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# A cost-effectiveness analysis of selected teacher performance evaluation systems

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A cost-effectiveness analysis of selected teacher performance  
evaluation systems

by

Edward L. Schmitt

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## CHAPTER I. THE PROBLEM

## Introduction

Since at least the beginning of the century, educational research has grappled with the problem of teacher evaluation. Countless methods have been employed and measured with few concrete results. The problem is understandable in light of the complexity of the teaching-learning process. Regardless of the magnitude of the problems associated with teacher evaluation, however, the challenge remains; indeed, it has grown.

The need for evaluation is greater in today's educational establishment than it has been at any previous time in history. For we are living in the age of accountability, a time when we have to justify what we do, why we do it, the effects of what we do, and the costs involved.

The demands for this justification come from both academic and fiscal concerns. For, while our advanced technology is believed to have heightened our knowledge of the field of education, our financially troubled society is taking a much more critical look at the ways in which public funds are spent.

Educators have been somewhat slow to come to grips with this situation. Given the difficulty of the task of measuring all the variables involved in effective teacher performance evaluation and the unfamiliar realm of cost analysis, they have focused their attention on one or the other, but they have not addressed the compounded problem of the two issues taken together.

### Statement of the Problem

Teacher performance evaluation is currently required in most school districts. Such evaluation is accomplished by various methods with different amounts of cost and with different levels of personnel satisfaction. The recent emergence of the concept of accountability has focused considerable attention on the practice of teacher evaluation.

School districts have been forced to reexamine their evaluation procedures and to devise improved methodologies of rating teachers and upgrading the quality of education offered to their students.

Central to this reassessment is the computation of an estimated cost factor and some sort of judgment as to the effectiveness of the evaluation procedure. Such measures have not been available to educational decision-makers.

### Purposes of the Study

The overriding purpose of this study was to develop a methodology for comparing different types of teacher evaluation systems, the costs involved with each, and the relative level of personnel satisfaction with each system.

The first purpose of the study was to identify three major categories of teacher evaluation systems.

The second purpose was to develop a methodology for computing the evaluation costs associated with each type of evaluation system.

The third purpose was to develop an attitudinal questionnaire to assess the relative degree of personnel satisfaction with each type of



evaluation system.

The fourth purpose was to examine cost and satisfaction findings in relationship to each other.

The fifth purpose was to make this information available to school districts, teacher organizations, administrative organizations, school board associations, and graduate schools in education.

### Objectives of the Study

In order to accomplish the above general purposes, the following objectives were established:

1. Review the literature dealing with teacher evaluation and cost analysis.
2. Select and describe three major categories of teacher evaluation systems.
3. Determine large and medium-sized school districts, each of which used one of the three types of evaluation systems.
4. Develop per-unit cost figures for each evaluation system in each district.
5. Assess the degree of satisfaction of various personnel associated with each type of evaluation system.
  - a. teachers
  - b. administrators
  - c. school board members
6. Analyze cost-satisfaction levels for each evaluation system.

## Hypotheses to be Tested

The following null hypotheses and subhypotheses were tested to achieve the objectives of the study:

1.  $H_0$  There is no significant difference among respondent types in their general attitude toward teacher evaluation.
  - a. relative to school size
  - b. relative to evaluation procedure
2.  $H_0$  There is no significant difference among respondent types in their agreement of the major purpose of teacher evaluation as the improvement of instruction.
  - a. relative to school size
  - b. relative to evaluation procedure
3.  $H_0$  There is no significant difference among respondent types in their perception that the current teacher evaluation procedure in their school has the improvement of instruction as its major purpose.
  - a. relative to school size
  - b. relative to evaluation procedure
4.  $H_0$  There is no significant difference among respondent types' degree of involvement in developing their current teacher evaluation procedure.
  - a. relative to school size
  - b. relative to evaluation procedure
5.  $H_0$  There is no significant difference among respondent types' attitude toward the teacher evaluation procedure currently used in their school.
  - a. relative to school size
  - b. relative to evaluation procedure
6.  $H_0$  There is no significant difference among respondent types' perception of the level of priority teacher evaluation is considered to hold by the school board in their district.
  - a. relative to school size
  - b. relative to evaluation procedure
7.  $H_0$  There is no significant difference among respondent types' perception of whether sufficient financial resources are allocated for teacher evaluation in their district.
  - a. relative to school size
  - b. relative to evaluation procedure

8.  $H_0$  There is no significant difference among respondent types' perception of whether the teacher evaluation procedure in their school warrants the costs involved.
  - a. relative to school size
  - b. relative to evaluation procedure
9.  $H_0$  There is no significant difference among respondent types who favor retaining the teacher evaluation procedure currently used in their district.
  - a. relative to school size
  - b. relative to evaluation procedure
10.  $H_0$  There is no significant difference among respondent types who favor supplementing their current teacher evaluation procedure with additional procedures.
  - a. relative to school size
  - b. relative to evaluation procedure
11.  $H_0$  There is no significant difference among respondent types who favor replacing their current teacher evaluation procedure with a different procedure.
  - a. relative to school size
  - b. relative to evaluation procedure
12.  $H_0$  There is no significant difference among respondent types' perception of the strengths of their teacher evaluation procedure.
  - a. relative to school size
  - b. relative to evaluation procedure
13.  $H_0$  There is no significant difference among respondent types' perception of the weaknesses of their teacher evaluation procedure.
  - a. relative to school size
  - b. relative to evaluation procedure
14.  $H_0$  There is no significant difference among evaluation procedures in annual per teacher cost of evaluation.
  - a. relative to school size
  - b. relative to evaluation procedure
15.  $H_0$  There is no significant difference among evaluation procedures in annual per evaluation cost of teacher evaluation.
  - a. relative to school size
  - b. relative to evaluation procedure
16.  $H_0$  There is no significant difference among evaluation procedures in developmental costs.
  - a. relative to school size
  - b. relative to evaluation procedure

### Basic Assumptions

Certain assumptions were necessary in order to test hypotheses regarding teacher evaluation. This study was based upon the following assumptions:

1. Teaching can be evaluated.
2. Teacher evaluation is a necessary component of an educational system.
3. The major purpose of teacher evaluation is the improvement of instruction.
4. Process-centered, or teacher performance, evaluation is the most common approach to teacher evaluation.
5. Few concrete facts have been codified concerning what constitutes the "best" system of teacher evaluation.
6. Personnel satisfaction with the evaluation system is an important concern.
7. Cost should be considered when contemplating the choice among various evaluation systems.
8. Costs and satisfaction are important considerations in tailoring an evaluation system to a school district.

### Definitions

Accountability The process of relating results to resources and efforts in ways that are useful for policy-making, resource allocation, or compensation.

Evaluation The process of delineating, obtaining, and providing useful information for judging decision alternatives.

Cost Effectiveness A method of determining the most efficient mix of activities to achieve a specific objective. Total costs are related

to efforts. Costs are measured in dollars, and effectiveness is expressed in terms other than dollars.

Cost Effectiveness Analysis An analytic study designed to assist a decision-maker in identifying a preferred choice among possible alternatives.

Rating Scales A list of characteristics of teacher behavior judged for degree of adequacy by an evaluator who is generally the building principal.

Management By Objective (MBO) A process whereby the superior and subordinate jointly identify goals, define individual major areas of responsibility in terms of results expected, and use these measures as guides for operating the unit and assessing the contribution of each of its members.

Job Targets The measuring of mutually agreed upon objectives against which teachers' performance is evaluated.

Multiple Evaluators The participation of personnel such as the principal, supervisors, peer teachers, and students in determining the performance level of a teacher.

#### Delimitations

This study was not intended to be the final word in cost-effectiveness analysis. It was realized there would be some difficulty in finding examples of "pure" evaluation systems, as most schools adapt models for their particular situation. And it was also realized that exact costs would be difficult to determine. This study was intended, therefore, as

an initial breakthrough, an attempt to bring together the disparate entities of cost, teacher evaluation, and personnel satisfaction, and to develop some measures of how they were interrelated.

Since this was the intention, it was felt that a limited number of schools would be examined in some depth rather than a large number of schools superficially. The study was limited to evaluation of classroom teachers in selected Iowa senior high schools. Additionally, school districts studied were selected on the following bases:

1. School districts were selected on the basis of size.
  - a. three medium-sized districts with high school enrollments of fewer than 600 pupils
  - b. three large districts with high school enrollments of 1,000 pupils or more
2. School districts were selected on the basis of evaluations systems they currently had in use.
  - a. one medium and one large district using rating scales
  - b. one medium and one large district using MBO or job targets
  - c. one medium and one large district using multiple evaluators.

#### Sources of Data

Data for this study were drawn from the following:

1. A search of educational and economic literature to assess the current state of the arts of teacher evaluation and cost analysis.
2. The review of a questionnaire administered by the Iowa State Education Association which identified various current evaluation practices used by Iowa school districts.

3. Telephone interviews with superintendents and principals of the selected school districts to prepare them to assess total teacher evaluation costs.

4. The completion of cost-analysis forms by superintendents and principals to identify costs associated with current evaluation procedures.

5. The administration of a questionnaire to teachers, administrators, and school board members to assess their satisfaction with their teacher evaluation system.

#### Organization of the Study

The study was arranged in five chapters plus a bibliography and appendices. Chapter I presented an overview of the study including an introduction, statement of the problem, discussion of objectives, goals, and hypotheses, definition of important terms, delimitations of the study, and a listing of the sources of data upon which the study was based.

Chapter II presented a review of related literature. It was divided into the following areas: a review of literature dealing with the need for improved educational research techniques, a review of other recent reviews in the area of teacher evaluation, a general review of literature on teacher evaluation, a review of research on rating scales, job targets or MBO and multiple evaluator systems, a review of literature concerned with cost effectiveness analysis, and a review of literature concerning personnel satisfaction.

Chapter III provided detailed information on the methods and

procedures utilized in the study.

Chapter IV contained the findings of the study in both narrative and tabular form. The findings were discussed in relationship to the hypotheses stated in Chapter I.

Chapter V contained a summary of the problem, findings of the study, conclusions, limitations, and recommendations for further study.



## CHAPTER II. REVIEW OF RELATED LITERATURE

W. James Popham (1969) succinctly pointed out the magnitude of the issue of teacher evaluation:

One of the most elusive targets in the history of educational research is a valid index of teacher effectiveness. Since the turn of the century literally hundreds of investigations have probed the question of teacher competence assessment and most of them have produced little, if any, significant progress. (58, p. 1)

Reams of material have been written and scores of studies have been performed over the past 75 years. Therefore, a major problem of devising a study in this area lay in the review of related literature. It would be impossible to review all of the writing on the subject, as stated by Ronan (1972):

Any comprehensive review of the literature concerned with the evaluation of teaching would require years of effort, as shown by the bibliographies compiled by Barr and Jones (1958), Domas and Tiedman (1950) and Eels (1967). (63, p. 2)

This review of literature, therefore, by necessity, had to be selective. It explored the issue of teacher evaluation in the following areas: establishment of a need and rationale for improved research techniques, a review of other recent reviews in the area of teacher evaluation, a general review of literature in this area, a review of research on rating scales, an examination of job targets or MBO, an examination of multiple evaluator systems, a review of literature concerned with cost effectiveness analysis, and a review of literature dealing with personnel satisfaction related to evaluation.

### Need for Improved Research Techniques

There has been much recent interest in improving research techniques in all phases of educational research. Writers, such as Cronbach and Suppes (1969), have expressed concern "with the impediments to excellence in educational research" in its current state and the need within the academic community for new research methods and attitudes toward research (17, p. 3).

This impetus for growth has been spurred by various political developments and social pressures, for the academic community does not exist in a vacuum. Rather, it is an integral part of the larger social system. As Krystal and Henrie (1972) observed:

A number of social and political developments have converged to produce widespread demands for accountability. Among these are the growing public movement for evaluation and cost/benefit analysis of resources, expanded by the Federal Government [and] the increase of reports in the media of critical assessments of educational programs. (39, p. 1)

Other forces were also spelled out by Hartley (1973) which made demands on educational researchers for improved methods, and improvements in this area were occurring:

underlying the general advancement in educational planning, procedural, and allocative strategies are three major causes: demands for greater efficiency are being placed upon school officials, improvements are taking place in the methods of framing the problems and organizing available data, and more detailed analyses of the data are possible because of more precise economic tools. (27, p. 238)

The need for even more sophisticated educational evaluation techniques seemed clearly evident in this scientific, technological age. Education, stated Edding (1966), could not continue to exist in

shrouded mysteries impervious to concrete measurement:

It is argued that educational activities do not lend themselves to quantitative analysis because they have mainly to do with qualities. But this is only partly true. The goal must be to quantify quality and the conditions in which quality is achieved as much as possible. How else can we hope to improve quality? Many new lines of re-search in education point this way. (19, p. 9)

The theme of need for improvement in educational research was a very real one. For, in too many cases, the current state of the art was, at best, substandard. Demands imposed by a fast-closing future certain to become increasingly and rapidly more sophisticated had to be met head on by educational researchers. Coombs and Hallak (1972) stated the challenge this way:

If educational planners only had to worry about expanding the present educational establishment in its old image, their life would be much simpler. But in fact, they must also worry about changing the old order so as to improve the efficiency and productivity of education, and they must constantly be on the lookout for alternative ways of doing things that might constitute an improvement over the status quo. (15, p. 29)

In the introduction to Walberg's book on evaluation (1974), the point was made that if educators were going to make such needed improvements, they would have to look beyond their traditional measuring instruments and explore procedures from other disciplines in order to better understand the complexities of education (81, pp. v-vii).

