel physically ill soon find themselves depressed by their symptoms. Hendrickson (cited in Truch, 1980) stated that "It's difficult to play kickball with the kids when you are tired and slightly dizzy" (p. 4). The personal health consequences to teachers can be very severe. When feelings of burnout persist, the teacher may develop physical and emotional illnesses (Iwanicki, 1983). Potential personal consequences of burnout include alcoholism, drug addiction, excessive smoking, family conflict, divorce, and even suicide. If a teacher suffers from chronic stress, only nervous exhaustion or breakdown, heart attack, debilitating headaches, alcoholism or stress-related illnesses will break the cycle (Austin, 1981).

Teacher burnout may precipitate a deterioration in job performance and significantly affect the nature and quality of instruction. Farber and Miller (1981) asserted that the most critical impact of burnout will be on the delivery of educational services, especially instruction. Within physical

education, burnout can significantly affect the physical educator's job performance, resulting in behavioral inflexibility, inefficiency, and infrequent or careless planning of classes. Maslach and Jackson (1981) stated that burnad-out teachers may display impersonal or negative attitudes as well as a detached image to their students and also to their colleagues. They may be critical of their students and provide them with minimum feedback (Sparks & Hammond, 1981; Veninga & Spradley, 1981). Lack of involvement and infrequent student interaction as well as lowered expectations for students are also common (Farber & Miller, 1981; Maslach & Jackson, 1981; Veninga & Spradley, 1981).

Recent research into teacher burnout has utilized the Maslach Burnout Inventory (MBI). The MBI was constructed by Maslach and Jackson (1981) and measures emotional exhaustion, depersonalization, and personal accomplishment. The inventory conceptualized burnout as a continuous variable, and various aspects of the burnout syndrome can be described as ranging from low to moderate to high degrees of the experienced feeling.

Mancini et al. (1983) utilized the MBI in the study of burnout in secondary physical educators. The researchers utilized CAFIAS to examine the nonverbal and verbal behaviors of both high-burnout and low-burnout teachers with their students. The results showed significant differences in the interaction patterns of the low-burnout and high-burnout teachers. Burnout caused teachers to be more critical of

their students, to provide them with a minimum of feedback, and to hold lower expectations for students' performance. Teachers with a low degree of burnout were more varied in their teaching behaviors, were more supportive of students, and provided more feedback to the students.

Alleviation of Burnout

Numerous suggestions have been advanced as to how teachers can cope with or alleviate burnout. Farber and Miller (1981) advocated additional teacher training would be helpful to more adequately prepare teachers to cope with violence and stress. However, teachers experiencing stress must first identify strategies for alleviating or coping with stress effectively (Iwanicki, 1983). Otherwise, the symptoms of burnout will become chronic and lead to more debilitating circumstances. Schwab (1983) adds that burnout cannot be alleviated until strategies are developed that confront the issues on the institutional as well as on the individual level.

Maslach (1976) suggested the establishment of support groups as a means of alleviating burnout. Professionals who had some sort of social-professional support system showed lower instances of burnout than those who had no support groups. Teacher centers can provide teachers with the opportunity to meet and discuss concerns; these centers may offer programs designed to reduce stress and burnout and to help teachers learn effective coping skills and stategies (Sparks, 1979).

Ricken (1980) perceived administrative supervision as having a crucial role in preventing burnout. He emphasized that supervisory feedback stimulates continued teacher growth and maintains teacher effectiveness. Mancini et al. (1984) utilized the MBI and CAFIAS to investigate the effects of supervisory feedback on burned out teachers' behaviors and level of burnout. Burned out teachers were given either conventional supervisory feedback or systematic supervisory feedback using CAFIAS to analyze their teaching behaviors after being videotaped. The results revealed that teachers with a high degree of burnout were able to change their teaching behaviors as a result of systematic supervisory feedback. The post-feedback classes were characterized by increased teacher acceptance and praise, further use of questioning, and increased student-to-student interaction. The teachers also reported a decrease in their level of burnout.

Maslach Burnout Inventory

Maslach and Jackson (1981) constructed the MBI to measure three aspects of the burnout syndrome: emotional exhaustion, depersonalization, and personal accomplishment. Utilizing interviews and questionnaire data from burned out workers and reviewing numerous established scales on burnout and related concepts, such as stress, Maslach and Jackson (1981) constructed the MBI. The MBI consists of three subscales encompassing a total of 22 items which are rated in terms of the dimensions of frequency and intensity. Nine items are

contained in the emotional exhaustion subscale, five items in the depersonalization subscale, and eight items in the personal accomplishment subscale.

Maslach and Jackson (1981) obtained adequate reliability coefficients for internal consistency (ranging from .71 to .90) and test-retest reliability (ranging from .53 to .82). Convergent validity of the MBI was provided for by substantial evidence. Researchers found that the MBI significantly discriminated burnout from other psychological constructs which may be confounded with job burnout, such as job dissatisfaction.

Few researchers have utilized the MBI in their investigation of teacher burnout because this instrument was only recently developed. Several researchers (Anderson, 1981; Iwanicki & Schwab, 1981; Mancini et al., 1983; Mancini et al., 1984; Schwab, 1981) have used the MBI to assess teachers' perceived level of burnout. Anderson (1981) investigated the relationship among teacher burnout, perceived need deficiencies, and selected background variables. Results showed that emotional exhaustion was experienced with greater frequency and intensity than depersonalization. The group means on the intensity dimension of the three MBI subscales were higher than on the frequency dimension. The relationship among role conflict, role ambiguity, and teacher burnout was investigated by Schwab (1981). He found significant relationships between role conflict and role ambiguity and the various subscales of the MBI. The reliability of the MBI when

used to assess burnout among teachers was investigated by Iwanicki and Schwab (1981). When employed with teachers, factor analysis revealed that the MBI assesses the same three factors--emotional exhaustion, depersonalization, and personal accomplishment--as were revealed in studies using individuals in other helping professions.

Summary

Systematic observation analysis techniques have become an important tool in the measurement of teacher and student behavior in the classroom. In 1960 Flanders developed FIAS which described only the verbal behaviors between teachers and students. More recently FIAS has been modified by researchers (Cheffers, 1972; Dougherty, 1971; Mancuso, 1972). CAFIAS (Cheffers, 1972) describes the verbal behaviors and nonverbal behaviors exhibited by teachers and students in a physical education setting.

CAFIAS is one of the most frequently used interaction analysis instruments to describe behavior in physical education settings. Numerous studies have utilized CAFIAS in investigations to compare the effects of two decision-making models (Lydon, 1973; Mancini, 1974; Martinek, 1976; Piraino, 1977; Schempp, 1977, 1981; Viglione, 1977) and also to describe differences in teachers' interactions with low-skilled and high-skilled students (Reisenweaver, 1980; Streeter, 1980).

Burnout has already stricken thousands of sensitive, thoughtful, and dedicated teachers who are now leaving the profession in increasing numbers (McGuire, 1979). Authorities now consider burnout to be one of the most crucial problems in education today (Truch, 1980). Burnout is a condition that results from stress, tension, and anxiety (McGuire, 1979). The potential consequences of burnout are very serious in terms of the teacher's personal health and also attitude toward teaching. The most critical impact of burnout will be on the delivery of educational services, especially instruction (Farber & Miller, 1981). Teacher burnout may be reflected in physical educators' behavior and interactions with their students (Maslach & Jackson, 1981).

Maslach and Jackson (1981), in an attempt to measure burnout devised the MBI. The MBI measures three aspects of burnout: emotional exhaustion, depersonalization, and personal accomplishment. These aspects are measured in terms of two dimensions: frequency and intensity. Maslach and Jackson obtained adequate reliability coefficients for internal consistency (ranging from .71 to .90) and test-retest reliability (ranging from .53 to .82) for the MBI. Substantial evidence was provided for the convergent validity of the MBI.

