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ABSTRACT

This study investigates the responses of teachers in Texas to a state-mandated pupil testing program. Based on literature reviewed, it was expected that effects of the mandated tests would relate to teacher burnout and account for differences in teachers' feelings of control over curricular, teaching, and professional decisions. The responses of approximately 797 randomly selected teachers were collected by questionnaire, telephone interviews, and written comments. Data analysis supports the following findings: (1) very little teacher burnout is attributable to state mandated tests; (2) teachers cope with mandated tests by "teaching to the test"; (3) inability to cope with mandated testing negatively affects teachers' sense of control over their professional lives; and (4) most teachers feel that the educational system is under pressure to obtain high test scores, and, consequently, unfair comparisons are made. Teachers believe they are being unjustly evaluated by their pupils' test scores. Study recommendations include the following: (1) reporting the ranking of school districts should be abandoned; (2) testing minority and disadvantaged students should involve careful consideration and teacher participation; and (3) test scores should be a means to improve teaching and learning. Educators are not totally opposed to mandated testing, but the possibility of misuse has created an anxiety that nearly every teacher expressed in the investigation. If test scores are used to diagnose problems and to assist learning, teaching effectiveness will improve and anxiety will decrease. Nineteen references and nine appendices of data are included. (CJH)

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Center for Policy Studies and Research in Elementary and Secondary Education

Frank W. Lutz, Center Director

ED285292

STATE MANDATED TESTING IN TEXAS: THE TEACHER RESPONSE

by

Frank W. Lutz

and

James S. Maddirala



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Foreword

Most forewords provide a setting or explain the need for the work to follow. Here a slightly different purpose is met. Because of some technical terms necessary to understand this monograph, those terms are defined here. For the purpose of this study, the following definitions are offered:

Burnout - A condition resulting from high stress and anxiety in which individuals no longer strive to achieve in their profession or care about their clients. Measured in this study by Maslach's scale (1982), burnout is comprised of two factors: "emotional exhaustion" and "personal accomplishment."

Mandated Tests - Any test required by a policy-making agency. In this study specifically TEAMS (Texas Educational Assessment of Minimal Skills), TEAMS Exit, and certain other measures of "essential elements" required in some districts.

Mandated Test Scale - A scale developed in this study to measure a teacher's concern about the "mandated tests" and comprised of two factors: "concern about mandated tests" and "coping with mandated tests."

Locus of Control - A measure of one's sense of personal control ranging from internal (personally responsible for the outcomes one experiences and in control of one's own life) or external (attributing one's outcome to false or

significant others). Measured in this study by James' scale (1957).

Pupil Control Ideology - A concept related to the way the teacher sees the teacher/pupil relationship and important classroom concerns, ranging from "humanistic" (concern for pupils) to "custodial" (a concern for bureaucratic duties). Measured in this study by an adoption of the Willower, Eidell and Hoy scale (1967).

STATE MANDATED TESTING IN TEXAS:
THE TEACHER RESPONSE

STATE MANDATED TESTING IN TEXAS: THE TEACHER RESPONSE

INTRODUCTION

The intent of the study was to discover the way in which the teachers of Texas are responding to the pupil testing program mandated by the Texas legislature. This monograph reports those findings and is arranged in the following manner: An Introduction (p. 2), The Study (p. 4), Findings and Recommendations (p. 16), Conclusions (p. 18), Related Literature (p. 20), Methods and Procedures (p. 37), References Cited (p. 45), and Appendices (p. 47).

During a meeting of the House Committee on Public Education, its chairman Bill Haley, when speaking of the abuses and misuses of mandated testing said, "To an educator the words 'teaching to the test' have a meaning quite beyond the words themselves" (Haley, 1987). No better summary of this monograph could possibly be written.

Teaching to the test is often stimulated by the misuse of tests, particularly standardized or mandated tests. Although there are a variety of benefits that can accrue from the use of mandated tests, misuse of the test will inevitably result in reducing the effectiveness of the teaching/learning climate.

Among the major abuses of standardized or mandated tests is the evaluation of local school districts, schools and teachers, based solely on raw gain score or rank

provided by data from mandated testing. Additionally, local school boards, superintendents, principals, teachers and even the pupils themselves are affected by the use of these scores to make comparisons and judgments about teaching/learning effectiveness. Teachers often respond by teaching to the test. In actual practice the process of teaching to the test includes, but is not limited to, the following behaviors:

1. Putting pressure on teachers to obtain high scores.
2. Putting pressure on children to obtain high scores.
3. Limiting curriculum to specific test areas in order to increase scores.
4. Obtaining, in some fashion, sample questions and drilling on the answers and areas to be covered by the test.
5. Providing correct answers for pupils during the test.

The reasons for these behaviors are numerous and complex. In the end it is simply that teachers are afraid that test data will be misused to unfairly evaluate them. Standardized or mandated test scores are best used to provide means and assistance to improve learning. They are improperly used as ends for or as measures of the total education process.

THE STUDY

Purpose

The purpose of this study was to determine the operational effects of state mandated tests on local school districts and their teachers and pupils, as perceived by the professionals who do the teaching and testing. In order to accomplish this, a random sample of 3,000 educators was selected from the Texas Education Agency (TEA) list of all certified educators working in Texas during 1985. Survey instruments were developed, validated, and sent to the selected sample. A usable response of 23% (n=700) was returned. A second set of data from non-respondents was solicited (n=210); 42% of that randomly selected group responded (n=97). From the original respondent set, telephone interviews with 40 educators were conducted, and written comments (qualitative data) from educators were collected and analyzed. Based on these data, findings were formulated.

Although the purpose of this monograph was not to test hypotheses but rather to evaluate and develop policy, the literature reviewed below (pp. 20 to 36) suggested several variables as being related to mandated tests. A factor most important to policy is teacher burnout. A second factor is the teacher's own sense of the source of control in his/her life, either within self (internal) or in the hands of others or of chance (external). This factor is called Locus of Control. A third factor that strongly

suggested itself was the teacher's notion of what is important in the classroom--either maintenance and order goals or client or pupil-centered goals. This factor is called Pupil Control Ideology.

