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ABSTRACT

The Teaching Events Stress Inventory was designed to measure the degree of stress caused by thirty-six events associated with the teaching profession. The inventory was completed by 4,934 elementary and secondary school teachers employed by the Chicago Board of Education. Event one on the inventory, the first week of the school year, was given an arbitrary stress value of 500, and teachers were asked to rate subsequent events numerically as more or less stressful than this event. Results were used to provide a quantitative basis for the investigation of stress, to ascertain differential reactions by educators with different backgrounds and situational characteristics, and to determine implications for educational policy. The 36 items and their descriptive statistics are appended. Discriminant analysis revealed no significant differences for sex, age, race, or type of school. In rank-ordering of teaching events, violence and student discipline, management of disruptive children, threats of personal injury, assaults on colleagues, and verbal abuse by students were priority concerns. Management tension events, such as involuntary transfer, overcrowded classrooms, notice of unsatisfactory performance, lack of books and supplies, and disagreement with supervisor imposed stress upon teachers in the form of action constraints. Maintaining self-control when angry and teaching low achievers were concerns related to professional competency. Events which induced relatively little stress included teacher-parent conferences, teaching bilingual students, and taking additional coursework for promotion. Recommendations are made for future research and educational policy. (Author/JAC)

The Teaching Events Stress Inventory

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ABSTRACT

Medical and psychological research has indicated that certain social and life events requiring change in adjustment are at least partial causes of illness in adults. Drawing on the work of Holmes and Rahe (1967), events of the teaching profession thought to induce such stress among educators were developed into an inventory which was sent to the 22,448 teachers employed by the Chicago Board of Education. The purpose of the study was to develop an instrument that would provide an estimate of the relative degree of stress induced by each event and the characteristics of people and school situations related to differential stress. A total of 4,934 questionnaires, or 22 percent of the sample, were returned and analyzed. In the data analysis events were ranked according to their degree of stress. Discriminant function analysis revealed no significant differences between subgroups. Results are discussed in terms of (a) interpretation of event rank-ordering, (b) future research, and (c) implications for education policy.

The Teaching Events Stress Inventory[1]

Everyone has experienced stress. It is common to the human condition. It is also a significant problem because the same life events which make one person ill can be an invigorating experience for another (Selye, 1956). Recent medical and psychological research has established that certain life events are associated with the onset of illness (Rahe, et al., 1964). Certain life events are quantifiable in terms of the intensity and length of time needed to adjust to them (Holmes & Rahe, 1967). These events occur with a high degree of consistency across groups of adults with varying characteristics (Rabkin & Struening, 1976). In addition, the accumulation of stressful life events has been shown to be positively correlated with self-reported tension and diseases of adaptation such as depression and alcoholism (Vinokur & Selzer, 1975; Paykel, et al., 1969).

The majority of research concerned with life event stress has made use of the Social Readjustment Rating Scale (SRRS) developed by Holmes and Rahe (1967). The SRRS consists of 43 items that are designed to represent common life events that require change in social adjustment. Weights for each item were determined by averaging ratings made by judges who were asked to rate events "as to their relative degree of necessary readjustment" (Holmes & Rahe, 1967). For example, death of a spouse is weighted at 100 (the highest point on the scale), marriage at 50, change in recreation at 19, vacation at 12.

Modified forms of the SRRS have been developed for specific populations such as children, college students, and athletes. Studies using these instruments have shown associations between number and intensity of life events and the probability of illness in the future

(Rabkin & Struening, 1976). Stress has also been found to interfere with successful performance in the "helping professions" (Maslach, 1976). Maslach concluded that individuals who feel the most negative effects of on-the-job stress are psychologically "burned-out" by the experience.

The present study reports an effort to develop an inventory of the types of events thought to be related to stress associated with teaching in elementary and secondary schools. The procedure employed by Holmes and Rahe has been replicated in order to develop an estimate of the relative weights or importance of the events. The specific purposes of the study are to: (1) provide a quantitative basis for the investigation of stress by assessing the magnitude of stress induced by "life events" associated with teaching; (2) ascertain the extent of differential reactions to teaching events by educators with different background and situational characteristics (e.g., elementary or secondary school teacher); and (3) clarify and suggest implications for educational policy and future research.

METHOD

Instrument development.