Recent research has used the MBI to assess teachers' perceived levels of burnout (Anderson, 1981; Schwab, 1981). More recently Mancini et al. (1983) utilized both the MBI and CAFIAS to compare the behaviors of low-burnout and

high-burnout secondary physical education teachers. Results showed that high-burnout teachers were more critical of their students, provided them with a minimum of feadback, and held lower expectations for students' performances. In contrast, the low-burnout teacners were more varied in their teaching behaviors, were more supportive of students, and provided them with more feedback.

Chapter 3

METHODS AND PROCEDURES

This chapter describes the selection of subjects and the population from which they were drawn, the procedures administered to the low-burnout and high-burnout groups, and the testing instruments used to measure the level of burnout and the interaction patterns. The establishment of the coder's reliability, methods of data collection, and statistical procedures applied to the data are explained. The final section summarizes the methods and procedures used in this investigation.

Selection of Subjects

The subjects for this study were 20 male physical education teachers from four school districts encompassing approximately a 50-mile radius in the southern tier section of New York State. All districts were similar across racial and socio-economic factors. An informed consent form was used by the investigator to receive each teacher's permission to participate in the study (see Appendix A). The Maslach Burnout Inventory (MBI) (Maslach & Jackson, 1981) was then administered to determine the teacher's degree of burnout (see Appendix B). The MBI was manually scored. Using the median split technique the teachers were assigned to either the low-burnout (n = 10) or high-burnout (n = 10) group based upon their degree of burnout. Five teachers were randomly selected from each of the groups; these teachers represented the low-burnout and the high-burnout groups. Both the low-burnout

and high-burnout groups consisted of all males. The mean age was 35 years for the low-burnout teachers and 42 years for the high-burnout teachers. The mean years of teaching experience was 14 years for the low-burnout group and 19 years for the high-burnout group.

Testing Instruments

The two instruments used in this study were Cheffers' Adaptation of Flanders' Interaction Analysis System (CAFIAS) (Cheffers, 1972) and the Maslach Burnout Inventory (MBI) (Maslach & Jackson, 1981).

The MBI, developed by Maslach and Jackson in 1981, was designed to measure burnout among people in the helping professions. The MBI is comprised of three separate subscales designed to assess key aspects of the burnout syndrome: emotional exhaustion (EE), depersonalization (DP), and personal accomplishment (PA). The EE subscale measures the person's feeling of being emotionally exhausted and overextended by work. Negative and impersonal responses toward one's clients (i.e., students) is measured by the DP subscale. The PA subscale identifies the person's feeling of competence and perceptions of achievement in the person's job (i.e., teaching). Each subscale consists of two dimensions: frequency (F) and intensity (I). For each subject, six scores are computed: EE:F, EE:I, DP:F, DP:I, PA:F, and PA:I. A high level of burnout is indicated by high scores on four subscales--EE:F, EE:I, DP:F, and DP:I--and low scores on two subscales--PA:F and PA:I. A low level of burnout is indicated

by low scores on four of the subscales--EE:F, EE:I, DP:F, and DP:I--and high scores on two of the subscales--PA:F and PA:I. The MBI contains 22 items requiring 20 to 30 minutes to complete.

Maslach and Jackson (1981) obtained adequate reliability coefficients for internal consistency (ranging from .71 to .90) and test-retest reliability (ranging from .53 to .82). Substantial evidence was provided for the validity of the MBI. Maslach and Jackson also demonstrated that the MBI significantly discriminated burnout from any other psychological constructs that may be confounded with job burnout such as job dissatisfaction.

CAFIAS was used to measure the interaction and behavior patterns between the teacher and the students. CAFIAS is a system developed primarily for use during physical activity classes to objectively record both verbal and nonverbal behaviors exhibited by a teacher and students in a class setting. It identifies structure, specific teaching agencies, percentages of behaviors exhibited, and illustrates student response behavior. Behaviors were recorded every 3 seconds or any time a change in behaviors occurred. Using videotapes the data collected were coded by an observer trained in the use of CAFIAS. CAFIAS was reported to have concurrent validity with the Flanders' Interaction Analysis System, following a blind-live interpretation method ($\alpha < .05$) (Cheffers, 1972).

Coder Reliability

The reliability of the coder was determined by randomly selecting one videotape from the low-burnout teachers and one from the high-burnout teachers. Each tape was coded during two independent observation sessions by Dr. Victor H. Mancini, an expert coder. The top 10 cells were ranked and the Spearman-rank order correlation was applied to the rankings.

Procedure

Twenty male elementary (N = 20) physical education teachers participated in this study after initial contact by the investigator. All teachers were given a complete description of the study. Upon consenting to participate, each subject was asked to complete the MBI. The MBI was then manually scored by the investigator.

The teachers were assigned on the basis of their MBI scores to either the low-burnout (n = 10) or high-burnout (n = 10) group using the median split technique. Five teachers were then randomly selected to represent each group, but they were not aware of their designation as low-burnout or high-burnout. All 10 teachers were videotaped three times while teaching an entire physical education class. During the videotaping all teachers wore a wireless microphone. A total of 30 classes were videotaped, 15 from each group.

Methods of Data Collection

Three videotapes of each subject provided data for the analysis. The videotapes were coded by an expert coder using CAFIAS. Scores were obtained on the MBI prior to the

videotaping.

Scoring of Data

The data collected from the coding of CAFIAS were analyzed using a computer. The matrices, tabulated ratios, and the percentages of behavior exhibited were indicated on the computer printouts. The MBI tests were manually scored, yielding frequency and intensity scores on the three subscales.

Treatment of the Data

Descriptive statistics were calculated. Visual comparison of the data was used to determine the differences in teaching behaviors between the high-burnout and low-burnout teachers. The mean percentages of behaviors for the major CAFIAS parameters, CAFIAS categories, and predominant interaction patterns were visually compared to aid in decision-making.

Summary

The subjects for this study were 20 male physical education teachers from the southern tier section of New York State. Each subject completed the MBI. Using the median split technique, teachers were placed in low-burnout or high-burnout groups depending upon their scores on the MBI. Five teachers were then randomly selected from the two groups. Each subject was videotaped on three separate occasions while teaching an entire class. A videotape recorder and a wireless microphone were used for data collection purposes. During the recording sesssions the teachers were not aware of their

scores on the MBI nor their designation as high or low burnout.

The three videotapes of each teacher provided data for analysis. CAFIAS was used to describe verbal and nonverbal behaviors and to illustrate teachers' and students' behaviors. The data collected from the coding of CAFIAS were computer analyzed. The MBI was manually scored, yielding frequency and intensity scores on the three subscales to determine low- or high-burnout traits of the teachers.

Chapter 4

ANALYSIS OF DATA

In this chapter are the results of the Maslach Burnout Inventory (MBI) which measured each teacher's degree of burnout. Results of the comparison of the teaching behaviors and interaction patterns of low-burnout and high-burnout teachers are also described in this chapter. Measurement of the behaviors of the teachers and the students was by the use of Cheffers' Adaptation of Flanders' Interaction Analysis System (CAFIAS). Assessment of coder reliability for this investigation is also included. A summary is included.

Coder Reliability

In order to determine the reliablity of the coder for this investigation one videotape from the high-burnout teachers and one videotape from the low-burnout teachers were randomly selected. Each tape was coded during two independent observation sessions. The top 10 cells were ranked and the Spearman rank-order correlation was applied to the rankings stability reliability for the CAFIAS coding was established at .97, indicating that the coder, Dr. Victor H. Mancini, was reliable.

