

379
N81d
NO.704

A COMPARISON OF THE DESIRABILITY AND FEASIBILITY OF
ACCOUNTABILITY MEASURES AS PERCEIVED BY PUBLIC
SCHOOL ADMINISTRATORS AND TEACHERS

DISSERTATION

Presented to the Graduate Council of the
North Texas State University in Partial
Fulfillment of the Requirements

For the Degree of

DOCTOR OF PHILOSOPHY

By

Robert A. Kiamie, A. B., M. A.

Denton, Texas

May, 1973

P.J.S.

Kiamie, Robert A., A Comparison of the Desirability and Feasibility of Accountability Measures as Perceived by Public School Administrators and Teachers. Doctor of Philosophy (Educational Leadership), May, 1973, 215 pp., 17 tables, bibliography, 134 titles.

This study had three main purposes. The first was to determine the perceptions of public school administrators toward desirability and toward feasibility of accountability items. The second was to determine the perceptions of public school teachers toward desirability and toward feasibility of accountability items. The third was to compare the perceptions of administrators with those of teachers and to indicate areas where they seemed to be in agreement or disagreement.

A sixty-statement matched-pairs questionnaire was developed to use in the study. Statements were categorized into certification, tenure, and professional assessment; student assessment; institutional modification; governance; and resources. Participants were requested to respond to each statement on a five-point Likert scale which ranged from "Strongly Disagree" to "Strongly Agree."

Thirty administrators and thirty teachers from Burlington County, New Jersey participated in the study. The sample included thirteen central office administrators and seventeen school building administrators. The selection of a teacher was done from a building list of teachers for each building level administrator. A district list of teachers was used for each central office administrator. All data were collected during November, 1972.

Six null hypotheses were formulated prior to the study. They were to be tested at the .05 level of significance. Following the collection of data, the Pearson product moment correlation coefficient was used to determine if there were significant relationships between the desirability and feasibility of the thirty matched-pairs items both for administrators and for teachers.

The t-test for two related samples was used to determine if there were significant differences between the means for desirability and feasibility of the thirty matched-pairs items both for administrators and for teachers.

The t-test for two independent samples was used to determine if there were significant differences between the mean scores for administrators and teachers for each of the desirability statements and for each of the feasibility statements.

Administrators and teachers perceived most accountability areas measured by the instrument similarly.

Teachers felt there should be greater teacher participation in decision-making. They felt that greater teacher participation in program development and evaluation would lead to improved student performance, and that such participation was necessary before teachers could be held accountable for student progress.

While neither administrators nor teachers opposed the use of standardized tests in program evaluation, administrators were more certain tests could meaningfully be used for that purpose.

Both groups felt students should be given a greater role in school evaluations, but were more hesitant to extend student participation to the area of evaluation of administrators and teachers.

The following recommendations are offered: (1) that the instrument be modified or another instrument developed to reflect the changed emphasis in accountability literature; (2) that the instrument be validated by wider administrations and statistical treatments rather than by the jury technique; (3) that a study be conducted which would compare the perceptions

held by the citizenry and board of education members as well as administrators and teachers; (4) that a larger study be conducted which would investigate the relationships between opinions toward accountability proposals and such variables as years of service, respondents' ages, sex, years of education, school size, and elementary-intermediate-secondary responsibilities; and (5) that similar studies in New Jersey be conducted at future dates to detect attitudinal changes which may develop as the state gains more experience with statewide testing.

TABLE OF CONTENTS

	Page
LIST OF TABLES	v
Chapter	
I. INTRODUCTION	1
Statement of the Problem	
Purposes of the Study	
Hypotheses	
Background and Significance	
Definition of Terms	
Limitations	
Basic Assumptions	
The Instrument	
Procedure for Collecting Data	
Procedure for Analysis of Data	
II. SURVEY OF THE LITERATURE	24
Definitions of Educational Accountability	
History of Accountability Before	
Texarkana	
Bases for Recent Emphasis Upon	
Accountability	
Accountability Measures Since 1969	
Responses of Teacher Organizations	
Educational Assessment and Associated	
Measurement Problems	
Financial Resources	
III. METHODOLOGY	79
Description of the Sample	
The Instrument	
Data Collection	
Statistical Treatment of the	
Hypotheses	

TABLE OF CONTENTS--Continued

Chapter	Page
IV. RESULTS OF THE STUDY	112
Findings Related to Purposes of the Study	
Data Related to Hypotheses I and III	
Data Related to Hypotheses II and IV	
Data Related to Hypothesis V	
Data Related to Hypothesis VI	
V. SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS . .	164
Summary	
Conclusions	
Recommendations	
APPENDIX	176
BIBLIOGRAPHY	206

LIST OF TABLES

Table	Page
I. Burlington County School Districts Grouped by Size of Student Enrollment	85
II. Distribution of Thirty Administrators in Seventeen Districts by District Grades and Position	87
III. Distribution of Thirty Administrators by Position and District Student Enrollment .	88
IV. Distribution of Respondents as Compared to Distribution of Students in Burlington County School Districts Grouped by Size of Student Enrollment	91
V. 1970-71 Per-Pupil Expenditures for Instruc- tional Materials for Districts Represented in This Study	92
VI. Total Per-Pupil Expenditures for Instruc- tional Materials, 1968-69 and 1970-71	94
VII. Instrument Items, Instrument Areas, and Statement Scoring	102
VIII. Administrators' and Teachers' Perceptions of the Thirty Desirability Statements . .	115
IX. Administrators' and Teachers' Perceptions of the Thirty Feasibility Statements . . .	123
X. Administrators' Perceptions of the Thirty Matched-Pairs Items	130

LIST OF TABLES--Continued

Table	Page
XI. Teachers' Perceptions of the Thirty Matched-Pairs Items	132
XII. Desirable and Feasible Items	134
XIII. Desirable but Not Feasible Items	138
XIV. Relationship Between the Desirability and Feasibility of the Thirty Matched-Pairs Items	142
XV. Difference Between the Desirability and Feasibility Means of the Thirty Matched-Pairs Items	152
XVI. Differences Between the Mean Scores for Administrators and Teachers for Each Desirability Statement	159
XVII. Differences Between the Mean Scores for Administrators and Teachers for Each Feasibility Statement	161

CHAPTER I

INTRODUCTION

The July, 1969-June, 1970 Education Index contained "Accountability" as a separate entry for the first time, but merely referred the reader to "Education--Evaluation." The next annual Education Index for the first time listed articles under an "Accountability in Education" entry. Since mid-1970 the call for accountability in education has resulted in a large number of articles (some critical, some supportive) devoted to the subject in the professional literature. In addition, various accountability measures, ranging from performance contracts and voucher plans to assessment plans, have been implemented on scales ranging from individual schools to entire states.

While there is no doubt that the term "accountability" has struck a highly responsive cord in the educational community, a common definition has not developed. This study proposed to extract from accountability literature and measures those items which appear most central to the term and then, by means of a questionnaire, to compare the perceptions of school administrators and teachers regarding each item.

The perceptions of administrators and teachers toward accountability is central in decisions to implement, sustain, or discontinue specific educational practices. A comparison of the views of these professional employees, indicating areas of agreement and disagreement, should aid in decision making regarding specific accountability measures.

Statement of the Problem

The problems of this study were

1. To determine the perceptions of public school administrators toward desirability and toward feasibility of accountability items.
2. To determine the perceptions of public school teachers toward desirability and toward feasibility of accountability items.
3. To compare the perceptions of public school administrators with teachers with respect to desirability and feasibility of accountability items and to indicate areas where they seem to be in agreement or disagreement.

Purposes of the Study

The purposes of this study were

- I. To determine if administrators and teachers agree on the desirability of the thirty desirability statements.

- A. To determine the accountability items which administrators and teachers agree are desirable.
- B. To determine the accountability items which administrators and teachers agree are undesirable.
- C. To determine the accountability items over which administrators and teachers disagree as to desirability.

II. To determine if administrators and teachers agree on the feasibility of the thirty feasibility statements.

- A. To determine the accountability items which administrators and teachers agree are feasible.
- B. To determine the accountability items which administrators and teachers agree are not feasible.
- C. To determine the accountability items over which administrators and teachers disagree as to feasibility.

III. To determine the degree of relationship between the desirability and the feasibility of the thirty matched-pairs items for administrators.

- A. To determine the accountability items which administrators perceive as desirable and feasible.
- B. To determine the accountability items which administrators perceive as undesirable and not feasible.

C. To determine the accountability items which administrators perceive as desirable but not feasible.

D. To determine the accountability items which administrators perceive as not desirable but feasible.

IV. To determine the degree of relationship between the desirability and the feasibility of the thirty matched-pairs items for teachers.

A. To determine the accountability items which teachers perceive as desirable and feasible.

B. To determine the accountability items which teachers perceive as undesirable and not feasible.

C. To determine the accountability items which teachers perceive as desirable but not feasible.

D. To determine the accountability items which teachers perceive as not desirable but feasible.

Hypotheses

In implementing this study, the following null hypotheses were formulated:

I. For administrators there will be no significant relationship between the desirability and feasibility of the thirty matched-pairs items.

II. For administrators there will be no significant difference between the means for desirability and feasibility of the thirty matched-pairs items.

III. For teachers there will be no significant relationship between the desirability and feasibility of the thirty matched-pairs items.

IV. For teachers there will be no significant difference between the means for desirability and feasibility of the thirty matched-pairs items.

V. There will be no significant difference between the mean desirability scores for administrators and the mean desirability scores for teachers for each of the thirty desirability statements.

VI. There will be no significant difference between the mean feasibility scores for administrators and the mean feasibility scores for teachers for each of the thirty feasibility statements.

Background and Significance

The demand for accountability in education has been present in varied and limited forms for many years. Stiles (54) finds that the Revised Code in Britain (1862-97) was initiated because many students, particularly in the lower social classes,

did not possess rudimentary skills in reading, writing, and arithmetic. The Revised Code established the scope and format of each examination and provided a per capita grant to the teacher for exams passed by his students.

Educators then, as now (22; 38, p. 452; 39, p. 97), were suspicious of a system which linked their salaries to achievement measured by examinations. Teaching for the examinations was a concern of those charged with supervision. Both Stiles (54) and Small (52, p. 439) concluded that payment-by-results had a detrimental effect upon the overall quality of education provided. Small concludes that instruction was concentrated upon the minimum required to pass the examinations; the Victorians had been shortsighted when they held only the school and teacher responsible for student performance.

Lessinger maintains that 1969 was the start of educational accountability as a modern concept (26, p. 19). In that year the first performance contract was signed. The results were contaminated by some teaching for the examination, although it is unclear how much contamination took place (41). Within the year, thirty other performance contracts had been started.

At its August, 1970, convention the American Federation of Teachers formally opposed performance contracting and

resolved to wage a national campaign against its use (22, p. 86). At its July, 1970, convention the National Education Association adopted a resolution which urged its state and local affiliates to "resist school evaluations by non-professional personnel, such as those being conducted under contract between the Department of Health, Education and Welfare and private, profit-making firms" (22, p. 87).

The Office of Economic Opportunity shortly thereafter entered into eighteen performance contracts totaling five to six million dollars. Thirteen thousand "most academically deficient" students were to be compared to 10,000 "control" students, selected because they were in the next lowest category in reading and mathematics (38, p. 452). After sixteen months, the O. E. O. concluded that performance contracting was a failure and withdrew its support (38, 43). The contracting companies dispute the O. E. O. findings (38, p. 452), and the experimental design has been called into question (48). The Rand Corporation, in addition, found the performance contractors had been successful in bringing about change, particularly in regard to individualized instruction (42, 43). Rand also found greater fostering of student self-reliance. The cost, more expensive than normal classroom instruction,

was slightly less expensive than conventional remedial programs (42, 43). About one hundred performance contracts are presently in effect (38, p. 452).

Although performance contracting was the innovation which received the greatest attention, other practices are being tried. The O. E. O. continues to experiment with voucher plans in some districts (38, p. 451; 55). Computer-assisted instruction has produced favorable results in McComb, Mississippi, although criterion-referenced tests would aid in evaluating effectiveness (21, p. 630). Teacher incentive plans, providing for bonus payments directly to teachers, were instituted in some schools in Portland, Dallas, and Washington, D. C. (39). The O. E. O. funded teacher incentive programs in Mesa, Arizona and Stockton (16, p. 375; 36; 39), which it has since found did not result in student gains (38, p. 452).

The United States Office of Education, however, is presently financing a \$770,000 teacher incentive program in Cincinnati, Jacksonville, Oakland, and San Antonio (37). As part of that program, parents in Oakland and San Antonio may receive up to one hundred dollars if the class as a whole shows marked improvement. The future of parent incentive programs, even should this experiment prove successful, is unclear.

The aforementioned plans have concentrated upon behavioral skills within the cognitive domain. Student assessment plans concentrate upon reading and mathematical skills (15, p. xlii). While some writers regret this emphasis (7, 10, 23, 34), the trend continues at an accelerated rate (15, 35). Farr (17), Innes (23), and Wrightstone (61) consider associated measurement problems when learning is evaluated statistically by use of objective tests.

Teachers have opposed plans which link salary to student performance (22; 39, p. 51). Teacher organizations have opposed any system of teacher evaluation linked to student performance, especially until more complete financial support is forthcoming and teachers have a greater voice in teacher training, certification, in-service training, and administering standards of practice (33, pp. 47-49; 50, p. 35). English and Zaharis recommend teachers control staff differentiation and salary distribution (16, p. 375).

Teacher certification and tenure practices are implicitly questioned in accountability measures (31, p. 592). Teachers have demanded a greater role in certification and teacher evaluation (3; 33, pp. 48-49), while private firms have sometimes employed personnel who could not meet state certification requirements (30, p. 410).

The teacher organizations, in brief, are seeking an expanded legal jurisdiction over the operation of the schools (3; 32, pp. 29-30; 33, p. 47; 50, p. 35; 59). Helen Bain, while N. E. A. President, wrote that the classroom teacher must be "an integral part of the policy making and administrative machinery for governing the teaching profession." She further stated:

It is now very clear that we must work with increasing vigor to bring about legislation in each state that will establish the profession's right to do the following: approve teacher education programs of all types; govern the issuing of initial licenses and advanced credentialing; enforce standards of ethics and practices; and design and promote research and programs to improve teacher education, including in-service education.

We are aware that obtaining the legal right to govern is only the beginning, for a law is no better than the use to which it is put. We must be ready, therefore, to serve in other than advisory ways.

. . . teachers want to help improve and reform education, but they cannot do so from an advisory posture. They must be directly responsible in matters of governance (3).

The public schools have been criticized for being inflexible. Wynne charges there is an enormous underinvestment in educational research (62, p. 245); he further states that schoolmen with a vested interest in the status quo view research findings as a serious potential threat to their positions. Researchers, therefore, must cultivate groups which

stand to gain power from research findings: "In short, almost everyone without a vested interest in the way schools are now run" (62, p. 246).

The Rand Corporation supported the claim of performance contractors that they would bring about more changes (42, 43). The National Education Finance Project recommended eliminating categorical aid and consolidating grants in six areas, one to be research and development (18, p. 336). While Lessinger (25, p. 218) and Martin and Blaschke (29) argue that an application of systems management would produce responsive changes, some community groups and researchers have argued that a desire to be responsive is lacking in the schools.

The National Education Finance Project concluded that the states should finance fifty-five to sixty per cent of the cost of education, the federal government twenty-two to thirty per cent, and the local school district ten to fifteen per cent. It also concluded eighty per cent of the school districts should consolidate (18, p. 336). The N. E. F. P. recommendations were, in principle, supported by court decisions in California, Texas, New Jersey, and other states which have called for alternatives to heavy reliance upon individual school district wealth.

This study was designed to discover the perceptions of school administrators and teachers in the areas of student assessment; certification, tenure, and evaluation; governance; institutional modification; and resources.

Definition of Terms

The following terms are defined in the way they apply to this study.

Administrator.--A full-time public school administrator, either on the school or district level.

Certification.--The requirement established by the state to obtain a certificate to teach, administer, or supervise in the public schools of that state.

Evaluation.--The assessment of educator performance.

Governance.--The agencies or groups that have legal jurisdiction over the operation of the public schools.

Institutional Modification.--The degree to which the schools are open to suggestions, research, and warranted change.

Item.--A proposal, measure, practice, or criticism suggested in accountability literature and contained in two instrument statements, one to measure desirability and the second, feasibility.

Resources.--The financial means which school personnel can employ in fulfilling their responsibilities.

Statement.--One of the sixty statements contained in the instrument designed for this study.

Student Assessment.--The evaluation of student learning which, in accountability terms, means the measurement of student learning in the cognitive domain.

Teacher.--A full-time public school teacher.

Limitations

This study will be limited to Burlington County, New Jersey public school administrators and teachers during the 1972-73 school year.

Basic Assumptions

In implementing this study, the following basic assumption was established:

It was assumed that public school administrators and teachers had a sincere interest in educational practices and policies suggested in the current accountability dialogue and would respond with forthright answers and, in return, would expect their responses to be treated confidentially.

The Instrument

A matched-pairs questionnaire was developed for this study. As a result of the review of literature, several hundred statements were developed and categorized into student assessment; certification, evaluation, and tenure; institutional modification; school governance; and resources. The statements were initially reduced to sixty-six in number (thirty-three match-pairs items) based upon appropriateness and language.

The questionnaire used the following Likert scale:

Strongly	Disagree	Undecided	Agree	Strongly
Disagree				Agree

Two teachers and two administrators responded to the sixty-six-statement questionnaire and an intensive interview was held with each. Six statements were eliminated from the questionnaire; several statements were modified.

The questionnaire was administered to a graduate education class during August, 1972. The class was composed of public school educators. Most class members were teachers; several were administrators. One purpose of this administration was to determine approximate length of time required to respond to the questionnaire. After responding to the questionnaire, class members were requested to identify any statement which was unclear and to specify the apparent source of

confusion. Opportunity was also provided for comment regarding any aspect of questionnaire construction or administration. The comments were studied for possible questionnaire revision before submission to jury members; three statements were reworded.

The revised questionnaire was submitted to a jury of seven (Appendix A). A teacher, an instructional supervisor, a principal, a superintendent, a county superintendent, a college teacher of educational administration, and a college researcher were included. The teacher, instructional supervisor, principal, and superintendent were from Burlington County, New Jersey.

If four jurors suggested that a statement be changed, it was to be rewritten accordingly and resubmitted to the seven jurors. If four jurors felt an item was inappropriate, the item was to be considered rejected. An additional item was to be submitted to the jury for each rejected item. Each juror was supplied with a form designed to facilitate responding (Appendix A). The final form of the questionnaire was to reflect the jurors' judgements on each of the sixty statements.

Procedure for Collecting Data

The 1972-73 Burlington County Public School Directory lists two hundred fifteen positions under the titles

superintendent, assistant superintendent, administrative assistant, administrative principal, principal, vice-principal, assistant principal, and dean (13). The above tabulation does not include titles such as curriculum director, child study team chairman, school psychologist, social worker, director of elementary or secondary education, reading supervisor, or guidance.

A priority ranking was assigned to each administrator in the county. A table of random numbers was used to generate a priority ranking from one to two hundred fifteen for each administrator.

Each of the administrators who received a priority ranking from one through thirty-two was contacted and an attempt was made to gain his participation and that of one teacher to be selected randomly. The teacher was to be selected from a district list of teachers if the administrator held a central office position. The teacher was to be selected from a school list of teachers if the administrator held a school building position. In the event that the teacher first chosen refused to participate, another teacher was to be chosen randomly from the appropriate list.

Thirty administrators and thirty teachers agreed to participate in the study. Arrangements for the actual administration of the questionnaire (Appendix B) were made on a case-by-case basis with provision for confidential handling of each respondent's answer sheet.

Answer sheets (Appendix B) were received from twenty-eight administrators and twenty-seven teachers. Fifty-four matched (administrator-teacher) answer sheets were received. The administrators ranked thirty-three through thirty-five were contacted. Six additional matched answer sheets were received. The remaining unmatched answer sheet was discarded. The sixty matched answer sheets were forwarded to the North Texas State University Computer Center.

Procedure for Analysis of Data

The questionnaire contained sixty statements. Thirty-two statements were assigned scores from one through five for responses on a five-point Likert scale from "Strongly Disagree" to "Strongly Agree." Twenty-eight statements were assigned scores weighted in the reverse order, five to one, for responses from "Strongly Disagree" to "Strongly Agree."

In order to test hypotheses I and III, a Pearson product moment correlation coefficient was calculated. The null hypotheses was rejected at the .05 level.

In order to test hypotheses II and IV, a t-test for two related samples was calculated. The null hypotheses was rejected at the .05 level.

In order to test hypotheses V and VI, a t-test for two independent samples was calculated. The null hypotheses was rejected at the .05 level.

CHAPTER BIBLIOGRAPHY

1. "A Balanced Presentation of Accountability," American Vocational Journal, 46 (February, 1971), 88-90.
2. "Accountability, Vouchers, and Performance Contracts," Today's Education, 60 (December, 1971), 13.
3. Bain, Helen, "After All," Today's Education, 60 (March, 1971), 80.
4. Varro, Stephen M., "An Approach to Developing Accountability Measures for the Public Schools," Phi Delta Kappan, LII (December, 1970), 196-205.
5. Blaschke, Charles, "Performance Contracting Costs, Management Reform, and John Q. Citizen," Phi Delta Kappan, LIII (December, 1971), 245-247.
6. Calkins, Hugh, "Financing Education in the 70's," Today's Education, 60 (February, 1971), 30-32.
7. Campbell, Robert E., "Accountability and Stone Soup," Phi Delta Kappan, LIII (November, 1971), 176-178.
8. Cass, James, "Accountability to Whom? For What?," Saturday Review, 54 (March 20, 1971), 41.
9. Cass, James, "Profit and Loss in Education," Saturday Review, 54 (August 15, 1971), 39-40.
10. Catalozzi, John, "Accountability and Responsibility in Education," Journal of Education, 154 (December, 1971), 21-29.
11. Chavez, Simon J., "Performance Accountability in Teacher Education," Audiovisual Instruction, 16 (March, 1971), 56-57.

12. County Superintendent of Schools, Burlington County Public School Directory, 1971-72, Mount Holly, New Jersey, 1971.
13. County Superintendent of Schools, Burlington County Public School Directory, 1972-73, Mount Holly, New Jersey, 1972.
14. Duristine, Richard M., "An Accountability Information System," Phi Delta Kappan, LII (December, 1970), 236-239.
15. Education Testing Service, State Educational Assessment Programs, Princeton, New Jersey, 1971.
16. English, Fenwich and James Zaharis, "Are Accountability and Governance Compatible?," Phi Delta Kappan, LII (February, 1971), 374-375.
17. Farr, Roger and others, "How to Make a Pile in Performance Contracting," Phi Delta Kappan, LIII (February, 1972), 367-369.
18. "Finance Study Completed," Phi Delta Kappan, LIII (January, 1972), 336-337.
19. Friedman, Milton, "Homogenized Schools," Newsweek, 79 (February 28, 1972), 77.
20. Gallup, George, "The Third Annual Survey of the Public's Attitudes Toward the Public Schools, 1971," Phi Delta Kappan, LIII (September, 1971), 33-48.
21. Hall, Keith A., "Computer-Assisted Instruction: Problems and Performance," Phi Delta Kappan, LII (June, 1971), 628-631.
22. "How Education Groups View Contracting," Nation's Schools, 86 (October, 1970), 86-87.
23. Innes, Thomas C., "Measurement, Accountability and Humanness," Measurement and Evaluation in Guidance, 4 (July, 1971), 90-98.

24. Kast, Fremont E. and James E. Rosenzweig, Organization and Management: A Systems Approach, McGraw Hill, Inc., New York, 1970, 498-516.
25. Lessinger, Leon, "Engineering Accountability for Results in Public Education," Phi Delta Kappan, LII (December, 1970), 217-225.
26. Lessinger, Leon, "Teachers in an Age of Accountability," Instructor, 80 (June-July, 1971), 19-20.
27. Lieberman, Myron, "An Overview of Accountability," Phi Delta Kappan, LII (December, 1970), 194-195.
28. Martin, Reed, "Performance Contracting: Making It Legal," Education Digest, 36 (April, 1971), 1-4.
29. Martin, Reed and Charles Blaschke, "Contracting for Educational Reform," Phi Delta Kappan, LII (March, 1971), 403-406.
30. Mecklenburger, James A. and John A. Wilson, "The Performance Contract in Gary," Phi Delta Kappan, LII (March, 1971), 406-410.
31. Mecklenburger, James A. and John A. Wilson, "The Performance Contracts in Grand Rapids," Phi Delta Kappan, LII (June, 1971), 590-594.
32. "MUS-E and IGE: More Alphabet Soup or Valid Change?," N. J. E. A. Review, 45 (January, 1972), 28-31, 54.
33. National Education Association, "Accountability and the Classroom Teacher," Today's Education, 60 (March, 1971), 41-56.
34. Neff, Frederick C., "1984: Accountability Arrives," N. J. E. A. Review, 45 (May, 1972), 20-23.
35. New Jersey Department of Education, "Statewide Reading Tests Seen for 1973-74," New Jersey Education, Trenton, 6 (February, 1972), 7.