In cooperation with a committee of teachers from the Chicago Teachers Union (CTU), a large number of events (including appropriate items from the SRRS scale) thought common to teaching were examined. Review procedures were established to ensure that a wide range of teacher functions were included in the inventory. Teaching event items were synthesized from research which has analyzed classroom teacher behavior in naturalistic settings (Lortie, 1975).

Consistent with the method employed by Holmes and Rahe (1967) a baseline indicator of stress was established. The criteria for selection was that an event had to be a common experience shared by all teachers. This criterion was met for event one, the first week of the school year. This event was assigned the arbitrary value of 500. Respondents were asked to determine whether the events they were to rate were indicative of more or less stress than the first week of school. The inventory developed in cooperation with the CTU committee was pilot tested with a sample of 176 teachers spring, 1977. Data from this pilot study were analyzed for the purpose of refining the inventory.

The sample.

In November, 1977, the monthly issue of the CTU newsletter was mailed to its 22,448 certificated members. The newsletter contained the Teaching Stress Events Inventory (TSEI). Teachers were asked to return completed questionnaires to union offices by January 1, 1978. Events were listed on one side of the questionnaire; background information questions were listed on the other. A total of 5011 questionnaires were returned; 4,934 were usable for purposes of data analysis. The sample represents about 22 percent of the 22,448 teachers employed by the Chicago Board of Education.

Since the sample was not randomly drawn, sample selectivity is an important methodological issue that must be taken into consideration. That is, it is likely that the sample may be largely represented by teachers who saw the questionnaire as their opportunity to vent anger, frustration, etc. People who have an ax to grind are usually more likely to make their views known and thereby bias the results. The

fact that only about a third of the inventory items were rated more stressful than the base line event (the first week of the school year) indicates that the sample was probably not composed of "ax grinding" individuals. Even assuming the sample is entirely composed of such individuals, the fact that over one-fifth of the teachers employed by the Chicago Board of Education responded indicates that if an event is perceived to be stressful, it is a matter of no small concern.

Characteristics of the sample.

Demographic and institutional characteristics of the sample are shown in Table 1. Consultation with union officials indicated that this sample is very similar to the population characteristics of the entire CTU membership, except for one variable, race. CTU membership includes a greater percentage of Blacks (41.1%) and a smaller percentage of Caucasians (54.3%) than those in the sample. About 12 percent of the Black and 25 percent of the Caucasian teachers in the union are represented in this study.

Insert Table 1 about here.

The teaching events stress inventory.

Following the Holmes and Rahe (1967) methodology, teachers were asked to rate 36 events as to their relative degree of stress. Instructions to each respondent were presented as follows:

> Working in schools can sometimes be stressful. This questionnaire is designed to obtain information which may help determine to what extent professional educators perceive work-related activities as stressful. Please rate the events shown below as to their relative degree of stress. In the

left hand column, provide a rating which shows the extent to which the event is stressful to you. The rating procedure to be followed is: Event 1, the first week of the school year, has been given the arbitrary value of 500. As you complete each of the remaining events, think to yourself, "Is this event indicative of more or less stress than the first week of school?" If you decide the stress is greater than that of the first week of school, then choose a proportionately larger number and place it in the blank directly opposite the event. If you decide the event represents less stress than the first week of school, then indicate how much less by placing a proportionately smaller number in the blank. If the event is equal in stress to the first week of the school year, record the number 500 opposite the event. Please provide a rating for every event.

Ratings for each event were divided by 10 before any further calculations took place, and any event rated higher than 1000 was reduced to 1000 so that an upper limit roughly comparable to the lower limit of zero could be established.

RESULTS

Magnitude of stress in teaching events.

The events and their descriptive statistics listed in rank order from most to least stress by mean ratings are presented in Table 2. Intercorrelations across items for the total sample were all, with the exception of two pairs, significant at $p < .05$ (two-tailed), were all positive, and ranged between .015 and .690, with the majority in the .30-.50 range. This pattern of correlations suggests that the relative

degrees of stress assigned to the events was highly stable across the entire sample.

Insert Table 2 about here.

Discriminant analysis between subgroups.

To further explore the stability of ratings by the sample, discriminant function analysis was performed between subgroups from the list of demographic characteristics (Table 1). Thirty-five events served as the independent variables (Event 1, the first week of the school year, was excluded from the analysis since its value was preassigned and thus had no variance).