These writers and countless others echoed the demand of recent decades for the improvement of educational research. Fortunately, it was not an unanswered echo but one that had brought about concrete changes and improvements in evaluation methodologies. This current study may be seen as a response to this mandate for improved educational

evaluation.

### Review of Other Reviews

Various approaches to teacher evaluation have been examined by educational researchers. Three recent Ph.D. dissertations have dealt with different facets of the question. Their reviews of literature provided an extensive compilation of earlier research findings.

Hidlebaugh (1973) reported that in spite of thousands of studies on the subject of teacher evaluation in this century, few established facts about teacher effectiveness have emerged. However, some apparent characteristics of effective teaching have been shown to be: warmth, cognitive organization, orderliness, indirectness, problem-solving ability, and professional knowledge.

Measures of teacher effectiveness based on student growth criteria have been undertaken for nearly half a century with few confident findings. Clarity of teachers' presentation, however, did seem to be positively related to student achievement.

Rating scales were by far the most common tool of teacher evaluation. Their limitations included the lack of more powerful statistical methods and the lack of reliability among different raters. In line with the recommended use of multiple-evaluators to improve the effectiveness of rating systems, findings showed limited value of single ratings by self, peers, supervisors and administrators, and experts; while student evaluation, though little used, appeared to be the most valid and reliable. These shortcomings could be improved by use of pooled ratings.

Some general guiding principles for evaluation included: need for well-defined objectives, broadly-based involvement, clearly defined process, research and performance based, trained evaluators, and the improvement of instruction as the main goal (31, pp. 11-26).

Trullinger (1974) reported the discrepancy between theory and practice in teacher evaluation. For while the accountability advocates emphasized student outcomes as the key to evaluation, in practice the emphasis remained on the teaching process. Ideally, a balance should be struck between the two approaches as they were both important and worthy of consideration.

Process-centered evaluation was defended on grounds of its central aim of improving instruction, while it was claimed that input-process-output evaluation (product-centered) was too complex to be applicable to the current state of our knowledge of the subject.

Trullinger cited a recent NEA survey which reported over 90 percent of the nation's teachers approving of regular evaluation for the chief purpose of improving their teaching competence. He also cited support for the validity of student evaluation (79, pp. 15-33).

Cameron (1973) also noted disparity between theory and practice in teacher evaluation across the country. While the majority of the nation's schools used rating scales and claimed improved instruction as their goal, only half required follow-up conferences and none reported input other than administrator observation.

Further, trained observers tended to agree on their assessment of teacher competence while untrained observers did not. And the use of

demographic data as predictor criteria, along with administrator observation, were shown to be inadequate measures of teacher competence (11, pp. 20-24).

Reviewing summaries of research on teacher effectiveness from the beginning of the century, Biddle and Ellena (1964) summarized the findings of thousands of studies as being modest, inconclusive, and contradictory. Although primarily concerned with effectiveness rather than performance, the early research they cited was composed mainly of demographic data and ascriptive characteristics. The editors were optimistic, despite much of the unsatisfactory activity in this area, that concern for this topic would grow and that the prospect for improvements in this area in the future was bright (9, p. 66).

A final and exhaustive compilation of research in the area with the listing of some important findings was found in Ronan (1972). Although this was a document dealing primarily with college instruction, it pointed out that the bulk of the massive amount of research in teacher evaluation was concerned with primary and secondary education, and it drew from this basic research. Reporting on the comprehensive literature review over the first half century of teacher effectiveness research by Morsh and Wilder in 1954 which covered some 900 primary sources, the work summarized some of the more important results from the studies:

A wide variety of measures were employed in the various studies and there was a lack of replication of most of the findings.

Ratings of teacher effectiveness tended to be reliable but were not related in any substantial way to objective measures of

teacher performance. In particular, ratings by administrators show low correlations with objective measures, for example student "gains" as measured by various tests.

The difficulties of using student gains as criteria were pointed out, statistical problems receiving the most emphasis.

Predictors of teacher effectiveness such as intelligence, college grades, various "national teacher tests," aptitudes . . . and personality measures showed varied and tenuous relationships with any criteria.

A suitable criterion for teaching effectiveness must take into account student gains (the objective of teaching); the measure should be objective (here the possible utility of controlled observations is stressed); and a composite or global criterion of teaching effectiveness is, as of now, unlikely.

Prediction of teaching success and teacher training will only make progress as a suitable criterion of teaching effectiveness is developed.

In reading the report, one is struck with the tremendous amount of effort that has been expended on teaching research and, at the same time, by the lack of real progress in the area from the time when the report was given to the present, as shown by the research subsequently presented. (63, pp. 2-3)

Popham (1969), citing the same review, commented that not one single teaching act had been diagnosed which was consistently associated with student achievement (58, p. 1).

#### A General Review of Literature on Teacher Evaluation

Several writers listed the purposes of teacher evaluation as varied and many. It was advocated by Ronan (1972) as the key element for the establishment and existence of systematic personnel procedures (63, p. 1).

Several general purposes of evaluation were cited in Teacher evaluation (77), and also in the writings of Herman (30) and Rubin (67).

These purposes included:

improvement of instruction

rewarding superior performance

supplying information for modifying assignments

protecting the individual and/or the institution in legal matters

validating the selection process

providing the basis for planning for individual growth and development

motivating employees to more closely attain their potential  
(77, pp. 1-5; 30, p. 29; 67, p. 4)

Lewis (1973) listed a comprehensive rationale for appraising teacher performance:

(1) to improve performance; (2) to maintain systematic appraisal programs; (3) to keep the teacher informed as to what is expected of him; (4) to assess performance in relation to results expected; (5) to improve personal development of teachers; (6) to enable the teacher to determine for himself where fault lies for lack of performance; (7) to enable the teacher to enlighten the administrator on some points concerning performance; (8) to enable the teacher to develop on the job; (9) to provide counseling opportunities, resources and time for the teacher's personal development; (10) to enable the administrator to assist the teacher in achieving objectives.  
(42, p. 177)

Notwithstanding the existence of such lofty purposes, Beegle and Brandt (1973) found that the current state of the art as viewed by teachers, administrators and supervisors was assessed as having little practical value in improving instruction (6, p. v).

An even more critical denouncement was leveled by Mueller (1971):  
". . . many things have been said about good teaching and many experiments carried out, but as yet they have not been demonstrated



sufficiently to be valid, generalizeable bases for evaluation" (52, p. 230).

However, activity in reassessing the issue of evaluation has heightened in recent years. Redfern (1973) noted that a study conducted jointly by the American Association of School Administrators and the National Education Association showed an increase in districts revising their evaluation procedure in 1972 of ten times the number doing so in 1968 (22.6 percent vs. 2.3 percent) (62, p. 50).

Some of the problems of teacher evaluation that needed to be overcome were stated by Herman (1973):

the inconsistency of one rater over time

the lack of validity and reliability in the various tools of evaluation (rating scales, opinionnaires, anecdotal records, etc.)

the lack of clear cut definitions of desirable performance

the lack of reliance on the measurement of outcomes of performance. (30, p. 200)

The means to the solution of these problems lay in a combination of improving the traditional tools of evaluation and developing new tools and techniques. Among the more promising new developments noted by Herman (1973) were:

1. Video and audio recorded performances
2. Approaches to long term development such as PERT and CPM
3. Behavioral performance objectives
4. New classroom observation techniques
5. Systems approach to planning. (30, p. 200)

Additionally, six objectives were cited by Jones (1972) to overcome evaluation weaknesses:

1. Evaluation items should be situational
2. Student participation in evaluation
3. Eliminate vague and irrelevant evaluation items
4. Teachers should have chance for self-evaluation
5. Each evaluation item should have a professional development counterpart
6. Following evaluation and specifically designated in-service, teachers should be re-evaluated in a month (35, pp. 475-76)

Poliakoff (1973) pointed out that some other recent developments have indicated a trend away from unilateral administrative appraisal of teachers toward a partnership-based evaluation process, including joint development of the job description and evaluation criteria with an emphasis on the needs and rights of the evaluatee (57, pp. 43-44).

Having examined some of the purposes for evaluation and recent trends in the area, this researcher felt it would be helpful to pull together some general, guiding principles of the evaluation process. Underlying this was the premise that the teaching act could be evaluated.

Some assumptions in this premise were stated by Ryans (1967):

1. Teacher behavior is characterized by lawfulness and order.
2. Empirical study and inductive inference provided a valid approach to the understanding of teacher behavior (from data provided by observation)
3. Teacher behavior is observable
4. Individual differences exist in observable teacher behavior

5. Teacher behavior is social in nature
6. The ultimate goal or end product of teacher behavior is a set of specified pupil behaviors
7. Teacher behavior is relative (68, pp. 53-54)

Based on such assumptions, many writers have outlined the major components of an evaluation process. The following model proposed by McNally (1973) seemed to contain the major considerations of any sound evaluation system:

1. The purposes of the evaluation program are clearly stated in writing and are well known to the evaluators and those who are to be evaluated
2. The policies and procedures of the program reflect knowledge of the extensive research related to teacher evaluation
3. Teachers know and understand the criteria by which they are evaluated.
4. The evaluation program is cooperatively planned, carried out, and evaluated by teachers, supervisors, and administrators
5. The evaluations are as valid and as reliable as possible
6. Evaluations are more diagnostic than judgmental
7. Self-evaluation is an important object of the program
8. The self-image and self-respect of teachers is maintained and enhanced
9. The nature of the evaluation is such that it encourages teacher creativity and experimentation in planning and guiding the teaching-learning experiences provided children
10. The program makes ample provisions for clear, personalized, constructive feedback

11. Teacher evaluation is seen as an integral part of the instructional leadership role of the principal and the program of in-service teacher development (48, pp. 24-29)

Similar ideas were presented in Prep Report 21 (Teacher Evaluation, 1971) and in the works of Babel (1972) and Hagen and Thorndike (1960) (77, 4, 26).

The three basic, overriding questions or issues to be considered were stated by Beller (1971) as: What is the purpose of evaluation, what should be evaluated, and how should it be done? (7, p. 125).

Transferring these general principles to an actual working evaluation instrument was not always an easy task. For, as Ghiselli (1956) saw it, the nature of evaluative criteria was relative in that criteria of teacher effectiveness varied from one job to another, and they tended to change over time (23, p. 1).

The following considerations were viewed as essential in selecting an adequate measuring instrument in Prep Report #21-G (Teacher Evaluation, 1971):

1. Its relevance and validity--Does it measure what it is intended to measure?
2. Its reliability--Does it continue to maintain its stability from one application to another?
3. Its fidelity--Does the response to the instrument parallel the actual performance?
4. Its ease of administration and scoring--How much time is needed to administer the instrument? Is it easily scored or interpreted?
5. Its cost--Is it practical and worth the cost?
6. Its "taboo" factor--Does it conflict with local customs or traditions? (77, pp. 1-2)

A real area of contention in the literature was in the controversy of teacher performance evaluation versus student outcome evaluation. Recent research in the area by MacKay (1971) showed the emphasis, in practice, was clearly on teacher characteristics as predictor criteria and the process, or what the teacher did, rather than on student outcomes (44, p. 77).

The majority of writers favored performance evaluation, although outcome evaluation has gained more recent interest. Among those advocating performance evaluation were McKenna (47), Medley (51), MacKay (44), House (33), and Smith (71). Briefly, their reasoning was as follows.

Most successful research has shown relationships between program and performance rather than relating performance to student outcomes. There have been too few definitive results in attempts to attribute differences in outcomes to differences in teacher performance. However, efforts along this line should not be abandoned. Performance was shown as a paradigm including subject matter knowledge, cognitive, affective, and psychomotor strategies, and adjunct activities such as planning, evaluating, and community relations. Until more conclusive results have been established, evaluation should stress high inference variables identifying those performances that experience and expertise have indicated should lead to desired learning outcomes on the assumption that better outcomes would be the result of appropriate performances (47, pp. 20-21).

Another rationale for stressing performance evaluation was rooted

in the reasoning that since the purpose of evaluation was to improve the instruction rather than identify the best and worst teachers, evaluating what the teacher did was superior to measuring pupil gains. Such an upgrading approach provided a basis for improvement when changes were directed toward theory, research, and judgments on approaches that were most likely to succeed (51, p. 35).

The problem of holding teachers accountable for student growth was the basis of other recent research which contended that the relationships assumed between teacher behavior and educational outcomes were unproven, and that currently there was too little knowledge of these areas to make final judgments (33, p. 137).

And yet another researcher stressed that little, if any, positive relationship existed between the ratings of teachers and the achievement of their pupils. Due to the complexity of the factors influencing and making up the pupil, it was impossible to say that given instruction would lead to a given amount of learning. Rather, what was needed was a better knowledge of effective teacher behavior with emphasis on determining the "right" ways of diagnosing, prescribing, and handling the subject matter and the pupil (71, pp. 65-84).

However, a challenge was sounded in this statement from the Encyclopedia of Educational Research: 4th Edition (Ward and Ivey, 1969):

The current state [of educational improvement] is largely one of emphasis upon the activity of teachers without adequate reference to the outcomes or effects of those practices. (82, p. 632)

Advocates of student outcome based evaluation pointed out weaknesses of performance evaluation on the grounds that principals'

judgments were too subjective to be valid. At the same time, it was conceded that standardized tests were too insensitive to student performance on the specific goals and objectives of a given educational program to be a viable measure.