36. "Newsnotes: Payments to Parents?," Phi Delta Kappan, LIII (March, 1972), 454.
37. "Newsnotes: Teachers' Organizations Try Performance Contracting," Phi Delta Kappan, LII (December, 1970), 250.
38. "OEO, Educators Debate Value of Performance Contracting," Phi Delta Kappan, LIII (March, 1972), 451-452.
39. "Outlook for Teacher Incentives," Nation's Schools, 86 (November, 1970), 51-55, 97.
40. "Performance Contracting," Phi Delta Kappan, LII (December, 1970), 225.
41. "Performance Contracting: Clouds and Controversy Over Texarkana," Nation's Schools, 86 (October, 1970), 85-88.
42. "Performance Contracting Results Are Mixed, Rand Report Says," Phi Delta Kappan, LIII (February, 1972), 391.
43. "Performance Contracting Set-Back," N.J.E.A. Review, 45 (January, 1972), 41.
44. Popham, W. James, "Teaching Skill Under Scrutiny," Phi Delta Kappan, LII (June, 1971), 599-602.
45. Primack, Robert, "Accountability for the Humanists," Phi Delta Kappan, LII (June, 1971), 620-621.
46. Reynolds, Jerry D., "Performance Contracting . . . Adapted," Education Digest, 36 (April, 1971), 5-7.
47. Rice, Arthur H., "Good Teachers Stand to Benefit From Accountability Plans," Nation's Schools, 86 (November, 1970), 16.
48. Saretsky, Gary, "The OEO Performance Contract Experiment and the John Henry Effect," Phi Delta Kappan, LIII (May, 1972), 579-581.
49. "Satisfaction Guaranteed or Money Back," Saturday Review, 54 (August 15, 1971), 54-55.

50. Seltz, Judith, "A Teacher's Guide to Performance Contracting," Grade Teacher, 88 (April, 1971), 32-35, 76-79.
51. Sherman, H. C., "Accountability Not New," Phi Delta Kappan, LII (December, 1970), 253.
52. Small, Alan A., "Accountability in Victorian England," Phi Delta Kappan, LIII (March, 1972), 438-439.
53. Sterner, Jack, "Accountability by Public Demand," American Vocational Journal, 46 (February, 1971), 33-37.
54. Stiles, Lindley J., "A Hundred Years Before Texarkana," Journal of Educational Research, 64 (May-June, 1971), front and rear covers.
55. Swanker, Ester M. and Bernard E. Donovan, "Voucher Demonstration Project: Problems and Promise," Phi Delta Kappan, LII (December, 1970), 244.
56. Thomas, Hollie and Anna Mahaffrey, "Educational Priorities: A Means of Establishing Accountability," Business Education Forum, 26 (January, 1972), 9-10.
57. "Three Reports of Performance Contracting Now in Action," Instructor, 80 (June-July, 1971), 23-26.
58. Weber, Clarence A., Personnel Problems of School Administrators, New York, McGraw-Hill, Inc., 1954.
59. Williams, Lois, "Governance Is Integral to Accountability," Today's Education, 60 (April, 1971), 59-60.
60. Wilson, John Oliver, "Performance Contracting: An Experiment in Accountability," Instructor, 80 (June-July, 1971), 21-22.
61. Wrightstone, J. Wayne, Thomas P. Hogan, and Muriel M. Abbott, Test Service Notebook 33: Accountability in Education and Associated Measurement Problems, New York: Harcourt Brace Javanovich, Inc.
62. Wynne, Edward, "Education Research: A Profession in Search of a Constituency," Phi Delta Kappan, LII (December, 1970), 245-247.

CHAPTER II

SURVEY OF THE LITERATURE

This chapter is concerned with the scope and content of accountability literature. The literature will be divided into the following areas: (1) definitions of educational accountability; (2) history of accountability before the Texarkana experiment; (3) bases for recent emphasis upon accountability; (4) accountability measures since 1969; (5) responses of teacher organizations; (6) educational assessment and associated measurement problems; and (7) financial resources.

Definitions of Educational Accountability

Stenner (69, p. 36) defines accountability as the factors which produce specific educational results through investment of a specific amount of money. Stenner views accountability as the process by which specific goals are reached; it is the honoring of educators' promises to children and their parents.

Richburg defines accountability as "a construct describing the product of an educational process in which an instructional program is assessed as to its effectiveness and

efficiency in achieving student learning, and educators are held responsible for the failures and successes of the instructional program" (59, p. 2). Richburg makes the assumptions that the school has a basic responsibility in student learning and that reward and punishment mechanisms are involved in educational accountability.

Stein defines accountability as establishing goals and evaluating results in measurable terms (67, p. 15). Riles defines it as setting goals, providing adequate resources, and systematically evaluating (59, p. 2).

Lessinger views accountability as the product of a process (31, p. 217). The process, based upon measurable student accomplishments toward established goals, fundamentally means that a public or private agent enters into a contractual agreement to perform a service within a specific time period and within specified resources, and will be held answerable for his performance. The agent's performance is judged by the performance of students on an "independent educational accomplishment audit" (63, p. 32; 31, p. 219), which, basically, is testing of students with an instrument prepared and administered by someone other than the contracting agent. Lastly, a public report is to be made on the success or failure of

the program. The agent should be financially rewarded for success and penalized for failure: "accountability without redress or incentive is mere rhetoric" (31, p. 217).

In a report prepared for the Education Commission of the States, Vlaanderen and Lindman state that accountability and motherhood appear to be related. "Unfortunately, the method by which one achieves accountability is not nearly so well agreed upon as the method by which one achieves motherhood" (74, p. 18). The report also states that development of a viable system of accountability is only now beginning to receive attention. Yet, an inspection of the literature reveals agreement on the need for certain procedures: (1) the establishing of educational goals in behavioral terms, (2) the measuring of student accomplishment, and (3) program evaluation.

The approach employed by the Detroit public schools for Title III programs in establishing goals is illustrative (60). Each of the program's 130 teachers was asked to submit a minimum of 10 behavioral objectives which they felt were most relevant to the students in the program. The teachers were told that the objectives did not have to parallel any external measurement, such as a standardized test, or their particular instructional materials.

Committees of teachers and administrators then inspected the submitted objectives and categorized them into twenty-eight curriculum areas; the committees also attempted to sequence the objectives within each area. Over 600 behavioral objectives in mathematics and language arts were developed. Lastly, a "prescriptive package," which included the instructional objective and at least one recommended way to teach it, was prepared for each objective. The use of prescriptive packages, however, is optional (60, p. 3).

The involvement of teachers in setting educational goals is widespread. In his December 18, 1970, memorandum on "student learning tasks" the Superintendent of Kansas City stated, "This can only be accomplished by you teachers in your various subject fields. I have asked that Task Forces be established for your heavy participation. I hope you will volunteer for one of the Task Forces" (3, p. 2).

Richburg points out that the work of Bloom in developing his cognitive taxonomy and Mager in specifying instructional objectives have contributed to the accountability movement (59, p. 6). The use of behaviorally stated objectives has become the accepted practice in accountability literature (31; 67; 59, p. 7) due to the desire to promote student accomplishment in basic skill areas, namely mathematics and reading.

Some writers have been critical of this emphasis. Catallozzi maintains that accountability in educational terms involves "only that which is observable, demonstrable, and can be objectively defined" (15, p. 22). This orientation is based upon a very mechanistic concept of the human psyche, one which denies any notion of human personality or the influence of developments beyond the school's walls. Catallozzi rejects this concept as reductionism (15, p. 27) and states that the very vitalism of the human psyche denies the possibility of an all-encompassing accountability in education. The human psyche does make discriminations which are ethical and not easily measured (15, p. 23).

Maintaining that schools are first a human institution, Catallozzi contrasts "accountability" with "responsibility" in education and finds that the latter involves a concern for the consequences of an act (15, p. 26). In terms of a humanistic education, such ethical discriminations, based upon human principles, are necessary. The accountability movement has not provided for humanistic education. Accountability, in effect, is one facet of responsibility.

A humanistic viewpoint was also expressed in a report of the College Board's Commission on Tests. The tests should

be revised to also assess the student's personal sensitivities, social commitment, analysis and synthesis abilities, and adaptability to new situations. The present test, which assess only verbal and quantitative skills, are "insensitive, narrowly conceived, and inimical to the interests of many youths" (63, p. 79).

Primack, in turn, takes the humanists to task for not bothering to ask themselves the difficult questions to which the accountability movement is addressed. They have not examined the issues thoughtfully and reflectfully; instead, they react against accountability as being anti-humanistic.

Primack suggests that the dialogue should not be an either-or issue (either accountability or humanistic education). Although finding that the humanist position has been weak in terms of behavioral outcomes, Primack maintains that this need not be the case: "Humanists should be able to specify fairly clear-cut patterns or types of behavior (hated word) which must accompany a humanist orientation" (55, p. 620). Primack concludes that accountability and humanist education are compatible. When the two seem to be in conflict, especially in regard to communal and social goals, "intelligence must be the court of last resort" (55, p. 621).

Interestingly, at least one performance contracting firm, Combined Motivation Education Systems, is attempting to deal with affective learnings in Grand Rapids, although its effectiveness is questionable (37, p. 592).

Several states are beginning to stress non-cognitive development in their present or planned assessment programs. Pennsylvania has produced instruments to measure self-concept, understanding of others, citizenship, health, creativity, saleable skills, readiness for change, and attitudes. Michigan is testing attitudes toward learning, academic achievement, and self. In its first stage, Nebraska's assessment program will be concerned only with non-cognitive objectives (18, p. XIII).

History of Accountability Before Texarkana

Small contends that accountability precedents can be found as far back as ancient Greece and Rome. One payment-by-results story "tells of the Sophist who, having guaranteed to teach a student the virtue of honesty, was laughed out of court when he testified that his student had refused to pay his fee and therefore cheated him" (65, p. 438).

Dyer contends that the Old Deluder Satan Law of 1647 was an accountability precedent (59, p. 7). Campbell suggests

there has always been some form of teacher accountability; in earlier times it was upon exemplary character and conduct (12, p. 177).

It is not until Victorian England, however, that one finds a precedent which appears directly akin to the current emphasis upon results. Parliament had been granting aid to schools by headcount alone and the amount had risen from 265,500 pounds in 1851 to 973,950 pounds in 1858 (65, p. 438). In that year Parliament appointed a commission under the Duke of Newcastle "to inquire into the present state of popular education in England, and to consider and report what measures, if any, are required for the extension of sound and cheap elementary instruction to all classes of the people" (70).

The Commission, which reported in 1861, looked into the education of the independent poor; the education of the pauper, vagrant, and criminal children; and the education provided by schools supported by the state and charitable institutions. The Commission recommended that payments should be made only to those schools and teachers who could show a minimum average daily attendance of 140 days, and whose children had accomplished a minimum standard of proficiency in the 3 R's as determined by county examiners (65, 70). The Commission stated:

"Till something like a real examination is introduced into our day schools, good elementary teaching will never be given to half the children who attend them" (65, p. 438).

A Revised Code, specifying the per capita grant in regard to age, attendance, and examinations results as well as the format and scope of each examination, was passed by Parliament in August, 1863, and remained in effect until 1897 (70). During that period of time the system came under heavy attack from people in the educational community. Educators were suspicious of a system which linked their pay to a form of evaluation by examination. There was concern that teachers would concentrate upon the minimum required to pass the examinations.

In a series of yearly reports Matthew Arnold, the poet, in his capacity as a school inspector, criticized the payment-by-results approach as being too narrow an approach to education (65, p. 439; 70). It was finally concluded that the Revised Code was detrimental to the overall quality of education; Parliament ended this experiment thirty-four years after it had been initiated.

National standardized achievement tests were introduced in the 1920's and served to provide educators and the community with some evidence of pupil accomplishment (78, p. 2).

Most writers agree that the Elementary and Secondary Education Act of 1965 provided the immediate precedent and major thrust for the renewed interest in accountability, which reached fruition in the initial performance contract in the Texarkana School District (29, p. 41; 18, p. IX; 59, pp. 7-8). Title I of the E. S. E. A. placed an evaluation requirement upon the local districts in regard to their compensatory education programs:

Each local educational agency shall, at least annually, provide an evaluation of the effectiveness of its program under Title I of the Act, in meeting the special education needs of the educationally deprived children, including appropriate objective measurements of educational achievement. The measurement of educational achievement under such a program shall include the measuring or estimating of educational deprivation of these children who will participate in the program, and the comparing, at least annually, of the educational achievement of participating children with some objective standard or norm (29, p. 41).

Richburg points out this provision was intended primarily as an accounting procedure, not an accountability measure (59, pp. 2-3). The legislators merely wanted an accounting of how funds were being spent and what results were being obtained. The provision has since been interpreted by the O. E. O. so as to presently require the school districts to submit an internal evaluation of federally funded programs and an

external evaluation by an outside evaluator (59, p. 3). Title VII, bilingual education, and Title VIII, dropout prevention, also require systematic evaluation (78, p. 2).

Law, with California's Division of Compensatory Education, states that without doubt the E. S. E. A. "is the largest single thrust in education in the history of this country," affecting the education of millions of children and the expenditure of billions of dollars (29, p. 41). In 1970 the Los Angeles Unified School District received approximately 23 million dollars in Title I funds; California received approximately 97 million dollars (29, p. 43).

The impetus provided by E. S. E. A. for program assessment, due to its mandated evaluation provision, was tremendous. California's Division of Compensatory Education counted 119 different instruments developed by districts within the state to evaluate Title I programs during the first two years of the E. S. E. A. Law relates that California legislators immediately wanted to know the effect of Title I funds and, no matter how else results were reported, they only understood one statistic: grade equivalent (29, p. 44). Grade equivalent alone could answer the legislators' question, "How much bang did you get for the buck?" This fact poses a difficulty,

discussed below, for educators in the areas of program assessment and reporting.

The 1966 Cole report, Equality of Educational Opportunity, attempted to assess student achievement in measurable terms as well as the quality of education various segments of the population were receiving (18, p. IX). The National Assessment Program also has stressed measurable accomplishments. A 1967 survey found only seventeen states used tests to evaluate instruction and only thirteen used tests to measure student progress. The trend toward objective assessment has spread to the point where every state either has or is planning an assessment program (18, p. X). Title III, mandating a needs assessment, has been a major impetus for this development.

In 1968 U. S. O. E. initiated independent educational audits to verify the measurement of student achievements in Title VII and Title VIII programs. The auditor also assesses the appropriateness of the measurement procedures (78, p. 2).

In the same year officials of the U. S. O. E. and the Council of Chief State School Officers agreed to develop a comprehensive evaluation system in order to consolidate required state reporting of federally funded programs. The

results of their efforts to date include twenty-seven states in the Belmont Project (so named because initial meetings took place in the Belmont House, Elkridge, Maryland). The purpose is to furnish information on elementary and secondary programs resulting from federally-assisted programs, and it is planned that all states will eventually join (18, p. XI).

Another major trend which has developed since the late 1960's has been the establishing of statewide educational goals. For some states this meant translating previous broadly-stated goals into measurable objectives. For many states this meant a heavy involvement of citizens in the goal-setting process; California, for instance, will have devoted at least five years by the time its committees report to the State Board of Education in 1973.

Beginning its goal-setting process in the Spring of 1969, New Jersey involved citizens in the "Our Schools" program. The Advisory Council on Educational Needs Assessment, a broadly representative group, was staffed by the Office of Planning, State Department of Education. The Our Schools Program attempted to determine (1) citizen opinion regarding what the schools should be doing, (2) how well the schools are doing these things, (3) what the schools can do to improve in the next five years, and (4) how to measure progress (18, p. 37).

With the exception of higher education, all levels were included in the New Jersey needs assessment. A variety of indicators were employed in establishing educational goals; these included educational level of parents, community socio-economic status, and community homicide rates (18, p. 37). A statewide survey was held in Spring, 1971, and parents are reportedly most favorable toward the project. The Bateman legislation, which became effective on July 1, 1971, is an equalization incentive program of state aid for local school districts. Title III funds helped initiate the Our Schools Program. Title IV funds, approximately 96 thousand dollars, helped finance the program from 1970-1972.

New Jersey will conduct a statewide reading assessment program in 1972-73. The Department of Education, using the Metropolitan Achievement Tests, surveyed twenty school districts during 1971-72 and found that many children, particularly in urban and rural areas, performed below national norms in reading achievement. The Commissioner of Education feels a strong need for a much broader program of state assessment. The governor has indicated his concern that "there is no reliable scientific test on a statewide basis to determine reading ability and reading growth of our youth" (42, p. 7).

Dyer and Rosenthal have discovered some difficulties with state assessment programs. In some states much confusion exists because a multiplicity of groups are addressing themselves to the task (18, p. XV). Some may be appointed by the legislature; others by the governor, state board of education, or state department of education; and still others may be self-appointed. The lack of coordination between such groups has led to conflicting legislation, duplication of effort, and conflicting strategies. Dyer and Rosenthal state that fragmentation of efforts can be counterproductive in two ways: (1) excessive confusion may lead local school districts to sabotage all assessment programs and (2) much waste of scarce financial and human resources may result (18, p. XVI).

Bases for Recent Emphasis Upon Accountability

Among the bases for the recent emphasis upon educational accountability are (1) federal government influence, (2) public dissatisfaction, and (3) cultural and technological influences.

Stenner suggests that educational inadequacies in preparing young people were hidden by the Depression, when jobs were scarce, and then by World War II, when the need for manpower was so great that educational deficiencies did not

preclude employment. The children of the poor left school in favor of employment, thereby ignoring educational failure, and the children of the wealthy sought academic excellence in private schools. The public schools were left with a largely satisfied middle class; those not satisfied did not have an effective mechanism for airing their grievances (69, p. 33). This state of affairs, however, would be radically altered after the post-war prosperity leveled.

Populist sentiment is a strong influence upon American thought. In principle, each child should have an adequate education. Yet, approximately one in four leaves school before high school graduation and, in 1965, one in four failed the mental test required for armed forces induction. Stenner points out that Americans would not tolerate major failure in one-fourth of our airplanes or automobiles (69, pp. 34-35), yet that is the percentage, minimally, of students who fail academically. In some communities fully 70 per cent drop out of school. Job requirements in the past decade have increased and these communities are particularly affected. A basic reason for the recent emphasis upon accountability is public dissatisfaction with the performance of the public schools.

Cultural and technological developments have added to the emphasis. The communications explosion has made the division between the world of wealth and that of poverty more visible. This factor, combined with a new militance among ethnic minorities, had increased the pressure for educational accountability (69, p. 33).

The rising cost of education has no doubt brought greatly increased demands for accountability. Seltz states cost is undoubtedly the primary factor for the interest in accountability (63, p. 34). In 1960, 11 per cent of the nation's school bonds were rejected by the voters; in 1969, the rejection rate had reached 52 per cent. In 1971-72 the student population in California schools increased 100,000, but 9,000 teaching positions were eliminated (59, p. 3).

A 1971 Gallup national poll of public opinion found finances to be the biggest single problem with which the public schools must deal (24, p. 41). Over half the respondents indicated they would favor the hiring of management experts to look into the costs of the local schools (24, p. 37). Over half said they would vote against an increase in taxes to support the local public schools. Those most opposed were the poorly educated, people over fifty, low income groups,

manual laborers, people who have no children, and people who have children in parochial or private schools (24, p. 37).

Dr. James Allen estimates that the public schools fail for approximately one-third of the children, particularly the poor and the blacks (63, p. 34). This condition results in their lack of confidence in the public schools and a refusal to finance what they consider to be inferior education.

Richburg suggests that there is a correlation between the public's support of the schools and teacher militancy. Demands for wage increases, even when placed in a list of demands for general educational improvement, take precedent over the other demands in the minds of citizens. Teachers' strikes are viewed as wage demands, not as demands for general educational improvement (59, p. 5).

Law attributes the present concept of accountability to federal categorical aid programs (29, p. 45). There is no doubt that the federal government has exerted a major influence upon the accountability movement by requiring goals, needs-assessment, and evaluation by measurement for federally funded programs.

Lessinger submits that the manner in which money is delivered is as important as the amount. Federal funds can be

viewed as "high risk capital" for developing new methods, since the federal government is the only level that has the funds to carry out research and development (31, p. 223).

Wynne develops this reasoning further. School districts spend almost no money on research; the federal government supplies almost all research money. Only one-third of one per cent of education money is spent on research as compared to ten per cent of defense money, three per cent of business money, and five per cent of health money (79, p. 245). Wynne suggests the primary opposition to research lies with vested interests in the education profession.

The federal government has used its funds to promote community involvement by including parents on policy advisory committees for federal programs (59, p. 3). The aim is to increase school-community responsiveness to each other. The need is great. Law believes that while the increasing tax rate has contributed to voter rejection of bond issues, the primary reason is a communication failure between the school and the community (29, p. 45).

Accountability Measures Since 1969

In his 1970 education message, President Nixon spoke of a "new concept." "School administrators and school teachers alike are responsible for their performance, and it is in

their best interest, as well as in the interests of their pupils, that they be held accountable" (69, p. 36).

Lieberman suggests two broad approaches to accountability (33, p. 195). The first approach is concerned with measuring investment (input) and results (output). Thus, a district can invest in a specific curriculum innovation, class organization, or class size and then measure how much additional learning has taken place. The second approach would emphasize freedom of clientele choice, thus forcing the schools into a competitive market. The best known examples of the second approach are the voucher plans with which the O. E. O. has experimented (71). Lieberman feels that the basic question is what approach to accountability will prevail.

Performance Contracting

The lure of performance contracting, based primarily upon the premise of "no learning, no pay," quickly attracted a great deal of attention throughout the educational community. The initial performance contract was let by the Texarkana School District. Funded under Title VIII of E. S. E. A., its primary intent was to prevent dropouts (77, p. 21). The contractor was to be paid only to the extent that students improved their mathematics and reading scores on standardized tests.

The facts that low achievers comprised the target population and standardized tests were used for program assessment would, in any case, have insured doubt over the Texarkana experiment (20, 22, 60, 78), but the "teaching for the test" which took place immensely compounds the difficulties associated with interpretation of program results.

Disagreement exists over how much contamination took place and its significance. The contractor claims that only 3 per cent of the actual test items were included in the instructional program and that another 8 per cent of the test items were similar to examples used in class (50, p. 85). The auditor claims contamination was sufficiently widespread, perhaps 30 to 60 per cent (62, p. 55), as to preclude validity of test results. The Superintendent of Texarkana claimed that the degree of contamination was insignificant; U. S. O. E. disagreed (50).

The Texarkana controversy did not end experiments with performance contracting. A few days after announcement of contamination in Texarkana, O. E. O. announced it was entering into eighteen performance contracts totaling 5 to 6 million dollars with six firms (14, p. 39). One of the assumptions was that contractors would be more free than schools of traditions and regulations and, therefore, would develop

fundamental changes which would result in greater student achievement (31, p. 219).

Lessinger claims performance contracting (1) would aid in targeting and evaluating programs; (2) could bring more resources and variety into the public schools; (3) would allow the schools to experiment at low financial, social, and political risks; (4) could help bring about school desegregation (by proving to the white community that black children would not retard the education of white children); and (5) would create "dynamic tension and responsible institutional change . . . through competition" (31, pp. 219-220).

The Gary, Indiana, performance contract, probably more than any other, provides the contractor with the opportunity to demonstrate his competence. Let in April, 1970, the contract was for 2 million dollars, the largest amount ever. Gary's contract was unique in that an entire elementary school of 860 students was involved; the contractor was to provide instruction in all areas; the contract term was four years; the contractor was to refund the payment for any child who did not perform at or above the national norms at the end of the third year; and no federal funds were involved (14, p. 39; 36, p. 406; 62, p. 55).

Mecklenburger and Wilson point out that, although advocates claim it will cost no more to educate each child, it actually will if the program is successful. The additional expense, possibly as much as 20 per cent, would be due to two facts: (1) the contractor is paid the average cost for educating all children in the system when, in reality, the average elementary cost is less, and (2) the contractor receives payment on "active enrollment," whereas cost per pupil in Indiana is based on "average daily attendance" (36, p. 408).