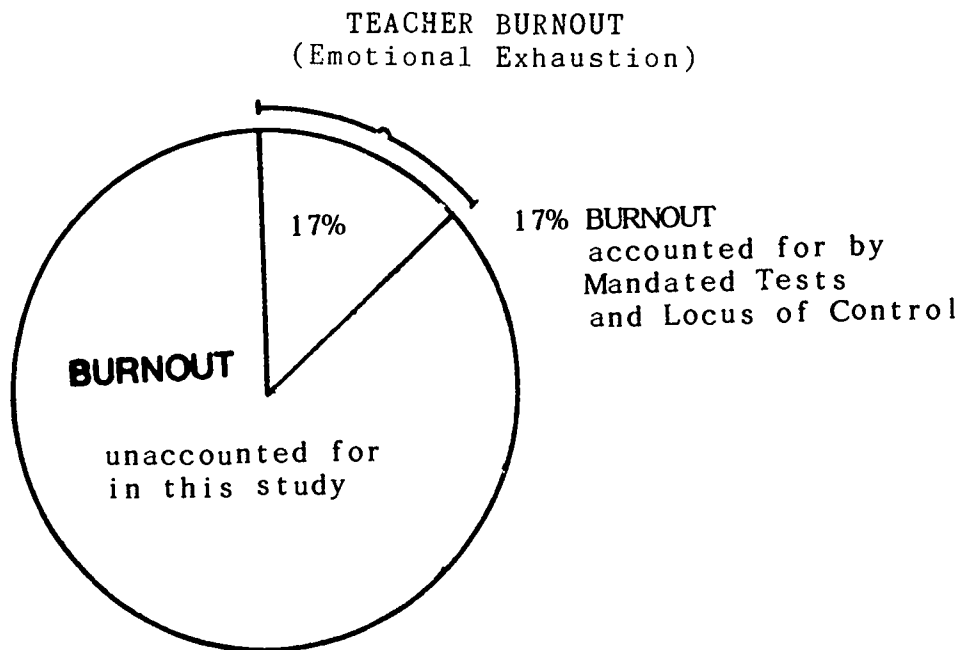
Analysis of First Questionnaire Data

Appropriate multivariate statistical models were used to discover which, if any, of the major variables in the study might account for the teacher discouragement and frustration called burnout. The questionnaires provided data in five areas: (1) Mandated Tests (divided into two sub-scales): (a) Concern About Tests (Mandated Tests I) and (b) Coping with Tests (Mandated Tests II); (2) Burnout (divided into two sub-scales): (a) Emotional Exhaustion and (b) Personal Accomplishment; (3) Locus of Control; (4) Pupil Control Ideology; and (5) Demographic Data.

This study examined the extent to which, in the perception of teachers, the mandated testing load is creating a burnout problem among Texas teachers. The results of the multivariate analysis showed that an accumulated total of 17% of the Emotional Exhaustion factor of the Burnout Scale was accounted for by Coping with Tests (Mandated Test II), Concern About Tests (Mandated Test I), and Locus of Control (Appendix II). Coping with the Tests (Mandated Tests II) and Concern About Tests (Mandated Tests I) accounted for the largest amount of emotional exhaustion, an element of teacher burnout. Both accounted for a

combined nine percent of the Emotional Exhaustion Factor of the Burnout Scale (Appendix II and Figure 1).

Figure 1

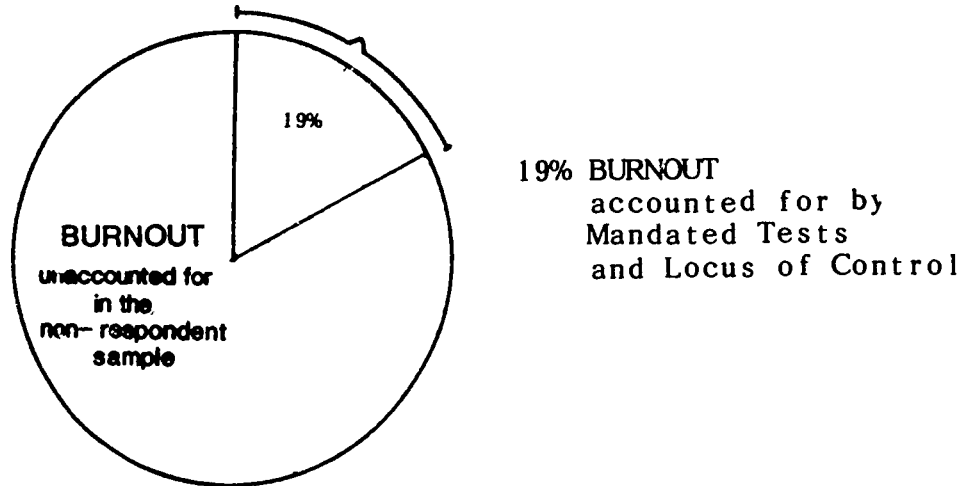


The results of the multivariate analysis for the non-respondent sample* revealed that an accumulated total of 19% of the Emotional Exhaustion factor of the Burnout Scale was accounted for by Locus of Control, Coping with Tests (Mandated Tests II), and Pupil Control Ideology (Appendix IV). Coping with Tests (Mandated Test II) alone accounted for 5% of the Emotional Exhaustion. While all predicted relationships were statistically significant, the amount of burnout which could be explained is small [$R^2=0.19$] (Appendix IV and Figure 2).

*When the data obtained from the non-respondent group are not significantly different from the respondent group, and if data from the respondent group are also satisfactory, one may be more confident in generalizing to the total population from the respondent sample.

Figure 2

TEACHER BURNOUT AMONG NON-RESPONDENT SAMPLE



TEAMS (Texas Educational Assessment of Minimal Skills) involves reading, writing, and math and is administered to odd-numbered grade levels. This suggests that teachers concerned with teaching the odd-numbered grade levels might feel more pressure and express more anxiety than the even-numbered grade teachers express about the mandated testing program.

In order to examine the difference between the concerns of teachers at those grade levels, a random sample of 50 teachers from each group was drawn. A t-test of independent means was executed to determine if a difference existed. The results showed no significant difference between these two groups in their attitudes toward mandated tests and their coping behaviors (Appendix V). These

results suggest that all teachers are concerned about the effects of testing mandates on the curriculum, their teaching, and their pupils. These appear to be professional rather than personal concerns.

Analysis of Second Questionnaire Data

One hundred twenty (120) respondents to the first questionnaire indicated they would be willing to provide additional information or be interviewed. A second questionnaire was sent to these 120 respondents. Sixty of this group responded to that second questionnaire. The following is an analysis of those data.

To the statement, "the real reason for requiring TEAMS is to evaluate teachers and schools," 63.9% agreed or strongly agreed. Seventy-three point eight percent (73.8%) felt that it is grossly unfair to compare classes and schools across the state by using TEAMS scores. Fifty-six percent (56%) disagreed or strongly disagreed that without TEAMS, or something like it, there is no way to know what is happening in Texas schools, whereas 31.1% agreed with the statement, and 13% were undecided. Finally, 54% of the teachers perceived that the present use of TEAMS scores is invalid and not in the best interest of better teaching, while 25% were undecided and 21% disagreed with the statement. Data results and the second questionnaire may be found in Appendix V.