In place of standardized tests, Klein (1972) suggested objective-based measures based on student performance on specific relevant measures as the basis for teacher evaluation (37, pp. 5-10).

Popham (1969) also emphasized ends (student performance) over means (teacher performance) as the basis for teacher evaluation (59, p. 1).

Smithman and Lucio's (1974) research study showed that pupils whose teachers were evaluated by objectives outperformed those pupils whose teachers were evaluated with a rating scale. Additionally, most of the teachers indicated a preference for evaluation based on their pupils' performance, and there were no undesirable side effects for the pupils (72, p. 344).

Noting the push for teacher accountability for student learning outcomes, the NEA publication, "Accountability and the Teacher" (1973) stressed six elements necessary for consideration when assessing learning outcomes:

- established goals
- students regularly assessed
- varied and individualized programs
- established staff criteria
- abundant resources
- the nature of governance (rights and responsibilities of students, teachers, administration and board)

(1, pp. 2-3)

Pi Lambda Theta (1967) proposed a research model in which pupil characteristics in a given institutional setting with a given teaching

style as applied to a specified context would likely produce certain student outcomes. In the words of the committee:

Data for giving substance to this proposition can be obtained from observation of both the setting and individual interaction in it, and from performance measures of both input (teacher and student) and output (student).  
(56, p. 250)

The debate between performance and outcome evaluation was far from settled as several studies pointed out strengths and weaknesses of each approach. McNeil and Popham (50), although favoring student growth as the basis for teacher evaluation, alluded to research posing problems with this approach. Included were Flanders (20), who cited the problem of adequate measurement, Musella (53) and Smith (71), who pointed out the problem of accounting for instructional variables not controlled by the teacher, and Lawler (40), who cited unreliability in the results of teacher behavior (50, p. 218).

And, finally, there have been proponents of reconciling the two approaches. Subkoviak (76) cited research by Costin et al. (16) which indicated that ratings of teacher activity correlated positively with student growth. Also noted was research by Flanders and Simon (21) which mentioned certain teacher activities that had been repeatedly identified as contributors to desirable student outcomes. They were:

acceptance of student ideas and opinions

adjusting instruction to different levels of cognitive ability

diagnosing student difficulties and providing appropriate remedial work

using advanced organizers and outlines  
(76, pp. 46-47)



The seeming malaise was placed in proper perspective by the following comment from Prep Report #21 (Teacher evaluation, 1971):

The purpose of examining outcomes of teaching is to determine whether goals have been met; the purpose of examining procedures is to determine whether a specified plan is being followed; the purpose of comparing outcomes and procedures is to determine whether the procedures should be modified. (77, p. 5)

Thus, it can be surmised that there are legitimate grounds for both process and outcome approaches to teacher evaluation. The purpose of this study was not to endorse one approach and forsake the other. Rather, it was the purpose of this study to analyze current practices. Therefore, teacher performance evaluation, as implemented in the following ways, provided the focus for the study.

#### Rating Scales

Research conducted by Biddle and Ellena (1964) concluded that rating scales were the most commonly used type of teacher evaluation tool. Although research results were often poor and contradictory, rating scales were steeped in long-standing tradition and there was strong pressure to keep them (9, pp. 25-27).

In other research by Simon and Boyer (1968), rating scales were criticized as being more related to the value structure of the rater than to pupil achievement (70, p. 21).

Some other weaknesses of rating scales spelled out by McNeil and Popham (1973) were:

- halo effect
- lack of operational definitions

failure to control for sampling of teaching behavior  
 effect of observer on teacher performance  
 (50, p. 232)

Herman (1973), allowing certain disadvantages of rating scales,  
 also suggested some advantages:

#### Disadvantages

1. Lack of behavioral terms leads to interpretive bias.
2. Non-weighted scales give misleading information
3. Low levels of reliability and validity

#### Advantages

1. Simple to complete
2. Comparison value of identical forms
3. Item analysis possible to identify strengths and weaknesses of personnel groups
4. Weighted scales can stress more important teaching behaviors. (30, pp. 57-58)

Rosenshine's (1970) review of the literature was more positive in that it found rating scales had a good record for predictability, and that they were a useful source of information about an instructional program (65, p. 286).

The School Management Institute stated that rating scales' major objective as an evaluation tool was to detect deficiencies so that they could be improved rather than to penalize unsatisfactory levels of teaching (34, p. 21).

Although the controversy continues over the merits of rating scales as an evaluative tool, this method prevails as the most widespread in use.

### Job Targets or MBO

Some schools have replaced the rating scale approach to evaluation with a more performance-oriented approach called Job Targets or Management By Objectives (MBO).

George Redfern (1972) was the foremost authority in this area. He listed the six basic components of a performance evaluation model aimed at improvement of instruction as:

- I. Performance Criteria
  - II. Performance Objectives or Job Targets
  - III. Performance Activities
  - IV. Monitoring Performance
  - V. Assessing Monitored Data
  - VI. Conference and Follow-Up
- (61, pp. 11-15)

He further condensed his approach in the same work to three stages:

1. establish pertinent performance objectives
  2. design purposeful actions to achieve them
  3. evaluate the results
- (61, p. 7)

In Redfern's words:

The essence of more competent evaluation is a combining of supervision and assessment to move away from inspectional observations and to avoid unilateral rating of teachers' performance. (61, p. 70)

He cited some of the broad areas of performance of the teaching function and enumerated several ways of utilizing the outcomes of evaluation (61, pp. 17, 60-61). In an earlier work, Redfern (1963) stressed the importance of job descriptions in this evaluation process (60, p. 42).

Herman (1973) pointed out advantages and disadvantages of job descriptions:

#### Advantages

1. Employees know parameters of expected tasks
2. Eliminates overlapping responsibilities
3. Clarifies role expectancies
4. Improves assessment of total district staff

#### Disadvantages

1. Job tasks change and so must their descriptions to be meaningful
2. Costly and time consuming  
(30, pp. 58-59)

In practice, Job Targets and MBO have been growing in popularity and may help focus the direction of teacher evaluation in the future.

#### Multiple Evaluators

Another method sometimes employed to offset the alleged disadvantages of single raters was the use of multiple evaluators. Herman (1973) indicated that the evaluators generally consisted of some of the following: building level administrators, supervisors, central office administrators, peer teachers, students, outside consultants, lay public, and self-evaluation. The chief benefit was to provide a check and balance system against single raters (30, pp. 104-105).

Most research showed favorable results with multiple evaluators. Marquardt and McCormick (1972) found that the determination of the reliability of ratings was a function of the number of raters. Generally, eight to ten raters would provide ratings with reliability factors of .80 and .90 (45, pp. 11-12).

Another study conducted by Hayes (1968) over a seven-year period found student ratings a reliable, reasonably valid way to help teachers

improve. It included the assumption of validity and reliability of student ratings (29, p. 5).

Student evaluation was further found by Stemnock (1973) to be the most common client-centered approach in schools, exceeding teacher evaluation of supervisors and principals; principal evaluation of central office administrators; and central administrators' evaluation of the superintendent (74, p. 3).

Another study by Davidoff (1970) showed that although students recognized some teacher behaviors associated with student gains, and that student opinions were stable, there was no significant relationship between student opinion and student gains (18, pp. 11-12).

Shaw (1973) brought evidence from other research indicating that the reliability of student evaluation had resulted in growing numbers of districts using this approach as part of their evaluation scheme, and that teachers welcomed such input (69, p. 49).

Glass (1974) advocated students' evaluations of teachers as corroborative to "trained observers' [administrators and peer teachers] ratings of teachers' specific classroom behaviors" (24, pp. 26-30).

Each of the teacher evaluation procedures discussed above exhibited certain strengths and weaknesses. However, the literature did not produce one case where cost and personnel satisfaction were criteria for differentiating among evaluation systems.

## Cost-Effectiveness Analysis

Coombs and Hallak (1972), prefacing a large-scale research project undertaken by the International Institute for Educational Planning (IIEP) stated that education's number one problem was "how to get more and better education from the resources available" (15, p. ix).

They went on to say that, although cost analysis possessed no special magic to remedy faulty conditions, it did provide a powerful means for improved educational management and planning towards the end of better education from available resources (15, p. x).

According to Goldman (1967), the cost-effectiveness concept emerged during World War II as an outgrowth of the Rand Corporation's and other organizations' defense research programs. It spread quickly throughout the Defense Department and related agencies, with important contributions coming from engineering, physics, mathematics and probability theory (25, pp. v-vi).

The current study was buoyed by Carpenter and Haggart (1970), researchers with the Rand Corporation, who have written of cost-effectiveness analysis and its implications for educational planning. They stated that the key for educational planners was to have an informational framework of the current system and a methodology for estimating the effects of proposed change. This information base was to be meshed with the planners' judgment permitting compromises with organizational constraints. They stressed dual rather than single measures; parallel analyses of resources on the one hand and some measures of effectiveness on the other.

They also pointed out that few school systems could describe resource inputs into current programs, much less estimate future requirements of existing or alternative programs. Given this situation, they proposed manageable models of cost-effectiveness analysis with the goal of facilitating choices among various alternatives.

They also stressed the uniqueness of each school system which prohibited direct transfer of cost-effectiveness models, the need to estimate resource requirements, the advantages of "equal cost alternatives" (such as per-teacher figures in this study), and they pointed out that cost figures were easier to estimate than effectiveness measures. This last situation necessitated the portrayal of such studies in both figurative and textual presentations to avoid erroneous oversimplifications of the implications of statistics (12, pp. 26-30).

Gephart (1973) took exception to one point presented in the previous essay by Carpenter and Haggart when he stressed that the first step in cost analysis was the determination of the decision to be made rather than the measurement of costs (22, p. 80).

Various writers pointed out the differences between different types of cost analysis. Alkin (1970) and Niskanen (1967) stated that cost-benefit analysis identifies costs and benefits associated with alternatives in monetary terms, while cost-effectiveness analysis measured cost inputs against outputs not definable in economic terms (3, pp. 221-223; 54, p. 18).

Or, as Herman (1973) put it, cost-effectiveness "is applied to qualitative decisions which do not permit themselves to be easily

quantified in terms of dollars and cents" (30, p. 53).

Eaton Conant (1973) defended cost-effectiveness analysis in his study of a large school system:

Cost effectiveness analysis is not inferior to cost benefit analysis because benefits are not expressed in direct money unit terms. The choice for cost effectiveness analysis is simply dictated by the impossibility of translating some kinds of benefit values into financial terms. Cost effectiveness analysis can be an extremely useful method for providing decision makers with intelligence about the efficiency and benefit consequences of alternative program arrangements. (13, p. 9)

An overall view of cost analysis showed the magnitude of associated problems. According to Popham (1974), for instance, the General Accounting Office of the Federal Government, much concerned with various meanings of the term "cost", has not yet arrived at a single, satisfactory definition (59, p. 404).

Recent writers have presented a dichotomous position of cost-effectiveness analysis in education. On the one hand, Coombs and Hallak (1972) condemned the current state of the art as meager; educational systems and institutions were not very "cost conscious" in planning or policy making (15, p. xii). One reason for this deficiency was the difficulty of measuring education's end products, seen by Conant (1973) as true in most white collar occupations. "Typically the work performed is more in the nature of a transaction between workers and persons served. The transactions do not involve exchanges that are easily measurable in unit terms as productivity indexes require" (13, p. 6).

In addition, although cost-effectiveness analysis has provided education with a promising management tool, Levin (1968) said the



analysts have given the decision-makers more jargon of the trade than they have given real help (41, pp. 1-4).

Horne (1972) viewed the current stage of cost-effectiveness analysis as in its infancy. He saw the need for major changes in budgeting, accounting and processing methods. But cost analysis, he felt, was ahead of effectiveness analysis which will require more educational research and a higher dollar priority (32, pp. 103-104).

Other writers pointed to brighter prospects for the future. MacKay (1971) noted the "increased emphasis on attempts to develop relationships between investment, as an indication of input, and some measure of quality of performance as an indication of output" (44, pp. 69-70).

And another writer's prediction of the future in the introduction to Goldman's book (1967) cited a paper presented at a futurists conference in Paris in 1965 which suggested more cost-effectiveness analysis in the social sciences. Also mentioned was the growing use of computer-based analysis. In short, a summary showed these benefits of improved analysis: methods accessible to critical examination, capability of duplication by others, and the ease of modification as new information became available (25, pp. 13-14).

Finally, writing in the Fourth Edition of the Encyclopedia of Educational Research in 1969, Ward and Ivey pointed out that the ensuing decade "will be distinguished by refinements and increased capabilities of educational evaluation. . . . First, there is a matter of evaluating costs in some sort of comparative terms" (82, p. 630).