Analysis of Teachers' Level of Burnout

Table 1 shows the means and standard deviations for both the low-burnout and high-burnout groups. In the low-burnout group the teachers' mean scores on each of the six subscales classified them as low on that aspect of the burnout syndrome (Maslach & Jackson, 1981). The high-burnout teachers' mean

Table 1

Means and Standard Deviations for the MBI Subscales for Low- and High-Burnout Teachers

MBI Subscale	Low-burnout M	Low-burnout SD	High-burnout M	High-burnout SD
Emotional Exhaustion: Frequency (EE:F)	7.8	1.91	25.0	4.30
Emotional Exhaustion: Intensity (EE:I)	11.0	1.58	30.0	4.69
Depersonalization: Frequency (DP:F)	4.0	.70	12.2	1.79
Depersonalization: Intensity (DP:I)	5.0	1.82	18.4	2.07
Personal Accomplishment: Frequency (PA:F)	44.8	2.58	32.8	2.77
Personal Accomplishment: Intensity (PA:I)	45.6	1.14	35.2	2.28

scores were high enough to catergorize them as experiencing a high degree of burnout on four of the subscales-- DP:F, DP:I, PA:F, and PA:I-- and as experiencing a moderate degree of burnout on two subscales --EE:F and EE:I. The mean scores in these categories, however, approached the necessary scores to be categorized as high-burnout. Scores of ≥ 30 on EE:F and ≥ 40 on EE:I were needed to be categorized as high-burnout.

Analysis Of Teachers' and Students' Behaviors

Table 2 indicates the percentages of the major CAFIAS parameters for both the low-burnout and high-burnout teachers. The low-burnout teachers exhibited more total teacher contribution (TTC) than the high-burnout teachers. The low-burnout teachers exhibited more questioning to the students (TTQR), using questions 16.49% of the time as opposed to 7.81% by the high-burnout teachers. A significant difference, 52.48%, between the two groups was the amount of acceptance and praise (TTAPR) exhibited by the teachers. The low-burnout teachers exhibited a greater amount of praise and acceptance of their students' efforts and ideas (TTAPR). Students in the low-burnout teachers' classes also exhibited more student-initiated behavior, both teacher-suggested (TSITSR) and student-suggested (TSISSR). One of the most significant differences between the groups was content emphasis-teacher input (CETI) which occurred 41.75% of the time for the low-burnout teachers and only 21.29% of the time for the high-burnout teachers. Students in the high-burnout

Table 2

Use of Major CAFIAS Parameters by the High- and Low-burnout Teachers

CAFIAS Parameters	High-burnout Teachers	Low-burnout Teachers
Total Teacher Contribution (TTC)	38.00	51.69
Total Student Contribution (TSC)	46.05	39.98
Total Silence and/or Confusion (SC)	15.95	8.33
Total Teacher Use of Questions (TTQR)	7.81	16.49
Total Teacher Use of Acceptance and Praise (TTAPR)	12.50	64.98
Total Student Initiation, Teacher Suggested (TSITSR)	55.55	60.49
Total Student Initiation, Student Suggested (TSISSR)	7.73	11.59
Content Emphasis, Teacher Input (CETI)	21.29	41.75
Teacher as Teacher (TT)	98.71	97.88
Other Student as Teacher (ST)	1.13	.12
Environment as Teacher (ET)	.16	2.00
Verbal Emphasis (VE)	62.90	66.42
Nonverbal Emphasis (NVE)	37.10	33.58
Class Structure as One (W)	82.38	53.68
Class Structure as Part (P)	17.92	46.32
Teacher Empathy to Students' Emotions (TE)	.16	.03

teachers' classes exhibited a greater amount, 5.07% more, of total student contribution (TSC) and silence/confusion or student-to-student interaction (SC).

The high-burnout teachers favored teaching their classes in one unit (W). The low-burnout teachers organized their classes in small groups and for individual work (P) almost as frequently as they worked with their classes as one unit (W).

Figure 1 graphically highlights the differences between the two groups for each CAFIAS category. The five low-burnout teachers exhibited a total of 23,514 behaviors, and the five high-burnout teachers exhibited a total of 21,278 behaviors. The low-burnout teachers were more supportive and encouraging of their students' efforts as evidenced by their amount of verbal and nonverbal praise and acceptance. The low-burnout teachers also asked more questions of their students both verbally and nonverbally. The low-burnout teachers gave more verbal and nonverbal information to their students than the high-burnout teachers. The high-burnout teachers gave more directions than information to their students. Criticism of students' efforts and actions was exhibited more by the high-burnout teachers than the low-burnout teachers.

Within the high-burnout teachers' classes there was more student nonverbal predictable responses. Small differences between the two groups were found in student interpretive responses and student initiated behaviors. The students in the high-burnout teachers' classes also exhibited a greater amount of confusion/silence and/or student-to-student

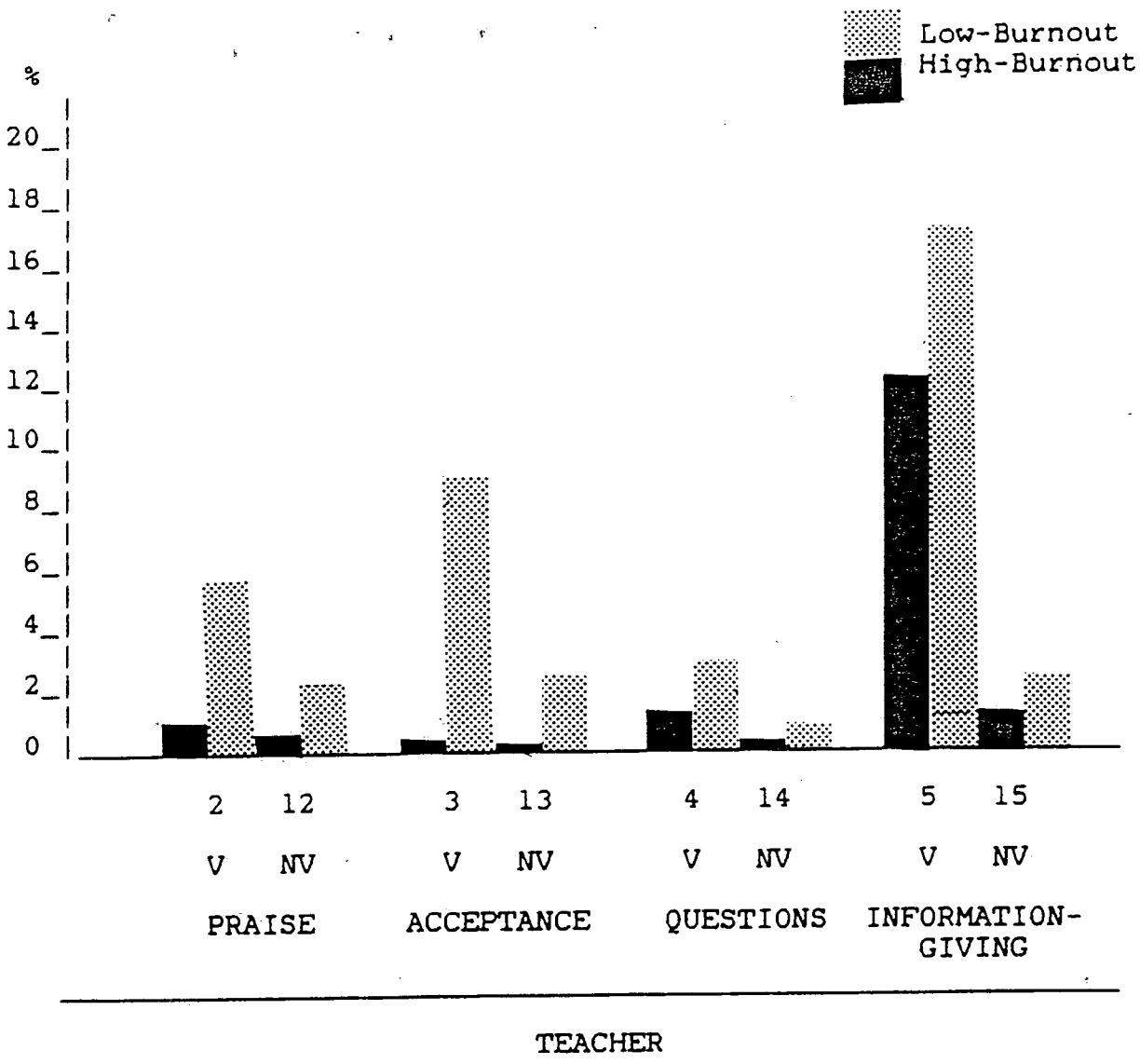

Figure 1. Mean percent of occurrence of behaviors in each CAFIAS category.