Qualitative Data Analysis

In addition to the use of the scales previously mentioned, certain qualitative data collection methods were employed. Everyone who returned a questionnaire had an opportunity to write a scenario expressing his or her opinions or observations regarding mandated tests. Many respondents availed themselves of that opportunity. A representative group of these comments, edited for brevity, follows:

It is easy to get good results when you teach to the test. It looks good on paper, but students miss out.... I am aware of many teachers that give students the test to study, [we presume the respondent means sample test questions] before taking the test. (High School Teacher)

I have heard tales of teachers who read all questions aloud, raising their voices greatly when reading the correct response. (Elementary Teacher)

I had very few students fail [the TEAMS]....but I feel the students were very stressed. (Elementary Teacher)

We are testing children to death...trying to cram too much down them and putting too much pressure on them too early. (Elementary Teacher)

The experience was positive but...the students were very stressed. (High School TEAMS Coordinator)

TEAMS does bring home the reality to students. They must accomplish something and not just pass the time of day. (High School Teacher)

We have been instructed to teach nothing but TEAMS objectives. (Junior High School Teacher)

I believe it is unfair to judge teachers' competencies on the basis of students test scores. (Junior High School Teacher)

State tests help academic teachers determine student progress but do not measure whether the teacher is doing a good job or not. (Anonymous)

No teacher should be evaluated based on the scores their students have made. (Elementary Teacher)

I don't object to TEAMS but the date it is given should be more flexible. (Elementary Teacher)

TEAMS is putting entirely too much pressure on students and teachers. (Elementary Teacher)

The time [devoted to giving TEAMS] could be better spent. (Elementary Teacher)

We were told TEAMS was the #1 priority and we were required to drill pupils in every math class. I feel this teaching to the TEAMS test is a detriment to our college-bound students. (High School Teacher)

I have attended three meetings [by January 1987] concerning TEAMS test taking which emphasized teaching to the test so our district scores would go up and look better. (Junior High Teacher)

We are required in our district to teach to the TEAMS test. Copies of the sample TEAMS were distributed to all math teachers and they were required to teach the material. (High School Teacher)

I feel the TEAMS test is a joke...far too easy. (Elementary Teacher)

I resent a test that measures only minimal skills. Such tests promote mediocre learning and teaching. (High School Teacher)

I think the state mandated tests are too easy. (Junior High School Teacher)

Teachers should not be held accountable for students passing these tests when many students could care less whether or not they pass. (Junior High School Teacher)

I do not believe that a teacher should be evaluated on the basis of how well her students do on the TEAMS test. The students here are very limited in their reading comprehension of English and unless the teacher tutors the students on the TEAMS test

questions, they will not do well. (Junior High School Teacher)

I proctored the TEAMS test last year. It was so easy my students were insulted and thought it was a joke. (High School Teacher)

"What did you give me?" Now ask "What did I make?" The minor changes in these questions say a great deal about what the change in philosophy reflected in the state-mandated testing has done to improve students' learning. (High School Teacher)

We TEAMS teachers should be paid a stipend for teaching and worrying about TEAMS. It is an extra responsibility and we should be compensated for it. (Junior High School Teacher)

The district I work for gives individual teachers extra money for high test scores. (Elementary Teacher)

I feel the wording on the TEAMS test does not relate to the level of our third graders taking the test. I have had students cry if they don't understand a question. (Elementary Teacher)

I feel TEAMS and CTBS are biased against minorities. (Principal)

I have seen students give answers without reading questions. These students would probably not do very well if they tried, but surely they would do better. (High School Teacher)

In our school, we (English/Math dept.) are required to tutor students before school and during homeroom periods for 6 weeks prior to the TEAMS test. (High School Teacher)

The competency tests do help to see where student strengths and weaknesses are if administered properly. Some districts because of economics or particular populations have lower scores. (High School Teacher)

I don't feel that test scores necessarily reveal the success of the teacher. I teach in a very low economic area. My success with students is on a one to one basis. (High School Teacher)

Our teaching staff and principals are very unhappy now, because we have been told, "You will raise

TEAMS scores, or your job is on the line." (Elementary--High School Teacher--Possibly rural)

The state mandated test looks good on paper and to the press, but it is an unfair test to minority students. (High School Teacher)

I feel the TEAMS test is a helpful one. I do feel, though, that the children are over tested. It's very overwhelming to have district tests, state tests, national tests, and teacher made tests. (Elementary Teacher)

Do you realize that these two tests [TEAMS is given twice a year] and teaching them absorbed one half of the year? I question the boredom of the bright kids and the frustrations of the slow ones. (Elementary Teacher)

With the current pressure on results, most teachers must teach for the test. Why don't teachers have effective input into the decisions such as these? (Elementary Teacher)

The TEAMS is given twice and disrupts regular classroom activities twice each year. (High School Teacher)

We have been told to "teach" towards the test! (Elementary Teacher)

This year a counselor told me that we would be graded by how well our students do on the TEAMS test. If our students went down in the test scores, then we would be judged as a bad teacher thus, if they go up we were a good teacher. (Junior High School Teacher)

Sometimes we feel as though our evaluations reflect our classes' test scores. (Elementary Teacher)

The children are given so many tests that they often fail to see the importance of them. As a result they often do not do their best. (Junior High School Teacher)

Children in remedial classes are required to take a test which will prove nothing except that they are below grade level. It is just one more "high anxiety", demoralizing trauma. (Elementary Teacher)

Lots of people who have just slid by for years, have been forced to put a little effort into their

teaching. I support testing, if it is used appropriately, because it is the nature of living organisms not to change until discomfort has been created. (Elementary Teacher)

I was building test coordinator for five (5) years. TEAMS looms as an obstacle to upward mobility for academically disadvantaged students. I feel that a more gradual approach - exempting all L.D. and M.R. students, should be used. (High School Teacher)

Of this group of respondents who wrote about their experiences, observations, and feelings about the mandated tests, 120 noted that they would be willing to be interviewed about the matter. From that group, 40 were selected and interviewed. Four questions were asked:

1. There are several state required tests; the TEAMS tests; the Exit tests for juniors and seniors. There are also measures or tests that check on essential elements. What do you think is the real purpose of these tests and how will they be used at TEA?
2. Are any of these tests useful to you as a teacher?
3. Might some teachers try to simply teach answers to questions of such tests and have you seen any of this behavior?
4. Do you think that these tests are being, or may be used to evaluate you as a teacher, instead of the students?

The respondents were outspoken in their concern about the real purpose of the tests and the use which they would serve. Many felt the tests would be used by TEA to compare schools and school districts and that such a practice was unfair. Others, however, were very positive, feeling that they would be used to raise standards and create good public relations.

Question two elicited the same set of dichotomous responses. About half the respondents said that the tests were of no use to teachers, that there were no curriculum guides coded to the tests, and that they themselves never used the scores. The other half reported that the test helped teachers and school districts raise standards.