Seven purposes that cost analysis could serve were posited by

Coombs and Hallak (1972):

1. costing and testing the economic feasibility of educational plans
2. evaluating and improving the allocation of available educational resources
3. weighing the comparative advantages of alternative ways to pursue the same educational objectives
4. determining both the short and longer-run cost implications of a particular project
5. estimating the introductory costs and the likely longer-term cost impacts of a major educational innovation
6. conducting a general search for ways to improve efficiency and productivity
7. checking the economic implications and feasibility of special policy decisions before they are made  
(15, p. xiv)

Additionally, cost-analysis made it possible to:

1. check the economic validity of educational plans
2. draw up a precise program of expenditure over the planning period
3. estimate both the costs and the real economic consequences of specific projects
4. facilitate decision-making when several alternative possibilities exist for the allocation of funds. (15, p. v)

The five basic steps of cost-analysis were stated by McCollough (1967):

1. Define problem
2. Collect data
3. Derive estimate
4. Present estimate
5. Document the analysis  
(46, p. 80)

Popham (1974) listed major concerns in any consideration of program costs:

1. Costs are the consequences of decisions. A cost of a decision is a benefit foregone.
2. From a decision-making perspective, costs normally lie in the future; hence, they must usually be estimated.
3. Costs need not necessarily be measured in dollars. Measurement may be accomplished by:
  - a. listing the resources required for a program;
  - b. developing a description of alternative uses for those resources;
  - c. estimating the value of these alternative uses;
  - d. ascertaining the dollar value of required resources.
4. All of these procedures are useful. Which is to be used in a particular evaluation will depend on the decision alternatives and the needs of the decision maker.
5. The dollar cost of a program's resources may provide a reasonable estimate of the opportunity costs of that program. Dollars, as units of measurement, are helpful in this regard because they are convenient, generalizable, and comparable. (59, p. 413)

Popham went on to list the four major decision types proposed by the PDK National Study Committee on Evaluation in 1971:

1. Planning decisions, or, "Should the program's goals be changed?"
2. Structuring decisions, or, "How should the proposed program be designed?"
3. Implementing decisions, or, "Should new procedures be instituted?"
4. Recycling decisions, or, "Should the program be continued?" (59, p. 424)

On a more specific level, several writers have dealt with the

problem of extracting exact cost figures. Conant (1973) admitted the impracticability of achieving comprehensive cost and benefit measurements, and he conceded full measures were not necessary for comparing alternative programs (13, p. 17).

Machlup (1962) echoed this realization that no "exact" figures should be expected in such analysis (43, p. 103). Popham (1974), dealing with the problem of costs, suggested the advisability of striving for relative rather than absolute accuracy (59, p. 409).

Coombs and Hallak (1972) underscored the reality of dealing with estimates, although they were not defensive about the situation: "Inevitably the facts and estimates contained in your presentation will vary greatly in precision and reliability." They went on to suggest that it be made clear crude estimates were being dealt with, that such estimates were fine for answering broad questions, while precise refining could possibly add nothing of real value, and that an estimate of accuracy be developed and presented. They also advocated simple averages moving towards a pragmatic, reasonable solution while avoiding getting bogged down in minutia (15, pp. 136-149).

Alkin (1970) suggested that an impediment to cost-effectiveness analysis lay in the current status of school accounting procedures which provided data on functions of expenditures rather than programs (3, p. 227). A recommendation to change budgeting procedures for this reason was given by Hartley (1969) who stressed a closer tie between planning and budgeting (28, pp. 3-13). Stallings (1972) echoed the need to change from budgeting by function to budgeting and accounting by program to

enable cost-effectiveness analysis to help educators make better decisions (73, pp. 98-101). This further necessitated the use of approximations rather than budget figures.

When measuring costs, different researchers felt it was advisable to separate them into developmental or implementation costs on the one hand, and operational or ongoing costs on the other (15, p. 151; 66, pp. 1-2).

Ross and Brown (1973) enumerated typical costs within each category. Implementation costs included issuance of written procedures, preparation of necessary forms, purchase of equipment and supplies, and initial manpower meeting costs. Operational costs included supplies and manpower costs (administrative, instructional, and clerical). Implementation costs were simply listed while operational costs were divided by the number of evaluatees to produce the cost of the operation per evaluatee (66, pp. 1-5).

Another model proposed for cost analysis was Popham's (1974) which charted the basic cost categories of research and development, investment, and operating, and dealt with their interrelationship (59, pp. 421-422).

And finally was the systems approach which was viewed by Coombs and Hallak as the beginning point for cost-effectiveness analysis:

1. Objectives--reason for system's existence
2. Outputs--"educational value-added" to the students of the educational process
3. Benefits--long term attainments resulting from immediate outputs

4. Internal process--methods, technologies, structures necessary for attaining outputs and benefits
5. Inputs--resource components, systems costs  
(15, pp. 78-82)

#### Personnel Satisfaction

Prep Report #21 (Teacher evaluation, 1971) cited research pointing to the conclusion that staff morale was important to improved performance and that improved staff morale was a function of adequate administration.

The general contention is that better staff morale and a better instructional program will result from adequate and creative supervision and orderly dismissal procedures for incompetent teachers. (77, p. 3)

Additionally, it was found by Wolf (1973) that the benefits teachers gained from evaluation were influenced by their attitude toward the procedure itself. Those who held narrow views of evaluation exhibited negative attitudes toward evaluation while those who viewed it in a broader context for the purposes of student learning and teacher effectiveness had more positive attitudes (85, pp. 161-163).

The same idea was suggested in research by Wagoner and O'Hanlon (1968) which showed that teachers' attitudes toward evaluation would affect their ability to profit from it. This research suggested that those two groups of teachers most favorable towards evaluation were the ones who viewed themselves as better than average teachers and the ones who had something to gain from evaluation, i.e., tenure (80, pp. 471-475).

Barr (1963) stated that part of the problem associated with personnel satisfaction was that the concept of teacher efficiency was nowhere well-defined. Research has presented many and diverse views on the topic, yet "much that is important in providing good schools depends upon the accuracy with which teachers are evaluated (5, pp. 412-413).

McNeil (1971) cited NEA surveys of 1964 and 1969 which showed the discrepancy between administrators and teachers in their degree of satisfaction with their evaluation programs. While three-fourths of the administrators felt it was adequate, only one-half of the teachers held the same positive view. The situation was believed to be especially acute at the secondary level (49, p. 4).

Some proposed solutions to the problem of personnel satisfaction with evaluation noted by Koblitz (1973) centered around the needs for full teacher involvement both in determining and implementing the process, the realization of the goal of instructional improvement, the importance of accounting for particular conditions and the importance of accounting for particular conditions and the importance of the characteristics and talents of the evaluator (38, p. 48).

In the same vein, Rose (1963) made the point that teachers welcomed evaluation which met these conditions: emphasis on improvement rather than faultfinding, information is meaningful to the teacher, principal is conscientious and thorough when collecting and discussing information with the teacher (64, pp. 50-56).

Other research by Wicks (1973) suggested teachers would resist

evaluation that did not have improvement of instruction as its real goal, and that evaluation used punitively or negatively would not only fail to solve problems, it would create even more obstacles to teacher effectiveness (83, p. 42).

The authoritative language of Prep Report #21 (Teacher evaluation, 1971) summarizes the problem well:

Removal of resistance [on the part of teachers] to evaluation depends on clear organizational goals, resources adequate for training evaluators, (and providing adequate time for them to perform the tasks required), and clarity of the relationship of the organizational goals and the task of the evaluator. (77, p. 3)

#### Summary

This review of the literature was intended to condense representative writings in the areas of teacher evaluation, cost-effectiveness analysis, and personnel satisfaction. Since the search of the literature has shown no previous study of the type inaugurated here, this review has been, by necessity, one that has dealt with disparate elements. It was hoped that the enactment of the current study would pull together these elements for the immediate benefit of educational planners and the long-term benefits of the students in our schools.



## CHAPTER III. METHODS AND PROCEDURES

The basic purposes of this study were:

1. to identify three major categories of teacher evaluation systems,
2. to identify school districts with large high schools and medium-sized schools in which these three types of teacher evaluation systems were used,
3. to develop a methodology for computing the evaluation costs associated with each type of evaluation system,
4. to develop an attitudinal questionnaire to assess the relative degree of personnel satisfaction with each type of evaluation system,
5. to make this information available to school districts, teacher organizations, administrative organizations, school board associations, and graduate schools in education.

This chapter is divided into the following categories to examine the methods and procedures used in this study:

1. Identification of the population
2. Selection of the sample
3. Development of the instruments
4. Collection of the data
5. Treatment of the data

### Identification of the Population

This study was intended to be of use to all school systems regardless of size or type of teacher evaluation system used. The model used, although geared to high schools with specific enrollments and designated teacher evaluation systems, could be modified with little effort to analyze educational institutions of any level with any method of teacher evaluation. The present study should be viewed as a prototype in this area of research, and replication with minor adjustments should pose few problems.

The population, therefore, could include all school districts, all teachers, all administrators, and all school board members.

### Selection of the Sample

The population from which this sample was drawn included all senior high schools located in Iowa during the 1975-76 school year. A questionnaire administered to Iowa superintendents through the ISEA during the summer of 1975 called for respondents to identify the type of teacher evaluation system they were currently using and, among other items, to indicate if they were aware of the costs associated with their evaluation process. Only .005 percent indicated cost awareness.

This questionnaire, along with professional judgments by Iowa State University professors who were aware of different teacher evaluation procedures in the state, was used as the basis for selecting the districts to be studied.

Due to the uniqueness of this study, the fact that it was a

pioneering effort in this area of educational research, the fact that descriptive statistics were used more than inferential statistics, and the complexity of the various measurements obtained, it was felt that a relatively small sample thoroughly analyzed would be superior to a larger, less manageable sample.

Therefore, it was proposed that six school districts should be included in the sample. These included three districts with high school enrollments of 600 or less and three districts with high school enrollments of 1,000 or more.

Each of the groups of three districts included the following types of teacher evaluation systems: Rating Scales, Job Targets, or MBO, and Multiple Evaluator systems.

Evaluation cost data were obtained from each superintendent and the principal of each of the six high schools. It was assumed that the superintendent had a better overall awareness of developmental costs while the building principal was a more accurate source of yearly operational costs.

All administrative personnel who had teacher evaluation responsibilities were administered questionnaires to assess their level of satisfaction with the evaluation procedure. The questionnaire was also administered to school board members of the selected districts and to all high school teachers employed in the six schools studied.

In order to help assure accurate cost responses and honest attitudinal replies, each individual respondent as well as each school district was assured anonymity in this study.

## Construction of the Instrument

Since no instrument could be found to measure cost-effectiveness of teacher evaluation systems, one was developed. It was comprised of the following elements:

1. Developmental Costs
  - a. research and development
  - b. workshops
  - c. meetings
  - d. consultants
  - e. issuance of written procedures
  - f. necessary forms
  - g. supplies and equipment
  - h. clerical and secretarial costs
  - i. other personnel costs
2. Operational Costs
  - a. supplies and materials
  - b. manpower
    1. administrative
    2. instructional
    3. secretarial/clerical
    4. students
  - c. other operational costs
3. Satisfaction Analysis
  - a. status
    1. school board member

2. administrator
  3. teacher
- b. demographic data
  - c. general attitude toward evaluation
  - d. degree of involvement in current evaluation procedure
  - e. satisfaction with current evaluation instrument

Developmental costs were listed separately, while implementation costs were divided by the number of cases of evaluation to produce a "per evaluation cost."

Personnel satisfaction questionnaires extracted data which was analyzed in relationship to operational costs to determine different degrees of cost-effectiveness.

A field test was conducted to determine how obtainable such cost data were and to scrutinize the instruments developed.

#### Collection of Data

The cost figures were obtained through telephone interviews with the superintendents and principals followed by the mailing of forms asking them to list specific teacher evaluation costs.

The satisfaction-level questionnaires were administered to school board members, administrators and teachers through the mail.

The interviews were held during the winter of 1975-76, and the questionnaires were administered shortly thereafter.

### Treatment of Data

Following the collection of data, it was recorded, coded, and processed by the IBM 360 computer at Iowa State University Computer Center using the Statistical Package For the Social Sciences (SPSS).

Descriptive statistics were utilized. Frequency distributions were obtained for all variables. Means and standard deviations were obtained for each of the school districts studied, and the costs and personnel-satisfaction levels were compared between the large and medium-sized districts, among respondent types, and among the three types of teacher evaluation systems studied.

Inferential statistics were also used. Three-way Analysis of Variance with no interactions and with mean observations within each cell, as described by Kirk (1968), was utilized to measure personnel satisfaction (36, p. 227). Two multiple range tests, Student-Newman-Keuls and Scheffé, were used to compare significant mean differences. Because of the small number of schools studied, and because costs are not normally distributed, the cost data tended to be rank data rather than mean data more oriented toward the kinds of procedures used in parametric statistics. Therefore, a nonparametric ranking statistic, the Friedman Test (Conover, 1971), with blocks defined as school size and treatments being defined as the three evaluation procedures was employed for the cost analysis (14, p. 265). And regression analysis was also used to search for dominant variables that could be used to build prediction models. The results of these analyses and their implications are presented in Chapters IV and V.

## CHAPTER IV. FINDINGS

This chapter reports and describes the major findings with respect to the attitudes of teachers, administrators, and school board members toward teacher performance evaluation and the costs associated with different evaluation procedures. Descriptive data of the sample who participated in the study are provided in the Appendix. Analyses of the data relative to the hypotheses stated in Chapter I appear below.