The contractor, in addition, has no effective accountability for some students. A student must be in the program for at least one year for the guarantee to be in effect; over three years the student turnover rate will probably account for 15 per cent of the students. Approximately 25 per cent of the students already are at grade level or above. Also, it would not be economically sound for the contractor to concentrate upon bringing special education students to grade level. Last, a 120 day withdrawal clause permits either party to cancel the contract; the contract is not clear regarding what would happen to the guarantee in that case (36, pp. 408-409).

Grand Rapids, Michigan decided upon a performance contract due to public concern over school taxes and poor basic skills scores on standardized tests during the first statewide assessment in 1970. The availability of federal funds and the public posture provided by the contract that the schools are "doing something" were added incentives (37, pp. 590-591).

Both Grand Rapids and Texarkana contractors employ extrinsic rewards to the instructional process. Charges were made to the effect that this was a practice amounting to "bribing" or "buying" children. The Grand Rapids project manager claims extrinsic motivations are necessary to rekindle children who have stopped trying (37, p. 593). Extrinsic motivations are used to get children started; advocates claim that the children will eventually gain intrinsic motivation. The President of the Michigan Education Association supports the claim that extrinsic rewards became less important over time (37, p. 593). Cass questions whether the immediate gratification of extrinsic rewards can replace the deferred awards that have traditionally motivated children to learn (14, p. 40).

Some school districts, using federal funds, contracted with local teachers rather than an outside firm. Mesa, Arizona, (19, p. 375; 48, p. 53; 73, p. 25), Stockton, California, (48,

p. 53; 43), and Portland, Oregon, (63, p. 32; 48, pp. 51-52) signed contracts with local teachers or teachers' organizations. Such teacher incentive plans differ from contracts with private firms in several important aspects.

Both Mesa and Stockton provide "bonus money" of up to 5 per cent, depending upon student improvement in reading and mathematics. The teacher decides whether to take the money or use it to purchase school materials or to purchase incentives for the children (43). Pressure is thereby exerted upon a "dedicated" teacher not to take the money. None of the three districts penalizes the teachers for children who do not achieve; teachers continue to receive their normal salary.

Some teachers in Portland subcontracted with private firms; some teachers in Dallas (9; 48, p. 52; 69, p. 36; 73, p. 26) contracted with a private firm which had contracted with the district. Most teachers in both districts, however, have reacted negatively to performance contracting; one reason is the feeling that teacher incentive plans would cause distrust and divisions between teachers. In the case of Dallas, at least, some degree of rivalry has developed between contracting and non-contracting teachers (48, p. 53).

Evaluation of performance contracting.--The O. E. O. experimentation with performance contracting took place in eighteen districts: New York; Philadelphia; Seattle; Dallas; Anchorage; Fresno; Hartford; Jacksonville; Las Vegas; Grand Rapids; Portland; Hammond, Indiana; McComb, Mississippi; Rockland, Main; Selmer, Tennessee; Taft, Texas; Athens, Georgia; and Wichita, Kansas. Each of the six participating companies operated three programs. Thirteen thousand "most academically deficient" students were in the experimental groups; 10,000 students who placed in the next lowest category in reading and mathematics were in the control groups (47, p. 452). White, black, Puerto Rican, chicano, Indian, and Eskimo children were included (53).

The O. E. O. claims that performance contractors did not prove more effective than the public schools. Children in experimental groups and control groups did equally poorly in each grade, subject, and site. O. E. O. claims that only one of the eighteen districts continued innovations begun by the contractor; Phi Delta Kappan claims five districts continued the programs out of their own funds (47, p. 452). O. E. O. also stated that four of the companies had given up performance contracting, and five disputed O. E. O. over payment.

The teacher incentive contracts in Mesa and Stockton produced similar results. After sixteen months of experimentation, O. E. O. concluded performance contracting was a failure and withdrew its support.

The Rand Corporation, which prepared the O. E. O. evaluation, found performance contractors were innovative and served as a catalyst for change, particularly in regard to individualizing instruction (51, 52). Greater self-reliance among students was achieved. The cost was more expensive than normal classroom instruction.

Some educators have questioned the O. E. O. evaluation. O. E. O. agrees that a longer period of experimentation may have produced different results. The Superintendent of Texarkana says his district's program, intended to prevent dropouts, has been very successful (47, pp. 451-452). A Dallas performance contract aimed at motivational improvement of high school students rather than improvement in arithmetic and reading scores, has also been successful (9).

Saretsky questions O. E. O. conclusions on the ground that researchers were not able to demonstrate that the control groups had exhibited typical levels of performance. He refers to the Battelle Memorial Institute's interim report's findings

that the control groups in the majority of sites achieved more than was expected, in some cases up to 1.6 years (61, p. 580). He suggests that the teachers of control group children were performing atypically in competition to the contractors. Blaschke states O. E. O. should have become suspicious when control students at several sites tripled their previous learning rate (8).

Blaschke partially attributes the failure of experimental groups to perform significantly higher at ten sites to "interface" difficulties, namely teacher strikes, teacher resistance, conflicts between contractor and school, bad pretest conditions, or threats to cancel the contract. He also maintains that experimental students significantly outgained control students at eight sites, regardless of the O. E. O. report (8).

The experimental design is also questioned (61, pp. 580-581). The standardized tests may not have measured the student learning which took place in a given program (61), and they neglect the impact of contractors as agents for change (18). In seventeen of eighteen sites the average pretest level of the control group was significantly higher than the experimental group level. At one site the majority of the control group tested above average in mathematics and reading, while 90 per cent of the experimental group tested below average.

While curriculum supervision was placed upon the contractors to prevent teaching for the test, supervision to prevent contamination of control groups was not provided. Saretsky concludes that reliable and generalizable conclusions about performance contracting cannot be made (61, p. 581).

Vouchers

A second approach to accountability with which O. E. O. is presently experimenting is freedom of clientele choice. Voucher plans make the basic assumption that schools would have to be more accountable if parents had a choice of schools in which students could be registered, thereby forcing schools into competition for students. Whereas performance contracting attempts to work within the existing educational structure, voucher plans could perhaps require new organizational structures if implemented widely with minimal restrictions (69, p. 33).

In 1971 O. E. O. began experimentation with voucher plans in Seattle; San Francisco; Alum Rock, California; and Rockland, Maryland (59, p. 7). These pilot studies are designed to gauge public opinions toward voucher plans and to gain acceptance for fuller implementation.

The O. E. O. plan calls for a voucher school to reflect the ethnic composition of the applicant body; this provision is aimed at aiding desegregation. In addition, tuition vouchers must constitute full payment and the school's books must be open to the voucher agency; these provisions are aimed at keeping exploiters out of education and at preventing parents from supplementing the tuition voucher in order to assure acceptance (71).

A 1971 Gallup poll asked the public if they would like to see adoption of a voucher system which would permit parents to send their child to any public, parochial, or private school of their choosing (24, p. 43). Although the overall national total shows 38 per cent in favor, 44 per cent against, and 18 per cent with no opinion, a division of opinion appears between public school parents and parochial school parents. Sixty-six per cent of the parochial school parents favored the plan as opposed to 39 per cent of the public school parents. Fifty-one per cent and 31 per cent were the respective public and parochial parents figures in opposition. When comparing these figures to the preceding year's figures, Gallup concludes that there had been a predictable increase in the percentage of parochial and private school parents who favor

the plan. The percentage of "undecideds" had also increased markedly (24, p. 38).

Swanker and Donovan argue that vouchers may replace the concept of the neighborhood school with "interest centered" schools (71). In such schools teachers and principals could devote their energies to special interests because they would no longer have to provide "an educational rainbow." One school may be science-oriented while another may be literature-oriented. They argue that parents do not mind their children leaving their neighborhoods in order to obtain an education which they perceive as desirable. Interest-centered schools would be the motivating force in gaining community acceptance and integration would be a related consequence.

To the argument that vast amounts of public funds will go to church-affiliated schools and the teaching of religion, Swanker and Donovan reply:

In short, with public money goes public regulation, and this is anathema to many private and parochial school administrators. Those who do elect to participate will be, in effect, operating public schools because of the requirement of accepting public regulation and inspection plus that of accepting children of all faiths and ethnic backgrounds in their schools (71).

O. E. O. plans to continue experimenting with voucher plans (47, p. 451). The pilot projects to date have limited parental choice to one of several schools (59, p. 7).

Evaluation of vouchers.--Formal evaluations of voucher plans have yet to be released. Quite possibly, however, some variant of voucher plans may prove much more popular with the public than with educators. It may also do wonders for curriculum innovations by placing the public schools in competition with non-public schools. At the same time, though, advocates must address themselves to certain questions: What are the implications for school planners? Would parents find themselves, when selecting schools, in the practical sense also determining educational objectives? If so, how is meaningful professionalism to develop? Is contemporary society willing to permit parents, particularly in the inner cities, to freely choose among competitive schools, some of which may advocate a radical political ideology? Senator Wayne Morse has declared the plan "a blueprint for dismantling the public school system" and Mrs. Bain charges it will "result in wider segregation along racial, religious and socio-economic lines" (17). Also lacking is a full answer regarding

the possible effects a voucher plan will have upon church-state relationships in the field of education.

Parent and Student Incentives

A unique feature related to the teacher incentive plans in Oakland and San Antonio is a parent incentive plan. Two schools, each with approximately six hundred underachieving children in grades one through six, have been matched (one control, one experimental) in each community. The teacher can earn up to twelve hundred dollars extra; a parent can receive up to one hundred dollars if the class makes a superior achievement. It is not clear whether U. S. O. E. will expand parent incentive programs if the Oakland and San Antonio experiments prove successful (44).

Campbell argues that an accountability arrangement which excludes students is condemned to failure (12, p. 177). Such an arrangement perceives education in narrow behavioral terms, namely involving active (teacher) and passive (student) agents. This concept has an inherent danger in that students may come to see themselves only as passive agents; at some point human education must become intrinsically rewarding. Campbell also suggests that students may demand payment when they see contractors receive payment for learnings they achieve; perhaps

if they had the courage, school boards would contract directly with students (12, p. 177).

Cass, on the other hand, is concerned that the emphasis upon measurement may result in intense pressure upon children to perform (13). Likewise, Innes is concerned that "pressure cooker" accountability measures for academic gain may be counter-productive in the area of life adjustment (27, p. 97).

Responses of Teacher Organizations

English and Zaharis suggest that teacher organizations view accountability plans with suspicion. They develop, without supporting, a reasoned argument following Peter Blau's theory of social compliance:

In Blau's context, teacher power means that in order to obtain greater rewards from the present system, teachers must deny the recipients of their services any alternatives, must coerce the recipients into furnishing the services by using the strike, and must be sure that the public cannot do without their services. The latter condition is virtually assured with compulsory attendance laws.

. . . If the public is allowed to mobilize any large-scale alternative to the public schools, the teacher power base is considerably weakened (19, p. 374).

Teacher organizations have generally opposed the specific accountability measures which have been advanced. Helen Bain, while N. E. A. President, maintained teachers could not be

accountable under existing conditions (63, p. 35; 4). John Lumley, legislative head of N. E. A., holds that performance contracting weakens and discredits the public schools (49). David Selden, while A. F. T. President, condemned performance contracting (26, p. 86) and Albert Shanker stated performance contracting is beyond the scope and sequence of O. E. O. (63, p. 35).

Teacher organizations point to Texarkana as an example of a decline of professional integrity. Certainly, professionalism is an issue. In a cost analyses of forty performance contracts and traditional programs, Blaschke found contractors had lower staff costs due to the use of paraprofessionals and young, inexperienced teachers (7, p. 246). In their struggle to attain full professional status, teachers face obstacles which are distinct from the more widely recognized professions. There is a lack of stability in teaching; large numbers leave for better positions or marriage. Teachers migrate more than any other professional group. As public employees, teachers are dealt with collectively and are regulated by more rules and laws. A meaningful apprenticeship is absent in teaching. The relationship of financial compensation to individual

effort, initiative, and distinction is frequently not as apparent as in other professions.

The A. F. T., at its August, 1970, convention, denounced performance contracting as "educational gimmickry" and suggested it amounts to a business exploitation of children (49). It also resolved to sponsor a nationwide campaign against performance contracts (26, p. 86) and has, indeed, lived up to its word. Equally important to the accountability movement, however, is the accountability policy statement in the U. F. T.-New York City agreement which holds the teachers, the board, and the community responsible for the education of all students (69, p. 36; 33, p. 195). By including this policy in the agreement, the A. F. T. has broadened the concept of accountability in that school district.

The N. E. A. has not presented as united a front against performance contracting. Although Lumley opposed performance contracts with private firms, he did not oppose contracts with teachers (26, p. 87). Union pressure from the local A. F. T. affiliate may have blocked the Gary experiment if it was implemented at a later date. The union had grievances in regard to class size and teacher transfers. Teacher morale was adversely affected; a strike vote was held and then rescinded

in the face of a possible court order. Many teachers felt they were the scapegoats for the experiment (36). In marked contrast, the Grand Rapids contract was received fairly openly by the local state N. E. A. affiliates (37). The Mesa and Stockton teacher incentive plans were contracted through the local N. E. A. affiliates (43).

Although the N. E. A. has strongly criticized performance contracts, its Executive Committee has stated conditions under which members may participate in them: (1) teachers should be involved from planning through evaluation; (2) other evaluative measures must be used in addition to standardized tests; (3) the learning objectives must be the basis for contract bids; (4) contracts must include a provision for the eventual withdrawal of the contractor; (5) there must be maximum use of school personnel; (6) certified personnel must supervise all children; (7) contracts must be limited to innovative approaches which are not likely or possible in the school's program; and (8) contracts cannot conflict with board-association agreements and they must not violate teachers' rights (40). English and Zaharis state that teacher organizations are "extremely hostile" to accountability (19, p. 374); the N. E. A. Executive Committee, perhaps recognizing the inevitability of

future experimentation, has set forth conditions aimed at protecting teacher interests in the matter of governance. This would be consistent with the opinion expressed by Dr. James Allen, former U. S. Commissioner of Education, that educators cannot ignore the interest in accountability or allow themselves "to be pushed around by outsiders;" instead, they should participate and guide the accountability movement (63, p. 34).

Educational Assessment and Associated Measurement Problems

The 1965 E. S. E. A. Title I assessment provision calls for annual evaluation, "including appropriate objective measurements of educational achievement." The achievement of participating students is to be compared "with some objective standard or norm" (29, p. 41). Every state has mandated assessment or is planning to do so (18, p. X). The significance placed upon test results is great.

Fitzgibbon (22, p. 1) points out that testing today is highly visible and an issue of public concern. Testing issues are complicated and often are beset with political and emotional overtones; tests are quickly questioned or repudiated when results run counter to deeply held attitudes or beliefs.

Test construction is directly related to accountability. There has been much criticism of the use of nationally standardized norm-referenced tests in assessment programs (27, p. 91; 54, p. 599). Innes states that relatively few federal programs using norm-based tests result in enough differentiation between control and experimental groups to permit rejection of the null hypotheses (27, p. 90). He questions whether the finding of "no significant differences" are a function of the tests. Yet standardized tests continue to be the most widely used means of measuring student achievement and student growth (78, p. 5).

Criterion-referenced tests would deal with a smaller content area, supposedly tailored to the particularly instructional program being assessed. This should result in more relevant and, therefore, more accurate program assessment. Criterion-referenced tests should more accurately measure student achievement in limited areas (27, p. 91; 78, p. 4).

Several problems are inherent in criterion-referenced tests. If a test is prepared to measure a specific program, the question of quality arises (item construction, reliability, etc.). Even if these problems were solved, a very real problem would exist in measuring student growth because a series

of criterion-referenced tests would have to be employed in program evaluation (78, p. 5).

Test content in terms of subject matter, wording, and program relevance is a matter of concern. Content validity causes the greatest problems in acceptance of tests (22, p. 2). This is a basic point in favor of criterion-referenced tests. Interestingly, testmakers are attempting to partially counter this argument by item analysis of standardized tests "for criterion-referenced interpretation" of test results (22, p. 6).

Written tests present special problems for students whose native language is not English. The next language, by far, spoken in the United States is Spanish. Testmakers are developing Spanish adaptations, not necessarily translations, of some standardized tests (22, p. 6).

Cultural-biased test items represent a related problem for both native English-speaking and foreign language minority groups. Testmakers attempt to obtain content validity by: (1) eliminating stereotypes and materials offensive to particular groups; (2) eliminating too much or too little emphasis upon the worth or importance of any particular racial, religious, or ethnic groups; (3) including examples of worthy Americans in all areas of life and culture; (4) delineating contemporary

urban, suburban, and rural environments; (5) employing minority staff members to aid in eliminating cultural bias in test items; and (6) conducting field tests with representative populations (22, pp. 3-4).

Harcourt Brace Jovanich, Inc. argues that separate norms for minority groups on nationally standardized tests have little utility (22, p. 5). However; the firm does (1) collect and publish information concerning the performance of specific groups; (2) encourage interpretation of test results in several frames of reference; (3) provide a scoring service to enable interpretation within a local frame of reference; and (4) provide item analysis for criterion-referenced interpretation (86, p. 6). While taking a strong position that national norms have importance for all school systems (22, p. 5), the firm also agrees it may be preferable to supplement standardized tests with criterion-referenced measures in order to make both broad and narrow interpretations (78, pp. 4-5). The emphasis upon measurement in program evaluation has resulted in intelligent and specific questioning for testmakers.

Measurement problems supplement test construction and interpretation problems. Wrightstone, Hogan, and Abbot consider and offer possible solutions to five measurement problems:

(1) definition of normal growth; (2) reliance on interpolated norms; (3) interlevel and interform equivalence; (4) reliability of difference scores; and (5) regression toward the mean (78, pp. 6-12). Test users and, particularly, program evaluators must be certain appropriate measurement procedures are employed in order to make accurate program evaluations.

Innes argues that by employing norm-based tests and insisting upon rigorous program proof, federal funders could predict meager results. The federal government placed greater pressure upon local education agencies than is placed upon other agencies in comparable field situations. Innes concludes that present pressures for accountability tend to be thwarted by instrumentation problems but, as a humanist, does not express regret; measurement difficulties may allow enough time for funders to reevaluate their present emphasis upon measurement of behavioral learnings (27, pp. 96-97).

Financial Resources

Increasing school taxes are a major cause for the demand for educational accountability. Lieberman maintains that pressure for accountability increases as educational costs increase, regardless of educational levels (33, p. 195). In 1971 the public felt financing was the largest problem facing

the local schools (24, p. 35). The public was receptive to the use of achievement tests, management firms, and outside contractors in the schools (24; 59, p. 5).

School costs have traditionally been computed by "input" factors such as cost per student. Stenner maintains we only know what it costs to keep a child "seated" for a year, not results per level of investment (3, p. 34). Lieberman contends that school systems must do a better job relating costs to educational outcomes or there will be a growing demand for alternatives to the public schools (33, p. 195). Accountability advocates stress the need to compute "output" factors such as cost per achievement level. Observable student growth per investment level for educational programs becomes the yardstick for evaluation (7, p. 245; 19, 375).

Although the public wants a reduction of educational costs (24, p. 35), the proposals which they favor would represent relatively little savings. By simulating secondary education costs, Blaschke has estimated the savings which would be realized by incorporating the proposals which the public found most favorable or most unfavorable (7).

The public favored renting books and reducing the number of guidance and administrative personnel. By simulating a

10 per cent reduction in guidance and administrative personnel and estimating textbook rental at one-third the total cost for textbooks and library books, Blaschke computed a saving of less than 1 per cent of total costs.

The public did not favor increasing class size, reducing teachers' salaries, or reducing janitorial and maintenance costs. By simulating a 10 per cent increase in class size and a 10 per cent reduction in teachers' salaries and maintenance, Blaschke computed a saving of nearly 9 per cent.

Blaschke also computed elementary level equal costs "trade-offs" to indicate cost relationships. The student-administrator ratio, for instance, would have to increase from 406:1 to 564:1 to equal the saving realized by increasing the student-teacher ratio from 29:1 to 29.7:1. A 30 per cent decrease in janitorial and maintenance costs could pay for a doubling of books and audio-visual supplies. The proposals favored by the public were not those which would result in substantial savings. The one apparent exception was the twelve-month school year which could reduce the cost of educating an eighth grade student by over 7 per cent. Computing costs in such a manner aids the management function and educates the taxpayers. Blaschke concludes, however,

that cost efficiencies will be difficult to realize because of internal and external resistance (7, p. 247).

The Planning Programming Budget System (P. P. B. S.) is an effort to compare alternatives, preferably in quantitative terms, in reaching the school objectives. Although both subjective and objective tools are used, direct program costs data are desired. P. P. B. S. provides a frame of reference for considering alternatives (30). Law believes it to be a step toward a rational accounting system (29, p. 46).

Computers may receive wider usage for instructional and administrative purposes. Instructionally, computers can actively respond to the student and thereby individualize instruction. Two of the difficulties are development of criteria for evaluation and availability of materials. New York City and McComb, Mississippi, have experimented with computers for instructional purposes (25, p. 630).

Some of the conditions which indicate wider use of computers are decreasing technology costs, increasing personnel costs, and multiple uses of the computer. If computers are used widely, differentiated staffing should result. In order to realize full benefit, consideration should be given to using computers for student instruction during day hours,

adult education during evening hours, and administrative purposes from midnight to the start of school (25). It seems reasonable to assume, particularly in larger districts, that there will be experimentation with computers for instructional and administrative purposes in an effort to reduce educational costs.

Local district financing is normally based upon a complex of local, state, and federal revenue sources. Traditionally, the state foundation program establishes a minimum support level based upon average daily attendance and local ability. Local effort could raise additional revenue. Problems related to state assessment and judicial decisions have arisen.

State assessment programs aim at improved educational achievement, yet this could lead to reduced state support under some programs which base state aid upon student performance. The manner in which the results of state assessment programs will be related to state aid has not been adequately resolved. If improved performance on assessment measures leads to reduced state support, some districts may deliberately sabotage assessment efforts (18, p. XVI).

The 1971 decision of the California State Supreme Court in Serrano v. Priest struck down reliance upon local district wealth as inequitable (46). The decision established a precedent

which has already resulted in similar decisions in New Jersey, Texas, and Minnesota. A nationwide campaign challenging the local property tax as the base for school financing has been initiated by an attorney group based in Washington, D. C. (45, 46). Suits are planned or have been initiated in a number of states.

The effects upon school financing which will result from such rulings are open to speculation. There is concern that local districts will have less policy control if the state assumes additional financial responsibilities (46). State funds, like present federal funds, may be earmarked (58), thus resulting in less district experimentation and more state domination. Teachers may find themselves bargaining with the state. If local tax effort is unrelated to local school support levels, people may redistribute themselves into districts that presently have a low tax base; civil rights groups speculate that such decisions may ultimately break down segregated housing patterns (46).

Rice points out that equal per-pupil expenditures within a state does not insure equally good education within the various districts because wide discrepancies exist between urban and rural expenses (58). Friedman argues that the differences implied between the philosophy supporting traditional

foundation programs and the philosophy requiring equal per-pupil expenditures throughout the state are tantamount to the difference between freedom and slavery. He maintains the equal expenditure requirement logically eliminates private schools, and also logically eliminates unequal expenditures between states (23). The U. S. Commissioner of Education has indicated that the federal government is studying a plan to assume the total operational costs of education (58). Yet it is clear that the courts' rulings, far from seeking a totalitarian state or a unitary national school system, were based upon a concern for insuring equal protection for students by attempting to provide more equal educational opportunities than exist between the various districts of the state. The courts, in reality, spoke to an ultimate educational accountability to all children within a given state. If accountability measures can prompt intelligent consideration of such important issues, they deserve thoughtful attention.

CHAPTER BIBLIOGRAPHY

1. "A Balanced Presentation of Accountability," American Vocational Journal, 46 (February, 1971), pp. 88-90.
2. "Accountability, Vouchers, and Performance Contracts," Today's Education, 60 (December, 1971), 13.
3. Baer, Clyde J., "A Plan for Converting Student Learning Tasks Into an Accountability Program of Instruction," Kansas City, Kansas City School District Department of Research and Development, (December, 1970).
4. Bain, Helen, "After All," Today's Education, 60 (March, 1971), 80.
5. Barro, Stephen M., "An Approach to Developing Accountability Measures for the Public Schools," Phi Delta Kappan, LIII (December, 1970), 196-205.
6. Bernabei, Raymond, "Instructional Accountability," unpublished paper read before the American Association of School Administrators, Atlantic City, New Jersey, (February 14, 1972).
7. Blaschke, Charles, "Performance Contracting Costs, Management Reform, and John Q. Citizen," Phi Delta Kappan, LIII (December, 1971), 245-247.
8. Blaschke, Charles, "What OEO Did Not Say," Nation's Schools, 89 (May, 1972), 36.
9. "But Dallas Contract Succeeds," Phi Delta Kappan, LIII (November, 1971), 203.
10. Caldwell, George L., "The Educational Management System," Viewpoints on Accountability, Tucson, Educational Innovator Press, 1971.