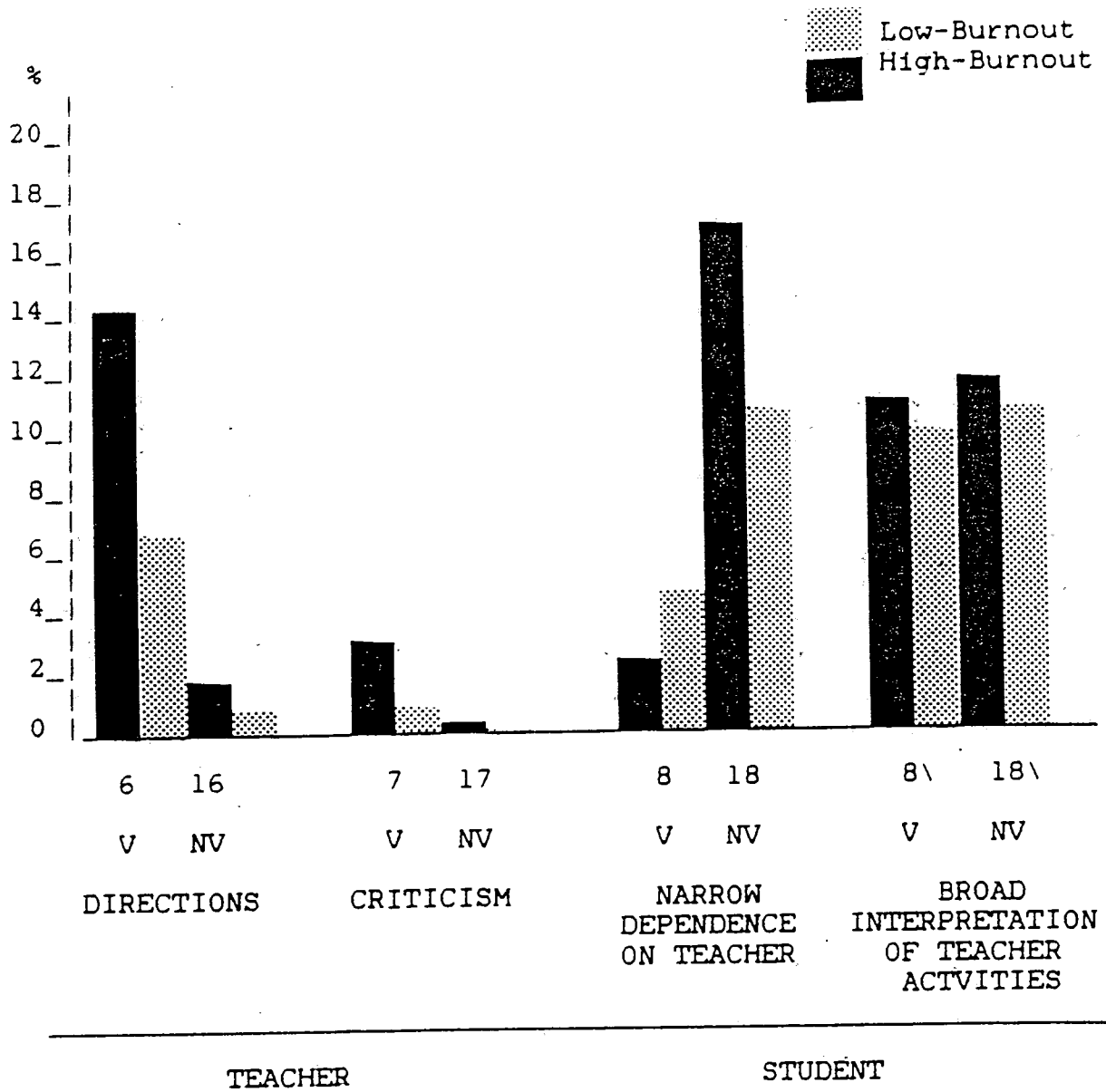

Figure 1. (continued).