The data analysis procedure employed was that of the SPSS DISCRIMINANT program by Klecka (1975). The direct method of analysis was used; and the three criteria: eigenvalue, canonical correlation, and Wilks' lambda, shown in Table 3, were examined for evidence of discrimination. The Chi-square was not used as a criterion, since the sample was not drawn at random. Table 3 also shows the range of values obtained for each of the three criteria for the 13 analyses that were done. The specific values of each of the criteria were not presented, since none discriminated significantly. The conclusion drawn from the results of the discriminant analysis is that there are no significant differences between the subgroups compared in this study. This finding is consistent with that of Holmes and Rahe (1967) regarding life events.

Insert Table 3 about here.

DISCUSSION

In interpreting these data one must keep in mind that there are no a priori criteria for determining stressful versus nonstressful events. In fact, it is assumed that even those events of lowest rank induce some degree of stress, however mild. The data, therefore, do not indicate how well teachers are adapting to the stress they report, nor do the data provide information about how well teachers are performing. What the data do show is the relative degree of stress of events; the meaning of the weights assigned to events is, obviously, open to interpretation.

One of the most interesting findings is that discriminant analysis revealed no significant differences between the subgroups compared in this study. This finding replicates the work of Holmes and Rahe regarding life events. How is this finding to be interpreted, however? One interpretation is that teachers responding to this questionnaire perceive events related to their occupation in similar ways. That is, regardless of sex, race, age, type of school, etc., teachers share common perceptions concerning stress associated with teaching. Will this finding be replicated if teachers from rural and/or suburban school districts are sampled? The answer to this question can be obtained; and it, as well as other issues, are ripe for further study.

For purposes of further discussion of the results, interpretations are grouped under three general headings: (1) interpretation of the rank-ordering of teaching events, (2) research issues, and (3) policy implications. The reader is urged to keep in mind that these data can be interpreted only within the context in which they were collected. The Chicago Board of Education is the third largest school

system in the country. Like other large city school systems, it is significantly affected by declining enrollment, pupil and faculty desegregation issues, school-related crime and vandalism, etc. If the schools are a microcosm of our culture, then it is reasonable to assume that problems found in the culture will also be found in the schools. Thus, the problems that the schools are forced to deal with will also be important to teachers.

Interpretation of the rank-order of teaching events.

The rank-ordering of teaching events presents an interesting mosaic of impressions. Several patterns can be discerned that pertain to the entire group of 36 weighted items. All mosaics, however, consist of individual pieces that together form a whole. Just as there are collective impressions that can be drawn from the whole, so are there interpretations that can be made from an examination of individual parts. The following effort to attach significance to the rank-order of teaching events seeks to blend impressions derived from the mosaic of the entire group of events with an interpretation of how individual events may relate to the whole.

Analysis of the 36 rank-ordered teaching events identified four general themes or clusters of items. The first cluster involves issues which appear to be of "priority concern." Priority concern events are managing 'disruptive' children, threatened with personal injury, colleague assaulted in school, and target of verbal abuse by student. These events are ranked 2, 4, 7, and 11, respectively.

Within the priority concern category the dominant themes are violence and student discipline. These themes have received considerable attention by federal and state governmental agencies (Our

Nation's Schools, A Report Card, 1975), the public (Gallup, 1977), and researchers (Violent Schools--Safe Schools, 1977). In fact, as Gallup points out, student discipline is at the top of a list of concerns parents have about education. Thus, as previously mentioned, these priority concern events appear to mirror the importance the public ascribes to them. Be that as it may, teachers are saying that dealing with problems associated with student discipline is highly stressful.

The second cluster involves events that concern the theme of "management tension." This cluster includes such events as involuntarily transferred, overcrowded classrooms, notice of unsatisfactory performance, lack of books and supplies, reorganization of programs and classes, implementation of Board of Education goals, denial of promotion or advancement, and disagreement with supervisor. These events over which the teacher has little control represent actions which are the responsibility of management. In a very real sense, these events represent stress which is "imposed" upon the teacher in the form of action constraints. These constraints must be lived with or adapted to in the work place. Perhaps the best example of an action constraint is reflected in the number one ranked item, involuntarily transferred. The Chicago Board of Education is under court mandate to desegregate its faculty. Involuntary transfer of teachers is a procedure used by the Board for the purpose of trying to comply with desegregation guidelines. Teachers must, except through the process of appeal, accept the Board directive to move to another school. When someone is directed to move from one work site to another, it goes without saying that the directive (or the likelihood of being told one

will be transferred) carries with it a considerable amount of stress. Thus this interpretation of the meaning of the rank assigned to the event, involuntarily transferred, has some merit; in as much as events related to dealing with community, faculty, and student racial issues are ranked significantly lower, 20, 23, and 25, respectively.