11. Calkins, Hugh, "Financing Education in the 70's," Today's Education, 60 (February, 1971), 30-32.
12. Campbell, Robert E., "Accountability and Stone Soup," Phi Delta Kappan, LIII (November, 1971), 176-178.
13. Cass, James, "Accountability to Whom? For What?," Saturday Review, 54 (March 20, 1971), 41.
14. Cass, James, "Profit and Loss in Education," Saturday Review, 54 (August 15, 1971), 39-40.
15. Catallozzi, John, "Accountability and Responsibility in Education," Journal of Education, 154 (December, 1971), 21-29.
16. Durstine, Richard M., "An Accountability Information System," Phi Delta Kappan, LII (December, 1970), 236-239.
17. "Education System Is Being Studied," Denton Record Chronicle, (April 12, 1971), 10A.
18. Education Testing Service, State Educational Assessment Programs, Princeton, New Jersey, 1971.
19. English, Fenwich and James Zaharis, "Are Accountability and Governance Compatible?," Phi Delta Kappan, LIII (February, 1972), 374-375.
20. Farr, Roger, J. Jaap Tuinman, and B. Elgit Blanton, "How to Make a Pile in Performance Contracting," Phi Delta Kappan, LIII (February, 1972), 367-369.
21. "Finance Study Completed," Phi Delta Kappan, LIII (January, 1972), 336-337.
22. Fitzgibbon, Thomas J., The Use of Standardized Instruments With Urban and Minority-Group Pupils, New York, Harcourt Brace Javanovich, Inc., 1971.
23. Friedman, Milton, "Homogenized Schools," Newsweek, 79 (February 28, 1972), 77.

24. Gallup, George, "The Third Annual Survey of the Public's Attitudes Toward the Public Schools, 1971," Phi Delta Kappan, LIII (September, 1971), 33-48.
25. Hall, Keith A., "Computer-Assisted Instruction: Problems and Performance," Phi Delta Kappan, LII (June, 1971), 628-631.
26. "How Education Groups View Contracting," Nation's Schools, 86 (October, 1970), 86-87.
27. Innes, Thomas C., "Measurement, Accountability and Humanness," Measurement and Evaluation in Guidance, 4 (July, 1971), 90-98.
28. Kolesar, H., "Accountability: Its Implications for Provisional and State Governments," unpublished paper read before the Northwest Association of Secondary and Higher Education, Reno, Nevada, December 6, 1971.
29. Law, Alexander I., "The Impact of Mandated Evaluation of Education," paper read before the Twentieth Annual Western Regional Conference on Testing Problems.
30. Lea, Randall J., "An Analysis of Perceptions of the Criteria of a Planning Programming Budget System in Public Schools as Held by Three Groups of Educators," unpublished doctoral dissertation, Department of Education, North Texas State University, Denton, Texas, 1971.
31. Lessinger, Leon, "Engineering Accountability for Results in Public Education," Phi Delta Kappan, LII (December, 1970), 217-225.
32. Lessinger, Leon, "Teachers in an Age of Accountability," Instructor, 80 (June-July, 1971), 19-20.
33. Lieberman, Myron, "An Overview of Accountability," Phi Delta Kappan, LII (December, 1970), 194-195.
34. Martin, Reed, "Performance Contracting: Making It Legal," Education Digest, 36 (April, 1971), 1-4.

35. Martin, Reed and Charles Blaschke, "Contracting for Educational Reform," Phi Delta Kappan, LII (March, 1971), 403-406.
36. Mecklenburger, James A. and John A. Wilson, "The Performance Contract in Gary," Phi Delta Kappan, LII (March, 1971), 406-410.
37. Mecklenburger, James A. and John A. Wilson, "The Performance Contracts in Grand Rapids," Phi Delta Kappan, LII (June, 1971), 590-594.
38. "MUS-E and IGE: More Alphabet Soup or Valid Change?," N. J. E. A. Review, 45 (January, 1972), 28-31, 54.
39. National Education Association, "Accountability and the Classroom Teacher," Today's Education, 60 (March, 1971),
40. "NEA Gives Conditional Approval," Education Digest, 36 (April, 1971), 4.
41. Neff, Frederick C., "1984: Accountability Arrives," N. J. E. A. Review, 45 (May, 1972), 23- 3.
42. New Jersey Department of Education, "Statewide Reading Tests Seen for 1973-74," New Jersey Education, Trenton, 6 (February, 1972), 7.
43. "Newsnotes: Payments to Parents?," Phi Delta Kappan, LIII (March, 1972), 454.
44. "Newsnotes: Property Tax Challenge," Phi Delta Kappan, (January, 1972), 336.
45. "Newsnotes: Shock Waves of Tax Decision," Phi Delta Kappan, LIII (November, 1971), 202.
46. "Newsnotes: Teachers' Organizations Try Performance Contracting," Phi Delta Kappan, LII (December, 1970), 250.
47. "OEO, Educators Debate Value of Performance Contracting," Phi Delta Kappan, LIII (March, 1972), 451-452.

48. "Outlook for Teacher Incentives," Nation's Schools, 86 (November, 1970), 51-55, 97.
49. "Performance Contracting," Phi Delta Kappan, LII (December, 1970), 225.
50. "Performance Contracting: Clouds and Controversy Over Texarkana," Nation's Schools, 86 (October, 1970), 85-88.
51. "Performance Contracting Results Are Mixed, Rand Report Says," Phi Delta Kappan, LIII (February, 1972), 391.
52. "Performance Contracting Set-Back," N. J. E. A. Review, 45 (January, 1972), 41.
53. "Poor Performance," Newsweek, 79 (February 14, 1972), 97.
54. Popham, W. James, "Teaching Skill Under Scrutiny," Phi Delta Kappan, LII (June, 1971), 599-602.
55. Primack, Robert, "Accountability for the Humanists," Phi Delta Kappan, LII (June, 1971), 620-621.
56. Reynolds, Jerry D., "Performance Contracting . . . Adapted," Education Digest, 36 (April, 1971), 5-7.
57. Rice, Arthur H., "Good Teachers Stand to Benefit From Accountability Plans," Nation's Schools, 86 (November, 1970), 16.
58. Rice, Arthur H., "Looking Forward," Nation's Schools, 89 (May, 1972), 28.
59. Richburg, James R., "The Movement for Accountability in Education," unpublished paper read before the Annual Convention, National Council for the Social Studies, Denver, Colorado, November, 1971.
60. Rosenfeld, Michael and Ronald Wilkes, "Evaluation of Title III Programs in the Detroit Public Schools," Pittsburg, American Institute for Research, September, 1971.

61. Saretsky, Gary, "The OEO Performance Contract Experiment and the John Henry Effect," Phi Delta Kappan, LIII (May, 1972), 579-581.
62. "Satisfaction Guaranteed or Money Back," Saturday Review, 54 (August 15, 1971), 54-55.
63. Seltz, Judith, "A Teachers Guide to Accountability," Grade Teacher, 88 (April, 1971), 32-35, 76-79.
64. Sherman, H. C., "Accountability Not New," Phi Delta Kappan, LII (December, 1970), 253.
65. Small, Alan A., "Accountability in Victorian England," Phi Delta Kappan, LIII (March, 1972), 438-439.
66. Sourcebook for Implementing Accountability, Tuscon, Educational Innovators Press, 1971.
67. Stein, Helen, "Glossary of Educational Terms," Pennsylvania School Boards Association Bulletin, XXXVI (March-April, 1972), 15-17.
68. Stellner, Douglas H. and John Carter, "Individualized Performance-Based Educational Programs," Viewpoints on Accountability, Tucson, Educational Innovator Press, 1971.
69. Sterner, Jack, "Accountability by Public Demand," American Vocational Journal, 46 (February, 1971), 33-37.
70. Stiles, Lindley J., "A Hundred Years Before Texarkana," Journal of Educational Research, 64 (May-June, 1971), front and rear covers.
71. Swanker, Ester M. and Bernard E. Donovan, "Voucher Demonstration Project: Problems and Promise," Phi Delta Kappan, LII (December, 1970), 244.
72. "Teacher Performance Contracts," Phi Delta Kappan, LIII (January, 1972), 340.
73. "Three Reports of Performance Contracting Now in Action," Instructor, 80 (June-July, 1971), 23-26.

74. Vlaanderen, Russell B. and Eric L. Lindman, "Inter-governmental Relations and the Governance of Education," Denver, Education Commission of the States, 1971.
75. Wetherington, Allen Burton, "Measures of Local Fiscal Ability to Support Public Schools," unpublished doctoral dissertation, Department of Education, North Texas State University, Denton, Texas, 1959.
76. Williams, Lois, "Governance Is Integral to Accountability," Today's Education, 60 (April, 1971), 59-60.
77. Wilson, John Oliver, "Performance Contracting: An Experiment in Accountability," Instructor, 80 (June-July, 1971), 21-22.
78. Wrightstone, J. Wayne, Thomas P. Hogan, and Muriel M. Abbott, Test Service Notebook 33: Accountability in Education and Associated Measurement Problems, New York, Harcourt Brace Javanovich, Inc.
79. Wynne, Edward, "Education Research: A Profession in Search of a Constituency," Phi Delta Kappan, LII (December, 1970), 245-247.

CHAPTER III

METHODOLOGY

Several considerations led to the selection of Burlington County, New Jersey, as the site for this study. The accountability movement had led to specific administrative action in the state; the New Jersey Department of Education was developing a statewide assessment program.

On June 5, 1972, groups of teachers in each New Jersey county reviewed topics proposed for inclusion in mathematics and reading tests which were to be administered statewide to students in grades four and twelve. Following those meetings, the Department of Education mailed questionnaires to elementary teachers, all secondary mathematics and English teachers, reading specialists, and department chairmen (Appendix C). Principals were directed to distribute the questionnaires to the appropriate teachers and return them to the Department of Education by no later than June 19, 1972 (Appendix D; 19). The questionnaires were intended to gain wider teacher participation in determining the mathematical and English skills to be measured in statewide tests to be initiated during the 1972-73 school year (22).

The testing program received widespread advance newspaper coverage (3, 13, 15, 42). Separate booklets explaining the new assessment program were distributed to parents of all participating children (17) and to all teachers (18). A trial test administration was conducted on November 8, 1972. The actual mathematics and reading tests were administered by classroom teachers to approximately 95,000 twelfth graders and 117,000 fourth graders on November 14 and 15, 1972, and submitted to the Department of Education for scoring.

The Department of Education identified local district characteristics which seem related to student achievement. These "correlates of achievement" included per-pupil expenditure, student-teacher ratio, building facilities, and district socio-economic status. The "correlates" were used as predictor factors by the Department of Education for the purpose of reporting results to local districts.

By means of statistical procedures, essentially multiple regression analysis, correlates and test scores will be combined in a fashion which will enable local educators to compare their scores to scores they might have expected to achieve, given the conditions under which their educational efforts must take place (17, p. 10).

Local districts were required to release the testing results accompanied by explanatory materials within sixty days.

Gordon Asher, Director of the New Jersey Educational Assessment Program, has indicated that other grade levels and other areas, including non-cognitive performance, will be evaluated in future years (17, p. 11; 18, p. 7; 41).

The New Jersey Education Association has opposed the assessment program as measuring only basic skills rather than all goals developed by the "Our Schools" needs assessment. It disagrees with the New Jersey Department of Education regarding the adequacy of teacher participation in regard to test development; the Association maintains that questionnaires completed by teachers were tied to test items and test patterns previously established. The Association states that despite a review of test items by a panel composed of minority group members, there is still little concern for the damage caused by standardized tests to minority students in the areas of self-image and motivation. The Association has criticized the uncertainty regarding predictor factors to be used in the multiple regression analysis. The Association expresses concern over possible loss of local control and possible pressure to teach for the test. It states, "State-wide testing as now contemplated for New Jersey is a straightjacket procedure that can only curb imagination and innovation among children and teachers in our classrooms" (26).

Certification requirements, made more flexible in recent years, have been a source of controversy between the New Jersey Department of Education and the New Jersey Education Association. The controversy surfaced at the annual conference of the New Jersey Education Association, held at a time when the reappointment of the Commissioner of Education was being withheld from a full Senate vote by the Judiciary Committee. On November 2, 1972, the N. J. E. A. Delegate Assembly voted "no confidence" in the Commissioner (34; 43, p. 135). The Association waged a massive campaign against reappointment (8; 44, p. 32), which was ultimately denied the Commissioner in a tied Senate vote (6, 44). Following the N. J. E. A. Delegate Assembly vote, Dr. Frederick Hipp, N. J. E. A. Executive Director, stressed in a television interview the Association's opposition to the Commissioner's position regarding certification. The subsequent campaign regarding reappointment centered upon busing and local control (6; 8; 43; 44, p. 32).

A county unit was selected as the largest possible population which could be surveyed within the resources available for this study. There are twenty-one counties in the state. Each has a superintendent appointed by the Commissioner of

Education. Selection of a county unit was intended to provide a cross-section of economic and social factors.

Burlington County is the largest in New Jersey (35, p. 128) and has the tenth largest population (35, p. 202). Much of the county is sparsely populated; extensive pine forests and several federal military posts are located in the county. The heaviest population centers are in the Trenton, Camden, and Philadelphia suburbs. Extensive farming and heavy industry are present within the county.

Burlington County ranked eleventh among twenty-one counties in 1970-71 for total per-pupil expenditures for instruction materials. The average per-pupil expenditure within the county was \$33.04 as compared to a state average of \$32.41 (27, p. 4). Computer assisted instruction was introduced in the county during the 1972-73 school year (12).

The forty-four school districts within Burlington County vary widely in wealth. Equalized valuation per pupil during 1970-71 varied between districts from \$3,958 to \$111,454 (23, p. 23; Appendix E). Based upon 100 per cent evaluation, 1972 school tax rates varied from \$.81 to \$4.03 per 100 dollars evaluation; total 1972 property tax rates varied from \$1.64 to \$5.44. 1972 school taxes as a percentage of total property tax rates varied from 45 per cent to 80 per cent. Per-pupil

expenditures for current expenses during 1970-71 varied from \$546.86 to \$1118.20.

Table I reflects the population distribution of Burlington County. Significantly, 57 per cent of the county's students are in districts which have student enrollments of fewer than 2000 or greater than 8000.

Through the random selection of respondents, administrators and teachers from seventeen Burlington County school districts participated in this study.

Description of the Sample

The 1972-73 Burlington County Public School Directory lists 215 positions under the titles superintendent, assistant superintendent, administrative assistant, administrative principal, principal, vice-principal, assistant principal, and dean. A table of random numbers was used to assign each administrator a priority ranking from 1 through 215. The Burlington County principal and superintendent who served as jurors were not assigned priority rankings.

Each administrator who received a priority ranking from one through thirty-two was contacted by phone or in person and requested to participate in the study. Thirty administrators agreed to participate; two refused to participate. A

TABLE I
BURLINGTON COUNTY SCHOOL DISTRICTS
GROUPED BY STUDENT ENROLLMENT*

District Student Enrollment	Number of Districts	Combined Student Enrollment	Combined Teaching Staff
0 - 999	21	9107	508.6
1000 - 1999	9	14555	1047.8
2000 - 2999	8	20343	1180.5
3000 - 3999	2	6788	396.2
4000 - 4999	1	4014	249.1
5000 - 5999	1	5065	278.0
8000 - 8999	1	8741	380.0
15000 - 15999	1	15864	844.0
Total	44	84477	4884.2

*Table based upon information contained in Burlington County Public School Directory, 1972-73, pp. 63-64.

letter, questionnaire, and answer sheet were provided each respondent (Appendix B). In addition, a personal note was included for each administrator contacted by phone.

Twenty-seven matched-pairs answer sheets were returned from the initial thirty which were mailed. Two administrator-teacher pairs did not respond; in one instance a teacher did

not respond. Additional phone calls failed to produce a response. The administrators who had received priority rankings thirty-three through thirty-five were then contacted and agreed to participate. Three additional matched-pairs answer sheets were received. Thirty administrators and thirty teachers comprised the sample.

Thirteen central office administrators and seventeen school building administrators participated in the study. The central office administrators included eight superintendents, two administrative principals, two assistant superintendents, and an administrative assistant. Ten building principals, five assistant-principals, a vice-principal, and a dean also participated.

Table II indicated the distribution of the thirty administrators according to individual position and the grades served by the district. The sample included administrators and teachers from districts which served all grades as well as districts which exclusively served either elementary or secondary students.

Table III indicates the distribution of the thirty administrators according to individual position and district student enrollment. The sample included respondents from

TABLE II

DISTRIBUTION OF THIRTY ADMINISTRATORS IN SEVENTEEN
DISTRICTS BY DISTRICT GRADES AND POSITION

District Number	District Grades	Central Office				Building			
		Superintendent	Administrative Principal	Assistant Superintendent	Administrative Assistant	Principal	Assistant Principal	Vice-Principal	Dean
1	K - 6	::	1	::	::	::	::	::	::
2	K - 6	1	::	::	::	::	::	::	::
3	K - 12	1	::	::	::	3	1	::	::
4	7 - 12	1	::	::	::	::	::	::	::
5	9 - 12	1	::	::	::	::	::	::	::
6	K - 12	::	::	::	::	2	::	::	::
7	K - 12	1	::	::	::	1	1	::	::
8	K - 8	::	::	1	::	1	::	::	::
9	K - 12	::	::	::	::	1	::	1	::
10	K - 8	::	::	::	::	::	1	::	::
11	K - 12	::	::	1	1	::	1	::	::
12	K - 12	::	::	::	::	::	::	::	1
13	K - 12	.	::	::	::	1	1	::	::
14	K - 8	1	::	::	::	::	::	::	::
15	9 - 12	1	::	::	::	::	::	::	::
16	K - 6	::	1	::	::	::	::	::	::
17	K - 6	::	::	::	::	1	::	::	::
Total		8	2	2	1	10	5	1	1

each district student enrollment category although not in direct proportion.

TABLE III
DISTRIBUTION OF THIRTY ADMINISTRATORS BY POSITION
AND DISTRICT STUDENT ENROLLMENT

District Student Enrollment	Central Office				Building			
	Superintendent	Administrative Principal	Assistant Superintendent	Administrative Assistant	Principal	Assistant Principal	Vice-Principal	Dean
0 - 999	1	2	::	::	1	::	::	::
1000 - 1999	3	::	::	::	1	1	::	::
2000 - 2999	2	::	1	::	2	2	::	::
3000 - 3999	1	::	::	::	2	::	::	::
4000 - 4999	::	::	::	::	::	::	::	1
5000 - 5999	::	::	::	::	3	1	::	::
8000 - 8999	::	::	::	::	1	::	1	::
15000 - 15999	::	::	1	1	::	1	::	::
Total	8	2	2	1	10	5	1	1

The 1972-73 Burlington County Public School Directory lists 4884 teaching positions (11, p. 64). This figure includes both full-time and part-time teachers, although the Directory does not itemize how many teachers are included in each category.

The selection of a teacher was done from a building list of teachers in the case of each building-level administrator who participated. A district list of teachers was used for

each central office administrator who participated in the study.

A teacher, chosen randomly from the appropriate list, was requested to participate in the study. If the teacher refused, another was chosen randomly. One teacher refused to participate; in that instance, the next teacher approached agreed to participate. In one instance, a teacher agreed to participate but failed to return the answer sheet. A second teacher agreed to participate but delayed in responding until after the data has been submitted to the North Texas State University Computer Center; the administrator's response was disallowed due to lack of a matched pair. Thirty full-time teachers participated in the study. Thirteen teachers were selected from district lists of teachers and seventeen teachers were selected from school building lists of teachers.

Arrangements for administration of the questionnaire were made on a case-by-case basis with each respondent. Provision was also made for confidential handling of each answer sheet.

Each answer sheet had a code number written on the front page. Respondents were informed that the purpose of this number was to know which respondent to contact in case the answer sheet was incomplete. Respondents were also assured that the

number would be eliminated as soon as it was ascertained by a third party that the answer sheet contained a response to each statement and that the matched (administrator-teacher) answer sheet had been received.

Each answer sheet was reviewed for completeness as it was received. It proved unnecessary to return any answer sheets. Each code number was eliminated.

Administrators and teachers from seventeen school districts participated in the study. These districts vary in district enrollment from the third smallest to the largest (11). Their teaching staffs vary in size from 7 to 844 (11, pp. 63-64). Four districts are below and thirteen districts are above the county median district student enrollment.

Table IV indicates the number of respondents employed in school districts of various sizes; it also compares the percentage of county student enrollment with the percentage of respondents for each category. While a proportionate sample stratified according to district enrollment does not exist due to sample size, the table indicates a reasonably good approximation with respondents from each category.

The per-pupil expenditures of the districts represented in this study are presented in Table V. The 1970-71 Burlington

TABLE IV

DISTRIBUTION OF RESPONDENTS AS COMPARED TO DISTRIBUTION
OF STUDENTS IN BURLINGTON COUNTY SCHOOL DISTRICTS
GROUPED BY STUDENT ENROLLMENT

District Student Enrollment	Percentage of County Student Enrollment*	Number of Respondents	Percentage of Respondents
0 - 999	10.8	12	20.0
1000 - 1999	17.2	10	17.7
2000 - 2999	24.1	14	23.3
3000 - 3999	8.0	2	3.3
4000 - 4999	4.8	2	3.3
5000 - 5999	6.0	10	16.7
8000 - 8999	10.3	4	6.7
15000 - 15999	18.8	6	10.0
Total	100.0	60	100.0

*Percentage based upon information contained in Burlington County Public School Directory, 1972-73, pp. 63-64.

County average per pupil expenditure for instructional materials was \$33.04. Seven districts were above the county average expenditure; ten were below.

Although Burlington County ranked eleventh among New Jersey's twenty-one counties in 1970-71 in average per-pupil expenditure for instructional materials, it ranked seventeenth in terms of dollar increase between 1968-69 and 1970-71 (27, p. 4). The average district increase in Burlington County indicates that six of the seventeen districts represented in

TABLE V
 1970-71 PER-PUPIL EXPENDITURES FOR INSTRUCTIONAL MATERIALS
 FOR DISTRICTS REPRESENTED IN THIS STUDY*

District Grouping**	District	Textbooks	Library and Audio-Visual	Teaching Supplies	Total Expenditures	Rank Within County
1	Bass River	6.69	3.69	17.08	27.46	23
1	Bordentown City	6.21	3.80	10.21	20.22	40
2	Burlington City	6.59	5.89	17.32	29.80	19
2	Burlington Twp.	6.05	6.81	13.70	26.56	24
1	Chesterfield	8.76	7.57	18.43	34.76	13
3	Cinnaminson	12.65	7.46	15.71	35.82	11
1	Edgewater Park	8.96	10.33	17.77	37.06	9
5	Lenape Reg.	12.43	20.32	23.10	55.85	3
1	Mansfield	5.59	4.48	14.80	24.87	31
3	Moorestown	9.01	13.66	21.86	44.53	5
1	Mt. Holly	7.79	4.91	13.64	26.34	25-26
1	Mt. Laurel	6.20	6.57	21.53	34.30	14
5	No. Burl. Reg.	6.12	7.05	13.17	26.34	25-26
2	Palmyra	5.64	5.32	17.18	28.14	21

TABLE V--Continued

District Grouping**	District	Textbooks	Library and Audio-Visual	Teaching Supplies	Total Expenditures	Rank Within County
4	Pemberton Twp.	10.99	4.22	10.77	25.98	27
5	Rancocas Valley Reg.	15.75	13.42	27.97	57.14	2
4	Willingboro	8.87	6.70	15.65	31.22	16
	County Average	8.71	7.43	16.90	33.04	..
	State Average	..	..	..	32.41	..

*Table based upon information contained in Per Pupil Expenditures for Instructional Materials, 1970-71, pp. 4, 6-7.