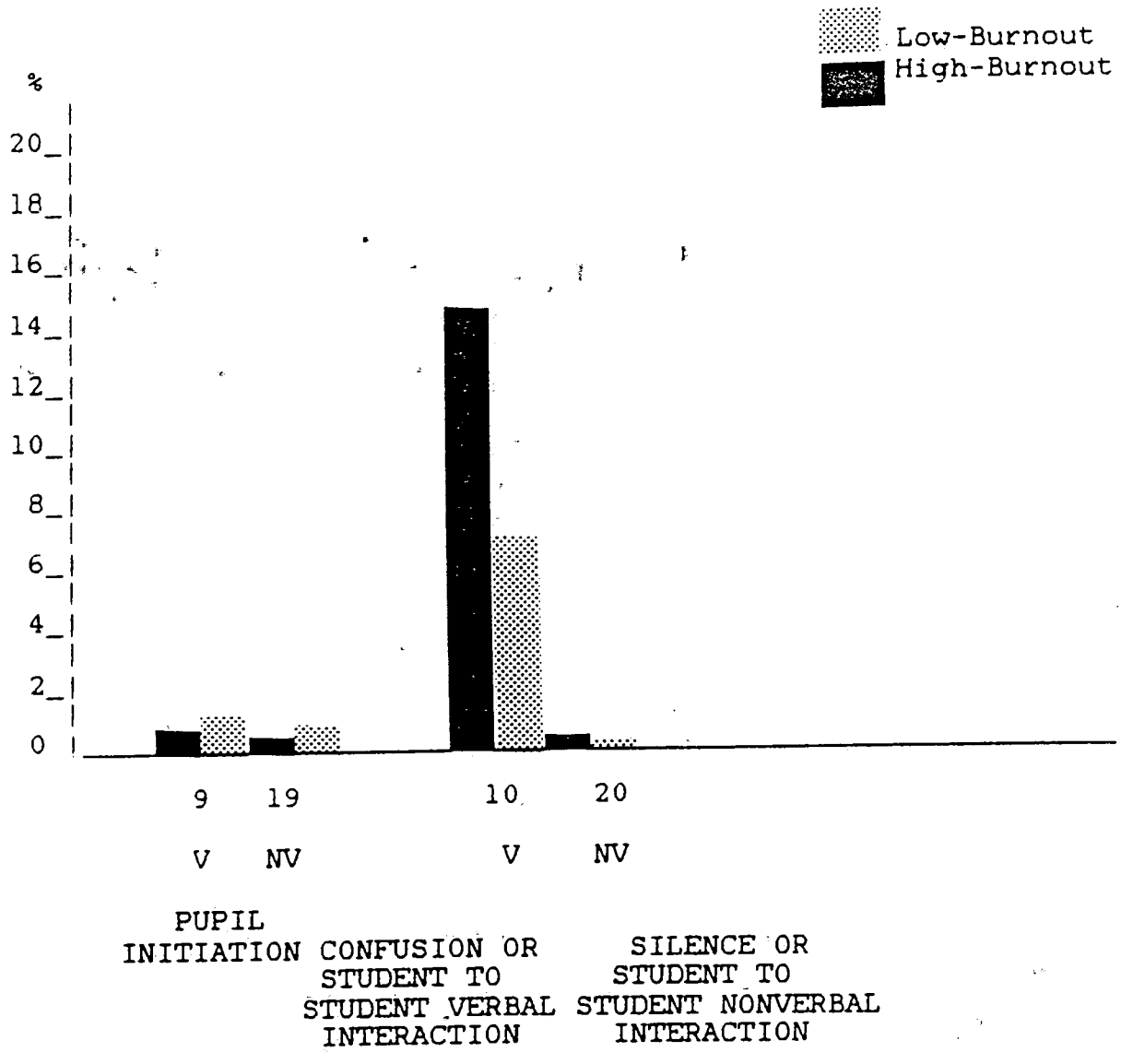

Figure 1. (continued).

interaction.

Table 3 shows the predominant interaction patterns for both the high-burnout and low-burnout groups. This shows the most predominant sequences in which behaviors occurred throughout the classes. Extended student-to-student interpretive response and game-playing (8\-10-8\) was high in both the high-burnout (29.06%) and the low-burnout group (10.61%). The predominant interaction pattern for the low-burnout group was extended information-giving by the teacher followed by teacher direction and predictable student response (5-5-6-8). Also predominant to the low-burnout teachers was teacher information-giving followed by student interpretative responses followed by teacher information-giving (5-8\-5). Another frequent pattern exhibited by the low-burnout teachers was student interpretive response followed by teacher acceptance followed by student interpretive response followed by teacher praise (8\-2-8\-3). Information-giving by the teacher followed by teacher direction and student predictable response (5-6-8) and extended information-giving by the teacher (5-5) were also frequent patterns exhibited by the low-burnout teachers.

The second highest pattern exhibited by the high-burnout teachers was teacher direction followed by student predictable response followed by teacher direction (6-8-6). Extended information-giving (5-5) and extended predictable student responses (8-8) were also frequent patterns exhibited in the high-burnout teachers' classes.

Table 3

Summary of Most Frequent Interaction Patterns Among the Low-burnout and High-burnout Groups

Low-burnout		High-burnout	
Interaction Patterns	Percent of Occurrence	Interaction Patterns	Percent of Occurrence
5-5-6-8	11.76	8\-10-8\	29.06
5-8\-5	10.81	6-8-6	17.03
8\-10-8\	10.61	5-5	8.01
8\-3-8\-2	8.10	8-8	7.43
5-6-8	7.26	5-6-8	5.87
5-5	5.98		

5-5-6-8 Extended information-giving by the teacher followed by teacher direction and student predictable response.

8\-10-8\ Student-to-student interpretive drills and scrimmage.

6-8-6 Teacher direction followed by student predictable response followed by teacher direction.

5-8\-5 Teacher information-giving followed by student interpretive response followed by teacher information-giving.

5-6-8 Information-giving by the teacher followed by teacher direction and student predictable response.

Table 3(continued)

8\-3-8\-2	Student interpretive response followed by teacher acceptance followed by student interpretive response followed by teacher praise.
5-5	Extended information giving by the teacher.
8-8	Extended student predictable response.

In summary, the low-burnout teachers interacted more positively with their students with feedback in the form of praise (2), acceptance (3), and information (5) in response to their students' predictable (8) and interpretive (8\) behaviors. The high-burnout teachers tended to give directions (6) as feedback in response to the students' predictable (3) behaviors. The predominant interaction pattern for the high-burnout teachers was extended student-to-student interpretive response and game-playing (3\-10-8\) with little feedback. This led to the acceptance of the research hypothesis that the teaching behaviors of high-burnout elementary physical education teachers will differ significantly from the teaching behaviors of low-burnout elementary physical education teachers.

Summary

Coder reliability for the study was determined by randomly selecting one videotaped class of a randomly selected teacher from both the high-burnout and low-burnout groups and subjecting them to independent codings. Stability for the CAFIAS codings was established at .97, which was sufficient to indicate that the coder was reliable.

Analysis of the use of major CAFIAS parameters by the two groups (see Table 2) identified total teacher contribution (TTC), teacher questioning (TTQR), teacher acceptance and praise (TTAPR), and content emphasis-teacher input (CETI) as the major parameters exhibited by the low-burnout teachers. Also predominant to the low-burnout teachers was

teacher-suggested student-initiated behavior (TSITSR) and student-suggested student-initiated behavior (TSISSR).

Student contribution (TSC) and silence/confusion and/or student-to-student interaction (SC) was more predominant in the high-burnout teachers' classes. The high-burnout teachers favored whole unit teaching (W), while the low-burnout teachers used both whole unit (W) and part unit (P) teaching structures almost equally.

Analysis of the individual CAFIAS parameters (see Table 2) showed that the low-burnout teachers exhibited more praise and acceptance to their students and gave more feedback to the students in terms of information. The low-burnout teachers also asked more questions of their students. The high-burnout teachers tended to give more directions to their students and also tended to criticize their students' ideas and actions more. There was more student-to-student interaction in the high-burnout teachers' classes.

The most frequent interaction pattern (see Table 3) of the low-burnout teachers was extended information-giving by the teacher followed by teacher-direction and predictable student response (5-5-6-8). Also predominant was teacher praise and acceptance after a student's interpretive response (8\-3-8\-2). The predominant pattern for the high-burnout teachers was extended student-to-student interpretive responses and game-playing (8\-10-8\). The results and subsequent analysis of the CAFIAS data led to the acceptance of the research hypothesis which stated that the teaching

behaviors of male high-burnout elementary physical education teachers will differ significantly from the teaching behaviors of male low-burnout elementary physical education teachers.

Chapter 5

DISCUSSION OF RESULTS

This study was undertaken to compare the teaching behaviors of male elementary physical education teachers who exhibited characteristics of low-burnout and high-burnout. There has been little research into the effects of teacher burnout utilizing systematic observation. An overview of the results of this study and a comparison of these results with the findings of other researchers relative to the effects of teacher burnout and subsequent job performance will be presented in this chapter. A summary of results is also provided.

Analysis of the use of CAFIAS parameters (see Table 2) for both the low-burnout and high-burnout teachers showed significant differences between the groups. The low-burnout teachers exhibited more total teacher contribution (TTC), teacher questioning (TTQR), teacher acceptance and praise (TTAPR), and content emphasis-teacher input (CETI) than the high-burnout teachers. The low-burnout teachers also encouraged student-initiated behavior as evidenced by the high incidence of student-initiated behavior, teacher suggested (TSITSR) and student-initiated behavior, student suggested (TSISSR).

The high-burnout teachers tended to contribute less to their classes. More student input as indicated by the total student contribution (TSC) and silence/confusion and/or student-to-student interaction (SC) was evident in the

high-burnout teachers' classes. There was little difference between the two groups in the remaining CAFIAS parameters. In terms of class structure the high-burnout teachers predominantly taught their classes as one unit (W), whereas the low-burnout teachers structured their classes almost equally as both one unit (W) and as a part (P) where the students worked individually and in small groups.

These results are similar to those of Mancini, Wuest, Clark, and Ridosh (1983) who found that teacher use of acceptance and praise (TTAPR), teacher use of questioning (TTQP), and student-suggested pupil initiation (SSPVI) were exhibited more by the low-burnout teachers than by the high-burnout teachers.