Almost all respondents felt that sooner or later, given the pressure, some teachers would teach to the test. One said, "When ratings are attached to scores and pay to ratings--then scores will go up, one way or the other." Many teachers suggested that they would teach to the test but would not actually cheat! They would drill on areas they felt would be tested. Others claimed they did not engage in such coping practices, but they knew others who did.

Nearly every respondent felt that mandated test scores were being used in some fashion in order to compare school districts, schools, and/or teachers. All respondents thought that such comparisons were unfair and would eventually be used for a teacher comparison on the same basis. One teacher made the following comment concerning the use of test scores and teacher evaluations: "Administrators say no and they are trying hard not to. But when they know the scores it will have some effect on the teacher's appraisals." Asked if mandated tests were being used to evaluate her as a teacher instead of students,

another teacher responded, "Oh yes! More and more! It comes from the state board, down!"

Findings and Recommendations

Based on the analysis of the above quantitative and qualitative data, the following findings appear supported and recommendations are made.

Findings

Finding #1

Presently very little teacher burnout is attributable to state mandated tests.

Finding #2

Teachers appear to be coping with mandated tests by teaching to the test. The more they resent or are frustrated by mandated testing the more likely they are to teach to the test.

Finding #3

To the extent that teachers are unable to cope with mandated testing, they lose control of their professional lives.

Finding #4

Teachers reported strong feelings about mandated testing as they have experienced it since the Texas educational reform. Moving from the most frequently mentioned to the least frequently mentioned feelings

obtained from written comments and interviews, the following are representative:

- a. The entire educational system--teachers, administrators, and school districts--are under pressure to obtain high test scores.
- b. Teachers are being evaluated, in some fashion, based on the scores made by their pupils. Teachers resent that situation and believe it to be unjust.
- c. Some administrators, it was reported, actually encourage teachers to teach to the test in order to make the school and school district look good.
- d. Mandated tests may be unfair to minority and educationally disadvantaged pupils.
- e. Mandated tests were necessary and helpful in enforcing the reform and raising the academic standards.
- f. As they exist, the mandated tests are too easy for good pupils and too difficult for disadvantaged pupils.

Recommendations

1. It is strongly recommended that the practice of publicly reporting the ranking of school districts by TEAMS test scores be abandoned, and state board rules prohibit reporting data in such a fashion except for research purposes and, only then, in an anonymous way.
2. The question of how to deal with testing of minority and disadvantaged students and the use of such data should be carefully considered. Teachers should be involved in this process.
3. Even with the present problems, state-wide testing

such as TEAMS and TEAMS Exit should not be abandoned but improved.

4. Test scores mandated by the state should be used as a means to improve teaching/learning.

Conclusions

Educators in Texas are not totally opposed to the mandated testing of their pupils. Some are very positive, and many support the effort to raise standards and demonstrate to pupils and the public alike that schools are serious about the fact that certain things must be learned if students are to pass.

All teachers are concerned, however, about the misuses of testing, some of which have already occurred in Texas. We know of no test manufacturer or scholar in testing and evaluation who believes the raw test scores alone can be used to compare or evaluate teachers, schools, or school districts. The inappropriate use of these scores has created a haunting anxiety in nearly every teacher who wrote to us or whom we interviewed. Our quantitative data indicate that the mandated testing has not added to the teacher burnout created by paperwork. Yet our qualitative data suggest that while many teachers support mandated tests as part of the reform efforts to raise standards, the possibility of the misuse and abuse has created anxiety among teachers. In the best sense teachers use the test as a motivator to both teaching and learning. In the worst sense they know how to be sure their pupils do well on the

tests even if the pupils cannot read; just read the questions and read the answers, reading the right answers in a louder voice.

The mandated testing program may be a time bomb waiting either to be defused or to go off. If scores are used to diagnose problems and offer help, the program will be useful, and teacher anxiety will decrease. If scores are used to publicly find fault and punish, anxiety will increase. Teacher burnout and entrapment may then reach higher proportions, teachers will learn how to cope, and the program will reduce teaching effectiveness instead of improving it.

RELATED LITERATURE

Mandated Tests: Contexts and Consequences

Recent statewide efforts to gain control and improve the quality of education have increasingly relied upon mandated testing of students (Airasian, 1987). Fifteen states have passed and four others have legislation pending requiring high school students to pass exit tests to qualify to receive diplomas (Airasian, 1987). This new emphasis on mandated testing is better understood in the context of societal trends which affect the entire educational system.

The Influence of Societal Trends

Airasian (1987) noted four trends in the larger society as having profound effects on the educational system of the United States. First, what Boulding (cited in Airasian, 1987) called the movement of the social system into a period of self consciousness led to efforts to examine, reform, and restructure society. That focus, emerging in the 1960s and extending into the 1970s, provided the motivation for a host of programs designed to alter and better society. Second, a growing belief in the adaptability of human behavior through environmental manipulation provided a rationale for additional efforts. This was based on a belief that certain social problems, such as poverty and discrimination not only should be addressed in schools but that those can be changed (Bloom, 1964; Hunt, 1961).

Third, the predominant socio-political movement of the past 20 years has been the press for equity and equality of opportunity for all citizens. This has required the educational system to serve a variety of groups which it had previously underserved or not served at all. It also focused attention on the outcomes of education.

The fourth movement was a substantial change in the structure of the American family, diminishing the educational influence of the home, creating new academic and affective problems for schools to deal with, and making the school more responsible for the socialization of young people. Plank (1986) and Lutz (1987) add a fifth societal trend, of considerable influence in the present reform: Geopolitical shifts in power have resulted in a changed perception of the competitive position of the United States in the world economy. This changed perception has greatly magnified the concern that American young people should be educated to compete effectively in world markets.

These societal trends have resulted in several significant changes in the American educational system including growth, shifts in control, and the politicization of education (Airasian, 1987). The growth that has taken place in the last 25 years has been not in numbers of students, but in education as an economic enterprise, in the diversity of pupil groups served, and in the number of goals and functions the schools are expected to address. Schools are expected to socialize students

by providing them with a variety of living skills. As a result, the curriculum has been expanded substantially. Airasian (1987, p. 9) writes,

One cannot help but wonder whether the expanded expectations for schools represents the public's unbridled faith in the ability of education to teach such issues or the public's desperate search for some social institution which will take responsibility for instructing the young in these areas.

A major dilemma for society and for the schools has been dealing with the apparent conflict of the demands for equality of opportunity and the quality of education.

The second significant change in the American educational system, as a result of trends in the larger society, has been shifts in the control from local school districts to state school agencies. This shift in control has come about because of the concern that "if the perceived consequences of pupil failure are great (e.g., lack of 'survival,' illiteracy), the interests of the state in the process of education become great as well" (Airasian, 1987). Anderson and Pipho (1984) point out that state control of education and the resultant growth of state mandated testing are unintended outcomes of the excellence movement, which itself is a response to larger societal concerns. The new mandated tests are, in turn, further blurring the classic lines between federal, state, and local control of education.