Management tension was found to be a significant source of stress in the National Institute for Occupational Safety and Health (NIOSH) study of stress in 130 occupations (Kotulak, 1977). The major stress pattern found in the NIOSH study was in occupational situations where individuals work in jobs that give them responsibility for high performance/accountability and where authority to do what is thought appropriate to providing clients with "quality" service is not granted. This finding is also consistent with research reported by Lortie (1975) concerning the lack of control teachers have in organizing activities for students. Lortie found that lack of teacher control or authority in organizing activities of students undermines their relationship with them. He also found that when teachers act in ways that are detrimental to these relationships they experienced shame and guilt.

The next category of events is concerned with the theme of "doing a good job." The items that best characterize this cluster are maintaining self control when angry and teaching students who are below average in achievement level. As responsible adults, teachers must maintain their "cool." They also are held accountable for the academic performance and behavior of the students they teach. Maintaining self control when angry and being an effective teacher, especially with children who are below average in achievement, are important professional responsibilities which are perceived to be stressful (rank 14 and 15,

respectively). Teachers, however, receive little assistance from administrators (or through in-service programs) to help them cope more effectively with these stresses.

The lowest ranked 10 events, those which induce relatively little stress, cluster around a theme of "pedagogical functions." This cluster of events includes teacher-parent conferences, dealing with bilingual students, discussion of childrens' problems with their parents, taking additional coursework for promotion, attending in-service meetings, evaluating students, conferences with the principal, and doing lesson plans. One might infer from these data that teachers find less stressful those teaching events (i.e., pedagogical functions) over which they have direct control. Conversely, stress induced by central administrative mandates (and inefficiencies) and by state and federal regulations, over which teachers have little control, may interfere with their optimal performance in the most critical aspects of their roles. If this is the case, then there are diseconomies of scale associated with stress that probably ought to be studied. For example, Sher and Tompkins (1975) studied the diseconomies of scale associated with school district consolidation. One of the variables they examined concerned the economy of scale that is thought to be related to the benefits of centralized purchase of books and supplies. Sher and Tompkins found that even though purchasing power is increased because of the ability to buy books and supplies in large quantities, there remain significant diseconomies of scale that result from the inability to deliver materials promptly to those who have requested and/or need them. In the present study it is clear that teachers perceive the lack of availability of books and supplies as stressful (rank 6). Thus, what on the one hand

is generally considered to be a cost-saving procedure produces on the other hand stress for teachers. If management policies and regulations create conditions which increase teacher stress, which contributes to increased probability of "burnout" and illness, then the advantages of economy of scale become offset by diseconomies reflected in increased monetary costs for substitutes for ill teachers, higher medical insurance premiums, etc.

Research issues.

Some fundamental questions remain concerning the teaching events that were rated in this study. While the stress induced by specific events on the inventory did not vary very much across individuals in such groups as sex, age, marital status, amount of illness, and such institutional characteristics as school size, type of school and kind of campus, these are all "external" factors which mediate an individual's perceptions of stress. What remains to be investigated in order to understand the nature of stress associated with teaching events is the relationship of perceived stress to "internal factors" such as "biological and physical threshold sensitivities, intelligence, verbal skills, morale, personality type, psychological defenses, past experience, and a sense of mastery over one's fate" (Rabkin and Struening, 1976).

A second research area would involve studies that seek to determine how stress affects teachers in the performance of their professional duties. Maslach has identified at least six mechanisms employed by professionals under stress which impaired their performance. Teachers were not included in her study. Would they react in similar ways? And with what effect on students? We have speculated in our interpre-

tation of the data that the effect of stress would be adverse, but this hypothesis needs to be tested. Is re an optimum level of stress for effective performance?

A third area of research concerns a study of administrator perceptions of teacher stress. That is, in light of the fact that "management tension" was a significant source of stress, how would principals complete the TESI? How would their perceptions differ from those of teachers? What are the relationships between administrative stress, teacher stress, and student stress?