**District Grouping

- Group 1 - Elementary Districts
- Group 2 - K - 12 Districts below 3,000 enrollment
- Group 3 - K - 12 Districts 3,000 - 5,999 enrollment
- Group 4 - K - 12 Districts 6,000 and over enrollment
- Group 5 - Secondary Districts

TABLE VI
TOTAL PER-PUPIL EXPENDITURES FOR INSTRUCTIONAL
MATERIALS, 1968-69 AND 1970-71*

District** Grouping	District	1968-69 Total Expenditures	1970-71 Total Expenditures	Dollar Change 1968-69 to 1970-71	% Change 1968-69 to 1970-71
1	Bass River	30.25	27.46	- 2.79	- 9.2%
1	Bordentown City	18.49	20.22	1.73	9.4
2	Burlington City	22.46	29.80	7.34	32.7
2	Burlington Twp.	27.14	26.56	- .58	- 2.1
1	Chesterfield	30.80	34.76	3.96	12.9
3	Cinnaminson	30.01	35.82	5.81	19.4
1	Edgewater Park	19.16	35.06	17.90	93.4
5	Lenape Reg.	27.34	55.85	28.51	100.6
1	Mansfield	20.55	24.87	4.32	21.0
3	Moorestown	32.63	44.53	11.90	36.5
1	Mt. Holly	29.90	26.34	- 3.56	-11.9
1	Mt. Laurel	29.60	34.30	4.70	15.9
5	No. Burl. Reg.	30.78	26.34	- 4.44	-14.4
2	Palmyra	27.34	28.14	.80	2.9

TABLE VI--Continued

District** Grouping	District	1968-69 Total Expenditures	1970-71 Total Expenditures	Dollar Change 1968-69 to 1970-71	% Change 1968-69 to 1970-71
4	Pemberton Twp.	22.43	25.98	3.55	15.8
5	Rancocas Valley Reg.	43.43	57.14	13.71	31.6
4	Willingboro	29.41	31.22	1.81	6.2
	County Average	28.11	33.04	4.93	17.5%
	State Average	26.72	32.41	5.69	21.3%

*Table based upon information contained in Per-Pupil Expenditures for Instructional Material, 1970-71, pp. 4, 6-7.

**District Grouping

- Group 1 - Elementary Districts
- Group 2 - K - 12 Districts below 3,000 enrollment
- Group 3 - K - 12 Districts 3,000 - 5,999 enrollment
- Group 4 - K - 12 Districts 6,000 and over enrollment
- Group 5 - Secondary Districts

this study exceeded the average dollar increase, and that five districts exceeded the average percentage increase.

The average 1972 school tax in Burlington County is \$2.72 per 100 dollars evaluation (23, p. 23). Two of the seventeen districts represented in this study were at the county average; seven districts were above the county average and eight were below (Appendix E).

The average 1972 total property tax in Burlington County was \$4.01 per 100 dollars evaluation (23, p. 23). Since three of the represented districts were regional high school districts, no district property tax figure is applicable. Seven of the districts were above the county average and six were below. One district was at the county average (Appendix E).

The average 1970-71 equalized valuation per pupil was \$25,530 (23, p. 23). One of the seventeen districts represented in this study was approximately at the county average; eleven districts were above the county average and five were below (Appendix E).

The collection of data, from initial personal contact of respondents through receipt of the last answer sheet, was completed November, 1972.

The Instrument

Since the major purpose of this study was to determine the desirability and feasibility perceptions of public school administrators and teachers toward accountability items, a matched-pairs questionnaire was developed. An accountability item was measured by the participants' responses to two statements, one dealing with the desirability and the other with the feasibility of the item. Responses were recorded on a five-point Likert scale ranging from "strongly disagree" to "strongly agree." The midpoint was designated "undecided."

Likert scale items are nondisguised and structured (41, pp. 226-227). Respondents were told the purpose of the questionnaire but were restricted in their responses to the points on the scale. Likert scales are primarily concerned with measuring a single dimension (36, p. 133); in this study the dimension was accountability.

Based upon judgment and trial administrations of selected items, the decision was made to limit responses to five categories (41, p. 219). A Likert scale is essentially a multiple-choice (41, p. 227); it was apparent from trial administrations that respondents had not clarified their thinking on most items

to the point where a seven point scale could be reliably employed. More than five categories seemed to confuse respondents.

The use of Likert scales in the measurement of attitudes is widely recognized (1, pp. 179-180; 36, pp. 133-142; 41, p. 220). Oppenheim states that Likert scales and Thurstone scales correlate well (36, pp. 133, 140). Reliability for Likert scales tends to be high and unidimensionality is frequently approached; they are reliable in the ordering of people with regard to a particular attitude (36, pp. 140-141). Sax points out that Likert scales are used to measure the favorableness of the attitude being scored rather than the response category itself (41, p. 220). In this study administrators' and teachers' attitudes toward desirability and feasibility of accountability proposals were measured rather than accountability itself. The latter measurement can take place only after specific proposals have been put into practice; measurement of the response category at that time should contribute to program evaluations.

Oppenheim and Sax offer guidelines for writing attitude statements (36, pp. 113-117; 41, pp. 227-228), although both point out there are occasions when exceptions to the guidelines

should be taken (36, p. 115; 41, p. 228). Use of the Likert technique in instrument construction, as opposed to the Thurstone technique, offers the possibility of including "long shot" items, which may uncover interconnections with related attitudes (36, p. 141-142).

The Likert technique is subject to some of the same limitations present in other attitude scales, such as the possibility of giving false responses and the tendency to place marks in the middle of a scale. The latter tendency, however, should become less significant when statements measure more extreme attitudes held with greater vehemence. Oppenheim suggests a U-shaped relationship between the attributes of attitude intensity and statement content; the neutral point on the scale is held with minimum intensity (36, pp. 108-109).

As a result of the review of literature, an item pool of several hundred statements was developed (1, p. 180; 36, p. 134). A five-point Likert scale was decided upon and a sixty-six statement questionnaire was developed. The questionnaire was developed. The questionnaire was administered to two teachers and two administrators; intensive interviews followed (41, p. 228). Several statements were modified and three items (six statements) were eliminated due to these interviews.

The sixty-item questionnaire was administered to a graduate class of teachers during August, 1972, and three statements were subsequently reworded.

The instrument was submitted to seven jurors during September, 1972. A statement required rewording if four jurors so judged. Reworded statements were to be submitted to the seven jurors. An item was to be eliminated if four jurors so judged. An additional item was to be submitted to the jury for each item eliminated. The finalized instrument was to contain sixty statements.

The jury included a teacher, an instructional supervisor, a principal, a superintendent, a county superintendent, a college teacher of educational administration, and a college researcher. The teacher, instructional supervisor, principal, and superintendent were from Burlington County. The county superintendent was from an adjoining county and the college teacher was from a nearby teachers' college. The college researcher was on the staff of a state university.

No item was judged to be inappropriate by more than two jurors.

Although no statement was judged by four or more jurors to require rewording, jurors suggested alternate wording intended to clarify a number of statements. Some suggestions

referred to minor word changes. The questionnaire was revised to incorporate some of the recommendations. Seventeen statements were reworded in the revised questionnaire which was submitted to the seven jurors. The revised questionnaire was judged satisfactory.

Consistent with Ary (1, p. 180), Oppenheim (36, p. 117), and Sax (41, pp. 225-226), a mixture of positive and negative statements were placed randomly throughout the instrument (Appendix B). The mixture was intended to counter rigidity, dogmatism, and authoritarianism in addition to such response sets as the tendency to agree to generalities and to statements which respondents believe are socially acceptable (36, p. 117). Ary points out the importance of keeping the instrument reasonably balanced by including items which deal with each main aspect of the attitude (1, p. 117). The instrument contained items dealing with certification, evaluation, and tenure; student assessment; institutional modification; school governance; and resources (Table VII).

Thirty-two statements were scored from one through five, respectively, for responses from "strongly disagree" to "strongly agree." Twenty-eight statements were scored in the opposite order, five to one, for responses from "strongly disagree" to

TABLE VII
 INSTRUMENT ITEMS, INSTRUMENT AREAS,
 AND STATEMENT SCORING

Matched-Pairs and Statement Scoring*		Certification, Tenure, and Evaluation	Student Assessment	Institutional Modification	Governance	Resources
D	F					
50	37	x	...	...	...	...
41	3	x	...	...	...	...
19*	15	x	...	...	...	...
14*	58	x	...	...	...	...
8	32*	x	...	...	...	...
12*	46	x	...	...	...	...
33	21*	x	...	...	...	...
53*	17	x	...	...	...	...
29	60	x	...	...	...	...
10*	56*	...	x	...	...	...
7*	22	...	x	...	...	...
52*	30*	...	x	...	...	...
13	57*	...	x	...	...	...
16*	59*	...	x	...	...	...
36	34*	...	...	x	...	...
47*	27*	...	...	x	...	...
55	11	...	...	x	...	...
1	43*	...	...	x	...	...
51	6	...	...	x	...	...
42	26*	...	...	x	...	...
45	9	...	...	...	x	...
25	20	...	...	...	x	...
5*	44	...	...	...	x	...
48*	18*	...	...	...	x	...
54*	39*	...	...	...	x	...

TABLE VII--Continued

Matched-Pairs and Statement Scoring*		Certification, Tenure, and Evaluation	Student Assessment	Institutional Modification	Governance	Resources
D	F					
31	2	...	...	...	...	x
38	28	...	...	...	...	x
40*	35	...	...	...	...	x
49*	24*	...	...	...	...	x
23	4*	...	...	...	...	x

Twenty-eight statements with asterisk () scored five through one for responses from "Strongly Disagree" to "Strongly Agree." All other statements scored in opposite order (one through five) for responses from "Strongly Disagree" to "Strongly Agree."

to "strongly agree" (41, p. 220). The desirability and feasibility statements for sixteen items are scored in the same direction; the statements are scored in opposite for the other fourteen items (Table VII).

There is no definitive way of being certain that an attitude instrument measures what it is supposed to measure (36, p. 122). Attempts to improve validity range from correlating the instrument with older established instruments or submitting it to jurors, but, in reality, these attempts are only as good as the validity of the earlier instrument or the expertise of the jurors (36, p. 151). Sax points out that

validity based upon judges reflects the adequacy or inadequacy of the initial selection of judges (41, pp. 232-233). The selection of the seven jurors for this study was intended to obtain balanced professional judgment on specific proposals, many of which were not in practice within the state or county.

Data Collection

Each of the sixty respondents completed the questionnaire during November, 1972. Initial contact in each instance was made in person or by phone. Answer sheets were returned by mail. A penciled code number was used to insure that answer sheets were completed.

No time limit was placed on completing the questionnaire. During trial administrations, twelve minutes was the minimum time taken by any respondent. The maximum time required was thirty minutes. There is no reason to assume that the respondents participating in this study required a significantly different amount of time.

When all answer sheets were collected, the Likert scale score of each respondent to each statement was recorded manually in the boxes on the answer sheets. The answer sheets were then remitted to the North Texas State University Computer

Center, where the data was transferred to I. B. M. punch cards for computer processing.

Statistical Treatment of the Hypotheses

All the hypotheses were stated in the null form and treated statistically as follows:

I. For administrators there will be no significant relationship between the desirability and feasibility of the thirty matched-pairs items.

To test this hypothesis a Pearson product moment correlation coefficient was calculated for each of the thirty matched pairs. The "r's" obtained were compared to the tabled values to determine if significance had been achieved at the .05 level. Any value equal to or greater than .361 (two-tailed test) was designated as significant.

II. For administrators there will be no significant difference between the means for desirability and feasibility of the thirty matched-pairs items.

To test this hypothesis, a t -test for two related samples was calculated for each of the thirty matched pairs. The "t's" obtained were compared to the tabled values to determine if significance had been achieved at the .05 level. Any value equal to or greater than 2.048 (two-tailed test) was designated as significant.

III. For teachers there will be no significant relationship between the desirability and feasibility of the thirty matched-pairs items.

To test this hypothesis, a Pearson product moment correlation coefficient was calculated for each of the thirty matched pairs. The "r's" obtained were compared to the tabled values to determine if significance had been achieved at the .05 level. Any value equal to or greater than .361 (two-tailed test) was designated as significant.

IV. For teachers there will be no significant difference between the means for desirability and feasibility of the thirty matched-pairs items.

To test this hypothesis, a t-test for two related samples was calculated for each of the thirty matched pairs. The "t's" obtained were compared to the tabled values to determine if significance had been achieved at the .05 level. Any value equal to or greater than 2.048 (two-tailed test) was designated as significant.

V. There will be no significant difference between the mean desirability scores for administrators and the mean desirability scores for teachers for each of the thirty desirability statements.

To test this hypothesis a t -test for two independent samples was calculated for each of the thirty desirability statements. The t 's obtained were compared to the tabled values to determine if significance had been achieved at the .05 level. Any value equal to or greater than 2.048 (two-tailed test) was designated as significant.

VI. There will be no significant difference between the mean feasibility scores for administrators and the mean feasibility scores for teachers for each of the thirty feasibility statements.

To test this hypothesis, a t -test for two independent samples was calculated for each of the thirty feasibility statements. The t 's obtained were compared to the tabled values to determine if significance had been achieved at the .05 level. Any value equal to or greater than 2.048 (two-tailed test) was designated as significant.

CHAPTER BIBLIOGRAPHY

1. Ary, Donald, Lucy Chester Jacobs, and Asghar Razavieh, Introduction to Research in Education, New York, Holt, Rinehart and Wilson, Inc., 1972.
2. Asher, Gordon, "Educational Assessment," N. J. E. A. Review, 46 (November, 1972), 22, 23, 55.
3. "Assessment Program Set for Students," Burlington County Times, (September 20, 1972), 32.
4. Bennett, George K., "Does Testing Cost Too Much," Test Service Bulletin, Bulletin of the Psychological Corporation, New York City, No. 42, (September, 1951).
5. Benson, Charles and Thomas A. Shannon, Schools Without Property Taxes: Hope or Illusion? Bloomington, Indiana, The Phi Delta Kappa Educational Foundation, 1972.
6. Braun, Robert J., "Education Chief Fails to Get Majority: Marburger Rejected on 19-19 Vote," Newark, Star-Ledger, (November 17, 1972), 1, 33.
7. Braun, Robert J., "Marburger Maps Coalition Against Power 'Interests'," Newark, Star-Ledger, (November 19, 1972), 1, 21.
8. Braun, Robert J., "Marburger Vote Affected by Busing and Home Rule," Newark, Star-Ledger, (November 26, 1972), A-1, A-12.
9. Brazziel, William F., "Criterion-Referenced Tests: Some Trends and Prospects," Today's Education, 61 (November, 1972), 52-53.
10. Carragher, Joseph, "Cahill Predicts Troubles in Replacing Marburger," Newark, Star-Ledger, (November 19, 1972), 21.

11. County Superintendent of Schools, Burlington County Public School Directory, 1972-73, Mount Holly, New Jersey, 1972.
12. DiFurio, Elspeth, "Computer Assisted Education Takes First Step in County," Burlington, New Jersey, Burlington County Times, (September 16, 1972), 6.
13. DiFurio, Elspeth, "Standardized Testing of Pupils Seen Laden with Pitfalls," Burlington, New Jersey, Burlington County Times, (October 12, 1972), 48.
14. Mecklenburger, James, "Vouchers at Alum Rock," Phi Delta Kappan, LIV (September, 1972), 23-25.
15. "New Jersey Assessment Program Slated," Burlington, New Jersey, Burlington County Times, (November 2, 1972), 27.
16. New Jersey Department of Education, "Dealing with Student Unrest: State's School Districts to Submit Copies of Plans," New Jersey Education, Trenton, 6 (November, 1972), 6.
17. New Jersey Department of Education, "Educational Assessment in New Jersey," Trenton, 1972, (14 pp.).
18. New Jersey Department of Education, "Educational Assessment in New Jersey," Trenton, 1972, (10 pp.).
19. New Jersey Department of Education, letter to principals accompanying educational assessment program questionnaires, Trenton, 1972.
20. New Jersey Department of Education, letter to teachers accompanying educational assessment program questionnaires, Trenton, 1972.
21. New Jersey Department of Education, "New Developments in Teacher Education and Certification Aimed at Improvement," New Jersey Education, Trenton, 6 (September, 1972), 4-6.
22. New Jersey Department of Education, "Statewide Tests Involve Teachers," New Jersey Education, Trenton, 6 (October, 1972), 1, 4.

23. New Jersey Education Association, Basic Statistical Data of New Jersey School Districts, 1972, Trenton, July, 1972.
24. New Jersey Education Association, Economic Status of the New Jersey Teacher, 1972-73 Edition, Trenton, August, 1972.
25. New Jersey Education Association, "N. J. E. A. Speaks Out on Teacher Evaluation," Trenton, 1972.
26. New Jersey Education Association, "New Jersey Starts to Test," N. J. E. A. Review, 46 (November, 1972), 56.
27. New Jersey Education Association, "Per Pupil Expenditures for Instructional Material, 1970-71," Trenton, September, 1972.
28. New Jersey Education Association, "Sixty Days to Release," N. J. E. A. Review, 46 (October, 1972), 64.
29. New Jersey Education Association, "Statewide Testing Soon," N. J. E. A. Review, 46 (October, 1972), 4.
30. New Jersey Education Association, "Testing Promises," N. J. E. A. Review, 46 (November, 1972), 4.
31. New Jersey Education Association, "The New Jersey Public School Teacher, 1971," September, 1972.
32. New Jersey Education Association, "The Public School Principal: An NJEA Policy Statement," Trenton, 1972.
33. New Jersey Education Association, "When Tenure is Jeopardized," N. J. E. A. Review, 46 (October, 1972), 64.
34. "NJEA Votes to Oppose Marburger," Philadelphia Inquirer, (November 3, 1972), 31.
35. "New Jersey Grows by a Million," 1972 Bulletin Alamanac, 49th ed., edited by Isadore Lichstein, Philadelphia, Bulletin Company, 1972.

36. Oppenheim, A. N., Questionnaire Design and Attitude Measurement, New York, Basic Books, Inc., 1966.
37. Page, Ellis B., "How We all Failed at Performance Contracting," Phi Delta Kappan, LIV (October, 1972), 115-117.
38. Porter, John W., "The Accountability Story in Michigan," Phi Delta Kappan, LIV (October, 1972), 98-99.
39. Preston, H. LeBaron, "The Supreme Court and School Finance: Some Possibilities," Phi Delta Kappan, LIV (October, 1972), 120-123.
40. Rubin, James H., "Marburger Voices Stand," Burlington, New Jersey, Burlington County Times, (November 2, 1972), 3.
41. Sax, Gilbert, Empirical Foundations of Educational Research, Englewood Cliffs, New Jersey, Prentice-Hall, Inc., 1968.
42. "State to Test Math and Reading Skills," Burlington, New Jersey, Burlington County Times, (October, 10, 1972), 27.
43. Sullivan, Ronald, "Fight Over Marburger Poses a Threat to Cahill," New York Times, (November 4, 1972), 103, 135.
44. Sullivan, Ronald, "Jersey Rejects Education Chief," New York Times, (November 17, 1972), 1, 32.
45. VanGelder, Lawrence, "Rejected Educator," New York Times, (November 17, 1972), 32.
46. Woodington, Donal D., "Accountability From the Viewpoint of a State Commissioner of Education," Phi Delta Kappan, LIV (October, 1972), 95-97.

CHAPTER IV

RESULTS OF THE STUDY

The purpose of this chapter is to present the findings of the study of the perceptions held by Burlington County public school administrators and teachers toward desirability and toward feasibility of accountability items in the following areas: certification, tenure, and evaluation; student assessment; governance; institutional modification; and resources.

The chapter has been divided to present, first, findings related to the four purposes of the study and, second, data related to the six hypotheses.

Findings Related to Purposes of the Study

There were four major purposes of the study. Each dealt with the desirability and/or feasibility of the instrument statements or matched-pairs items.

The administrators' and teachers' mean scores on the five-point Likert scale for each desirability statement was to determine whether the statement was perceived as undesirable, undecided, or desirable by the respective groups. The maximum

four-point range on the Likert scale was arbitrarily divided to include one-and-a-half points each in the "undesirable" and "desirable" categories and one point in the "undecided" category.

Thirty-two positive statements were weighted one to five for responses from "Strongly Disagree" to "Strongly Agree." A mean score from 1.00 to 2.49 was arbitrarily designated "undecided." A mean score from 3.51 to 5.00 was designated "desirable."

Twenty-eight negative statements were weighted five to one for responses from "Strongly Disagree" to "Strongly Agree." A mean score from 5.00 to 3.51 was arbitrarily designated "undesirable." A mean score from 3.50 to 2.50 was designated "desirable."

The administrators' and teachers' mean scores for each feasibility statement was likewise to determine how the statement was perceived by the respective groups. Thirty-two statements were weighted one to five for responses from "Strongly Disagree" to "Strongly Agree." A mean score from 1.00 to 2.49 was arbitrarily designated "not feasible." A mean score from 2.50 to 3.50 was designated "undecided." A mean score from 3.51 to 5.00 was designated "feasible."

Twenty-eight statements were weighted five to one for responses from "Strongly Disagree" to "Strongly Agree." A mean score from 5.00 to 3.51 was arbitrarily designated "not feasible." A mean score from 3.50 to 2.50 was designated "undecided." A mean score from 2.49 to 1.00 was designated "feasible."

A statement may fall into the undecided category due to an individual tendency to respond near the middle of a Likert scale or because respondents, while individually perceiving the statement toward either end of the scale, tended to cancel each other, thus causing the group mean score to fall near the center of the scale. No attempt is made to interpret a statement which falls in the undecided category other than to indicate that a group consensus toward either end of the scale was not present.

Purpose I

Purpose I was to determine if administrators and teachers agreed on the desirability of the thirty desirability statements.

Table VIII indicates how administrators and teachers perceived each desirability statement. Significantly, both groups were in agreement upon eleven statements which they

TABLE VIII

ADMINISTRATORS' AND TEACHERS' PERCEPTIONS OF THE
THIRTY DESIRABILITY STATEMENTS

State- ment Number	Admini- strators' Mean	Teachers' Mean	Undesirable 1.00-2.49 5.00-3.51*	Undecided 2.50-3.50 3.50-2.50*	Desirable 3.51-5.00 2.49-1.00*
Certification, Tenure, and Professional Assessment					
50	2.87	2.97	..	TA	..
41	3.30	3.43	..	TA	..
19*	3.10	2.57	..	TA	..
14*	2.93	2.70	..	TA	..
8	4.13	3.17	..	T	A
12*	3.17	3.67	T	A	..
33	1.97	1.80	TA	..	..
53*	2.17	2.27	..	..	TA
29	3.27	3.33	..	TA	..
Student Assessment					
10*	1.60	1.50	..	..	TA
7*	3.73	3.60	TA	..	..
52*	3.73	3.50	A	T	..
13	2.40	2.50	A	T	..
16	3.47	3.47	..	TA	..
Institutional Modification					
36	3.33	3.20	..	TA	..
47*	2.80	3.00	..	TA	..
55	3.40	3.43	..	TA	..
1	3.63	3.57	..	..	TA
51	4.13	4.07	..	..	TA
42	4.10	3.97	..	..	TA

TABLE VIII--Continued

State- ment Number	Admini- strators' Mean	Teachers' Mean	Undesirable 1.00-2.49 5.00-3.51*	Undecided 2.50-3.50 3.50-2.50*	Desirable 3.51-5.00 2.49-1.00*
Governance					
45	3.53	3.67	..	..	TA
25	3.37	3.27	..	TA	..
5*	3.83	3.27	A	T	..
48*	3.80	3.33	A	T	..
54*	2.40	2.13	..	..	TA
Resources					
31	2.83	2.63	..	TA	..
38	2.23	2.53	A	T	..
40*	4.27	4.03	TA	..	..
49*	4.07	3.73	TA	..	..
23*	4.50	3.90	..	..	TA

*Item is weighted five to one for responses from "Strongly Disagree" to "Strongly Agree."

perceived as undecided. Also, administrators perceived one additional statement and teachers perceived six additional statements as undecided. In total, administrators perceived twelve and teachers perceived seventeen of the thirty desirability statements as undecided.

Desirability statements perceived similarly by administrators and teachers.--Excluding the eleven statements perceived as undecided by both groups, administrators and teachers perceived twelve statements similarly.

Eight statements were perceived as desirable by administrators and teachers. Both groups agreed with the following statements:

Statement fifty-three: "A teacher's salary should not be related to the learning rate of his students." There has been an emphasis, particularly in regard to performance contracting, to relate the two factors. Both groups felt this emphasis is not desirable.

Statement ten: "The influencing of character development in the schools is as important as teaching the 3 R's." Accountability proposals have concentrated upon measurable cognitive skills. Both groups felt that affective learnings are as important.

The agreement of both groups with the following three desirability statements counters the argument that schools are not receptive to change because educators have a vested interest in the status-quo.

Statement one: "Students should be given an opportunity to contribute to any school evaluation."

Statement fifty-one: School officials should be receptive to the suggestions from the public."

Statement forty-two: "The schools should generally be receptive to the suggestions of evaluating teams."