The third significant change in the educational system has been the politicization of education. Although

education has always been a political function, recent trends have made that arrangement both more salient and more factual (Iannaccone & Lutz, 1970). The movement of the society into self-consciousness, the growing belief that society can be overhauled by changing the young, the sometimes conflicting calls for equity and quality, the changes in the structure of the family, and the shifting status of the United States' economic and political power all have increased the number of politically active special interest groups vying for influence in the educational system. "Each special interest group has its agenda for the schools, its turf to protect, and a stake in decisions that affect educational practices and priorities" (Airasian, 1987, p. 13).

As a consequence of the growth, centralization, and politicization of the educational system in the past 20 years, two new roles of standardized testing have arisen: monitoring the educational system and certifying individual performance (Airasian, 1987). These goals first became important with the launching of Sputnik when the U.S. realized its competitive edge internationally was in danger of being lost. After 15 years of focus on equality of opportunity in education, the focus has now shifted back to quality of education. This shift has come about principally through the growing realization, perhaps beginning with the Arab oil embargo in the early 1970s, that the U.S. has been losing economic power, and if we are to continue to compete,

we must have the edge in education. Thus the focus on monitoring both the educational system and the individual's performance through mandated tests were established.

The use of standardized tests for the purpose of monitoring the educational system began somewhat unobtrusively, causing few direct effects on the schools or the people in them (Airasian, 1987). This use of tests had, however, several important indirect effects. It caused educators and the public at large to look beyond their local school systems to evaluate the adequacy of their educational efforts. It also accustomed educators and the public to accept test scores as legitimate measures of educational success. Finally, the results of standardized tests provided pessimistic news about the status of education in the U.S. Thus, the use of standardized tests to monitor the educational system paved the way for a more intrusive role, the use of state mandated tests to certify individual performance. Of this change in the role of standardized testing, Anderson (1985, p. 23) writes,

The initial purpose of most state wide testing was simply to observe learning trends. The emphasis was on "Where are we?" not on "Whose fault is it that we are where we are?" Unfortunately, the assignment of responsibility came so quickly that some people forgot that the objective observation of trends needs to continue and that it implies different test characteristics than an accountability test.

This change in the role of testing has resulted in testing becoming a crucial aspect of educational policy itself. "Tests have become powerful motivators and

implementors of educational reform" (Airasian, 1987, p. 16).

There are three fundamental characteristics of state mandated tests which distinguish their use from the previous uses of locally selected standardized tests. First, they are mandated by the state for individuals in all school districts. Second, most local district discretion in their use and administration is eliminated. Third, there are clear sanctions or rewards associated with test performance.

By making the results of these mandated tests important, state agencies and society have made the tests themselves important, leading to several consequences. First, audiences are no longer limited to a few professionals; the larger society now seeks reassurance that we are succeeding educationally. Second, mandating these certification tests threatens to further erode local control of schools and education. The agency that controls the design and administration of these tests exerts considerable influence over the curriculum of the school districts and the existence of the districts themselves. Third, the differences in the goals of varied social groups, e.g. quality vs. equality, have been brought into sharp focus by comparison of these scores across ethnic and racial groups.

In summary, it might be concluded that "the minimum competency testing movement has been identified as more of a political movement than an educational reform effort" (Dawson & Dawson, 1985, p. 299).

Problems and Misuses

Accountability

As has been emphasized, one of the primary motivations for mandated certification tests is to satisfy various interest groups, as well as the general public, that education is helping society achieve its goals. The President of the Educational Testing Service (ETS), Greg Anrig, recently said of this practice that "the current national mania for testing has resulted in an undesirable situation where 'if it moves, test it' has become an operating principle" (First & Cardena, 1986). Of this practice, First & Cardena said,

...in case after case we are finding great and increasing evidence that test scores are being widely used for a variety of inappropriate purposes in making decisions about students, teachers, and state and local programming. The result, we think, is that testing often is having a harmful impact on education and particularly on the interests of minority and special needs students. (p.6)

Of the use of mandated tests as an accountability tool, Friedman (1979) had the following arguments:

The word accountability is thus well chosen for this movement for accountability in education functions as a threat....As with most threats, it is focused on the beginning of the process, not the end. (p. 367) The only people who might find accountability measures not to be a bluff are those without any political power, who are more than likely, but not certainly, doing poorly in the system. (p. 369)....

Effects on Students

There are three interrelated complaints about the effects of mandated testing on students. First, mandated tests do not measure actual learning. Second, the effects of testing of the individual student may be harmful. Third, minority and disadvantaged students are discriminated against by such tests.

Concerning the ability of such tests to measure learning, Kean indicated that test scores reflect not only what a student has learned in school but also powerful influences outside the school (1981, p. 33). Mika (1982), when discussing the results of the 1979 Teacher Opinion Survey done by National Educational Association (NEA), reported that 77% of the respondent teachers thought that test scores often become an end in themselves rather than being used for sound educational purposes, and 76% thought that the elimination of these tests would have no negative effects on the schools. Sixty-two percent believed that such tests do not measure the most important aspects of student progress. Mika (1982) commented that those who are using standardized tests are unrealistic about what such tests can effectively measure.

That mandated testing may have harmful effects in the lives of individual students was noted by First and Cardenas (1986). They reported that a national board of inquiry, chaired by Harold Howe II, former U.S. Commissioner of Education, found in 1983 and 1984 that

misuse of testing is a major barrier to excellence in education for all children. In its final report, Barriers to Excellence: Our Children at Risk, the board of inquiry reported the following testimony from a principal of a New York City school:

Despite the lip-service we pay to the myriad ways in which individuals differ, and claim to celebrate this variety, our [testing] practices speak otherwise. In fact, it is performance on these tests--with their narrow and rigid definition both of when children should be able to perform particular skills and how they should be able to exhibit their knowledge--that determines whether we see children as "okay" or not. In the process we damage all children--we devalue the variety of strength they bring with them to school. (cited in First & Cardenas, 1986, p. 7)

Similarly, Kean (1981) reported that teachers believe the attention given declining or poor scores harms students' self-images. The crucial factors in the use of test scores seem to be whether or not support is provided to help those schools and individuals in need of it or whether the scores are used simply to make evaluative judgments about the schools and pupils. According to First and Cardenas (1986):

Such remedies are...rarely used. The tests are used to make classifications and distinctions between students, but the classification is rarely followed by effective educational support for students who are identified as 'at-risk,' in need of remedial help, or not ready for promotion. Test scores are increasingly being used to make decisions about students, teachers, and programs in ways that don't make educational sense, and seem to us likely to be harmful. High schools appear to be making little or no effort to follow up on dropouts because their absence tended to make the schools' scores look better. (p. 7)