The selected sample for the study included high school teachers, administrators and school board members from six Iowa school districts. Half of the schools selected were termed "medium-sized" with high school enrollments of less than 600. The other half were termed "large" with high school enrollments of 1,000 or more. Additionally, each school was selected on the basis of the teacher evaluation procedure currently in use. The three evaluation procedures chosen, rating scales, job targets or MBO, and multiple evaluators, were selected so that each type was represented by both a medium-sized and a large high school

Statistical analyses used to determine if and where significant differences existed were: Analysis of Variance, Regression Analysis, two multiple range tests (Student-Newman-Keuls and Scheffé), and the Friedman Test.

Of the sixteen null hypotheses tested, eight were found with significant differences. They are presented below with their statistical findings. Each hypothesis is related to a specific questionnaire item and appropriately identified. The questionnaire may be found in its

entirety in the Appendix.

### Significant Findings

Null Hypothesis 2. There is no significant difference among respondent types in their agreement of the major purpose of teacher evaluation as the improvement of instruction.

a. relative to school size

b. relative to evaluation procedure

(Questionnaire Item 10)

Table 1 shows highly significant differences among respondent types in their perception of the major purpose of teacher evaluation as the improvement of instruction.

Mean differences among respondent types on the item are shown in Table 2 with administrators most strongly agreeing with this contention followed by board members and teachers. Both Student-Newman-Keuls (SNK)

Table 1. Analysis of variance

Source	SS	df	MS	F
Size	0.125	1	0.125	1.869
Respondent	2.134	2	1.067	15.903 <sup>**</sup>
Procedure	0.285	2	0.143	2.127
Residual	0.805	12	0.067	

<sup>\*\*</sup> Highly significant (.01) level.



and Scheffe show a significant difference in teachers' attitude from either administrators or board members. Yet, on the Likert Scale for this item, all three respondent types would fall into the "strongly agree" category with administrators and board members nearer the top of this category and teachers nearer the bottom, almost in the "agree" category.

Table 2. Multiple comparison of means for significant variables  
Student-Newman-Keuls and Scheffé

<u>Variable</u>	Administrator	Board member	Teacher
Respondent			
Mean	1.167	1.372	1.978

Null Hypothesis 4: There is no significant difference among respondent types' degree of involvement in developing their current teacher evaluation procedure.

- a. relative to school size
- b. relative to evaluation procedure

(Questionnaire Item 12)

Table 3 shows a significant F value for respondent types in their degree of involvement in developing their evaluation procedure.

Administrators surveyed recorded a higher level of involvement in developing their current evaluation procedure followed by board

Table 3. Analysis of variance

Source	SS	df	MS	F
Size	0.0615	1	0.615	0.796
Respondent	8.091	2	4.045	5.233*
Procedure	0.025	2	0.102	0.132
Residual	9.277	12	0.773	

\*Significant (.05) level.

members and teachers, as seen in Table 4. The Student-Newman-Keuls test shows administrators as significantly different from both board members and teachers, while the more stringent Scheffé test shows significant differences between administrators and teachers only. In either event, administrators exhibited considerably more involvement in developing the evaluation procedures.

Table 4. Multiple comparison of means for significant variables  
Student-Newman-Keuls and Scheffé

<u>Variable</u>	Administrator	Board member	Teacher
Respondent			
Mean	2.250	3.456	3.818
SNK		_____	
Scheffe		_____	

Null Hypothesis 5: There is no significant difference among respondent types' attitude toward the teacher evaluation procedure currently used in their school.

- a. relative to school size
- b. relative to evaluation procedure

(Questionnaire Item 13)

Highly significant differences among both respondent types and evaluation procedures on this item are indicated in Table 5.

Table 5. Analysis of variance

Source	SS	df	MS	F
Size	0.013	1	0.013	0.057
Respondent	4.309	2	2.154	9.288**
Procedure	3.711	2	1.855	7.999**
Residual	2.784	12	0.232	

\*\* Highly significant (.01) level.

As can be seen from Table 6, teachers were most critical of their current evaluation procedure, followed very closely by board members, with administrators least critical.

When analyzing mean differences according to evaluation procedures, multiple evaluators, slightly better than "neutral" on the Likert Scale, came off worst followed by job target/MBO while rating scales were viewed most favorably by all personnel.

Table 6. Multiple comparison of means for significant variables  
Student-Newman-Keuls and Scheffé

<u>Variable</u>			
Respondent	Teacher	Board member	Administrator
Mean	3.295	3.296	4.333
Procedure	Multiple	JT/MBO	Rating
Mean	3.092	3.628	4.204

Null Hypothesis 6: There is no significant difference among respondent types' perception of the level of priority teacher evaluation is considered to hold by the school board in their district.

- a. relative to school size
- b. relative to evaluation procedure

(Questionnaire Item 14)

Significant differences are shown in Table 7 among respondent types. Mean comparisons in Table 8 show teachers most critical in their perception of the board's priority, yet they are still on the positive side of neutral, while administrators are more favorably disposed toward the board with board members themselves most favorable of all. While the Student-Newman-Keuls test shows teachers significantly different from both administrators and board members, Scheffé reveals differences between teachers and board members only.

Table 7. Analysis of variance

Source	SS	df	MS	F
Size	2.236	1	0.236	0.855
Respondent	2.949	2	1.474	5.339*
Procedure	1.583	2	0.792	2.866
Residual	3.314	12	0.276	

\* Significant (.05) level.

Table 8. Multiple comparison of means for significant variables  
Student-Newman-Keuls and Scheffé

<u>Variable</u>	Teacher	Administrator	Board member
Respondent			
Mean	3.417	4.083	4.385
SNK		_____	
Scheffé	_____		_____

Null Hypothesis 8: There is no significant difference among respondent types' perception of whether the teacher evaluation procedure in their school warrants the costs involved.

- a. relative to school size
- b. relative to evaluation procedure

(Questionnaire Item 16)

Highly significant differences are found among respondent types, as seen in Table 9.

Table 9. Analysis of variance

Source	SS	df	MS	F
Size	0.190	1	0.190	0.827
Respondent	3.378	2	1.689	7.371**
Procedure	0.172	2	0.086	0.376
Residual	2.749	12	0.229	

\*\* Highly significant (.01) level.

Teachers, though slightly more positive than neutral, held the lowest estimation of the worth of the costs of evaluation while administrators viewed the results versus costs as positive, and school board members viewed them highest of all. No respondent groups has any real knowledge of these costs. As Table 10 shows, teachers were significantly different from both administrators and board members on this item.

Table 10. Multiple comparison of means for significant variables  
Student-Newman-Keuls and Scheffé

<u>Variable</u>	Teacher	Administrator	Board member
Respondent			
Mean	3.177	4.000	4.169

Null Hypothesis 9: There is no significant difference among respondent types who favor retaining the teacher evaluation procedure currently used in their district.

a. relative to school size

b. relative to evaluation procedure

(Questionnaire Item 17)

Here a significant difference was found among evaluation procedures (see Table 11).

Table 11. Analysis of variance

Source	SS	df	MS	F
Size	0.237	1	0.237	0.516
Respondent	2.303	2	1.151	2.512
Procedure	5.234	2	2.617	5.710*
Residual	5.499	12	0.458	

\* Significant (.05) level.

Although all three procedures rated above the neutral category, rating scales ranked ahead of the other two with job targets/MBO next and multiple evaluators as least favored. Although the three means fell into two different response categories (respondents in schools using rating scales strongly agreeing while respondents in schools using the other two procedures were in the "agree" category) neither multiple range test uncovered significant differences among means (see Table 12).

Table 12. Multiple comparison of means for significant variables  
Student-Newman-Keuls and Scheffé

<u>Variable</u>			
Procedure	Rating	JT/MBO	Multiple
Mean	1.639	2.381	2.956

Null Hypothesis 12: There is no significant difference among respondent types' perception of the strengths of their teacher evaluation procedure.

a. relative to school size

b. relative to evaluation procedure

(Questionnaire Items 20a and 20b)

The first "strength" of current evaluation procedures on the questionnaire was, "Teacher evaluation is the key element of systematic personnel procedures." Significant results occurred on this item relative to respondent type (Table 13).

Table 13. Analysis of variance

Source	SS	df	MS	F
Size	0.097	1	0.097	3.159
Respondent	0.270	1	0.270	8.761*
Procedure	0.047	2	0.023	0.755
Residual	0.123	4	0.031	

\*Significant (.05) level.



Comparing mean differences, we see that teachers checked this "strength" least frequently, while board members did so more than half the time and administrators did so the most of all, three-fourths of the time. Teachers were shown to be significantly different from both board members and administrators in their reaction to this "strength" (see Table 14).

Table 14. Multiple comparison of means for significant variables  
Student-Newman-Keuls and Scheffe

<u>Variable</u>	Teacher	Board Member	Administrator
Respondent			
Mean	0.248	0.618	0.750

The second strength of current evaluation procedures was, "Teacher evaluation improves instruction." Here highly significant differences were found among respondent types, as seen in Table 15.

Table 16 shows that although teachers checked this strength over half the time, they were still the least to do so, followed by board members, while administrators checked it consistently for the highest rating possible. On this item, each of the three respondent types proved to be significantly different from each of the other two.

Table 15. Analysis of variance

Source	SS	df	MS	F
Size	0.001	1	0.001	0.373
Respondent	0.350	1	0.350	124.711**
Procedure	0.005	2	0.002	0.867
Residual	0.011	4	0.003	

\*\* Highly significant (.01) level.

Table 16. Multiple comparison of means for significant variables  
Student-Newman-Keuls and Scheffé

<u>Variable</u>	Teacher	Board member	Administrator
Respondent			
Mean	<u>0.547</u>	<u>0.881</u>	<u>1.000</u>

Friedman's Test, a nonparametric statistic, was used to analyze the cost data. No significant differences in costs were found among evaluation procedures in all cases. However, when comparing costs related to school size, the following picture emerged (Table 17).

In order to execute Friedman's Test, real dollar values must be transformed into ranks. Table 18 shows the preceding figures as ranks with "1" the lowest, "2" the middle, and "3" the highest cost. The "1.5" rank is the result of there being two cost figures of equal value;

thus they represent a tie in ranking and are computed as an average of "1" and "2".

Table 17. Consolidated cost table. Figures given are dollars

		Rating	JT/MBO	Multiple
Medium	per teacher	46	54	46
	per session	37	24	23
	developmental	1050	18280	1395
Large	per teacher	62	91	55
	per session	17	45	28
	developmental	5455	78875	79040

Table 18. Cost figures from Table 17 converted to ranks

		Rating	JT/MBO	Multiple
Medium	per teacher	1.5	3	1.5
	per session	3	2	1
	developmental	1	3	2
Large	per teacher	2	3	1
	per session	1	3	2
	developmental	1	2	3

If we were to reexamine the costs in Table 17, looking for differences between medium and large schools, we would continue to use "1" as the rank for the lower dollar value and "2" as the rank for the higher dollar value. Analyzing Null Hypothesis 14 in this light, we would see the following.

- Null Hypothesis 14: There is no significant difference among annual per teacher cost of evaluation.
- a. relative to school size
  - b. relative to evaluation procedure

Table 19. Friedman's Test

	Medium	Large
Rating Scale	1	2
Job Target/MBO	1	2
Multiple Evaluators	1	2

df = 1  
T = 5\*  
Chi-square table value = 3.84

\*Significant (.05) level.

Large schools proved to be significantly higher than medium sized schools in their annual per teacher cost of evaluation.

The same pattern appeared concerning total developmental costs with large schools significantly higher than medium-sized schools with this

expenditure (see Table 20).

Null Hypothesis 16: There is no significant difference among developmental costs of the three teacher evaluation systems.

a. relative to school size

b. relative to evaluation procedure

In this instance, although dealing with developmental costs rather than annual per teacher costs, an identical ranking pattern emerged.

Table 20. Friedman's Test

	Medium	Large
Rating Scale	1	2
Job Target/MBO	1	2
Multiple Evaluators	1	2

df = 1  
T = 5\*  
Chi-square table value = 3.84

\*Significant (.05) level.

No significant differences were found among annual per evaluation session costs of teacher evaluation relative to either school size or evaluation procedure (null hypothesis 15).

Detailed cost analyses from all schools in the study may be found in the Appendix.

## Regression

Regression models were constructed for each questionnaire item with the exception of items 20 and 21. Also included in the regression analysis were the cost figures. The intention was to determine which of the variables were most influential in predicting the outcome of the satisfaction levels. By far the predominant variable contributing to the variance of the questionnaire items was "salary." This variable occupied the first position in nine of the eleven items tested.

The only cases where something other than salary was the dominant factor were on questionnaire items 10 and 11. Item 10 read: "The major purpose of teacher evaluation is the improvement of instruction." Here "years in education" explained the greatest variance.

Item 11 was: "The current teacher evaluation procedure in my school does not have the improvement of instruction as its major purpose." On this item "school size" accounted most for the variance, and "salary" accounted for the second most variance.

It should be noted that after surveying the prediction models generated by the SPSS computer package, the model tended to account for only five percent of the total variance. "Salary" accounted for the major share of this five percent.

It can be concluded, therefore, that the degree of personnel satisfaction is not very well explained by the variables identified in this study.

## Mean Responses for Nonsignificant Items

While the most important part of the study is the determination and examination of significant differences, it is also important in determining satisfaction levels to acknowledge where there was agreement. Presented below are the mean scores along with their respective questionnaire items for each category where no significant differences existed.

The Likert Scale for these items was: 1) Strongly agree, 2) Agree, 3) Neutral, 4) Disagree, 5) Strongly disagree.