A fourth area of research concerns the possible relations between occupational stress and life event stress as defined by Holmes and Rahe. Will teachers who score highly on the SRRS experience significant occupational stress? How is occupational stress related to life event stress?

A fifth area of research stems from still another possible interpretation of the outcomes of this study. That is, the ranking of events can be interpreted in terms of Murray's (1938) or Maslow's (1954) hierachy of needs. Many of the most stressful events concerned physical safety and economic security. Are teachers saying, "Make me feel safe and economically secure; protect me from administrative hassles, and I'll get the job done."? Do teachers perceive items dealing with pedagogical issues as less stressful only because their needs for security are not being met? Replication of this study in a school system where violence, disruption, and teacher transfer are uncommon events might result in the increase in importance of pedagogical issues.

A sixth area of research involves the use of factor analysis to confirm the cluster of events that have been identified in this study.

The application of factor analysis to data obtained in future studies would assist in interpreting results and in relating identified clusters to other variables (e.g., similarities and/or differences between urban and suburban/rural teacher responses).

A final area of research involves including stress as a variable in determining the cost of school personnel. Considerable work has been done to create cost-of-education indices among school districts (Chambers, Odden, and Vincent, 1976). Stress is a factor that probably ought to be related to costs associated with recruitment and selection of school personnel by school districts.

Policy implications.

There are significant policy implications for the development of in-service education programs that derive from this study. For example, in-service education programs might be redesigned to emphasize problems associated with the personal development of teachers (e.g., maintaining self control when angry). Joyce, Howey, and Yarger (1976) are strong advocates for this view and have advanced several ideas about it. If our assumption about the negative impact that stress has on the teaching-delivery system is correct, then the solution of stress-related problems should become an important priority for in-service education. More importantly, however, the findings of this study seem to indicate that increased attention to the personal development needs of teachers is required. To put it simply, teachers need assistance in "maintaining self control when angry." Most in-service programs are highly subject matter/academically oriented. By definition and design they do not deal with the personal problems of teachers. Programs have been developed and are in operation that assist individuals in other professions to

deal more effectively with stress. For example, many large city police departments provide counseling and related support services to personnel who have need of them. Perhaps similar services should be provided for teachers. Finally, it is possible that the Teaching Events Stress Inventory could be used to assist in the selection of individuals who have the greatest need for such in-service programs.

Solutions to problems which, for example, seem to be induced by school district administrative policies are not clear. It is possible that the school administration could work more effectively and efficiently, for example, to make more books and supplies available and available on time. In such cases, however, does one change the policies of the administration, or does one try to train teachers to develop coping strategies? Or does some combination of the two become a action goal? From the perspective of management, the results of this study suggest that diseconomies of scale created by stress induced by administrative policies need to be taken into consideration in the formulation of policy.

Third, teacher unions and other bargaining agencies might make use of data on stress events such as those of this inventory in collective bargaining. Several of the events included in the inventory are ones which are often part of collective bargaining agreements, such as class size, transfer policies, district mandated curricula, performance and promotion criteria, maintaining student records, supervising students outside the classroom, attendance at in-service meetings, and parent conferences. The degree of stress induced by events in a category might be related to union positions at the bargaining table. For example, negotiating different salary schedules for teachers

because some jobs involve more stress than others, or negotiating support for in-service programs designed to help teachers deal more effectively with "personal" concerns.

In conclusion, given the increasing stability of teacher populations occuring now and projected for the future, school districts and schools of education will be faced with a set of problems heretofore not encountered, possibly including those of increased stress and "burnout" of teachers. By anticipating such problems and studying them at this early state, we will be better able to work toward identifying and implementing solutions to problems before they have reached crisis proportion.

FOOTNOTE

[1]A paper presented at the annual meeting of the American Educational Research Association, Toronto, March, 1978. This study was sponsored by the Chicago Teachers Union, Chicago, Illinois. The assistance and support of the Union is gratefully acknowledged. The opinions expressed in this paper, however, do not necessarily reflect the position or policy of the Chicago Teachers Union. The assistance and cooperation of John Kotsakis, Chicago Teachers Union, and William Walley, University of Illinois, is gratefully acknowledged. Requests for reprints should be sent to: Robert H. Koff, Dean, College of Education, Roosevelt University, 430 S. Michigan Avenue, Chicago, Ill. 60605.