Statement forty-five: "Including a teacher representative in decision-making should gain the teachers' support for policies and procedures adopted."

Statement fifty-four: "Teachers should have a greater role in decision-making before they can rightfully be answerable for the progress of students." Administrators as well as teachers agreed with this basic position taken by national teachers' organizations in response to the initial emphasis in accountability literature upon measurable standards for professional assessment.

Statement twenty-three: "The state government should contribute more to the financing of local schools."

Four statements were perceived as undesirable by administrators and teachers. Both groups disagreed with the following statements:

Statement thirty-three: "Group test results should be used as an indication of teaching proficiency." Disagreement with this statement was consistent with the position taken by both groups against relating a teacher's salary to the learning rate of students.

Statement seven: "The amount of money presently expended to measure scholastic achievement should be reduced." Accountability proposals emphasizing measurement would normally

require increased appropriations for this purpose. While administrators and teachers did not agree that testing expenditures should be reduced, their replies to other statements indicate they would use testing funds for more traditional purposes than those emphasized in accountability literature.

Statement forty: "The present system of school taxation ought to be maintained."

Statement forty-nine: "The local property tax should continue as the basic support for the educational system."

Disagreement with the preceding two statements is consistent with the position taken by both groups in support of greater state financing of the schools.

Desirability statements perceived differently by administrators and teachers.--Seven desirability statements were perceived differently by administrators and teachers. No statement perceived as desirable by one group, however, was perceived as undesirable by the other group. Each statement viewed differently was perceived as undecided by either administrators or teachers.

Administrators agreed with statement eight: "More extensive supervision should be provided teachers."

Administrators disagreed with the following five statements:

Statement fifty-two: "For instructional purposes, we do not need more precise instruments to measure student growth." Administrators felt it would be desirable to have more precise measurement instruments.

Statement thirteen: "We should develop statewide achievement tests to aid the public in evaluating local educational programs." Administrators disagreed with this pro-accountability statement; they did not feel it would be desirable to develop statewide achievement tests.

Interpretation of differences between administrators and teachers based upon the two preceding statements should take cognizance that the teachers' mean response score to statement fifty-two was 3.50 and to statement thirteen was 2.50. Both mean scores fall at the limit of the undecided category as defined for purposes of this study. Yet, the teachers' mean score fell at the limit in the same direction as the administrators' response to each statement.

Statement five: "The state government should neither finance nor regulate the local schools more fully." This double-barrelled statement was based upon the assumption

that local district educators would favor additional financial assistance but not additional regulation from the state. An additional assumption was made that most professional educators would recognize that increased regulation would accompany additional aid. The statement was intended, therefore, to force a preference between resources and governance. While teachers were undecided, administrators indicated they were prepared to accept increased state regulation in order to obtain greater state aid.

Statement forty-eight: "Too much power is placed in the hands of school administrators."

Statement thirty-eight: "Parents should be permitted to enroll their child in any district school of their choosing." This statement states one of the tenets of voucher plans. It should be noted that to date voucher plans have not been attempted in New Jersey.

Teachers disagreed with statement twelve: "Students should not be permitted to anonymously evaluate their teachers and administrators." Teachers felt it would be beneficial to have students anonymously participate in professional assessments. This indicates teachers were willing to accept a wide basis for professional assessment and counters the argument

that teachers oppose accountability proposals for reasons of job security. Teachers may view professional assessments based in part on student evaluation as fairer than assessments based in part upon test results.

Purpose II

Purpose II was to determine if administrators and teachers agreed on the feasibility of the thirty feasibility statements.

Table IX indicates how administrators and teachers perceived each feasibility statement. Significantly, both groups were in agreement upon eleven statements which they perceived as undecided. Also, administrators perceived three additional statements and teachers perceived eight additional statements as undecided. In total, administrators perceived fourteen and teachers perceived nineteen of the thirty feasibility statements as undecided.

Feasibility statements perceived similarly by administrators and teachers.--Excluding the eleven statements perceived as undecided by both groups, administrators and teachers perceived eight statements similarly.

Six statements were perceived as feasible by administrators and teachers. Both groups agreed with the following statements:

TABLE IX

ADMINISTRATORS' AND TEACHERS' PERCEPTIONS OF THE
THIRTY FEASIBILITY STATEMENTS

State- ment Number	Admini- strators' Mean	Teachers' Mean	Not Feasible 1.00-2.49 5.00-3.51*	Undecided 2.50-3.50 3.50-2.50*	Feasible 3.51-5.00 2.49-1.00*
Certification, Tenure, and Professional Assessment					
37	3.27	3.07	..	TA	..
3	3.33	3.20	..	TA	..
15	3.10	3.23	..	TA	..
58	2.87	2.43	T	A	..
32*	4.07	3.13	A	T	..
46	3.10	3.27	..	TA	..
21*	2.47	2.57	..	T	A
17	2.10	2.37	TA	..	..
60	3.63	3.20	..	T	A
Student Assessment					
56*	3.47	3.40	..	TA	..
22	2.90	2.73	..	TA	..
30*	3.03	3.60	T	A	..
57*	2.67	2.60	..	TA	..
59*	2.23	2.33	..	..	TA
Institutional Modification					
34*	3.23	3.27	..	TA	..
27*	2.90	3.07	..	TA	..
11	3.70	3.30	..	T	A
43*	2.20	2.40	..	..	TA
6	4.03	3.63	..	..	TA
26*	3.77	3.77	TA	..	..

TABLE IX--Continued

Statement Number	Administrators' Mean	Teachers' Mean	Not Feasible	Undecided	Feasible
			1.00-2.49 5.00-3.51	2.50-3.50 3.50-2.50	3.51-5.00 2.49-1.00*
Governance					
9	3.87	4.13	..	..	TA
20	3.80	3.70	..	..	TA
44	3.17	2.67	..	TA	..
18*	3.30	2.70	..	TA	..
39*	2.50	2.10	..	A	T
Resources					
2	3.63	2.87	..	T	A
28	2.23	2.53	A	T	..
35	4.27	4.20	..	..	TA
24*	4.07	3.40	A	T	..
4*	3.53	3.43	A	T	..

*Item is weighted five to one for responses from "Strongly Disagree" to "Strongly Agree."

Statement fifty-nine: "The community would accept a policy which would require a parent-teacher conference to obtain a child's results on standardized tests." A concern of teachers' organizations, particularly in New Jersey (3, 4, 6), has been that the results of standardized tests would be freely disseminated and widely misunderstood. Both administrators and teachers felt it would be feasible to require a parent-teacher conference. During such a conference educators presumably would have the opportunity to explain the significance

of the tests and aid the parent in interpretation of the child's results.

Statement forty-three: "If given the chance, students could contribute much to school evaluations."

Statement six: "School officials are open to suggestions from citizens regarding the operation of the schools."

Statement nine: "Teachers would give greater support to policies and procedures which their representatives helped establish." Both groups felt greater teacher commitment would be gained by increasing the teachers' role in governance.

Statement twenty: "It is possible for the public to more effectively influence the operation of the schools."

Statement thirty-five: "A more equitable system of school taxation could be enacted."

Both groups disagreed with the following statements:

Statement seventeen: "A teacher would make a more sincere effort if his salary was related to the achievement of his students." In response to statement fifty-three, both groups felt it would not be desirable to relate the two factors; they also felt that, even if such a system were instituted, teacher commitment would not be increased.

Statement twenty-six: "The recommendations of evaluating teams cannot usually be incorporated in schools." This response was consistent with the response given by both groups to statement forty-two that the schools should be receptive to suggestions of evaluating teams.

Feasibility statements perceived differently by administrators and teachers.--Eleven feasibility statements were perceived differently by administrators and teachers. No statement perceived as feasible by one group, however, was perceived as not feasible by the other group. Each statement viewed differently was perceived as undecided by either administrators or teachers.

Administrators agreed with the following four statements:

Statement twenty-one: "When evaluating a teacher, supervisors should not consider the scores which his students received on standardized tests." This response was consistent with the response given by both groups to statement thirty-three.

Statement sixty: "Educators not employed by a school district would be more objective than district personnel in evaluating the schools." This is a basic assumption contained in accountability models which require an external educational

audit. In response to statement twenty-nine, both groups were undecided whether educators not employed by the district could do a fairer job evaluating the schools. In response to statement sixty, teachers remained undecided while administrators felt external personnel would be more objective.

Statement eleven: "Standardized group test results can be used meaningfully in evaluating course offerings." Both groups, in response to statement fifty-five, were undecided as to the desirability of this practice. Teachers were also undecided in regard to feasibility; administrators felt standardized test results could be used meaningfully.

Statement two: "Educational costs can be reduced without hurting the instructional program." Both groups had been undecided in response to the matching desirability statement (thirty-one). Teachers remained undecided while administrators felt educational costs can be reduced without hurting the instructional program. The response of administrators to this statement does not appear consistent with their responses to statements forty-four, forty-nine, twenty-three, thirty-five, twenty-four, and four.

Teachers agreed with statement thirty-nine: "More teacher participation in the development and evaluation of programs

would lead to a significant improvement in student performance."

Administrators disagreed with the following four statements:

Statement thirty-two: "More detailed supervision of teachers would be an obstacle to teachers possessing full professional status."

Statement twenty-eight: "More effective teaching would result if parents received a tuition voucher for the amount necessary to enroll the child in any district school of their choosing."

Statement twenty-four: "There is little chance that the major financial support for public schools will come from the state level."

Statement four: "The state government would have difficulty financing the schools more adequately than local school districts are doing presently."

Teachers disagreed with the following two statements:

Statement fifty-eight: "Teachers would receive the same treatment with or without tenure." The question of tenure has been raised in accountability literature. Both groups, in response to statement fourteen, were undecided as to whether

tenure should be retained. Administrators remained undecided while teachers felt they would not receive the same treatment without tenure.

Statement thirty: "The job of measuring scholastic growth can be done readily." Responses to this statement and statement fifty-two indicate that while administrators felt more precise instruments to measure student growth were needed, they were undecided in regard to the feasibility of measuring student growth. Teachers were not only undecided in regard to the need for more precise instruments but also felt the task of measuring scholastic growth could not be done readily. Neither group, in other words, felt the task of measuring student growth, even if desirable, could be readily accomplished.

Purposes III and IV

Purpose III was to determine the degree of relationship between the desirability and the feasibility of the thirty matched-pairs items for administrators. Table X indicates how administrators perceived the desirability and the feasibility of the thirty matched-pairs items. There were eleven matched-pairs items for which neither the desirability statement and/or the feasibility statement were perceived as undecided.

TABLE X
ADMINISTRATORS' PERCEPTIONS OF THE THIRTY
MATCHED-PAIRS ITEMS

Desirability				Feasibility			
Desirability Statements	Undesirable	Undecided	Desirable	Feasibility Statements	Not Feasible	Undecided	Feasible
Certification, Tenure, and Professional Assessment							
50	...	x	...	37	...	x	...
41	...	x	...	3	...	x	...
19*	...	x	...	15	...	x	...
14*	...	x	...	58	...	x	...
8	x	32*	x	...	...
12*	...	x	...	46	...	x	...
33	x	...	...	21*	...	...	x
53*	x	17	x	...	...
29	...	x	...	60	...	...	x
Student Assessment							
10*	x	56*	...	x	...
7*	x	...	...	22	...	x	...
52*	x	...	...	30*	...	x	...
13	x	...	...	57*	...	x	...
16*	...	x	...	59*	...	...	x
Institutional Modification							
36	...	x	...	34*	...	x	...
47*	...	x	...	27*	...	x	...
55	...	x	...	11	...	...	x
1	x	43*	...	...	x
51	x	6	...	...	x
42	x	26*	x	...	...

TABLE X--Continued

Desirability				Feasibility			
Desirability Statements	Undesirable	Undecided	Desirable	Feasibility Statements	Not Feasible	Undecided	Feasible
Governance							
45	...	...	x	9	...	...	x
25	...	x	...	20	...	...	x
5*	x	...	...	44	...	x	...
48*	x	...	...	18*	...	x	...
54*	...	...	x	39*	...	x	...
Resources							
31	...	x	...	2	...	...	x
38	x	...	...	28	x	...	...
40*	x	...	...	35	...	...	x
49*	x	...	...	24*	x	...	...
23	...	...	x	4	x	...	...

*Item weighted five to one for responses from "Strongly Disagree" to "Strongly Agree."

Purpose IV was to determine the degree of relationship between the desirability and the feasibility of the thirty matched-pairs items for teachers. Table XI indicates how teachers perceived the desirability and the feasibility of the thirty matched-pairs items. There were seven matched-pairs

TABLE XI
TEACHERS' PERCEPTIONS OF THE THIRTY
MATCHED-PAIRS ITEMS

Desirability Statements	Desirability			Feasibility Statements	Feasibility		
	Undesirable	Undecided	Desirable		Not Feasible	Undecided	Feasible
Certification, Tenure, and Professional Assessment							
50	...	x	...	37	...	x	...
41	...	x	...	3	...	x	...
19*	...	x	...	15	...	x	...
14*	...	x	...	58	x	...	...
8	...	x	...	32*	...	x	...
12*	x	...	...	46	...	x	...
33	x	...	...	21*	...	x	...
53*	x	17	x	...	...
29	...	x	x	60	...	x	...
Student Assessment							
10*	x	56*	...	x	...
7*	x	...	...	22	...	x	...
52*	...	x	...	30*	x	...	...
13	...	x	...	57*	...	x	...
16*	...	x	...	59*	...	...	x
Institutional Modification							
36	...	x	...	34*	...	x	...
47*	...	x	...	27*	...	x	...
55	...	x	...	11	...	x	...
1	x	43*	...	...	x
51	x	6	...	...	x
42	x	26*	x	...	...

TABLE XI--Continued

Desirability				Feasibility			
Desirability Statements	Undesirable	Undecided	Desirable	Feasibility Statements	Not Feasible	Undecided	Feasible
Governance							
45	x	9	...	...	x
25	...	x	...	20	...	...	x
5*	...	x	...	44	...	x	...
48*	...	x	...	18*	...	x	...
54*	x	39*	...	...	x
Resources							
31	...	x	...	2	...	x	...
38	...	x	...	28	...	x	...
40*	x	...	...	35	...	...	x
49*	x	...	...	24*	...	x	...
23	x	4*	...	x	...

*Item weighted five to one for responses from "Strongly Disagree" to "Strongly Agree."

items for which neither the desirability statement and/or the feasibility statement were perceived as undecided.

Tables X and XI reflect the desirability and feasibility of the sixty statements as written. Thirty-two statements were weighted one to five for responses from "Strongly Disagree" to "Strongly Agree." Twenty-eight statements were

weighted in the opposite directions, five to one. Fourteen of these twenty-eight statements were worded negatively, thus effectively reversing the proposals contained in these statements for purposes of interpretation. Desirability and feasibility of the statements as written are contained in Tables X and XI. Interpretation is provided in the text.

Items perceived as desirable and feasible.--Administrators perceived three items and teachers perceived four items as desirable and feasible.

TABLE XII

DESIRABLE AND FEASIBLE ITEMS

Administrators	Teachers
1 - 43	1 - 43
51 - 6	51 - 6
45 - 9	45 - 9
.	54 - 39

Administrators and teachers felt students could contribute much to school evaluations and should be given the opportunity to participate in any which are held. A major criticism of the schools has been that they are controlled by individuals with vested interests who have a desire to maintain the status

quo. The professional educators who participated in this study responded to this item in a manner which suggests they are receptive to suggestions from the students who daily participate in the operations of the schools.

Administrators and teachers felt school officials should be and are open to suggestions from citizens. The public was not surveyed in this study. It is only possible to speculate how they perceive the receptiveness of school officials to suggestions from citizens.

Administrators and teachers felt including teacher representatives in decision making should and would gain greater teacher support for policies and procedures which are adopted. This has been a belief which over time has prompted some administrators to include teacher input in decision-making. National teachers' organizations are now attempting to build and expand a legal foundation which will require teacher participation in decision-making. This trend has surfaced openly in New Jersey and has been a major source of disagreement between the New Jersey Education Association and the former New Jersey Commissioner of Education (2).

Administrators and teachers felt teachers should have a greater role in decision-making before they can rightfully be

answerable for the progress of students. This has been the position of national teachers' organizations. Teachers also felt greater participation in decision-making would lead to a significant improvement in student performance. Administrators were undecided on the latter point. While they agreed teachers cannot rightfully be answerable for student progress until they have a greater role in decision-making, administrators also felt that such a role would not necessarily result in significantly improved learning for students.

Items perceived as undesirable and not feasible.--Administrators perceived two items as undesirable and not feasible. Each item dealt with resources. Teachers perceived no item as undesirable and not feasible.

Administrators did not believe more effective teaching would result if parents received a tuition voucher, nor did they believe parents should be permitted to enroll their child in any district school of their choosing. Although teachers were undecided in regard to tuition vouchers and open registration, national teachers' organizations have tended to oppose the various voucher plans even more vehemently (although less widely) than performance contracting. Voucher plans, of course, have the potential of expanding the role of private

and parochial schools as alternatives to public schools. Perhaps administrators were more opposed to these proposals due to their administrative training and experience. Administrators, more than teachers, may view vouchers as a potential threat to the public schools. Voucher plans at present are in the initial state of experimentation; teachers may view these proposals differently as more experimentation takes place and teachers' organizations state their positions more widely.

Administrators and teachers felt the local property tax should not continue as the basic support for the educational system. Administrators felt that the major financial support may come from the state level. Teachers were undecided on that point. The New Jersey Supreme Court has recently ruled that major differences in the wealth of school districts has resulted in unequal educational opportunities for children. It has ruled that the state legislature should enact a more equitable system of school financing. The legislature has not yet adopted another system. The property tax at present continues as the basic support of New Jersey's public schools.

Items perceived as desirable but not feasible.--Administrators perceived four items and teachers perceived two items as desirable but not feasible.

TABLE XIII

DESIRABLE BUT NOT FEASIBLE ITEMS

Administrators	Teachers
8 - 32 . . . . .	. . .
53 - 17	53 - 17
42 - 26	42 - 26
23 - 4 . . . . .	. . .

Administrators felt more extensive supervision should be provided teachers and felt such supervision would not be an obstacle to teachers possessing full professional status. Teachers' organizations have been concerned, less professionalism be jeopardized in the name of accountability (1). Interestingly, teachers were undecided upon whether more extensive supervision should be provided and whether such supervision would be an obstacle to professionalism.

Administrators and teachers felt that a teacher's salary should not be related to the achievement of his students and, even if the two were related, the teacher would not make a more sincere effort. The attempt to relate student achievement with salary has been most visible in performance contracts between board of education and private firms, local teachers' groups, or individual teachers. Teachers'

organizations have generally opposed student achievement as a basis for salary determination.

Administrators and teachers felt schools should be receptive to the suggestions of evaluating teams and can usually incorporate their recommendations.

Administrators felt the state government should contribute more to the local schools. They also felt the state government would not have difficulty financing the schools more adequately than local school districts are doing presently.

Items perceived as not desirable but feasible.--Administrators perceived two items and teachers perceived one item as not desirable but feasible.

Teachers' organizations have strongly opposed the use of group standardized test results in the evaluation of teacher performance and have negotiated such a prohibition in many New Jersey local district contracts. Accountability literature, however, stresses cognitive skill measurement; indeed, the bases for payments under performance contracts are group test results. Both administrators and teachers opposed using group test results as an indication of teaching proficiency.

Administrators and teachers felt the present system of school taxation should not be maintained and that a more

equitable system could be enacted. Experimentation with performance contracts and vouchers has been partially prompted by the desire to improve basic skills in poor and/or urban districts. This objective has been a motivating force in the attempt to achieve more complete, possibly full, state funding of the public schools. Administrators' and teachers' responses to this item indicate an awareness of these inequities and a desire to see a more equitable tax system adopted. Perhaps this can be accomplished only by the courts which have ruled that local district wealth not be the basis for public school support in New Jersey.

Data Related to Hypotheses I and II

Hypothesis I stated that for administrators there will be no significant relationship between the desirability and feasibility of the thirty matched-pairs items. To test this hypothesis, a Pearson product moment correlation coefficient was calculated for each of the thirty matched-pairs as well as for all thirty matched-pairs combined.

The Pearson product moment correlation coefficient for the thirty matched-pairs combined is -0.1592 , less than the 0.361 required for significance. Hypothesis I is not rejected for the matched-pairs combined. For administrators no

significant relationship is found between the desirability and feasibility of the combined thirty matched-pairs items.

A Pearson product moment coefficient was calculated separately for each matched-pair item. A significant relationship is present in fourteen of the thirty items (Table XIV).

Significant positive relationships were found in five of the nine matched-pairs items dealing with certification, tenure, and professional assessment. The items dealt with flexibility of certification requirements, retention of tenure, extent of supervision, determination of salary, and fairness of school evaluations.

Significant relationships were found in three of the five matched-pairs items dealing with student assessment. Significant positive relationships were found in items dealing with financing achievement testing and the relative importance of character development and basic skills. The item dealing with availability of standardized achievement test results to parents resulted in a significant negative relationship.

Significant relationships were found in two of the six matched-pairs items dealing with institutional modification. A significant positive relationship was present with the item dealing with the relationship between standardized

TABLE XIV

RELATIONSHIP BETWEEN THE DESIRABILITY AND FEASIBILITY
OF THE THIRTY MATCHED-PAIRS ITEMS

Matched-Pairs Item		Value of \underline{r}	
Desirability	Feasibility	Administrators	Teachers
Certification, Tenure, and Professional Assessment			
50	37	.1552	-.0651
41	3	.5320**	.4874**
19	15	-.2978	-.2174
14	58	.5239**	.1107
8	32	.5879**	.5723**
12	46	.1090	.5589**
33	21	.3388	.1871
53	17	.6621**	.2652
29	60	.6551**	.5444**
Student Assessment			
10	56	.4726**	-.3158
7	22	.3638*	.3755*
52	30	-.0903	-.1862
13	57	.2509	.5555**
16	59	-.5027**	.0706
Institutional Modification			
36	34	-.0990	-.1815
47	27	.2488	.6363**
55	11	.4506*	.2861
1	43	-.4221*	-.7199**
51	6	.1069	.0546
42	26	.3069	.1989

TABLE XIV--Continued

Matched-Pairs Item		Value of \underline{r}	
Desirability	Feasibility	Administrators	Teachers
Governance			
45	9	.4968*	.4615*
25	20	.3363	.6681**
5	44	.0234	.5958**
48	18	.4802**	.4006*
54	39	.5340**	.3652*
Resources			
31	2	.2792	.4831**
38	28	.1491	.4036*
40	35	.6959**	.6650**
49	24	.2896	.2441
23	4	.1134	.2655

* \underline{r} is significant at .05 level (.361, d.f. = 28, two-tailed).

** \underline{r} is significant at .01 level (.463, d.f. = 28, two-tailed).

group test results and course offerings. A significant negative relationship was present with the item dealing with student participation in school evaluations.

Significant positive relationships were found in three of the five matched-pairs items dealing with governance. The items dealt with the relationship between teacher support of policies and procedures and teacher participation in

decision-making, powers of school administrators, and the relationship between teacher participation in decision-making and student progress.

A significant positive relationship was found in one of the five matched-pairs items dealing with resources. The item dealt with the adequacy of the present system of school taxation.

Hypothesis III stated that for teachers there will be no significant relationship between the desirability and feasibility of the thirty matched-pairs items. To test this hypothesis, a Pearson product moment correlation coefficient was calculated for each of the thirty matched-pairs as well as for all thirty matched-pairs combined.

The Pearson product moment correlation for the thirty matched-pairs combined is 0.0441, less than the 0.361 required for significance. Hypothesis III is not rejected for the matched-pairs combined. For teachers no significant relationship is found between the desirability and feasibility of the combined thirty matched-pairs items.

A Pearson product moment correlation coefficient was calculated separately for each matched-pair item. A significant relationship is present in sixteen of the thirty items (Table XIV).

Significant positive relationships were found in four of the nine matched-pairs items dealing with certification, tenure, and professional assessment. The items dealt with flexibility of certification requirements, extent of supervision, student evaluation of teachers and administrators, and fairness of school evaluations.

Significant positive relationships were found in two of the five matched-pairs items dealing with student assessment. The items dealt with financing achievement testing and the relationship between statewide achievement tests and public evaluation of local educational programs.

Significant relationships were found in two of the six matched-pairs items dealing with institutional modification. A significant positive relationship was present with the item dealing with the use of private firms to bring about school reforms. A significant negative relationship was present with the item dealing with student participation in school evaluations.

A significant positive relationship was found in each of the five matched-pairs items dealing with governance.