Item 9: My general attitude toward teacher evaluation is very favorable.

mean score: 1.799

Item 11: The current teacher evaluation procedure in my school does not have the improvement of instruction as its major purpose.

Mean score: 3.700

Item 15: Sufficient financial resources are allocated for teacher evaluation in my district.

Mean score: 2.789

Item 18: I would favor supplementing the current teacher evaluation system with additional procedures.

Mean score: 2.549

Item 19: I would favor replacing the current teacher evaluation system with a different procedure.

Mean score: 3.547

The remaining strengths and weaknesses of teacher evaluation procedures from the questionnaire that showed no significant differences are listed below. The respondent was to check those that he or she felt were applicable to his or her current evaluation procedure. They are listed in order of from most checked to least checked with the mean for each item.

#### Strengths

Item 20c: Teacher evaluation motivates employees to more closely attain their potential.

Mean score: .693

Item 20e: Teacher evaluation helps validate the teacher selection process.

Mean score: .446

Item 20d: Teacher evaluation rewards superior teacher performance.

Mean score: .263

#### Weaknesses

Item 21c: The lack of clear-cut definitions of what constitutes desirable teacher performance.

Mean score: .658

Item 21e: The lack of change in teachers' behavior as a result of evaluation.

Mean score: .576

Item 21b: The lack of validity and reliability of the evaluation instrument.

Mean score: .493



Item 21a: The lack of expertise and objectivity of the evaluator.

Mean score: .484

Item 21d: The lack of a clear-cut relationship between a teacher's rating and his students' performance.

Mean score: .484.

The findings of this study are summarized in Chapter V along with Conclusions, Discussion, and Recommendations.

## CHAPTER V. CONCLUSIONS, DISCUSSION AND RECOMMENDATIONS

The purpose of this study was to investigate, collect, organize, and analyze data about major categories of teacher evaluation systems, the costs involved, and the relative level of personnel satisfaction with each system. More specifically, the study was to develop measures of cost-effectiveness related to teacher evaluation to provide educational decision-makers with better bases for selecting teacher evaluation procedures.

The study was constructed to compare and analyze virtually all costs associated with teacher evaluation and to test the differences in responses from teachers, administrators and board members regarding their perception of their current teacher evaluation procedures.

The selected sample included six Iowa public school districts, three of which maintained high schools of less than 600 enrollment and three of which had a high school of at least 1,000 students. The schools were also selected on the basis of the teacher evaluation procedure they were currently using. The three major procedures chosen for the study were: rating scales, job targets or MBO and multiple evaluators; and schools were selected so that each evaluation procedure was represented in both school size categories.

Thirteen hypotheses were tested utilizing Analysis of Variance and two multiple range tests, Student-Neuman-Keuls and Scheffé. Three hypotheses were tested utilizing the Friedman test, a nonparametric statistic. All hypotheses included two subhypotheses which related

respondent types to school size and evaluation procedure. Also, all hypotheses were stated in null form, i.e., no significant differences among the variables under analysis. Regression analysis was also used in an attempt to isolate the variables which accounted for the greatest amount of variance found in this study.

### Conclusions

Significant or highly significant differences were found in eight of the sixteen null hypotheses tested. Complete treatment and analysis of data is provided in Chapter IV. The reader should refer to that chapter for specific findings relative to the given questions of the study.

The remaining eight hypotheses uncovered no statistically significant differences, but questions relating to them help provide a profile of personnel attitudes toward evaluation, an integral part of this study. Results of these items may also be found in Chapter IV.

### Discussion

The study attempted to provide an overall appraisal of personnel satisfaction with teacher evaluation by posing several interrelated questions. A composite view of this process shows that although all personnel were consistently highly favorable toward the concept of teacher evaluation in general, there was lack of agreement as to the major purpose of teacher evaluation with administrators and board members more disposed toward claiming the end of improved instruction than were teachers. Yet all three groups appeared rather indecisive as to

whether the improvement of instruction was the major purpose of teacher evaluation within their schools.

There was a strong relationship between the degree of involvement personnel had in developing the current procedure and their attitude toward it. Administrators showed considerably more involvement in this process than either other group, and they also were more positive about the procedure than the others.

The degree of teacher involvement may be somewhat misleading when considering common practice in most schools. That is, generally a relatively small group of teachers is involved to a considerable degree while most of the teachers have little direct involvement. Accordingly, when the questionnaire polls all the teachers, averages dilute the considerable involvement of the few. Nevertheless, involvement approximated positive attitudes toward the evaluation procedure.

When it came to determining the level of priority teacher evaluation held with the board, teachers placed this lower than the other two groups while board members felt it was a high priority with them.

Most personnel felt there was no lack of adequate financial resources allocated for teacher evaluation in their school although none of them had any real awareness of the actual costs associated with evaluation. However, teachers held the lowest estimation of the effects of what they felt the costs were while administrators and board members felt the results of the expenditures were more worthwhile.

When it came to a choice of retaining, supplementing or replacing the current evaluation procedure there were no significant differences among respondent types. However, rating scales showed up most strongly

as the evaluation procedure to retain followed by job targets/MBO with multiple evaluators drawing the least support.

There was some agreement for supplementing the current system with additional procedures and considerably less desire to replace the current system completely.

As personnel reacted to some of the strengths and weaknesses of teacher evaluation based on recent research, there was more agreement than disagreement among personnel.

Two areas of difference in opinion had to do with the role of evaluation as part of the overall personnel procedure and the question of improvement of instruction.

On the first item less than one-fourth of the teachers saw evaluation as the key element of systematic personnel procedures, while this contention was held by over three-fifths of the board members and three-fourths of the administrators.

The issue that proved to be most interesting involved the improvement of instruction as a strength of evaluation. Here highly significant differences extended among all three respondent types. Slightly over half of the teachers concurred with this as a strength of evaluation, eighty-eight percent of the board members did so while all of the administrators surveyed agreed with this strength.

Over two-thirds of all respondents agreed that evaluation is an employee motivator, while less than half thought it helped validate the teacher selection process, and only about one-fourth saw any rewards for superior teacher performance in evaluation.

Almost two-thirds cited the lack of clear definitions of good teaching as weakness while over half also admitted that evaluation makes little change in teacher behavior. The lack of validity and reliability of the evaluation instrument was noted by just under half, while slightly fewer cited the lack of evaluator expertise and the breakdown between teacher ratings and student performance.

The findings tend to support notions about board members and administrators being more positive toward teacher evaluation than teachers are. A related point was that these two groups also had more to do with the implementation of the evaluation procedure than did the teachers. Most of the personnel sampled felt little strong resentment to their evaluation procedure, yet interestingly enough, the one that was most acceptable was rating scales, the oldest, most common and most criticized of the three procedures studied.

Considering the processes of the three procedures, this may suggest that teachers prefer less active involvement in the evaluation process than is demanded by job targets/MBO or multiple evaluators.

The cost data showed no significant differences among the evaluation procedures themselves, but large schools spent considerably more to develop their procedure, no matter which one it was, than did smaller schools.

Large schools also spent more on an annual basis to evaluate each teacher than did smaller schools. However, when it came to an annual per evaluation session measure, no differences appeared. This would suggest that large high schools hold fewer evaluation sessions per

teacher each year than do the medium-sized high schools.

When it came to determining the best predictor of personnel satisfaction, salary proved to be the best estimator. Higher salaries would suggest longer-tenured teachers and administrators while lower salaries would indicate youthful, inexperienced teachers, so it was not surprising that this item accounted for considerable variance.

#### Limitations

This investigation was limited to board members, administrators and high school teachers in six Iowa public schools. The data were based on the return of attitudinal questionnaires provided central office and building administrators. Statistical treatments compared mean scores of groups composed of widely ranging sizes (Ns).

Due to the small selected sample and the widely ranging Ns, conclusions should not provoke overgeneralization. Rather, they should serve as a basis or starting point for school districts to begin their own local studies in the area.

#### Recommendations

- 1) Teachers must have a greater role in developing evaluation procedures if their support is to be expected and optimal benefits are to be derived from the teacher evaluation program.
- 2) Cost analysis must grow as an administrative procedure for greater accountability. This could be facilitated by greater utilization of program budgeting.
- 3) Rating scales, the perennial evaluation instrument, should be

reexamined for possible modification. The best aspects of rating scales should be augmented with clearer preevaluation objectives and the use of multiple raters, including students.

#### Recommendations for Further Research

- 1) The study should be replicated on a larger scale, perhaps statewide, under the auspices of combined professional educational associations to heighten cost awareness as it is being measured.
- 2) Modifications of the instruments should be made, particularly items 20 and 21 on the questionnaire. For more meaningful analysis these should be changed from a check list format to Likert Scales as used throughout much of the questionnaire.



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APPENDIX



Profile of Respondents Given in Percentages<sup>a</sup> (Total N=319)

	Teacher	Adminis- trators	Board members	Row totals
Percent of total respondents	89.0	2.8	8.2	100.0
Age				
under 30	24.5	0.6	0.0	25.1
31-40	31.0	0.6	3.4	35.1
41-50	19.4	0.9	3.1	23.5
51-60	10.7	0.6	0.9	12.2
over 60	3.4	0.0	0.6	4.1
Sex				
Female	32.5	0.0	2.8	35.3
Male	56.5	2.8	5.4	64.7
Years in education				
0-8	32.4	0.3	5.0	37.7
9-17	32.4	1.3	2.5	36.2
18-26	16.4	0.3	0.3	17.0
27-35	6.0	0.9	0.3	7.2
36 or more	1.9	0.0	0.0	1.9
Years in system				
0-8	47.0	0.9	5.6	53.6
9-17	25.7	1.3	1.9	28.8
18-26	13.2	0.6	0.3	14.1
27-35	2.8	0.0	0.3	3.1
36 or more	0.3	0.0	0.0	0.3
Annual salary				
under \$10,000	12.8	0.0	not	12.8
\$10,000-\$12,500	25.8	0.0	reported	25.8
\$12,501-\$15,000	23.5	0.0		23.5
\$15,001-\$17,500	22.1	0.0		22.1
\$17,501-\$20,000	10.1	1.0		11.1
over \$20,000	0.0	2.0		2.0
Evaluation procedure				
Rating Scale	28.5	0.9	2.2	31.7
Job Target/MBO	31.3	1.3	3.1	35.7
Multiple Eval.	29.2	0.6	2.8	32.6
Assoc. with district when proced. begun				
Yes	60.1	2.5	3.5	66.1
No	29.1	0.3	4.4	33.9

<sup>a</sup>Percentages do not total 100% in all cases due to rounding error or missing cases.

## TEACHER EVALUATION QUESTIONNAIRE

This questionnaire is part of a study intended to better understand the current status of teacher evaluation and to find ways in which it might be improved. The focus of the study is on overall comparisons rather than specific schools; therefore, anonymity is assured to both individual respondents and school districts. Your professional opinions on the following questions are valued and appreciated.

Please place a check mark in the appropriate blanks.

1. Age: 1) Under 30 \_\_\_\_ 2) 31-40 \_\_\_\_ 3) 41-50 \_\_\_\_ 4) 51-60 \_\_\_\_ 5) Over 60 \_\_\_\_.
2. Sex: 1) Female \_\_\_\_ 2) Male \_\_\_\_.
3. Position currently held in this school system: 1) Teacher \_\_\_\_  
2) Administrator \_\_\_\_ 3) School Board Member \_\_\_\_.
4. Number of years you have served in education: 1) 0-8 \_\_\_\_ 2) 9-17 \_\_\_\_  
3) 18-26 \_\_\_\_ 4) 27-35 \_\_\_\_ 5) 36 or more \_\_\_\_.
5. Number of years in this school system: 1) 0-8 \_\_\_\_ 2) 9-17 \_\_\_\_ 3) 18-26 \_\_\_\_  
4) 27-35 \_\_\_\_ 5) 36 or more \_\_\_\_.
6. Annual salary: 1) under \$10,000 \_\_\_\_ 2) \$10,000-\$12,500 \_\_\_\_ 3) \$12,501-  
\$15,000 \_\_\_\_ 4) \$15,001-\$17,500 \_\_\_\_ 5) \$17,501-\$20,000 \_\_\_\_ 6) over \$20,000 \_\_\_\_
7. What type of teacher evaluation procedure is currently used in your school?  
(See brief descriptions on page 3 of questionnaire.) 1) Rating Scale \_\_\_\_  
2) Job Targets or MBO \_\_\_\_ 3) Multiple Evaluators \_\_\_\_.
8. Were you associated with this school when this evaluation procedure was first  
implemented? 1) Yes \_\_\_\_ 2) No \_\_\_\_.

Please indicate your reaction to the following statements on the accompanying rating scales..