Figure 1 shows clear differences in the teaching behaviors and interactions of the low-burnout and high-burnout teachers with their students. All behaviors occurred in the classes of both groups. The low-burnout teachers' classes exhibited a total of 23,514 behaviors. In comparison, a total of 21,273 behaviors were exhibited in the classes of the high-burnout teachers. The low-burnout teachers exhibited more varied behaviors--questioning, praise, acceptance, and information--and interacted more with their students than did the high-burnout teachers. The low-burnout teachers, through praise and acceptance, were more supportive of their students' efforts. The low-burnout teachers also asked more questions of their students and provided feedback by giving the students information. The high-burnout teachers, although utilizing

all the categories, were less varied in their behaviors. The high-burnout teachers tended to give more directions than information to their students and were also more critical of their students' efforts and actions. In the high-burnout teachers' classes there was significantly more student nonverbal predictable responses and a greater percentage of confusion/silence or student-to-student interaction. Verbal and nonverbal student initiated-responses were not frequent in either group.

The findings of this study are in accordance with the findings of Mancini et al. (1983) who found that high-burnout teachers were less varied in their behaviors and tended to restrict student behavior by the use of directions and criticism, while low-burnout teachers exhibited more varied behaviors including praise, acceptance, questioning, and information. The behaviors in this study of the high-burnout teacners also resemble those found by Mancini and Cheffers (1978). They found that the predominant behaviors of the teachers in the Data Bank Project were information-giving and student predictable responses, with students frequently engaging in extended skill practice or game play.

The findings of this study are congruent with those of Veninga and Spradley (1981) who stated that burned-out teachers may be critical of their students and provide them with minimum feedback. This is certainly true of the high-burnout teachers in this study. They were more critical of their students and silently observed student game play

rather than give them feedback. The actions of the high-burnout teachers also indicated a detachment from their students. This is in agreement with the findings of Maslach and Jackson (1981) who stated that burned-out teachers may display impersonal or negative attitudes as well as a detached image to their students. These behaviors are displayed in this study by the high-burnout teachers who showed a lack of acceptance and praise of their students' actions and also exhibited a high degree of criticism toward their students.

The most frequent interaction patterns of the low-burnout and high-burnout teachers (see Table 3) yielded information as to the occurrence of behavior patterns and their frequency. Extended student-to-student interpretive responses and game-playing (3\-10-8\) was apparent in both groups, more so in the high-burnout teachers' (29.06%) than the low-burnout teachers' (10.61%) classes. Findings of this investigation are also in agreement with Mancini et al. (1983) who found that high-burnout teachers were less involved than low-burnout teachers and spent more time observing students' efforts rather than giving them praise or feedback. Other researchers found the same results relative to the effects of teacher burnout on the teachers' interactions and behaviors (Maslach & Jackson, 1981; Sparks & Hammond, 1981: Truch, 1980).

The interaction patterns for the high-burnout teachers in this study are similar to those found by Cheffers and Mancini (1978) in the Data Bank Study. They found that the most frequent interaction pattern exhibited by teachers was

extended student-to-student interpretive behavior or game play followed by extended information-giving followed by teacher directions followed by a predictable student response followed with further directions (8\-10-8\-5-5-6-8-6). However, the study by Mancini et al. (1983) showed student-to-student interpretive behavior as also occurring frequently in the low-burnout teachers' classes, whereas in this study extended information-giving followed by teacher direction and a student predictable response (5-6-8) was more predominant to low-burnout teachers. The interaction patterns exhibited by the low-burnout teachers in this study reflected the use of praise, acceptance, and information-giving as a means of feedback while the high-burnout teachers relied on direction rather than positive feedback to influence the students' learning. This means the high-burnout students did not receive feedback from the teachers--the teachers watched them play games without interjecting information. The predominant patterns for the low-burnout teachers were reflected in the use of praise, acceptance, and information-giving by the teacher as a means of feedback following the students' predictable and interpretive responses. The high-burnout teachers provided their students with little feedback in terms of information-giving but provided the students with directions following their predictable responses. The high-burnout teachers observed in this study typified this behavior by tending to lean on a wall shouting directions to the students while they were involved in extended game play.

Also, the high-burnout teachers were content to merely referee student games for much of their class time and stand in the middle of the gymnasium giving directions to the students. The low-burnout teachers were more concerned with their students' efforts and actions and treated them as individuals rather than a whole group. They tended to walk around the gymnasium giving praise and information to their students while they were active. They were also more aware of their students' efforts and were appreciative of their students' actions as a result.

Lack of personal interaction with students may affect relationships between the teacher and the students; this was evident in the interaction patterns of the high-burnout teachers. Many researchers (Farber & Miller, 1981; Ricken, 1980) have portrayed the burned-out teacher as being unsupportive of students, detached. This lack of involvement, giving little feedback, and being cynical lends credence to the belief that burned-out teachers are simply teaching by "going through the motions" (Ricken, 1980).

In summary, this study highlighted the potential consequences that burnout can have upon elementary physical education teachers. There are obvious differences in the teachers' behaviors and interactions, as evidenced by this study, between the low-burnout and high-burnout groups. Burnout is of great interest in education, and authorities now consider burnout to be one of the most critical problems in education today (McGuire, 1979; Truch, 1980). The syndrome of

burnout will undoubtedly have an increasing detrimental effect upon education if alleviation techniques are not employed both by education authorities and individual teachers. This study will hopefully enlighten teachers and authorities as to the effects of burnout on physical education teachers' behaviors.

Summary

This study showed that high-burnout teachers contributed little to their classes and student input was high; in contrast, the low-burnout teachers were more involved with their students as evidenced by the teacher use of praise, acceptance, questioning, and information. Teacher-suggested student-initiated behavior was more predominant in the classes of the low-burnout teachers.

In terms of the individual CAFIAS categories the high-burnout teachers displayed impersonal and negative attitudes as well as a detached image to their students (Maslach & Jackson, 1981), as evidenced by their lack of support and encouragement of their students' efforts and actions. The high-burnout classes in this study were characterized by the teacher leaning against a wall silently observing the students' game play. This is in accordance with the study by Mancini et al. (1983) who found similar traits in high-burnout secondary physical education teachers. The lack of feedback to the students has an obvious adverse effect upon the education of the student. The fact that the high-burnout teacher tended to give feedback in the form of direction or criticism rather than positive information supports the

statement by Farber and Miller (1981) that burnout will have the most critical impact on the educational services, especially instruction. The low-burnout teachers were more varied in their teaching and gave their students more feedback and encouragement through information, praise, acceptance, and questioning.

The interaction patterns of the high-burnout teachers were characterized by a lack of feedback. The predominant interaction pattern for the high-burnout teachers was extended student-to-student interpretive responses or game play. The teacher was content to observe this extended game play and offer no feedback or praise to the students. This was similar to the findings in the study by Mancini et al. (1983). The researchers found that high-burnout teachers were less involved with their students and spent more time observing students' efforts rather than giving them praise or feedback. Also evident in the low-burnout teachers' interactions was praise and acceptance after students' interpretive and predictable responses. This showed that the low-burnout teachers reinforced their students' learning through information-giving, praise, acceptance, and questioning. This was not apparent in the high-burnout teachers.

The results indicated that the low-burnout and high-burnout teachers were different in their teaching behaviors and teaching patterns. The differences in this study are congruent with those of other researchers relative to the impact of burnout on teacher behavior and job

performance (Farber & Miller, 1981; Mancini et al., 1983; Maslach & Jackson, 1981; Ricken, 1980; Veninga & Spradley, 1981).