Significant positive relationships were found in three of the five matched-pairs items dealing with resources. The

items dealt with educational costs, vouchers and open registration, and adequacy of the present system of taxation.

Table XIV indicates that of the nine matched-pairs items dealing with certification, tenure, and professional assessment: (a) both administrators and teachers showed significant positive relationships on three items; (b) administrators showed significant positive relationships on two items for which teachers did not show significance; (c) teachers showed a significant positive relationship on one item for which administrators did not show significance; and (d) both administrators and teachers did not show significant relationships on three items.

Both administrators and teachers showed significant positive relationships on items dealing with flexibility of certification requirements, extent of supervision, and fairness of school evaluations.

Administrators showed significant positive relationships on items dealing with tenure and determination of salary. Teachers did not show a significant relationship on these items.

Teachers showed a significant positive relationship on an item dealing with student evaluation of teachers and

administrators. Administrators did not show a significant relationship on this item.

Both administrators and teachers did not show significant relationships on items dealing with performance contracting firms and the use of non-certified teaching personnel, tenure and teacher performance, and student scores on standardized tests as related to teacher evaluation.

Table XIV indicates that of the five matched-pairs items dealing with student assessment: (a) both administrators and teachers showed a significant positive relationship on one item; (b) administrators showed significant relationships on two items for which teachers did not show significance; (c) teachers showed a significant positive relationship on one item for which administrators did not show significance; and (d) both administrators and teachers did not show a significant relationship for one item.

Both administrators and teachers showed a significant positive relationship on an item dealing with financing achievement testing.

Administrators showed a significant positive relationship on an item dealing with the relative importance of character development and basic skills. They also showed a significant

negative relationship on an item dealing with availability of standardized achievement tests results to parents. Teachers did not show a significant relationship on either of these items.

Teachers showed a significant positive relationship on an item dealing with the relationship between statewide achievement tests and public evaluation of local educational programs. Administrators did not show a significant relationship on this item.

Both administrators and teachers did not show a significant relationship on an item dealing with measuring scholastic growth.

Table XIV indicates that of the six matched-pairs items dealing with institutional modification: (a) both administrators and teachers showed a significant negative relationship on one item; (b) administrators showed a significant positive relationship on one item for which teachers did not show significance; (c) teachers showed a significant positive relationship on one item for which administrators did not show significance; and (d) both administrators and teachers did not show significant relationships on three items.

Both administrators and teachers showed a significant negative relationship on an item dealing with student participation in school evaluations.

Administrators showed a significant positive relationship on an item dealing with the relationship between standardized group test results and course offerings. Teachers did not show a significant relationship on this item.

Teachers showed a significant positive relationship on an item dealing with the use of private firms to bring about school reforms. Administrators did not show a significant relationship on this item.

Both administrators and teachers did not show significant relationships on items dealing with continuation of school reforms initiated by private firms, receptiveness of school officials to suggestions from the public, and reception of evaluating teams' recommendations.

Table XIV indicates that of the five matched-pairs items dealing with governance: (a) both administrators and teachers showed significant positive relationships on three items, and (b) teachers showed significant positive relationships on two items for which administrators did not show significance.

Both administrators and teachers showed significant positive relationships on items dealing with the relationship between teacher support of policies and procedures and teacher participation in decision-making, powers of school administrators, and the relationship between teacher participation in decision-making and student progress.

Teachers showed significant positive relationships on items dealing with community influence upon the operation of the schools and state financing and regulation of the schools.

Table XIV indicates that of the five matched-pairs items dealing with resources: (a) both administrators and teachers showed a significant positive relationship on one item; (b) teachers showed significant positive relationships on two items for which administrators did not show significance; and (c) both administrators and teachers did not show significant relationships on two items.

Both administrators and teachers showed a significant positive relationship on an item dealing with the adequacy of the present system of school taxation.

Teachers showed significant positive relationships on items dealing with educational costs and with vouchers and open registration.

Both administrators and teachers did not show significant relationships on items dealing with system of school taxation and increased state support of schools.

Data Related to Hypotheses II and IV

Hypothesis II stated that for administrators there will be no significant difference between the means for desirability and feasibility of the thirty matched-pairs items. To test this hypothesis a t-test for two related samples was calculated for each matched-pair item. Significant differences are present for administrators in twelve of the thirty matched-pairs items (Table XV).

Hypothesis IV stated that for teachers there will be no significant difference between the means for desirability and feasibility of the thirty matched-pairs items. To test this hypothesis a t-test for two related samples was calculated for each matched-pair item. Significant differences are present for teachers in twelve of the thirty matched-pairs items (Table XV).

Table XV indicates that of the nine matched-pairs items dealing with certification, tenure, and professional assessment: (a) both administrators and teachers showed a significant negative difference on one item; (b) administrators

TABLE XV

DIFFERENCE BETWEEN THE DESIRABILITY AND FEASIBILITY
MEANS OF THE THIRTY MATCHED-PAIRS ITEMS

Matched-Pairs Item		t-Values for Related Samples	
Desirability	Feasibility	Administrators	Teachers
Certification, Tenure, and Professional Assessment			
50	37	-1.588	-0.367
41	3	-0.162	1.070
19	15	0.000	-1.853
14	58	0.328	0.984
8	32	0.441	0.171
12	46	0.226	2.350*
33	21	-2.475*	-3.434**
53	17	0.465	-0.441
29	60	-2.483*	0.812
Student Assessment			
10	56	-11.883**	-7.315**
7	22	3.618**	4.878**
52	30	2.172*	0.337
13	57	-1.114	0.532
16	59	3.765**	5.191**
Institutional Modification			
36	34	0.406	-0.284
47	27	-0.474	-0.421
55	11	-1.663	0.779
1	43	4.807**	3.193**
51	6	0.648	2.359*
42	26	3.010**	1.533

TABLE XV--Continued

Matched-Pairs Item		<u>t</u> -Values for Related Samples	
Desirability	Feasibility	Administrators	Teachers
Governance			
45	9	-1.836	-3.120**
25	20	-2.538*	-3.261**
5	44	2.339*	3.525**
48	18	2.548*	3.254**
54	39	-0.551	0.183
Resources			
31	2	0.130	-1.097
38	28	0.000	0.000
40	35	0.000	-1.542
49	24	0.000	1.670
23	4	3.918**	2.379*

*t is significant at .05 level (2.048, d.f. = 28, two-tailed).

**t is significant at .01 level (2.763, d.f. = 28, two-tailed).

showed a significant negative difference on one item for which teachers did not show a significant difference: (c) teachers showed a significant positive difference on one item for which administrators did not show a significant difference; and (d) both administrators and teachers did not show significant differences on six items.

Both administrators and teachers showed a significant negative difference on an item dealing with student scores on standardized tests as related to teacher evaluation.

Administrators showed a significant negative difference on an item dealing with fairness of school evaluations. Teachers did not show a significant difference on this item.

Teachers showed a significant positive difference on an item dealing with student evaluation of teachers and administrators. Administrators did not show a significant difference on this item.

Both administrators and teachers did not show significant differences on items dealing with performance contracting firms and the use of non-certified teaching personnel, flexibility of certification requirements, tenure and teacher performance, tenure, extent of supervision, and determination of salary.

Table XV indicates that of the five matched-pairs items dealing with student assessment: (a) both administrators and teachers showed significant differences on three items; (b) administrators showed a significant positive difference on one item for which teachers did not show a significant difference; and (c) both administrators and teachers did not show a significant difference on one item.

Both administrators and teachers showed a significant negative difference on an item dealing with the relative importance of character development and basic skills. They also showed a significant positive difference on items dealing with financing achievement testing and availability of standardized achievement test results to parents.

Administrators showed a significant positive difference on an item dealing with measuring scholastic growth. Teachers did not show a significant difference on this item.

Both administrators and teachers did not show a significant difference on an item dealing with the relationship between statewide achievement tests and public evaluation of local educational programs.

Table XV indicates that of the six matched-pairs items dealing with institutional modification: (a) both administrators and teachers showed a significant positive difference on one item; (b) administrators showed a significant positive difference on one item for which teachers did not show a significant difference; (c) teachers showed a significant positive difference on one item for which administrators did not show a significant difference; and (d) both administrators and teachers did not show significant differences on three items.

Both administrators and teachers showed a significant positive difference on an item dealing with student participation in school evaluations.

Administrators showed a significant positive difference on an item dealing with reception of evaluating teams' recommendations. Teachers did not show a significant difference on this item.

Teachers showed a significant positive difference on an item dealing with receptiveness of school officials to suggestions from the public. Administrators did not show a significant difference on this item.

Both administrators and teachers did not show significant differences on three items dealing with continuation of school reforms initiated by private firms, the use of private firms to bring about school reforms, and the relationship between standardized group test results and course offerings.

Table XV indicates that of the five matched-pairs items dealing with governance: (a) both administrators and teachers showed significant differences on three items; (b) teachers showed a significant negative difference on one item for which administrators did not show a significant difference; and (c) both administrators and teachers did not show a significant difference on one item.

Both administrators and teachers showed a significant negative difference on an item dealing with community influence upon the operation of the schools. They also showed significant positive differences on items dealing with state financing and regulation of the schools and powers of school administrators.

Teachers showed a significant negative difference on an item dealing with the relationship between teacher support of policies and procedures and teacher participation in decision-making. Administrators did not show a significant difference on this item.

Both administrators and teachers did not show a significant difference on an item dealing with the relationship between teacher participation in decision-making and student progress.

Table XV indicates that of the five matched-pairs items dealing with resources both administrators and teachers: (a) showed a significant positive difference on one item, and (b) did not show significant differences on four items.

Both administrators and teachers showed a significant positive difference on an item dealing with increased state support of the schools. They did not show significant

differences on items dealing with educational costs, vouchers and open registration, adequacy of the present system of school taxation, and system of school taxation.

Data Related to Hypothesis V

Hypothesis V stated that there will be no significant difference between the mean desirability scores for administrators and the mean desirability scores for teachers for each of the thirty desirability statements.

To test this hypothesis, a t-test for two independent samples was calculated for each desirability statement. Significance was achieved on only five statements (Table XVI). These desirability statements dealt with the extent of supervision (professional assessment), reception of evaluating teams' recommendations (institutional modification), state financing and regulation of the schools (governance), powers of school administrators (governance), and increased state support of schools (resources).

Hypothesis V is not rejected. The significance achieved on five statements is attributed to chance. Significance was not achieved on twenty-five desirability statements.

TABLE XVI

DIFFERENCES BETWEEN THE MEAN SCORES FOR ADMINISTRATORS
AND TEACHERS FOR EACH DESIRABILITY STATEMENT

Desirability Statement	t-Value	Significant	Not Significant
Certification, Tenure, and Professional Assessment			
50	0.3566	..	x
41	0.4521	..	x
19	1.7365	..	x
14	0.7687	..	x
8	3.3688	**	..
12	1.5827	..	x
33	0.9329	..	x
53	0.3940	..	x
29	0.2570	..	x
Student Assessment			
10	0.4623	..	x
7	0.4952	..	x
52	0.8035	..	x
13	0.3325	..	x
16	0.0000	..	x
Institutional Modification			
36	0.5378	..	x
47	0.7693	..	x
55	0.1507	..	x
1	0.2167	..	x
51	0.5841	..	x
42	2.0538	*	..

TABLE XVI--Continued

Desirability Statement	<u>t</u> -Value	Significant	Not Significant
Governance			
45	0.5790	..	x
25	0.4405	..	x
5	2.0264	*	..
48	2.0414	*	..
54	0.9781	..	x
Resources			
31	0.6994	..	x
38	1.0514	..	x
40	1.3286	..	x
49	1.3170	..	x
23	3.9376	**	..

*t is significant at .05 level (2.0017, d.f. = 58, two-tailed).

**t is significant at .01 level (2.6633, d.f. = 58, two-tailed).

Data Related to Hypothesis VI

Hypothesis VI stated that there will be no significant difference between the mean feasibility scores for administrators and the mean feasibility scores for teachers for each of the thirty feasibility statements.

To test this hypothesis a t-test for two independent samples was calculated for each feasibility statement. Significance was achieved on only three statements (Table XVII).

TABLE XVII

DIFFERENCES BETWEEN THE MEAN SCORES FOR ADMINISTRATORS
AND TEACHERS FOR EACH FEASIBILITY STATEMENT

Feasibility Statement	<u>t</u> -Value	Significant	Not Significant
Certification, Tenure, and Professional Assessment			
37	0.7764	..	x
3	0.4305	..	x
15	0.3931	..	x
58	1.5635	..	x
32	3.8423	**	..
46	0.6780	..	x
21	0.3410	..	x
17	1.0358	..	x
60	1.8893	..	x
Student Assessment			
56	0.2942	..	x
22	0.6780	..	x
30	1.9408	..	x
57	0.2631	..	x
59	0.5056	..	x
Institutional Modification			
34	0.1656	..	x
27	0.6780	..	x
11	1.7667	..	x
43	0.9103	..	x
6	1.8220	..	x
26	0.0000	..	x

TABLE XVII--Continued

Feasibility Statement	<u>t</u> -Value	Significant	Not Significant
Governance			
9	1.1481	..	x
20	0.4717	..	x
44	1.8605	..	x
18	2.1367	*	..
39	1.8608	..	x
Resources			
2	0.2168	..	x
28	1.4580	..	x
35	0.4130	..	x
24	3.5279	**	
4	0.3456	..	x

*t is significant at .05 level (2.0017, d.f. = 58, two-tailed).

**t is significant at .01 level (2.6633, d.f. = 58, two-tailed).

These feasibility statements dealt with extent of supervision (professional assessment), powers of school administrators (governance), and system of school taxation (resources).

Hypothesis VI is not rejected. The significance achieved on three statements is attributed to chance. Significance was not achieved on twenty-seven feasibility statements.

CHAPTER BIBLIOGRAPHY

1. Bain, Helen, "After All," Today's Education, 60 (March, 1971), 80.
2. Braun, Robert J., "Marburger Vote Affected by Busing and Home Rule," Newark, Star-Ledger, (November 26, 1972), A-1, A-12.
3. New Jersey Education Association, "New Jersey Starts to Test," N. J. E. A. Review, 46 (November, 1972), 56.
4. New Jersey Education Association, "Parents, Teachers File Testing Suit," N. J. E. A. Reporter, 15 (December 14, 1972), 3.
5. Roscoe, John T., Fundamental Research Statistics, New York, Holt, Rinehart and Winston, Inc., 1969.
6. "Tests Rouse Fears," Burlington, New Jersey, Burlington County Times, (January 22, 1973), 6.

CHAPTER V

SUMMARY, FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

Summary

This study was an investigation of perceptions held by Burlington County, New Jersey, public school administrators and teachers toward various accountability measures in the areas of (1) certification, tenure, and professional assessment; (2) student assessment; (3) institutional modification; (4) governance; and (5) resources. The problem was to determine and compare the perceptions held by administrators and teachers in these areas.

A matched-pairs questionnaire, measuring desirability and feasibility of accountability items, was developed from the review of literature. Several hundred statements were initially reduced to sixty-six in number. A five-point Likert scale was used.

The questionnaire was reduced to sixty statements through interviews with two administrators and two teachers who had responded to the questionnaire. The sixty-statement questionnaire

was then administered to a graduate class of educators, resulting in three statements being reworded.

The questionnaire was submitted to a seven-person jury consisting of a teacher, an instructional supervisor, a principal, a superintendent, a county superintendent, a college teacher of educational administration, and a college researcher. An item was to be eliminated or reworded if four jurors so judged. Although no statement was judged by four or more jurors to be inappropriate or require rewording, jurors suggested alternate wording intended to clarify a number of statements. The questionnaire was revised to incorporate some of the recommendations. The revised questionnaire was judged satisfactory.

The specific purposes of this study were (1) to determine if administrators and teachers agree on the desirability of the thirty desirability statements; (2) to determine if administrators and teachers agree on the feasibility of the thirty feasibility statements; (3) to determine the degree of relationship between the desirability and the feasibility of the thirty matched-pairs items for administrators; and (4) to determine the degree of relationship between the desirability

and the feasibility of the thirty matched-pairs items for administrators; and (4) to determine the degree of relationship between the desirability and the feasibility of the thirty matched-pairs items for teachers.

The sample was composed of thirty administrators and thirty teachers from Burlington County, New Jersey. A table of random numbers was used to generate a priority ranking from one to two hundred fifteen for each administrator listed in the 1972-73 Burlington County Public School Directory. An attempt was made to gain the participation of each administrator who received a priority ranking from one through thirty-five. A teacher was to be selected from a district list of teachers for each central office administrator or from a school list of teachers for each building-level administrator. Thirty-five administrators and thirty-five teachers agreed to participate in the study.

All data was collected during November, 1972. Answer sheets were received from thirty-one administrators and thirty teachers. The unmatched answer sheet was discarded; the sixty matched answer sheets were forwarded to the North Texas State University Computer Center for processing.

Six hypotheses were formulated at the beginning of the study. Each hypothesis was stated in the null and arbitrarily tested at the .05 level of significance.

Hypothesis I stated that for administrators there will be no significant relationship between the desirability and feasibility of the thirty matched-pairs items. To test this hypothesis, a Pearson product moment correlation coefficient was calculated for each of the thirty matched-pairs as well as for all thirty matched-pairs combined. For administrators no significant relationship was found between the desirability and feasibility of the combined thirty matched-pairs items.

A Pearson product moment correlation coefficient was calculated for each matched-pair item. Significant relationships were found in five items dealing with certification, tenure, and professional assessment; three items dealing with student assessment; two items dealing with institutional modification; three items dealing with governance; and one item dealing with resources. For administrators significant relationships were present in fourteen of the thirty matched-pairs items.

Hypothesis II stated that for administrators there will be no significant difference between the means for desirability

and feasibility of the thirty matched-pairs items. To test this hypothesis, a t-test for two related samples was calculated for each matched-pair item.

Significant differences were found in two items dealing with certification, tenure, and professional assessment; four items dealing with student assessment; two items dealing with institutional modification; three items dealing with governance; and one item dealing with resources. For administrators significant differences were found in twelve of the thirty matched-pairs items.

Hypothesis III stated that for teachers there will be no significant relationship between the desirability and feasibility of the thirty matched-pairs items. To test this hypothesis, a Pearson product moment correlation coefficient was calculated for each of the thirty matched-pairs as well as for all thirty matched-pairs combined. Hypothesis III was not rejected for the thirty matched-pairs combined. For teachers no significant relationship was found between the desirability and feasibility of the combined thirty matched-pairs items.

A Pearson product moment correlation coefficient was calculated for each matched-pair item. Significant relationships were found in four items dealing with certification,

tenure, and professional assessment; two items dealing with student assessment; two items dealing with institutional modification; five items dealing with governance; and three items dealing with resources. For teachers significant relationships were present in sixteen of the thirty matched-pairs items.

Hypothesis IV stated that for teachers there will be no significant difference between the means for desirability and feasibility of the thirty-matched-pairs items. To test this hypothesis, a t-test for two related samples was calculated for each matched-pair item.

Significant differences were found in two items dealing with certification, tenure, and professional assessment; three items dealing with student assessment; two items dealing with institutional modification; four items dealing with governance; and one item dealing with resources. For teachers significant differences were found in twelve of the thirty matched-pairs items.

Hypothesis V stated that there will be no significant difference between the mean desirability scores for administrators and the mean desirability scores for teachers for each

of the thirty desirability statements. To test this hypothesis, a t-test for two independent samples was calculated for each desirability statement.

Significant differences were found in one statement dealing with certification, tenure, and professional assessment; no statement dealing with student assessment; one statement dealing with institutional modification; two statements dealing with governance; and one statement dealing with resources. Significant differences between administrators and teachers were found in only five of the thirty desirability statements. This was attributed to chance. Hypothesis V was not rejected.

Hypothesis VI stated that there will be no significant difference between the mean feasibility scores for administrators and the mean feasibility scores for teachers for each of the thirty feasibility statements. To test this hypothesis, a t-test for two independent samples was calculated for each feasibility statement.

Significant differences were found on one statement dealing with certification, tenure, and professional assessment; no statement dealing with student assessment; no statement dealing with institutional modification; one statement dealing

APPENDIX A

with governance; and one statement dealing with resources. Significant differences between administrators and teachers were found in only three of the thirty feasibility statements. This was attributed to chance. Hypothesis VI was not rejected.

Findings

1. Administrators and teachers perceived most accountability areas measured by the instrument similarly. Statistical significance between the mean scores for the two groups was achieved in only three of the thirty desirability statements and in only five of the thirty feasibility statements.

2. Administrators and teachers perceived desirability and feasibility similarly in approximately half of the accountability items. Administrators showed significant relationships between the desirability and feasibility of fourteen of the thirty matched-pairs items. Teachers showed significant relationships for sixteen matched-pairs items. While statistical significance was not achieved over the entire instrument (or for the combined thirty matched-pairs), significance in approximately half the individual matched-pairs is greater than chance.

3. Teachers expressed the attitude that schools should be made more democratic with greater teacher participation in decision-making.

4. Teachers felt that greater teacher participation in program development and evaluation would lead to improved student performance, and that such participation was necessary before teachers could be held accountable for student progress.

5. While neither administrators nor teachers opposed the use of standardized tests in program evaluation, administrators were more certain tests could meaningfully be used for that purpose.

6. Both groups felt students should be given a greater role in school evaluations, but were more hesitant to extend student participation to the area of evaluation of administrators and teachers.

Conclusions

Based on the results of this study, the following conclusions regarding Burlington County, New Jersey, public school administrators and teachers are offered:

1. The statistical significance achieved between the mean scores for the two groups on three desirability statements and five feasibility statements was due to chance.

2. Teachers perceived the greatest relationship between desirability and feasibility in the area of governance.

3. Administrators and teachers did not hold strong unified attitudes in favor of or in opposition to performance contracting, certification requirements, or tenure. Group mean scores on statements dealing with these areas fell near the middle of the Likert scale. With one exception, significant relationships or differences were not present.

4. Administrators and teachers did not oppose an expansion of formal testing, but teachers felt such testing should be used for traditional purposes such as student or class assessment rather than as a bases for professional assessment or salary determination.

5. Administrators were more opposed than teachers to voucher plans.

6. Both groups wished to include students more in the operation of the schools.

7. Both groups felt that a more equitable taxation system to support the public schools should be adopted and that the state can assume additional fiscal responsibility.

Recommendations

1. The instrument may be modified or another instrument developed to reflect the changed emphasis in accountability literature. This would probably result in less emphasis upon certification, tenure, and institutional modification. There would probably be more emphasis upon student assessment, professional assessment, governance, and resources.
2. It would be beneficial to validate the instrument by wider administrations and statistical treatments rather than by the jury technique.
3. A study comparing the perceptions held by the citizenry and board of education members, as well as administrators and teachers, would be valuable. The views held by board members and the citizenry might be quite different than those held by administrators and/or teachers. As stated previously, the demand for educational accountability was in large part related to raising educational costs.
4. This study made a basic distinction between administrators and teachers. It did not consider variables such as years of service, respondents' ages, sex, years of education, school size, or elementary-intermediate-secondary responsibilities. A study on a larger scale might investigate the

relationships between such variables and opinions held toward accountability proposals.

5. New Jersey began statewide testing during the 1972-73 school year. Similar studies at future dates may detect attitudinal changes as more experience is gained with statewide testing and, perhaps, as more areas, including non-cognitive areas, are added to the state assessment program.

APPENDIX A

Apartment 15E
Yorkshire Arms Apts.
Salem Road
Burlington, New Jersey

October 2, 1972

Mr. (Juror's Name)
(Juror's Position)
(Juror's Address)

Dear (Juror's Name),

Your agreement to examine the enclosed questionnaire is much appreciated.

As explained, the questionnaire is designed for use in a dissertation study titled, A Comparison of the Desirability and Feasibility of Accountability Measures As Perceived by Public School Administrators and Teachers. The participating administrators and teachers will be from selected New Jersey school districts.

The attached form is for your convenience in responding to the sixty questionnaire statements. Please indicate whether, in your judgment, each statement is satisfactory for inclusion in the questionnaire or should be rewritten or should be eliminated. A space for comments is also included.

A self-addressed envelope is included for the return of materials. An early reply will be appreciated.

Thank you for serving as a jury member.