9. My general attitude toward teacher evaluation is very favorable.  
1) Strongly agree \_\_\_\_ 2) Agree \_\_\_\_ 3) Neutral \_\_\_\_ 4) Disagree \_\_\_\_  
5) Strongly disagree \_\_\_\_.
10. The major purpose of teacher evaluation is the improvement of instruction.  
1) Strongly agree \_\_\_\_ 2) Agree \_\_\_\_ 3) Neutral \_\_\_\_ 4) Disagree \_\_\_\_  
5) Strongly disagree \_\_\_\_.
11. The current teacher evaluation procedure in my school does not have the  
improvement of instruction as its major purpose.  
1) Strongly agree \_\_\_\_ 2) Agree \_\_\_\_ 3) Neutral \_\_\_\_ 4) Disagree \_\_\_\_  
5) Strongly disagree \_\_\_\_.
12. As an individual, I was extensively involved in developing the current teacher  
evaluation procedure. 1) Strongly agree \_\_\_\_ 2) Agree \_\_\_\_ 3) Neutral \_\_\_\_  
4) Disagree \_\_\_\_ 5) Strongly disagree \_\_\_\_.
13. The teacher evaluation procedure currently used in my school is inferior.  
1) Strongly agree \_\_\_\_ 2) Agree \_\_\_\_ 3) Neutral \_\_\_\_ 4) Disagree \_\_\_\_  
5) Strongly disagree \_\_\_\_.

- 14. The Board of Education rates teacher evaluation as a low priority in my district.  
 1) Strongly agree \_\_\_\_ 2) agree \_\_\_\_ 3) Neutral \_\_\_\_ 4) Disagree \_\_\_\_  
 5) Strongly disagree \_\_\_\_.
- 15. Sufficient financial resources are allocated for teacher evaluation in my district.  
 1) Strongly agree \_\_\_\_ 2) Agree \_\_\_\_ 3) Neutral \_\_\_\_ 4) Disagree \_\_\_\_  
 5) Strongly disagree \_\_\_\_.
- 16. The results or effects of teacher evaluation in my school do not warrant the costs.  
 1) Strongly agree \_\_\_\_ 2) Agree \_\_\_\_ 3) Neutral \_\_\_\_ 4) Disagree \_\_\_\_  
 5) Strongly disagree \_\_\_\_.
- 17. I would favor retaining the teacher evaluation procedure currently used in my school.  
 1) Strongly agree \_\_\_\_ 2) Agree \_\_\_\_ 3) Neutral \_\_\_\_ 4) Disagree \_\_\_\_  
 5) Strongly disagree \_\_\_\_.
- 18. I would favor supplementing the current teacher evaluation system with additional procedures.  
 1) Strongly agree \_\_\_\_ 2) Agree \_\_\_\_ 3) Neutral \_\_\_\_ 4) Disagree \_\_\_\_  
 5) Strongly disagree \_\_\_\_.
- 19. I would favor replacing the current teacher evaluation system with a different procedure.  
 1) Strongly agree \_\_\_\_ 2) Agree \_\_\_\_ 3) Neutral \_\_\_\_ 4) Disagree \_\_\_\_  
 5) Strongly disagree \_\_\_\_.
- 20. According to current literature in the field, some major strengths of teacher evaluation are as follows:

Please check any strengths you feel apply to your current teacher evaluation procedure.

- a. Teacher evaluation is the key element of systematic personnel procedures \_\_\_\_\_
- b. Teacher evaluation improves instruction. \_\_\_\_\_
- c. Teacher evaluation motivates employees to more closely attain their potential. \_\_\_\_\_
- d. Teacher evaluation rewards superior teacher performance. \_\_\_\_\_
- e. Teacher evaluation helps validate the teacher selection process. \_\_\_\_\_

- 21. According to current literature in the field, some major weaknesses of teacher evaluation are as follows:

Please check any weaknesses you feel apply to your current teacher evaluation procedure.

- a. The lack of expertise and objectivity of the evaluator. \_\_\_\_\_
- b. The lack of validity and reliability of the evaluation instrument. \_\_\_\_\_
- c. The lack of clear cut definitions of what constitutes desirable teacher performance. \_\_\_\_\_
- d. The lack of a clear cut relationship between a teacher's rating and his students' performance. \_\_\_\_\_
- e. The lack of change in teachers' behavior as a result of evaluation. \_\_\_\_\_

Descriptions of teacher evaluation procedures:

Rating Scale A list of characteristics of teacher behavior judged for degree of adequacy by an evaluator who is generally the building principal.

Job Targets The measuring of mutually agreed upon objectives against which teachers' performance is evaluated.

Management By Objective (MBO) A process whereby the superior and subordinate jointly identify goals, define individual major areas of responsibility in terms of results expected, and use these measures as guides for operating the unit and assessing the contribution of each of its members.

Multiple Evaluators The participation of personnel such as the principal, supervisors, peer teachers, and students in determining the performance level of a teacher.

Please return this questionnaire, unsigned, to the high school principal.

Thank you for your professional assistance.

## COST ANALYSIS SURVEY OF SELECTED TEACHER PERFORMANCE EVALUATION SYSTEMS

School Size MediumType of teacher evaluation procedure currently in use. Rating ScaleNumber of years current teacher evaluation procedure has been in use. 2

## Development Costs

1. Number of teachers involved.	<u>8</u>	
2. Number of high school teachers involved.	<u>2</u>	
3. Average number of hours for each teacher involved.	<u>8</u>	
4. Average teacher salary per hour.	<u>\$7.90</u>	
5. Total cost of teacher time. (Multiply line 1 times line 3; then multiply this product times line 4)		<u>\$505.60</u>
6. Number of administrators involved.	<u>4</u>	
7. Number of high school administrators involved.	<u>1</u>	
8. Average number of hours for each administrator.	<u>10</u>	
9. Average administrator salary per hour.	<u>\$12.34</u>	
10. Total cost of administrator time. (Multiply line 6 times line 8; then multiply this product times line 9)		<u>\$493.60</u>
11. Number of clerical/secretarial personnel involved.	<u>1</u>	
12. Average number of hours for each such person.	<u>6</u>	
13. Average clerical/secretarial salary per hour.	<u>\$3.40</u>	
14. Total cost of clerical/secretarial time. (Multiply line 11 times line 12; then multiply this product times line 13)		<u>\$20.40</u>
15. Consultants fees.		<u>0</u>
16. Special workshop costs.		<u>0</u>
17. Any other research and development costs.		<u>\$20.00</u>
18. Cost of supplies, materials, and equipment.		<u>\$10.00</u>
19. Miscellaneous costs.		<u>0</u>
20. Approximate total developmental costs of current teacher evaluation system. (The sum of lines 5, 10, 14, 15, 16, 17, 18 and 19)		<u><u>\$1050.00</u></u>

## COST ANALYSIS SURVEY OF SELECTED TEACHER PERFORMANCE EVALUATION SYSTEMS

School Size LargeType of teacher evaluation procedure currently in use. Rating ScaleNumber of years current teacher evaluation procedure has been in use. 3

## Development Costs

1. Number of teachers involved.	<u>8</u>	
2. Number of high school teachers involved.	<u>2</u>	
3. Average number of hours for each teacher involved.	<u>35</u>	
4. Average teacher salary per hour.	<u>\$10.00</u>	
5. Total cost of teacher time. (Multiply line 1 times line 3; then multiply this product times line 4)		<u>\$2800.00</u>
6. Number of administrators involved.	<u>4</u>	
7. Number of high school administrators involved.	<u>1</u>	
8. Average number of hours for each administrator.	<u>35</u>	
9. Average administrator salary per hour.	<u>\$15.00</u>	
10. Total cost of administrator time. (Multiply line 6 times line 8; then multiply this product times line 9)		<u>\$2100.00</u>
11. Number of clerical/secretarial personnel involved.	<u>0</u>	
12. Average number of hours for each such person.	<u>0</u>	
13. Average clerical/secretarial salary per hour.	<u>--</u>	
14. Total cost of clerical/secretarial time. (Multiply line 11 times line 12; then multiply this product times line 13)		<u>0</u>
15. Consultants fees.		<u>\$150.00</u>
16. Special workshop costs.		<u>\$ 80.00</u>
17. Any other research and development costs.		<u>\$100.00</u>
18. Cost of supplies, materials, and equipment.		<u>\$150.00</u>
19. Miscellaneous costs.		<u>\$ 75.00</u>
20. Approximate total developmental costs of current teacher evaluation system. (The sum of lines 5, 10, 14, 15, 16, 17, 18 and 19)		<u>\$5455.00</u>

## COST ANALYSIS SURVEY OF SELECTED TEACHER PERFORMANCE EVALUATION SYSTEMS

School Size Medium

Type of teacher evaluation procedure currently in use. Job Targets  
 Number of years current teacher evaluation procedure has been in use. 1

## Development Costs

1. Number of teachers involved.	<u>137</u>
2. Number of high school teachers involved.	<u>34</u>
3. Average number of hours for each teacher involved.	<u>1.5</u>
4. Average teacher salary per hour.	<u>\$6.48</u>
5. Total cost of teacher time. (Multiply line 1 times line 3; then multiply this product times line 4)	<u>\$13,316.00</u>
6. Number of administrators involved.	<u>5</u>
7. Number of high school administrators involved.	<u>1</u>
8. Average number of hours for each administrator.	<u>53</u>
9. Average administrator salary per hour.	<u>\$16.46</u>
10. Total cost of administrator time. (Multiply line 6 times line 8; then multiply this product times line 9)	<u>\$4,362.00</u>
11. Number of clerical/secretarial personnel involved.	<u>5</u>
12. Average number of hours for each such person.	<u>11</u>
13. Average clerical/secretarial salary per hour.	<u>\$2.57</u>
14. Total cost of clerical/secretarial time. (Multiply line 11 times line 12; then multiply this product times line 13)	<u>\$141.35</u>
15. Consultants fees.	<u>0</u>
16. Special workshop costs.	<u>0</u>
17. Any other research and development costs.	<u>\$400.00</u>
18. Cost of supplies, materials, and equipment.	<u>\$ 60.00</u>
19. Miscellaneous costs.	<u>0</u>
20. Approximate total developmental costs of current teacher evaluation system. (The sum of lines 5, 10, 14, 15, 16, 17, 18 and 19)	<u><u>\$18,280.00</u></u>

## COST ANALYSIS SURVEY OF SELECTED TEACHER PERFORMANCE EVALUATION SYSTEMS

School Size LargeType of teacher evaluation procedure currently in use. Job TargetsNumber of years current teacher evaluation procedure has been in use. 3

## Development Costs

1. Number of teachers involved.	<u>1183</u>
2. Number of high school teachers involved.	<u>271</u>
3. Average number of hours for each teacher involved.	<u>5</u>
4. Average teacher salary per hour.	<u>\$10.00</u>
5. Total cost of teacher time. (Multiply line 1 times line 3; then multiply this product times line 4)	<u>\$59,150.00</u>
6. Number of administrators involved.	<u>51</u>
7. Number of high school administrators involved.	<u>12</u>
8. Average number of hours for each administrator.	<u>25</u>
9. Average administrator salary per hour.	<u>\$13,00</u>
10. Total cost of administrator time. (Multiply line 6 times line 8; then multiply this product times line 9)	<u>\$16,575.00</u>
11. Number of clerical/secretarial personnel involved.	<u>0</u>
12. Average number of hours for each such person.	<u>0</u>
13. Average clerical/secretarial salary per hour.	<u>--</u>
14. Total cost of clerical/secretarial time. (Multiply line 11 times line 12; then multiply this product times line 13)	<u>0</u>
15. Consultants fees.	<u>0</u>
16. Special workshop costs.	<u>\$2,000.00</u>
17. Any other research and development costs.	<u>\$1,000.00</u>
18. Cost of supplies, materials, and equipment.	<u>\$100.00</u>
19. Miscellaneous costs.	<u>\$ 50.00</u>
20. Approximate total developmental costs of current teacher evaluation system. (The sum of lines 5, 10, 14, 15, 16, 17, 18 and 19)	<u>\$78,875.00</u>



## COST ANALYSIS SURVEY OF SELECTED TEACHER PERFORMANCE EVALUATION SYSTEMS

School Size MediumType of teacher evaluation procedure currently in use. Multiple EvaluatorsNumber of years current teacher evaluation procedure has been in use. 10

## Development Costs

1. Number of teachers involved.	<u>15</u>
2. Number of high school teachers involved.	<u>4</u>
3. Average number of hours for each teacher involved.	<u>2</u>
4. Average teacher salary per hour.	<u>\$5.85</u>
5. Total cost of teacher time. (Multiply line 1 times line 3; then multiply this product times line 4)	<u>\$ 175.50</u>
6. Number of administrators involved.	<u>7</u>
7. Number of high school administrators involved.	<u>2</u>
8. Average number of hours for each administrator.	<u>15</u>
9. Average administrator salary per hour.	<u>\$10.90</u>
10. Total cost of administrator time. (Multiply line 6 times line 8; then multiply this product times line 9)	<u>\$1145.00</u>
11. Number of clerical/secretarial personnel involved.	<u>0</u>
12. Average number of hours for each such person.	<u>0</u>
13. Average clerical/secretarial salary per hour.	<u>--</u>
14. Total cost of clerical/secretarial time. (Multiply line 11 times line 12; then multiply this product times line 13)	<u>0</u>
15. Consultants fees.	<u>0</u>
16. Special workshop costs.	<u>\$75.00</u>
17. Any other research and development costs.	<u>0</u>
18. Cost of supplies, materials, and equipment.	<u>0</u>
19. Miscellaneous costs.	<u>0</u>
20. Approximate total developmental costs of current teacher evaluation system. (The sum of lines 5, 10, 14, 15, 16, 17, 18 and 19)	<u><u>\$1395.00</u></u>

## COST ANALYSIS SURVEY OF SELECTED TEACHER PERFORMANCE EVALUATION SYSTEMS

School Size LargeType of teacher evaluation procedure currently in use. Multiple EvaluatorsNumber of years current teacher evaluation procedure has been in use. 1