Another concern over the effect of mandated testing is the complaint that mandated tests discriminate against minority and disadvantaged students. Eighty-three percent of teachers responding to NEA's 1979 Teacher Opinion Survey did not believe that scores on such tests were valid for students who are economically, socially, or culturally disadvantaged (Mika, 1982, p. 59). There seems to be some truth to this view as the data tend to indicate that Mexican-Americans have scored lower than whites on the TABS (Texas Assessment of Basic Skills) test (Gonzales, 1985, pp. 1-2). Gonzales said of this situation in Texas:

It is time to scrutinize the situation. Why is it that Mexican Americans score lower than Whites on standardized tests? What factors depress the performance of these students? Is it the lower socio-economic and educational level of the home.... Or is the problem associated with the testing situation.... The question is not whether or not to use standardized tests as a measurement, but rather are standardized tests, as they are presently being used, an appropriate measurement for Mexican Americans. (p. 2)

It has been suggested by some that the current use of testing serves the purpose of driving disadvantaged pupils out of the schools. It could be that test scores are increasing because the dropout rate has increased, thus eliminating low-scoring students from the test-taking population and raising overall scores.

Teacher Response

The response of teachers to state mandated tests can be looked at from several perspectives. First, the change and uncertainty connected with state reforms have

had a great impact on teachers and their attitudes about their jobs. Second, the loss of a sense of self-control or autonomy that teachers experience as a result of increasing state influence and control over what goes on in their classrooms causes increasing teacher discomfort. Third, the pressures placed on teachers to "teach to the test" and their belief that they are being evaluated based on their students' scores increases stress. Fourth, the resulting pressure to bend the rules, if not to cheat, causes real resentments. It is hypothesized that all of these effects can be combined into an alienation effect that may reap the state negative dividends at some point in the future.

Change and Uncertainty

Societal trends have brought tremendous changes within the schools. Lutz and Maddirala (1987), addressing the impact these changes are having upon teachers, wrote:

When an individual perceives that behavioral, emotional, or attitudinal adjustments are required, stress is likely to occur. Change causes imbalance between the individual and the environment so that the individual must adopt in order to re-establish that balance.

Dawson and Dawson (1985) indicated that stress due to change in the environment is heightened if the change is great or relatively sudden. As previously stated, education is experiencing the greatest and most rapid change in the history of our country. It might be expected that teachers

are experiencing a significant increase in frustration or tension.

The amount and speed of the changes taking place within education are not alone in contributing to teacher stress. A third contributing factor is uncertainty generated by these changes. There is tremendous pressure toward accountability within the education system. Additionally there are often conflicting pressures toward rewards and incentives for excellence, tightening local economies and education budgets, and demands by the public for fiscal responsibility. All of these forces make it extremely difficult to predict what the future holds. For example, H.B. 72 provided for both the accountability of teachers and schools and the reward of excellent performance through career ladder plans. Soon after his election, Governor Bill Clements, Jr. announced that he was doing away with the career ladder program in response to teachers' objections. Many saw this as a calculated move to cut these expenditures from the state's budget. Whatever the motivation, this kind of ambiguity in direction by those in positions of power keeps teachers on an emotional see-saw and leaves teachers feeling very insecure about their careers.

Locus of Control

In addition to the stress teachers experience as a result of the amount, speed, and uncertainty of change, the degree to which teachers perceive that they have little

control over their lives plays a major role in their frustration. Teachers in Texas feel that they no longer control their professional lives but are controlled by state mandates and directives. Ninety percent of the respondents to a survey felt H.B. 246 and H.B. 72 had adversely affected their professional autonomy (Lutz & Maddirala, 1987). This agrees with the research showing that stress is related to one's level of autonomy and discretion (Sales, 1969; French & Caplan, 1973). Other studies have indicated that the degree to which a program intrudes into existing programs and practices affects the difficulty teachers have accepting new programs (Dawson & Dawson, 1985). When teachers see new externally initiated programs altering their classes and activities, it is frustrating to them. The amount of external imposition versus local formation affects the attitude of teachers. If there is little local input, teachers are more likely to resent and to resist new efforts for quality control in education.

Teaching to the Test

Teachers and teachers' organizations have been among the strongest opponents of mandated tests. Dawson and Dawson (1985) write:

The negative argument is that teachers will be forced to "teach to the test." They will be pressured to make sure their students perform well on the tests and evaluated by how well their students do, and teachers will be forced to adjust their courses to emphasize test oriented basic skill, while other aspects of the curriculum are slighted. (pp. 288-289)

They report that in a Missouri district where mandated testing was implemented, teachers felt pressured to make sure that students did well on the test, even if they had to cheat.

Similarly, Mika (1982) reported a publicized incident in Virginia in which the central administration took materials directly from mandated tests and required teachers to use those materials to teach to the test. Mika (1982) commented that no one opposes a test which is tied to curriculum, but that there is great opposition to a test which becomes either the controller of the curriculum or the curriculum itself. Dawson & Dawson (1985) reported that only 14% of the teachers in the Missouri school district saw the impact of the test on the curriculum as positive, while over 50% saw it as negative.

One of the major factors influencing teacher response to mandated testing is the extent to which teachers feel pressured to teach to the test or believe that they are being evaluated based on student performances on the test (Dawson & Dawson, 1985). Kennedy (1985) conceptualized four levels of teacher-felt stress as a result of test use. The fourth and highest level was induced by teacher evaluations based on performance as measured by student test grades. Kennedy found that teachers in districts which used tests in this way were morose, apathetic, and cynical. They went through the motions of complying while at the same time dismissing the importance of the teacher evaluations.

Kennedy found no teachers who, in spite of the districts' stated intention to use test scores for teacher evaluations, tried to improve their instruction. She did find many teachers who said that they were going to leave the profession. Concerning the response of teachers to the pressure to teach to the test, Kean (1981) said:

Teachers who fear that low student test scores reflect on their teaching abilities should be reassured that nationally normed, standardized tests are designed to measure cumulative knowledge; these scores indicate not only what a student has learned in school, but also reflect powerful influences outside of school. (p. 33)

Cheating

Pushed hard enough to teach to the test, teachers begin to believe they are being asked to cheat. Whether this belief is accurate or not, it has profound impact on the attitudes of teachers about themselves, their jobs, and their entire profession. Discussing their analysis of the variance in test scores, Stringfield and Hartman (1985) write:

We believe that this problem (grade-to-grade variance in test scores beyond the ranges of believability) is caused by teachers feeling substantial pressure to 'get the test scores up' at any cost. One teacher, for example, reported that her principal said to her, 'None of your students will fail the State's Basic Skills Test.' When she asked how that could be, considering that many of her students could not read at the beginning of the year, and that a few still could not, he simply repeated the statement. The teacher read both the questions and the answers to the class; no one failed. (p. 7)

Similarly, Dawson and Dawson (1985) reported that in some

Missouri districts teachers felt pressured to make sure their students did well on the test even if they had to cheat. Stringfield and Hartman (1985) concluded:

Stated directly, evidence suggests that in school systems where (a) pressure is placed on principals and teachers to raise test scores without concomitant increase in resources, and (b) substantial measures are not taken to insure the veracity of test administration, testing practices may arise which artificially inflate student test scores. (p. 1)

The combination of uncertainty, loss of control, and pressure to conform in one's teaching to externally imposed standards of evaluation, even to the point of cheating, certainly must lead teachers to experience frustration.