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Table 1

Demographic Characteristics of the Sample

Variable	Categories	Frequency	Per Cent
Sex	Male	1339	27.1
	Female	3536	71.7
Marital Status	Single	1284	26.0
	Married	2970	60.2
	Divorced	482	9.8
	Widowed	146	3.0
Age	30 or less	1098	22.3
	31-40	1581	32.0
	41-50	1233	25.0
	51-65	990	20.1
Race	Caucasian	3473	70.4
	Black	1112	22.5
	Spanish Surname	76	1.5
	Native American	45	.9
	Asian	47	1.0
	Other	31	.6
Type of School	Elementary	3168	64.2
	Middle or Upper Grade Center	301	6.1
	High School	1406	28.5
School Size	600 or less	1189	24.1
	601-1000	1411	28.6
	1001 or more	2257	45.7
Campus	Open	2655	53.8
	Closed	2132	43.2
Physical Illness*	No	2060	41.9
	Yes	275	56.6
Mental Illness*	No	3313	67.1
	Yes	1303	26.4
Days off for Illness	0	1071	21.7
	1-5	2366	58.4
	6-10	410	10.1
	11-20	128	3.2
	21 or more	81	2.0

Table 1 (Continued)

Variable	Mean Per Cent School Student Body	Standard Deviation	Median
% Caucasian Students	23.24	32.90	1.45
% Black Students	56.83	45.54	79.69
% Spanish Students	15.19	25.78	.81
% Native American Students	.82	6.03	.06
% Asian Students	1.53	4.21	.17
% Other Students	.77	3.18	.09

*The questions asked for these two variables were: "Have you experienced any physical illness that you feel is related to stress in your work?", and "Have you experienced any mental illness that you feel is related to stress in your work?"

Table 2

The Teaching Events Stress Inventory

Rank	Inventory Item No.	Event	Mean	S.D.
1	11	Involuntarily transferred.	73.05	34.50
2	12	Managing "disruptive" children.	66.13	28.22
3	6	Notification of unsatisfactory performance.	62.67	37.60
4	16	Threatened with personal injury.	60.76	36.09
5	7	Overcrowded classroom.	57.52	30.09
6	23	Lack of availability of books and supplies.	55.93	30.21
7	3	Colleague assaulted in school.	54.72	33.78
8	2	Reorganization of classes or program.	54.03	24.26
9	13	Implementing Board of Education Curriculum goals.	52.76	31.39
10	34	Denial of promotion or advancement.	52.45	35.12
11	21	Target of verbal abuse by student.	51.97	32.17
12	29	Disagreement with supervisor.	50.73	32.09
13	1	The first week of the school year.	50.00	-
14	18	Maintaining self control when angry.	48.39	29.78
15	25	Teaching students who are "below average" in achievement level.	48.20	30.34
16	32	Maintaining student personnel and achievement records	47.34	30.93
17	8	Preparing for a strike.	46.68	30.16
18	15	Supervising student behavior outside the classroom.	46.00	29.17
19	9	Change in duties/work responsibilities.	44.79	27.25
20	17	Dealing with community racial issues.	42.84	31.99
21	31	Seeking principal's intervention in a discipline matter.	42.48	30.84
22	36	Disagreement with another teacher.	41.58	29.65
23	24	Dealing with staff racial issues.	40.25	30.54
24	28	Teaching physically or mentally handicapped children.	39.51	32.31
25	35	Dealing with student racial issues.	39.36	30.53
26	26	Lavatory facilities for teachers are not clean or comfortable.	38.89	29.92
27	14	Developing and completing daily lesson plans.	38.87	28.58
28	10	Conference with principal/supervisor.	36.69	28.02
29	22	Evaluating student performance or giving grades.	35.11	25.62
30	33	Having a research or training program from "outside" in the school.	33.90	28.54
31	5	Attendance at in-service meeting's.	32.74	27.16
32	27	Taking additional course work for promotion.	32.40	28.96
33	19	Talking to parents about their child's problems.	31.84	24.40

Table 2 (Continued)

Rank	Inventory Item No.	Event	Mean	S.D.
34	20	Dealing with students whose primary language is not English.	31.30	27.40
35	30	Teacher parent conferences.	30.24	24.24
36	4	Voluntarily transferred.	28.58	26.82

Table 3

Ranges of Values of Three Discriminant Analysis Criteria

Criterion	Range
Eigenvalue	.00812 - .21760
Canonical correlation	.090 - .423
Wilks' lambda	.8050 - .9919