Chapter 6

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS FOR FURTHER STUDY

Summary

It was the purpose of this study to determine if low-burnout elementary physical education teachers were different from high-burnout physical education teachers when interacting with their students. The subjects involved in the study were 20 male physical education teachers from the southern tier section of New York State.

Following completion and scoring of the MBI the median split technique was used to assign the teachers to the low-burnout or high-burnout groups based on their level of burnout. Five subjects were randomly selected from each of the groups; these teachers represented the low-burnout and high-burnout groups.

Data for analysis were collected from three videotapes made of each teacher as they taught for an entire class period. Using Cheffers' Adaptation of Flanders' Interaction Analysis (CAFIAS) the videotapes were then coded to describe the teacher-student interactions and behaviors occurring in each class.

Percentages were computed for the major CAFIAS parameters and predominant interaction patterns. Descriptive statistics were calculated and visual comparisons made to determine the relative standings of both groups on each CAFIAS variable.

Analysis of the major use of the CAFIAS parameters revealed that total teacher contribution (TTC), teacher questioning (TTQR), teacher use of acceptance and praise (TTAPR), and content emphasis-teacher input (CETI) occurred to a greater extent in the low-burnout teachers' classes. Students in the low-burnout teachers' classes exhibited more student initiated behaviors, both teacher-suggested (TSITSR) and student-suggested (TSISSR).

Analysis of the individual CAFIAS categories revealed that low-burnout teachers gave more feedback to the students, asked more questions of the students, were more supportive and encouraging of students' ideas and efforts, and were more varied in their teaching behaviors. The high-burnout teachers were more critical of their students' ideas and efforts and gave more directions to the students as opposed to information. There was more student-to-student interaction in the classes of the high-burnout teachers.

The predominant interaction pattern for the low-burnout teachers was extended information-giving followed by teacher direction followed by a predictable student response (5-5-6-8); whereas, extended student-to-student interpretive response or game playing (3\-10-8\) was predominant for the high-burnout teachers.

Low-burnout teachers interacted more with their students than did the high-burnout teachers. The low-burnout teacher expressed 23,514 behaviors while the high-burnout teachers expressed only 21,278 behaviors.

Conclusions

The results of this study led to the following conclusions regarding low-burnout and high-burnout male elementary physical education teachers' behaviors.

1. The teaching behaviors of male low-burnout and male high-burnout elementary physical education teachers differed significantly.

2. The low-burnout teachers exhibited more varied behaviors amd interacted more with their students than the high-burnout teachers.

3. The low-burnout teachers gave more praise, acceptance, and informational feedback to their students than the high-burnout teachers. The low-burnout teacners asked more questions of their students than did the high-burnout teachers.

4. The low-burnout teachers were more involved with their classes than the high-burnout teachers.

5. The high-burnout teachers were more critical of their students than the low-burnout teachers.

6. The high-burnout teachers gave more directions than information to their students.

Recommendations for Further Study

The following recommendations were made for further study:

1. Conduct a similar study of physical education teachers who teach adapted physical education.

2. Conduct a similar study of female elementary physical education teachers.

3. Conduct a study on the affects of coaching after school and its effect on teacher burnout.

4. Conduct a similar study at different times of the academic year.

5. Undertake intervention studies in which descriptive-analytical techniques are used as a feedback tool.

Appendix A

INFORMED CONSENT FORM

Purpose

The study which you are being asked to participate in consists of two parts. The study is being conducted to describe and compare teaching behaviors of elementary physical educators who score high and those who score low on the Maslach Burnout Inventory. The involvement of the students in the classes is also being investigated. The resulting information may prove useful in lessening or eliminating teacher burnout. This may cause a change in the interaction patterns in the gymnasium.

Procedure

As a subject, you will be asked to participate in the following manner:

1. Fill out the Maslach Burnout Inventory. This inventory attempts to measure "burnout," a syndrome of emotional exhaustion and cynicism that occurs frequently among members of the helping profession. (20-30 min.)

2. Permit the researcher to videotape three of your physical education classes. During this time, the only thing you will be asked to do is to wear a small wireless microphone.

Appendix A (continued)

The physical and psychological risks throughout the complete study are minimal. A code number will be used rather than your name for the recording of the data. The school administration will not have knowledge of the results.

Participation in this study is voluntary, and your initial agreement to participate does not stop you from discontinuing participation at any time. If you have any questions pertaining to this study, please feel free to contact John Craven. If you wish to know information about the findings of this research, you can contact John Craven at Ithaca College, Ithaca, New York.

Please indicate your decision below. Thank you.

__ Yes, I voluntarily choose to participate in this study. I have read the above, and I understand its contents.

__ No, I do not wish to participate in this study.

_____

Signature

_____

Date

Thank you.

John Craven

Appendix B

MASLACH BURNOUT INVENTORY

HUMAN SERVICES SURVEY[1]

Christina Maslach and Susan E. Jackson

The purpose of this survey is to discover how various persons in the human services or helping professions view their jobs and the people with whom they work closely. Because persons in a wide variety of occupations will answer this survey, it uses the term recipients to refer to the people for whom you provide your service, care, treatment, or instruction. When answering this survey please think of these people as recipients of the service you provide, even though you may use another term in your work.

On the following page there are 22 statements of job-related feelings. Please read each statement carefully and decide if you ever feel this way about your job. If you have never had this feeling, write a "0" (zero) in both the "HOW OFTEN" and "HOW STRONG" columns before the statement. If you have had this feeling, indicate how often you feel it by writing the number (from 1 to 6) that best describes how frequently you feel that way. Then decide how strong the feeling is when you experience it by writing the number (from 1 to 7) that best indicates how strongly you feel it. An example is shown below.

Appendix B (continued)

Example:

HOW OFTEN	0 Never	1 A few times a year or less	2 Once a month or less	3 A few times a month	4 Once a week	5 A few times a week	6 Every day
HOW STRONG:	0 Never	1 Very mild, barely noticeable	2	3	4 Moderate	5	6 7 Major, very strong

HOW OFTEN	HOW STRONG	Statement:
0-6	0-7	I feel depressed at work.

If you never feel depressed at work, you would write the number "0" (zero) on both lines. If you rarely feel depressed at work (a few times a year or less), you would write the number "1" on the line under the heading, "HOW OFTEN." If your feelings of depression are fairly strong, but not as strong as you can imagine, you would write a "6" under the heading "HOW STRONG." If your feelings of depression are very mild you would write a "1."

Appendix B (continued)

HUMAN SERVICES SURVEY

HOW OFTEN:	0 Never	1 A few times a year or less	2 Once a month	3 A few times a month	4 Once a week	5 A few times a week	6 Every day

HOW STRONG:	0 Never	1 Very mild barely noticeable	2	3	4 Moderate	5	6	7 Major very strong

HOW OFTEN 0-6	HOW STRONG 0-7	Statements:
1._____	_____	I feel emotionally drained from my work.
2._____	_____	I feel used up at the end of the workday.
3._____	_____	I feel fatigued when I get up in the morning and have to face another day on the job.
4._____	_____	I can easily understand how my recipients feel about things.
5._____	_____	I feel I treat some students as if they were impersonal objects.
6._____	_____	Working with people all day is really a strain for me.
7._____	_____	I deal very effectively with the problems of my recipients.
8._____	_____	I feel burned out from my work.
9._____	_____	I feel I'm positively influencing other people's lives through my work.
10._____	_____	I've become more callous toward people since I took this job.
11._____	_____	I worry that this job is hardening me emotionally.

Appendix B (continued)

12._____ _____ I feel very energetic.

13._____ _____ I feel frustrated by my job.

14._____ _____ I feel I'm working too hard on my job.

15._____ _____ I don't really care what happens to some recipients.

16._____ _____ Working with people directly puts too much stress on me.

17._____ _____ I can easily create a relaxed atmosphere with my students.