METHODS AND PROCEDURES

The following section details methods and procedures of sampling, instrumentation, and data analyses.

The Sample

The study generalizes to the population of teachers in the public schools of Texas. For purposes of this study, that population is defined as those teachers listed by TEA on their 1985-86 computer tape of teachers in the Texas Public Schools. The Computer Center at East Texas State University used this tape to generate a random sample of 3,000 Texas teachers and produced mailing labels with their school addresses of record.

An initial letter was sent to each of these 3,000 teachers telling them of the study, of their selection as a member of the sample, and of the imminent arrival of the questionnaire by mail. This letter was followed in four days by the initial questionnaire.

Three weeks were allowed for responses. Each response was recorded against the original list of 3,000 names. Those who had not responded were sent a postcard reminding them of the study and requesting they respond or, if necessary, call the Center for Policy Studies and Research for an additional questionnaire. Again, records of respondents were kept against the list of teachers selected in the original sample.

Two weeks later, a random sample of 10% of all those remaining in the original sample list (non-respondents) were

designated as the non-respondent sample. These 230 teachers were sent a letter informing them that they were selected as a special and important group of our original sample and as such would be receiving another questionnaire. Four days later, a copy of the original questionnaire was sent for the second time to the 230 teachers in this non-respondent sample. Data from this non-respondent sample (supplied by 97 teachers) were used to determine whether or not any systematic bias existed in our respondent sample.

Some of the respondents to the original questionnaire took the opportunity to write a scenario about mandated tests as it affected them. One hundred twenty teachers indicated a desire or willingness to be interviewed. Time and other resources made telephone interviews of a group this large impossible. A second scaled questionnaire was developed asking for more specific information from those teachers willing to be interviewed. In addition, 40 of those who agreed to be interviewed were selected at random and contacted by telephone. The interviews lasted from 10 to 20 minutes with the average interview being 15 minutes in length.

November 21, 1986, was the cut-off date for all mail responses in all categories. Telephone interviews were conducted between December 15 and December 30, 1986. Interviewers were trained in a 3-hour session at the Center for Policy Studies to conduct "guided, but unstructured" interviews (Lutz and Iannaccone, 1969). Essentially, this

means that the goals of the interview were understood and a set of initial questions suggested. Interviewers were trained to allow the respondents to say what they thought, however, rather than be forced to respond to a structured and required set of planned questions.

Instrumentation

Four instruments were used to collect data for this study: (1) Mandated Tests Scale, (2) Burnout Scale, (3) Pupil Control Ideology, and (4) Locus of Control. The development of the Mandated Tests Scale and information about all instruments used in this study are described in detail below.

Mandated Tests Scale

The development of the Mandated Tests Scale involved two steps, each of which will be described in some detail: (1) item generation, and (2) a pilot study to refine the items and identify the factor structure.

Using the literature on state mandated tests and teacher burnout, researchers created 39 items to tap all facets of paperwork. Careful attention was given to see that the statements reflected the public school mandated tests concept and that the statements were clear and concise. All items were simple statements. Respondents were asked to indicate the extent to which each statement characterized their attitudes toward state mandated tests along a 5-point Likert Scale as strongly agree, agree,

undecided, disagree, or strongly disagree.

Pilot Study.

A pilot sample of 60 practicing teachers attending classes at the College of Education, East Texas State University, Commerce, Texas, was selected for exploration and refinement of the instrument. The sample included a diverse sub-set of Texas public school teachers. Although the minimum allowable ratio of cases to items is still a matter of debate, the number of cases should exceed the number of items. In general, the ratio of cases to items should be as large as possible (Rummel, 1970). In the present study, the preliminary instrument had two scales: (1) Paperwork Scale (45 items) and (2) Mandated Test Scale (34 items). Sixty teachers responded to each scale. This meets the criterion for the ratio of cases to items as the scales were run and used as separate instruments.

Factor Analysis.

Two criteria were used to reduce the total number of items in both the instruments. First, the criterion of simple structure was employed in all factor analyses; only items which loaded high on one factor and low on all others were retained. Secondly, items were eliminated if they reduced substantially the internal consistency of the sub-set as measured by Cronbach's Coefficient Alpha.

The data from the sample were subjected to a factor analysis using principal factoring with varimax rotation.

Ten factors accounted for over three-fourths of the variance. A set of selection criteria was then applied to the items, yielding a reduction in the number of items from 45 to 22 in the Paperwork Scale. Items were retained that met a factor loading greater than .30 on one, and only one, of the factors.

The factor analysis of 14 items of the Mandated Tests Scale using principal factoring yielded a 2-factor solution. The final 14 items of the Mandated Tests Scale consisted of two factors resulting in .72 Cronbach's Alpha reliability. Cronbach's Alpha reliability coefficients for the Mandated Tests sub-scales were the following: .83 for Frustration with Mandated Tests (Factor I), .67 for Coping with Mandated Tests (Factor II).

Burnout Scale

The Maslach Burnout Scale (1981) contained three sub-scales that assess the different aspects of experienced burnout. It has been found reliable, valid, and easy to administer. The Emotional Exhaustion sub-scale of the Burnout Scale assesses feelings of being emotionally overextended and exhausted by one's work. The Depersonalization sub-scale measures a lack of feeling and impersonal response toward recipients of one's service, care, treatment, or instruction. The Personal Accomplishment sub-scale assesses feelings of competence and successful achievement in one's work with people. A high degree of burnout is reflected in high scores on the

Emotional Exhaustion and Depersonalization sub-scales and in low scores on the Personal Accomplishment sub-scale. In the present study, the Emotional Exhaustion sub-scale and the Personal Accomplishment sub-scales were used, having .90 and .71 reliability coefficients, respectively. The Standard error of measurement for each sub-scale is 3.80 for Emotional Exhaustion and 3.73 for Personal Accomplishment.

Locus of Control Scale

The scale measures internal-external Locus of Control as described by Rotter (1966). The scale is a 1963 revision of that first developed by James (1957). It contains 60 items, of which 30 are "true" items and 30 are "fillers" (namely the odd numbered items). It should be noted that all of the items in James' scale are worded in the external direction.