## Development Costs

1. Number of teachers involved.	<u>846</u>
2. Number of high school teachers involved.	<u>210</u>
3. Average number of hours for each teacher involved.	<u>5</u>
4. Average teacher salary per hour.	<u>\$8.00</u>
5. Total cost of teacher time. (Multiply line 1 times line 3; then multiply this product times line 4)	<u>\$33,840.00</u>
6. Number of administrators involved.	<u>46</u>
7. Number of high school administrators involved.	<u>10</u>
8. Average number of hours for each administrator.	<u>105</u>
9. Average administrator salary per hour.	<u>\$9.00</u>
10. Total cost of administrator time. (Multiply line 6 times line 8; then multiply this product times line 9)	<u>\$43,470.00</u>
11. Number of clerical/secretarial personnel involved.	<u>13</u>
12. Average number of hours for each such person.	<u>20</u>
13. Average clerical/secretarial salary per hour.	<u>\$3.00</u>
14. Total cost of clerical/secretarial time. (Multiply line 11 times line 12; then multiply this product times line 13)	<u>\$780.00</u>
15. Consultants fees.	<u>\$150.00</u>
16. Special workshop costs.	<u>0</u>
17. Any other research and development costs.	<u>\$300.00</u>
18. Cost of supplies, materials, and equipment.	<u>\$500.00</u>
19. Miscellaneous costs.	<u>0</u>
20. Approximate total developmental costs of current teacher evaluation system. (The sum of lines 5, 10, 14, 15, 16, 17, 18 and 19)	<u>\$79,040.00</u>

COST ANALYSIS SURVEY OF SELECTED TEACHER PERFORMANCE EVALUATION SYSTEMS

Annual Operational Costs at the High School

1. Number of teachers on staff.	<u>24</u>
2. Total number of annual teacher evaluation sessions.	<u>30</u>
3. Average annual number of evaluations per teacher.	<u>1</u>
4. Number of administrators who evaluate teachers.	<u>1</u>
5. Total annual number of administrative evaluation visits.	<u>30</u>
6. Number of administrative hours spent in evaluation visits.	<u>30</u>
7. Number of administrative hours spent in other evaluation activities (conferences, filling out forms, etc.)	<u>60</u>
8. Average administrative salary per hour.	<u>\$12.34</u>
9. Total administrative costs associated with evaluation. (The sum of line 6 plus line 7 times line 8.)	<u>\$1,110.60</u>
10. Number of clerical personnel assisting in the evaluation procedure.	<u>0</u>
11. Total annual number of clerical hours spent working on teacher evaluation.	<u>0</u>
12. Average clerical salary per hour.	<u>--</u>
13. Total clerical costs associated with evaluation. (Line 11 times line 12.)	<u>0</u>
14. If students are a part of the teacher evaluation process, what are the approximate costs associated with their involvement?	<u>--</u>
15. If peer teachers are a part of the teacher evaluation process, what are the approximate costs associated with their involvement? (hiring substitutes, etc.)	<u>--</u>
16. Annual cost of supplies, materials and equipment associated with teacher evaluation.	<u>0</u>
17. Annual miscellaneous evaluation costs.	<u>0</u>
18. Total annual operational evaluation costs. (The sum of lines 9, 13, 14, 15, 16, 17)	<u>\$1,111.00</u>
19. Average annual evaluation cost per teacher in building. (Line 18 divided by line 1).	<u>\$46.00</u>
20. Average annual evaluation cost per evaluation session. (Line 18 divided by line 2)	<u>\$37.00</u>

COST ANALYSIS SURVEY OF SELECTED TEACHER PERFORMANCE EVALUATION SYSTEMS

Annual Operational Costs at the High School

1. Number of teachers on staff.	<u>95</u>	
2. Total number of annual teacher evaluation sessions.	<u>339</u>	
3. Average annual number of evaluations per teacher.	<u>3.7</u>	
4. Number of administrators who evaluate teachers.	<u>1</u>	
5. Total annual number of administrative evaluation visits.	<u>175</u>	
6. Number of administrative hours spent in evaluation visits.	<u>175</u>	
7. Number of administrative hours spent in other evaluation activities (conferences, filling out forms, etc.)	<u>130</u>	
8. Average administrative salary per hour.	<u>\$12.50</u>	
9. Total administrative costs associated with evaluation. (The sum of line 6 plus line 7 times line 8.)		<u>\$3,812.50</u>
10. Number of clerical personnel assisting in the evaluation procedure.	<u>1</u>	
11. Total annual number of clerical hours spent working on teacher evaluation.	<u>50</u>	
12. Average clerical salary per hour.	<u>\$3.85</u>	
13. Total clerical costs associated with evaluation. (Line 11 times line 12.)		<u>\$192.50</u>
14. If students are a part of the teacher evaluation process, what are the approximate costs associated with their involvement?		<u>--</u>
15. If peer teachers are a part of the teacher evaluation process, what are the approximate costs associated with their involvement? (hiring substitutes, etc.)		<u>\$1,900.00</u>
16. Annual cost of supplies, materials and equipment associated with teacher evaluation.		<u>0</u>
17. Annual miscellaneous evaluation costs.		<u>0</u>
18. Total annual operational evaluation costs. (The sum of lines 9, 13, 14, 15, 16, 17)		<u>\$5,905.00</u>
19. Average annual evaluation cost per teacher in building. (Line 18 divided by line 1).		<u>\$62.00</u>
20. Average annual evaluation cost per evaluation session. (Line 18 divided by line 2)		<u>\$17.00</u>

COST ANALYSIS SURVEY OF SELECTED TEACHER PERFORMANCE EVALUATION SYSTEMS

Annual Operational Costs at the High School

1. Number of teachers on staff.	<u>34</u>	
2. Total number of annual teacher evaluation sessions.	<u>76</u>	
3. Average annual number of evaluations per teacher.	<u>2.2</u>	
4. Number of administrators who evaluate teachers.	<u>2</u>	
5. Total annual number of administrative evaluation visits.	<u>76</u>	
6. Number of administrative hours spent in evaluation visits.	<u>76</u>	
7. Number of administrative hours spent in other evaluation activities (conferences, filling out forms, etc.)	<u>86</u>	
8. Average administrative salary per hour.	<u>\$11.00</u>	
9. Total administrative costs associated with evaluation. (The sum of line 6 plus line 7 times line 8.)		<u>\$1,782.00</u>
10. Number of clerical personnel assisting in the evaluation procedure.	<u>1</u>	
11. Total annual number of clerical hours spent working on teacher evaluation.	<u>12</u>	
12. Average clerical salary per hour.	<u>\$3.80</u>	
13. Total clerical costs associated with evaluation. (Line 11 times line 12.)		<u>\$45.60</u>
14. If students are a part of the teacher evaluation process, what are the approximate costs associated with their involvement?		<u>--</u>
15. If peer teachers are a part of the teacher evaluation process, what are the approximate costs associated with their involvement? (hiring substitutes, etc.)		<u>--</u>
16. Annual cost of supplies, materials and equipment associated with teacher evaluation.		<u>\$8.00</u>
17. Annual miscellaneous evaluation costs.		<u>0</u>
18. Total annual operational evaluation costs. (The sum of lines 9, 13, 14, 15, 16, 17)		<u>\$1,836.00</u>
19. Average annual evaluation cost per teacher in building. (Line 18 divided by line 1).		<u>\$54.00</u>
20. Average annual evaluation cost per evaluation session. (Line 18 divided by line 2)		<u>\$24.00</u>

COST ANALYSIS SURVEY OF SELECTED TEACHER PERFORMANCE EVALUATION SYSTEMS

Annual Operational Costs at the High School

1. Number of teachers on staff.	<u>65</u>	
2. Total number of annual teacher evaluation sessions.	<u>130</u>	
3. Average annual number of evaluations per teacher.	<u>2</u>	
4. Number of administrators who evaluate teachers.	<u>3</u>	
5. Total annual number of administrative evaluation visits.	<u>130</u>	
6. Number of administrative hours spent in evaluation visits.	<u>200</u>	
7. Number of administrative hours spent in other evaluation activities (conferences, filling out forms, etc.)	<u>200</u>	
8. Average administrative salary per hour.	<u>\$12.00</u>	
9. Total administrative costs associated with evaluation. (The sum of line 6 plus line 7 times line 8.)		<u>\$4,800.00</u>
10. Number of clerical personnel assisting in the evaluation procedure.	<u>2</u>	
11. Total annual number of clerical hours spent working on teacher evaluation.	<u>200</u>	
12. Average clerical salary per hour.	<u>\$4.00</u>	
13. Total clerical costs associated with evaluation. (Line 11 times line 12.)		<u>\$800.00</u>
14. If students are a part of the teacher evaluation process, what are the approximate costs associated with their involvement?		<u>--</u>
15. If peer teachers are a part of the teacher evaluation process, what are the approximate costs associated with their involvement? (hiring substitutes, etc.)		<u>--</u>
16. Annual cost of supplies, materials and equipment associated with teacher evaluation.		<u>\$200.00</u>
17. Annual miscellaneous evaluation costs.		<u>\$100.00</u>
18. Total annual operational evaluation costs. (The sum of lines 9, 13, 14, 15, 16, 17)		<u>\$5,900.00</u>
19. Average annual evaluation cost per teacher in building. (Line 18 divided by line 1).		<u>\$91.00</u>
20. Average annual evaluation cost per evaluation session. (Line 18 divided by line 2)		<u>\$45.00</u>

COST ANALYSIS SURVEY OF SELECTED TEACHER PERFORMANCE EVALUATION SYSTEMS

Annual Operational Costs at the High School

1. Number of teachers on staff.	<u>36</u>	
2. Total number of annual teacher evaluation sessions.	<u>72</u>	
3. Average annual number of evaluations per teacher.	<u>2</u>	
4. Number of administrators who evaluate teachers.	<u>2</u>	
5. Total annual number of administrative evaluation visits.	<u>55</u>	
6. Number of administrative hours spent in evaluation visits.	<u>55</u>	
7. Number of administrative hours spent in other evaluation activities (conferences, filling out forms, etc.)	<u>90</u>	
8. Average administrative salary per hour.	<u>\$10.90</u>	
9. Total administrative costs associated with evaluation. (The sum of line 6 plus line 7 times line 8.)		<u>\$1,580.50</u>
10. Number of clerical personnel assisting in the evaluation procedure.	<u>1</u>	
11. Total annual number of clerical hours spent working on teacher evaluation.	<u>25</u>	
12. Average clerical salary per hour.	<u>\$2.51</u>	
13. Total clerical costs associated with evaluation. (Line 11 times line 12.)		<u>\$61.75</u>
14. If students are a part of the teacher evaluation process, what are the approximate costs associated with their involvement?		<u>--</u>
15. If peer teachers are a part of the teacher evaluation process, what are the approximate costs associated with their involvement? (hiring substitutes, etc.)		<u>--</u>
16. Annual cost of supplies, materials and equipment associated with teacher evaluation.		<u>0</u>
17. Annual miscellaneous evaluation costs.		<u>0</u>
18. Total annual operational evaluation costs. (The sum of lines 9, 13, 14, 15, 16, 17)		<u>\$1,642.00</u>
19. Average annual evaluation cost per teacher in building. (Line 18 divided by line 1).		<u>\$46.00</u>
20. Average annual evaluation cost per evaluation session. (Line 18 divided by line 2)		<u>\$23.00</u>

COST ANALYSIS SURVEY OF SELECTED TEACHER PERFORMANCE EVALUATION SYSTEMS

Annual Operational Costs at the High School

1. Number of teachers on staff.	<u>89</u>	
2. Total number of annual teacher evaluation sessions.	<u>178</u>	
3. Average annual number of evaluations per teacher.	<u>2</u>	
4. Number of administrators who evaluate teachers.	<u>4</u>	
5. Total annual number of administrative evaluation visits.	<u>178</u>	
6. Number of administrative hours spent in evaluation visits.	<u>178</u>	
7. Number of administrative hours spent in other evaluation activities (conferences, filling out forms, etc.)	<u>178</u>	
8. Average administrative salary per hour.	<u>\$12.00</u>	
9. Total administrative costs associated with evaluation. (The sum of line 6 plus line 7 times line 8.)		<u>\$4,272.00</u>
10. Number of clerical personnel assisting in the evaluation procedure.	<u>4</u>	
11. Total annual number of clerical hours spent working on teacher evaluation.	<u>100</u>	
12. Average clerical salary per hour.	<u>\$2.50</u>	
13. Total clerical costs associated with evaluation. (Line 11 times line 12.)		<u>\$250.00</u>
14. If students are a part of the teacher evaluation process, what are the approximate costs associated with their involvement?		<u>--</u>
15. If peer teachers are a part of the teacher evaluation process, what are the approximate costs associated with their involvement? (hiring substitutes, etc.)		<u>--</u>
16. Annual cost of supplies, materials and equipment associated with teacher evaluation.		<u>\$400.00</u>
17. Annual miscellaneous evaluation costs.		<u>0</u>
18. Total annual operational evaluation costs. (The sum of lines 9, 13, 14, 15, 16, 17)		<u>\$4,922.00</u>
19. Average annual evaluation cost per teacher in building. (Line 18 divided by line 1).		<u>\$55.00</u>
20. Average annual evaluation cost per evaluation session. (Line 18 divided by line 2)		<u>\$28.00</u>