18._____ _____ I feel exhilarated after working closely with my students.

19._____ _____ I have accomplished worthwhile things in this job.

20._____ _____ I feel like I'm at the end of my rope.

21._____ _____ In my work I deal with emotional problems very calmly.

22._____ _____ I feel recipients blame me for some of their problems.

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[1] Cited from Maslach and Jackson (1981).

REFERENCES

Amidon, E. J., & Flanders, N. A. The role of the teacher in the classroom: A manual for understanding and improving teacher classroom behavior. Minneapolis: Association for Productive Teaching, 1971.

Amidon, E. J., & Hough, J. B. (Eds.). Interaction analysis: Theory, research, and application. Reading, Ma.: Addison-Wesley, 1967.

Anderson, M. G. A study of the differences among perceived need deficiencies, perceived burnout and select background variables for classroom teachers (Doctoral dissertation, University of Connecticut, 1980). Dissertation Abstracts International, 1981, 41, 4218A. (University Microfilms No. 8106727)

Anderson, W. G. Videotape data bank. Journal of Health, Physical Education, and Recreation, 1975, 46(7), 31-34.

Austin, D. A. The teacher burnout issue. Journal of Health, Physical Education, Recreation, and Dance, 1981, 52(9), 35-36.

Cheffers, J. T. F. The validation of an instrument designed to expand the Flanders' system of interaction analysis to describe nonverbal interaction, different variables of teacher behavior, and pupil responses. Unpublished doctoral dissertation, Temple University, 1972.

Cheffers, J. T. F., Amidon, E. J., & Rodgers, K. D. Interaction analysis: An application to nonverbal activity. Minneapolis: Association for Productive Teaching, 1974.

Cheffers, J. T. F., & Mancini, V. H. Student-teacher interaction. In W. G. Anderson & G. T. Barrette (Eds.), What's going on in the gym: Descriptive studies of physical education classes. Newton, Ct.: Motor Skills: Theory into Practice, 1978.

Costello, J. A. A descriptive analysis of student behavior in elementary physical education classes. Unpublished doctoral dissertation, Teachers College, Columbia University, 1977.

Cramer, C. The effects of a cooperating teacher training program in applied behavior analysis on teacher behaviors of physical education student teachers. Unpublished doctoral dissertation, The Ohio State University, 1977.

Dougherty, N. J. A plan for the analysis of teacher-pupil interaction in physical education classes. Quest, 1971, 15, 39-50.

Farber, B. A., & Miller, J. Teacher burnout: A psychoeducational perspective. Teachers College Record, 1981, 83(2), 235-243.

Flanders, N. A. Interaction analysis in the classroom: A manual for observers. Minneapolis: College of Education, 1960.

Flanders, N. A. Analyzing teaching behavior. Reading, Ma.: Addison-Wesley, 1970.

Hutslar, S. The effects of training cooperating teachers in applied behavior analysis on student behavior in physical education. Unpublished doctoral dissertation, The Ohio State University, 1976.

Iwanicki, E. F. Toward understanding and alleviating teacher burnout. Theory into Practice, 1983, 22(1), 27-32.

Iwanicki, E. F., & Schwab, R. L. A cross validation study of the Maslach Burnout Inventory. Educational and Psychological Measurement, 1981, 41, 1167-1174.

Johnson, T. W. How to use EQUIP. Paper presented at the meeting of the American Alliance for Health, Physical Education, and Recreation Eastern District Mini-Convention II, Baltimore, February 1975.

Laubach, S. The development of a system for coding student behavior in physical education classes. Unpublished doctoral dissertation, Teachers College, Columbia University, 1974.

Lydon, M. C. Decision-making in elementary school-age children: Effects of a convergent curriculum upon motor skill development, self-concept, and group interaction. Unpublished doctoral dissertation, Boston University, 1978.

Mancini, V. H. A comparison of two decision-making models in an elementary human movement program based on attitude and interaction patterns. Unpublished doctoral dissertation, Boston University, 1974.

Mancini, V. H., Wuest, D. A., Clark, E. K., & Ridosh, N. A comparison of the interaction patterns and the academic learning time of low- and high-burnout secondary physical educators. In T. J. Templin & J. K. Olson (Eds.), Teaching in physical education. Champaign, Il.: Human Kinetics, 1983.

Mancini, V. H., Wuest, D. A., Vantine, W. K., & Clark, E. K.

The use of instruction and supervision in interaction analysis on burned-out teachers: Its effect on teaching behaviors, level of burnout, and academic learning time. Journal of Teaching in Physical Education, 1984, 3(2), 29-46.

Mancuso, J. T. The verbal and nonverbal interaction between secondary school physical education student teachers and their pupils. Unpublished doctoral dissertation, University of Illinois, 1972.

Martinek, T. J. The effects of vertical and horizontal models of teaching on the development of specific motor skills and self-concept in elementary school children. Unpublished doctoral dissertation, Boston University, 1976.

Maslach, C. Burned out. Human Behavior, 1976, 5(9), 16-22.

Maslach, C., & Jackson, S. E. Maslach Burnout Inventory: Research edition manual. Palo Alto, Ca.: Consulting Psychologists Press, 1981.

McGuire, W. H. Teacher burnout. Today's Education, 1979, 68(4), 5.

Piraino, C. J. The effects of two decision-making models on second, third, and fourth grade children's attitudes toward physical activity. Unpublished master's thesis, Ithaca College, 1977.

Reisenweaver, P. J. The teaching interaction patterns of secondary physical education teachers with high-skilled students and low-skilled students. Unpublished master's thesis, Ithaca College, 1980.

Ricken, R. Teacher burnout--a failure of the supervisory

process. NASSP Bulletin, 1980, 64(434), 21-24.

Schempp, P. G. The effects of two decision-making models on learning gymnastic skills. Unpublished master's thesis, Ithaca College, 1977.

Schempp, P. G. Decision-making: Its influence on attitudes, creativity, motor skills, and self-concept in elementary children. Unpublished doctoral dissertation, Boston University, 1981.

Schwab, R. L. The relationship of role conflict, role ambiguity, teacher background variables, and perceived burnout among teachers (Doctoral dissertation, University of Connecticut, 1980). Dissertation Abstracts International, 1981, 41, 3823A. (University Microfilms No. 8106751)

Schwab, R. L. Teacher burnout: Moving beyond "psychobabble." Theory into Practice, 1983, 22(1), 21-26.

Siedentop, D., & Hughley, C. C.S.U. Teacher Behavior Rating Scale. Journal of Physical Education and Recreation, 1975, 46(2), 45.

Sparks, D. Teacher burnout: A teacher center tackles the issue. Today's Education, 1979, 68(3), 37-39.

Sparks, D., & Hammond, C. Managing teacher stress and burnout. Reston, Va.: American Alliance for Health, Physical Education, Recreation, and Dance, 1981.

Streeter, B. F. The interaction behavior patterns of male secondary physical education instructors with high-skilled and low-skilled students. Unpublished master's thesis, Ithaca College, 1980.

Stress. New York Teacher Magazine, January 27, 1980, pp. 18-88.

Tobey, C. What the Eishman system tells us (about the ways physical education teachers provide augmented feedback). Paper presented at the meeting of the American Alliance of Health, Physical Education, and Recreation Eastern District Mini-Convention II, Baltimore, February, 1975.

Truch, S. Teacher burnout and what to do about it. Novata, Ca.: Academic Therapy, 1980.

Veninga, R., & Spradley, J. P. The work stress connection: How to cope with job burnout. New York: Ballantine, 1981.

Viglione, D. J. Effects of two decision-making models on the self-concept of the elementary school children. Unpublished master's thesis, Ithaca College, 1977.