The scale employs a Likert-type format. Scores theoretically range from 0 (internal) to 90 (external). This study adopted Factor I of James' scale. Factor I (i.e., the 11 items common to both sex groups) might be viewed as a generalized measure of Locus of Control. It contained items that reflect the acceptance or rejection of the idea that outcomes are contingent upon: (1) luck (items: 64, 65, 66, 67, 68, and 69), (2) fate (items: 70, 71, and 72), and (3) powerful others (items: 73 and 74). James reports split-half reliabilities ranging from .84 to .96. Retest reliabilities vary from .71 to .86.

Pupil Control Ideology

This study used ten items of the Pupil Control Ideology to examine the effect of humanistic-custodial orientation on the attitude of Texas school teachers toward paperwork and mandated tests. The concept of pupil control was operationalized along the humanistic-custodial continuum, using the Pupil Control Ideology (PCI) developed by Donald J. Willower, Terry L. Eidell, and Wayne K. Hoy (1967). The final version of the PCI is a 20-item, Likert-type scale with five categories for each item ranging from "strongly agree" to "strongly disagree."

Reliability coefficients of the PCI instrument have been consistently high. A split-half reliability coefficient was calculated by correlating even-item sub-scores with odd-item sub-scores. The resulting Pearson product/moment coefficient was .91; application of the Spearman-Brown formula yielded a current coefficient of .95 (Willower, 1967). A school's pupil-control orientation can be measured by pooling the individual ideologies of its professional staff members. This represents an estimate of the model orientation of the school. It provides an index of the degree of custodialism (or humanism) with respect to the pupil-control orientation of the school. The ten items used in this study were recommended by Hoy as producing approximately equal reliability and validity measures.

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APPENDICES

APPENDIX I

ZERO ORDER CORRELATION MATRIX FOR VARIABLES IN APPENDIX II

N=605

	Mandated Tests I	Mandated Tests II	Locus of Control	Emotional Exhaustion
Mandated Tests I	1.00	-.02	-.07	-.25
Mandated Tests II	-.02	1.00	.11	-.25
Locus of Control	-.07	.11	1.00	-.33
Emotional Exhaustion	.18	-.25	-.33	1.00

APPENDIX II

SUMMARY TABLE OF EMOTIONAL EXHAUSTION WITH TWO SUB-SCALES OF
MANDATED TESTS SCALE AND LOCUS OF CONTROL SCALE

N=605

Variable	Multiple R	Adjusted R Square	F	Significance
Mandated Tests II	.24	.06	38.382	<.00001
Mandated Tests I	.30	.09	20.649	<.00001
Locus of Control	.42	.17	61.686	<.00001

APPENDIX III

ZERO ORDER CORRELATION MATRIX FOR VARIABLES IN APPENDIX IV

	Pupil Control Ideology	Mandated Tests I	Mandated Tests II	Locus of Control	Emotional Exhaustion
Pupil Control Ideology	1.00	-.17	-.05	.26	-.27
Mandated Tests I	-.17	1.00	.05	-.11	.10
Mandated Tests II	-.05	.05	1.00	.56	-.25
Locus of Control	.26	-.11	.56	1.00	-.35
Emotional Exhaustion	-.27	.10	-.25	-.35	1.00

APPENDIX IV

SUMMARY TABLE OF EMOTIONAL EXHAUSTION WITH TWO SUB-SCALES OF
MANDATED TESTS SCALE, LOCUS OF CONTROL, AND PUPIL CONTROL
IDEOLOGY

Variable	Multiple R	Adjusted R Square	F	Significance
Locus of Control	.35	.11	11.770	<.00001
Mandated Tests II	.42	.16	5.499	<.00001
Pupil Control Ideology	.46	.19	4.172	<.00001

APPENDIX V

T-TESTS FOR MANDATED TESTS: EVEN GRADE TEACHERS VS. ODD GRADE TEACHERS

Variable	Number of Cases	Mean	Std. Dev.	Std. Error	T Value	Degrees of Freedom	2 Tail Prob.
Mandated Tests I							
Even Grade Teachers	49	26.02	4.02	0.58	1.91	96	0.059
Odd Grade Teachers	49	24.35	4.62	0.66			
Mandated Tests II							
Even Grade Teachers	49	15.63	3.32	0.47	0.22	96	0.829
Odd Grade Teachers	49	15.49	3.19	0.46			

* p >.05

APPENDIX VI

MANDATED TESTS SECOND QUESTIONNAIRE

Please read every item and scale your answer by circling the appropriate scale.

	Strongly Agree	Agree	Unde- cided	Dis- Agree	Strongly Disagree
1. I think the real reason for requiring TEAMS is to evaluate teachers and schools.	SA	A	U	DA	SD
2. It is grossly unfair to compare classes and schools across the state by using TEAMS scores.	SA	A	U	DA	SD
3. Without TEAMS, or something like it, there is no way to know what is happening in Texas schools.	SA	A	U	DA	SD
4. The present use of TEAMS scores, as I perceive them, is invalid and not in the best interest of better teaching.	SA	A	U	DA	SD

APPENDIX VII

FREQUENCIES FOR MANDATED TESTS
SECOND QUESTIONNAIRE

Statements	Agree or Strongly Agree		Undecided		Disagree or Strongly Disagree	
	N	%	N	%	N	%
	1	39	63.9	9	14.8	13
2	45	73.8	8	13.1	8	13.1
3	19	31.1	8	13.1	34	55.7
4	33	54.1	14	23.0	14	23.0

APPENDIX VIII

MANDATED TESTS SCALE RELIABILITIES

	Concerned with Mandated Tests	Coping with Mandated Tests
Cronbach's Alpha	.91	.82
Guttman Scale	.85	.70
Spearman. Brown Split-Half	.86	.76

APPENDIX IX

MANDATED TESTS SCALE FACTORS

FACTOR I: Concerned with Tests

	Factor I	Factor II
1. State-mandated tests are a satisfactory method of measuring student achievement	-.48	.37
2. TEAMS will improve student achievement.	-.56	.46
3. Test results on TEAMS indicate teaching effectiveness.	-.72	.25
4. I like being evaluated through TEAMS scores.	-.70	.25
5. The fit between adopted tests and TEAMS testing is good.	-.43	.17
6. State-mandated test provide valuable feedback regarding student achievement.	-.61	.31
7. I make use of mandated test scores in developing my teaching strategies.	-.42	.14
8. Other teachers resist being evaluated using TEAMS.	.48	.07

9.	Mandated tests will result in better student achievement	- .53	.52
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FACTOR II: Coping with Tests

10.	State-mandated testing has changed the way I teach.	.39	.51
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11.	Teachers who don't "teach to the test" will be disadvantaged in their evaluations.	.18	.53
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12.	While monitoring student tests, it is very easy to know their contents.	.37	.46
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13.	Teachers who "teach to the test" are only doing what they feel necessary.	- .03	.57
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14.	If I must, I will alter my curriculum to improve scores on mandated tests.	- .08	.52
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