Sincerely,

Robert A Kiamie

1. Students should be given an opportunity to contribute to any school evaluation.
2. Educational costs can be reduced without hurting the instructional program.
3. School districts would provide a better education if permitted to recruit teachers who have unique experiences or talents, even if they could not meet present certification requirements.
4. The state government would have difficulty financing the schools more adequately than the local school districts are doing presently.
5. The state government should neither finance nor regulate the local schools more fully.
6. School officials are open to suggestions from citizens regarding the operation of the schools.
7. The amount of money presently expended to measure scholastic achievement should be reduced.
8. More extensive supervision should be provided teachers.
9. Teachers will support more fully policies and procedures which their representatives helped establish.
10. It is as important that the schools influence character development as teach the 3 R's.
11. Standardized group test results can be used meaningfully in evaluating course offerings.
12. Students should not be permitted to anonymously evaluate their teachers and administrators.
13. We should develop statewide achievement tests to aid the public evaluate local educational programs.
14. Tenure for teachers should be retained.
15. Teachers would make the same effort with or without tenure.
16. Standardized achievement test results should not be made available to each parent.
17. A teacher would make a more sincere effort if his salary was related to the achievement of his students.
18. It is possible to reduce the powers of school administrators without reducing the quality of education.
19. Tenure is beneficial because a teacher can perform his tasks without undue concern for job security.

20. It is possible for the public to more effectively influence the operation of the schools.
21. When evaluating a teacher it is not fair for evaluators to consider the scores which his students received on standardized tests.
22. Financially, schools can afford to increase the amount of standardized testing now done.
23. The state government should contribute more to the financing of local schools.
24. There is little chance that the major financial support for the public schools will come from the state level.
25. Greater community influence in the operation of the public schools would be beneficial.
26. Usually, schools cannot incorporate the recommendations of evaluating teams.
27. Even if given the opportunity, employees of private firms would not be successful in bringing about fundamental school changes.
28. More effective teaching would result if parents were to annually receive a credit voucher which would be used to enroll the child in any district school of their choosing.
29. Generally speaking, persons not employed by the school district could do a fairer job of evaluating the schools.
30. The job of measuring scholastic growth can be done readily.
31. The schools should take steps to reduce educational costs.
32. More detailed supervision of teachers is an obstacle to teachers possessing full professional status.
33. Group test results should be used as an indication of teaching proficiency.
34. School employees would not continue reforms initiated by private firms.
35. A more equitable system of school taxation could be enacted.
36. After private firms have been given the opportunity to bring about reforms, school personnel should assume responsibility for all educational practices and programs.
37. Since private firms presumably need not worry about state certification requirements, they are more likely than the public schools to retain or dismiss personnel based upon teaching ability.
38. Parents should be permitted to enroll their child in any district school of their choosing.

39. More teacher participation in the development and evaluation of programs would lead to a significant improvement in student performance.
40. The present system of school taxation ought to be maintained.
41. Teacher certification requirements should be more flexible.
42. The schools should be generally receptive to suggestions.
43. If given the chance, students could contribute much to school evaluations.
44. The state government could more effectively finance and regulate the schools.
45. Including a teacher representative in decision-making should gain the teachers' support for policies and procedures adopted.
46. If given the opportunity to evaluate their teachers and administrators, students would do so fairly.
47. Private firms should not be used to bring about reforms in the schools.
48. Too much power is placed in the hands of school administrators.
49. The local property tax should continue as the basic support for the educational system.
50. School officials should permit private firms to demonstrate how proficiently they can teach public school children, with or without certified teachers.
51. School officials should be receptive to suggestions from the public.
52. For instructional purposes, we do not need to develop more precise measurements of student growth.
53. A teacher's salary should not be related to the learning rate of his students.
54. Teachers should have a greater voice in the school district before they can rightfully be answerable for the progress of students.
55. Course offerings should be evaluated - and possibly changed - in the light of standardized group test results.
56. The schools can more easily influence a child's ethical standards than his academic skills.
57. Statewide reading and mathematics tests would not aid parents in accurately evaluating the local educational program.

58. Teachers would receive the same treatment with or without tenure.
59. The community would accept a policy which would require a parent-teacher conference to obtain a child's results on standardized tests.
60. If given the opportunity, persons not employed by the school district would be more objective in evaluating the schools.

Please check the appropriate column in response to each questionnaire statement.

<u>Statement.</u>	<u>Satisfactory</u>	<u>Rewrite</u>	<u>Eliminate</u>	<u>Comment</u>
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				

<u>Statement</u>	<u>Satisfactory</u>	<u>Rewrite</u>	<u>Eliminate</u>	<u>Comment</u>
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				
31				
32				
33				
34				
35				
36				

<u>Statement</u>	<u>Satisfactory</u>	<u>Rewrite</u>	<u>Eliminate</u>	<u>Comment</u>
37				
38				
39				
40				
41				
42				
43				
44				
45				
46				
47				
48				
49				
50				
51				
52				
53				
54				
55				

<u>Statement</u>	<u>Satisfactory</u>	<u>Rewrite</u>	<u>Eliminate</u>	<u>Comment</u>
56				
57				
58				
59				
60				

APPENDIX B

APPENDIX B

Samuel M. Ridgway School
300 Delanco Road
Edgewater Park, New Jersey

Dear Administrator,

Your agreement to participate in my dissertation study is much appreciated. Trial administrations of the questionnaire indicate that between fifteen and twenty-five minutes are normally required in responding to the statements. There are no time limitations, however; please respond at a pace which is comfortable for you.

The answer sheet contains directions for responding. Please read them thoroughly.

It is important that a response be made to each of the sixty statements. Responses will be held in strict confidence. A stamped self-addressed envelope is enclosed for return of your answer sheet. A separate envelope is enclosed for the teacher's answer sheet.

I request, lastly, that you respond as promptly as possible. It is my hope to remit data to the North Texas State University Data Processing Center within the next several weeks. Your cooperation in this endeavor will be very helpful.

Thank you again for participating in this study.

Sincerely,

Robert A Kiamie
Doctoral Candidate

Samuel M. Ridgway School
300 Delanco Road
Edgewater Park, New Jersey

Dear Teacher:

Your agreement to participate in my dissertation study is much appreciated. Trial administrations of the questionnaire indicate that between fifteen and twenty-five minutes are normally required in responding to the statements. There are no time limitations, however; please respond at a pace which is comfortable for you.

The answer sheet contains directions for responding. Please read them thoroughly.

It is important that a response be made to each of the sixty statements. Responses will be held in strict confidence. A stamped self-addressed envelope is enclosed for return of your answer sheet.

I request, lastly, that you respond as promptly as possible. It is my hope to remit data to the North Texas State University Data Processing Center within the next several weeks. Your cooperation in this endeavor will be very helpful.

Thank you again for participating in this study.

Sincerely,

Robert A Kiamie
Doctoral Candidate

1. Students should be given an opportunity to contribute to any school evaluation.
2. Educational costs can be reduced without hurting the instructional program.
3. School districts would provide a better education if permitted to recruit teachers who have unique experiences or talents, even if they could not meet present certification requirements.
4. The state government would have difficulty financing the schools more adequately than local school districts are doing presently.
5. The state government should neither finance nor regulate the local schools more fully.
6. School officials are open to suggestions from citizens regarding the operation of the schools.
7. The amount of money presently expended to measure scholastic achievement should be reduced.
8. More extensive supervision should be provided teachers.
9. Teachers will give greater support to policies and procedures which their representatives helped establish.
10. The influencing of character development in the schools is as important as teaching the 3 R's.
11. Standardized group test results can be used meaningfully in evaluating course offerings.
12. Students should not be permitted to anonymously evaluate their teachers and administrators.
13. We should develop statewide achievement tests to aid the public in evaluating local educational programs.
14. Tenure for teachers should be retained.
15. Teachers would make the same effort with or without tenure.
16. Standardized achievement test results should not be made available to each parent.
17. A teacher would make a more sincere effort if his salary was related to the achievement of his students.
18. It is possible to reduce the powers of school administrators without reducing the quality of education.
19. Tenure is beneficial because a teacher can perform his tasks without undue concern for job security.

20. It is possible for the public to more effectively influence the operation of the schools.
21. When evaluating a teacher, supervisors should not consider the scores which his students received on standardized tests.
22. Schools can afford to increase the amount of standardized testing within their present budgets.
23. The state government should contribute more to the financing of local schools.
24. There is little chance that the major financial support for public schools will come from the state level.
25. Greater community influence in the operation of the public schools would be beneficial.
26. The recommendations of evaluating teams cannot usually be incorporated in schools.
27. Even if given the opportunity, private firms would not be successful in bringing about fundamental school changes.
28. More effective teaching would result if parents received a tuition voucher for the amount necessary to enroll the child in any district school of their choosing.
29. The job of evaluating the schools could be done more fairly by educators not employed by the school district.
30. The job of measuring scholastic growth can be done readily.
31. The schools should take steps to reduce educational costs.
32. More detailed supervision of teachers would be an obstacle to teachers possessing full professional status.
33. Group test results should be used as an indication of teaching proficiency.
34. School employees would not continue reforms initiated under performance contracts by private firms in previous years.
35. A more equitable system of school taxation could be enacted.
36. After private firms have been given the opportunity to bring about reforms, school personnel should assume responsibility for all educational practices and programs.
37. If performance contracting firms are not required to meet state certification requirements, they would be more likely than the public schools to retain or dismiss personnel based upon teaching ability.
38. Parents should be permitted to enroll their child in any district school of their choosing.

39. More teacher participation in the development and evaluation of programs would lead to a significant improvement in student performance.
40. The present system of school taxation ought to be maintained.
41. Teacher certification requirements should be more flexible.
42. The schools should generally be receptive to the suggestions of evaluating teams.
43. If given the chance, students could contribute much to school evaluations.
44. The state government could more effectively finance and regulate the schools.
45. Including a teacher representative in decision-making should gain the teachers' support for policies and procedures adopted.
46. If given the opportunity to evaluate their teachers and administrators, students would do so fairly.
47. Private firms should not be used to bring about reforms in the schools.
48. Too much power is placed in the hands of school administrators.
49. The local property tax should continue as the basic support for the educational system.
50. School officials should permit private firms to demonstrate how proficiently they can teach public school children with or without certified teachers.
51. School officials should be receptive to suggestions from the public.
52. For instructional purposes, we do not need more precise instruments to measure student growth.
53. A teacher's salary should not be related to the learning rate of his students.
54. Teachers should have a greater role in decision-making before they can rightfully be answerable for the progress of students.
55. Course offerings should be evaluated - and possibly changed - in the light of standardized group test results.
56. The schools can more easily influence a child's character development than his academic skills.
57. Statewide reading and mathematics tests would not aid parents in accurately evaluating the local educational program.

58. Teachers would receive the same treatment with or without tenure.
59. The community would accept a policy which would require a parent-teacher conference to obtain a child's results on standardized tests.
60. Educators not employed by a school district would be more objective than district personnel in evaluating the schools.

ANSWER SHEET

Please use a pencil to answer.

Please check the categories which apply to you.

Check one: Teacher
 Administrator

Check your primary assignment: K-8
 9-12

Circle the answer which best expresses your feeling. The choices are:

Strongly Disagree Disagree Undecided Agree Strongly Agree

These choices are abbreviated below to read:

SD D U A SA

CIRCLE ONLY ONE ANSWER. Should you change your mind, erase your first response. Be sure, however, that you respond to each statement.

PLEASE DO NOT WRITE IN ANY BOX.

- | | | | | | | | | | | | |
|------------------------------|----|---|---|---|----|------------------------------|----|---|---|---|----|
| <input type="checkbox"/> 1. | SD | D | U | A | SA | <input type="checkbox"/> 14. | SD | D | U | A | SA |
| <input type="checkbox"/> 2. | SD | D | U | A | SA | <input type="checkbox"/> 15. | SD | D | U | A | SA |
| <input type="checkbox"/> 3. | SD | D | U | A | SA | <input type="checkbox"/> 16. | SD | D | U | A | SA |
| <input type="checkbox"/> 4. | SD | D | U | A | SA | <input type="checkbox"/> 17. | SD | D | U | A | SA |
| <input type="checkbox"/> 5. | SD | D | U | A | SA | <input type="checkbox"/> 18. | SD | D | U | A | SA |
| <input type="checkbox"/> 6. | SD | D | U | A | SA | <input type="checkbox"/> 19. | SD | D | U | A | SA |
| <input type="checkbox"/> 7. | SD | D | U | A | SA | <input type="checkbox"/> 20. | SD | D | U | A | SA |
| <input type="checkbox"/> 8. | SD | D | U | A | SA | <input type="checkbox"/> 21. | SD | D | U | A | SA |
| <input type="checkbox"/> 9. | SD | D | U | A | SA | <input type="checkbox"/> 22. | SD | D | U | A | SA |
| <input type="checkbox"/> 10. | SD | D | U | A | SA | <input type="checkbox"/> 23. | SD | D | U | A | SA |
| <input type="checkbox"/> 11. | SD | D | U | A | SA | <input type="checkbox"/> 24. | SD | D | U | A | SA |
| <input type="checkbox"/> 12. | SD | D | U | A | SA | <input type="checkbox"/> 25. | SD | D | U | A | SA |
| <input type="checkbox"/> 13. | SD | D | U | A | SA | <input type="checkbox"/> 26. | SD | D | U | A | SA |

<input type="checkbox"/> 27.	SD	D	U	A	SA	<input type="checkbox"/> 44.	SD	D	U	A	SA
<input type="checkbox"/> 28.	SD	D	U	A	SA	<input type="checkbox"/> 45.	SD	D	U	A	SA
<input type="checkbox"/> 29.	SD	D	U	A	SA	<input type="checkbox"/> 46.	SD	D	U	A	SA
<input type="checkbox"/> 30.	SD	D	U	A	SA	<input type="checkbox"/> 47.	SD	D	U	A	SA
<input type="checkbox"/> 31.	SD	D	U	A	SA	<input type="checkbox"/> 48.	SD	D	U	A	SA
<input type="checkbox"/> 32.	SD	D	U	A	SA	<input type="checkbox"/> 49.	SD	D	U	A	SA
<input type="checkbox"/> 33.	SD	D	U	A	SA	<input type="checkbox"/> 50.	SD	D	U	A	SA
<input type="checkbox"/> 34.	SD	D	U	A	SA	<input type="checkbox"/> 51.	SD	D	U	A	SA
<input type="checkbox"/> 35.	SD	D	U	A	SA	<input type="checkbox"/> 52.	SD	D	U	A	SA
<input type="checkbox"/> 36.	SD	D	U	A	SA	<input type="checkbox"/> 53.	SD	D	U	A	SA
<input type="checkbox"/> 37.	SD	D	U	A	SA	<input type="checkbox"/> 54.	SD	D	U	A	SA
<input type="checkbox"/> 38.	SD	D	U	A	SA	<input type="checkbox"/> 55.	SD	D	U	A	SA
<input type="checkbox"/> 39.	SD	D	U	A	SA	<input type="checkbox"/> 56.	SD	D	U	A	SA
<input type="checkbox"/> 40.	SD	D	U	A	SA	<input type="checkbox"/> 57.	SD	D	U	A	SA
<input type="checkbox"/> 41.	SD	D	U	A	SA	<input type="checkbox"/> 58.	SD	D	U	A	SA
<input type="checkbox"/> 42.	SD	D	U	A	SA	<input type="checkbox"/> 59.	SD	D	U	A	SA
<input type="checkbox"/> 43.	SD	D	U	A	SA	<input type="checkbox"/> 60.	SD	D	U	A	SA

Please check to see that you have responded to each statement.

THANK YOU!

70.

71.

72.

73.

74.

75.

APPENDIX C



State of New Jersey

DEPARTMENT OF EDUCATION

225 WEST STATE STREET

P. O. BOX 2019

TRENTON, NEW JERSEY 08625

Dear Colleague:

As you know, plans are underway to develop fourth and twelfth grade examinations in reading and mathematics for a statewide New Jersey assessment program. In an attempt to ensure that these tests measure those skills and competencies that are deemed of greatest importance by New Jersey teachers and curriculum experts, we are asking for your assistance in determining what these skills are. We would like you to read the attached material and complete the rating form and comment sheet.

The topics on the attached list have already been reviewed by groups of teachers at meetings held on June 5 in each county in New Jersey and have been revised according to their comments. We are now attempting to obtain a more extensive review of the revised list of topics so that the committees of teachers who will ultimately develop the specifications for the tests will be able to determine which topics are considered important throughout the state.

If you are rating the topics for twelfth grade test of basic mathematical skills please read the following:

At the time of the June 5 meetings it was thought that this test would cover the competencies required for entrance to any high school mathematics course, even the most advanced. If this were done, however, many students would be asked to attempt to answer questions on topics that they had never encountered. Therefore, it has been decided to limit the test to those basic mathematics topics to which all students will have been exposed by the time they begin the twelfth grade. Your review and revision of the enclosed list of topics is therefore extremely important since the kind of initial screening of topics that was done for the other tests has not been done for this one.

We appreciate your cooperation and assistance in the review of these materials.

Sincerely,

A handwritten signature in black ink that reads "Gordon Archer".

Director,
Educational Assessment Program

NEW JERSEY EDUCATIONAL ASSESSMENT PROGRAM

LIST OF TOPICS TO BE CONSIDERED FOR THE
4th GRADE TEST OF BASIC READING SKILLS

The attached list of topics for possible inclusion in the fourth grade reading test is divided into four major areas:

- 1) Word Recognition
- 2) Reading Comprehension
- 3) Reading Interpretation
- 4) Study Skills

In order that the most useful information possible be obtained in the testing time available, it is essential that those topics considered to be of greatest importance by New Jersey teachers and curriculum experts be included on the test. You are therefore requested to judge the importance, for beginning fourth grade students, of each topic on the attached list.

A machine-scored rating form is being used because a large amount of information must be processed in a very short time. However, an additional comment sheet is being provided on which you may list other topics that you think should be included in the final specifications for the test or make any other comments concerning this test. All additional comments will be reviewed before final specifications are prepared.

It is recognized that most language arts programs in New Jersey schools include a variety of communication and listening skills. This first New Jersey Educational Assessment test, however, is intended to include only basic skills in reading. In the future, other tests may be developed that will cover skills in other areas.

In the lower left-hand corner of the rating form blacken space 8 indicating that the subject is reading and blacken space 3 indicating grade four, as shown at the left below, then print the information requested as illustrated on the right below, in the space provided on the rating form.

GRADE		SUBJECT		AREA	
1	1	F	1	1	
2	2	P	2		
3	3	R	3	3	
4	4	T	4	4	
5	5	H	5	5	
6	6	T	6	6	
7	7	E	7	7	
8	8	L	8	8	
9	9	T	9	9	
0	0	H	0	0	

Please print:

School: Myers Park

County: Mecklenberg

Grade: Fourth
(Fourth or Twelfth)

Subject Area: Reading
(Math. or Reading)

Name(Optional):
Williams Sarah Irene
Last First Middle

For each topic on the attached list mark your rating in the appropriate space as follows:

- A: Essential. Topic is extremely important, and must be included on the test.
- B: Desirable. Topic is important and if possible should be included on the test.
- C: Acceptable. Topic is not particularly important but could be included on the test.
- D: Inappropriate. This topic should not be included on the test.

The last five questions ask you to indicate what percentage of the test should be devoted to general skill areas.

In completing the rating form use PENCIL only; pen marks will not register on the machines used to process the information.

I. WORD RECOGNITION

A. Phonetic Analysis

1. Short vowels
2. Long vowels (final e)
3. Vowel digraphs (ea, oa, etc.)
4. Vowel diphthongs (oy, ou, ow, etc.)
5. Initial consonants
6. Medial consonants
7. Final consonants
8. Consonant blends and digraphs (bl, th, etc.)
9. Silent consonants
10. Homonyms
11. Rhyming words

B. Structural Analysis

12. Syllabication
13. Roots
14. Prefixes
15. Adjectival suffixes ("er", "est", etc.)
16. Adverbial suffixes ("ly", "y", etc.)
17. Verb suffixes ("ing", "ed", etc.)
18. Plurals (adding "s", "es", etc.)
19. Possessives
20. Compound words
21. Hyphenated words
22. Contractions

II. READING COMPREHENSION

A. Word Recognition and Usage

- 23. Context clues - Given a sentence containing an underlined word, identify which of several choices could best be substituted for the underlined word in that context
- 24. Synonyms - Given a word, identify which of several choices is most similar in meaning
- 25. Antonyms - Given a word, identify which of several choices is most nearly opposite in meaning

B. Organization of Ideas

- 26. Identify main ideas
- 27. Understand supporting ideas - facts and information specifically mentioned in passage
- 28. Understand order and sequence of events

III. READING INTERPRETATION

- 29. Interpret characters' emotions
- 30. Detect inferences about character traits
- 31. Determine characters' motives
- 32. Detect inferences about causes
- 33. Predict outcomes
- 34. Distinguish between fact and fiction

IV. STUDY SKILLS

- 35. Guide words in dictionary
- 36. Alphabetical sequence
- 37. Table of contents
- 38. Glossary
- 39. Maps
- 40. Charts
- 41. Follow directions

42. What percentage of the total test should be based on category IA - Phonetic Analysis?

Mark space A, if more than 50%
Mark space B, if between 30% and 50%
Mark space C, if between 15% and 30%
Mark space D, if less than 15%

43. What percentage of the total test should be based on category IB - Structural Analysis?

Mark space A, if more than 50%
Mark space B, if between 30% and 50%
Mark space C, if between 15% and 30%
Mark space D, if less than 15%

44. What percentage of the total test should be based on category IIA - Word Recognition and Usage?

Mark space A, if more than 50%
Mark space B, if between 30% and 50%
Mark space C, if between 15% and 30%
Mark space D, if less than 15%

45. What percentage of the total test should be based on category IIB - Organization of Ideas?

Mark space A, if more than 50%
Mark space B, if between 30% and 50%
Mark space C, if between 15% and 30%
Mark space D, if less than 15%

46. What percentage of the total test should be based on category III - Reading Interpretation?

Mark space A, if more than 50%
Mark space B, if between 30% and 50%
Mark space C, if between 15% and 30%
Mark space D, if less than 15%

47. What percentage of the total test should be based on category IV - Study Skills?

Mark space A, if more than 50%
Mark space B, if between 30% and 50%
Mark space C, if between 15% and 30%
Mark space D, if less than 15%

LIST OF TOPICS TO BE CONSIDERED FOR THE
4th GRADE MATHEMATICS TEST

Attached is a preliminary list of mathematics topics which are divided into two major areas:

1) Computational skills, in which fundamental operations with whole numbers are emphasized

2) Basic concepts, in which understanding of elementary mathematical ideas are emphasized

Questions will reflect the mathematical maturity and reading ability appropriate to students at the beginning of the fourth grade. When topics are listed, such as simple equations, it is implied that these will be questions based on the common experience of all beginning fourth graders. Symbolism and terminology will be kept at a minimum so that students exposed to the more traditional programs will not be at a disadvantage. When examples are given they are not intended to represent polished questions, but rather to illustrate the skill or concept involved.

A machine-scored rating form is being used because a large amount of information must be processed in a very short time. However, an additional comment sheet is being provided on which you may list other topics that you think should be included in the final specifications for the test or make any other comments concerning this test. All additional comments will be reviewed before final specifications are prepared.

In the lower left hand corner of the rating form blacken space 3 indicating that the grade is four and blacken space 3 indicating the subject is mathematics, as shown at the left below, then print the information requested as illustrated on the right below, in the space provided on the rating form.

GRADE		SUBJECT		AREA	
1	1	F	1	1	1
2	2	U	2	2	2
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	R	3	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
4	4	T	4	4	4
5	5	H	5	5	5
6	6	W	6	6	6
7	7	E	7	7	7
8	<input checked="" type="checkbox"/>	L	8	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
9	9	P	9	9	9
0	0	H	0	0	0

Please print:

School: Myers Park

County: Mecklenberg

Grade: Fourth
(Fourth or Twelfth)

Subject Area: Math
(Math. or Reading)

Name(Optional):
Williams Sarah Irene
Last First Middle

For each topic on the attached list mark your rating in the appropriate space as follows:


- A: Essential. Topic is extremely important, and a question on this topic must be included on the test.
 - B: Desirable. Topic is important and if possible a question on this topic should be included on the test.
 - C: Acceptable. Topic is not particularly important but a question on this topic could be included on the test.
 - D: Inappropriate. A question on this topic should not be included on the test.
- Omit any question that you are unsure of.

In completing the rating form use PENCIL only; pen marks will not register on the machines used to process the information.

COMPUTATION AND BASIC MATHEMATICAL SKILLSA. WHOLE NUMBERS

1. Addition of one-place numbers
2. Addition of multiple places without regrouping (carrying) (no more than three places)
3. Addition of multiple places with regrouping (carrying) (no more than four places)
4. Subtraction of one-place numbers
5. Subtraction of multiple places without regrouping (borrowing) (no more than three places)
6. Subtraction of multiple places with regrouping (borrowing) (no more than four places)
7. Multiplication with one-place multiplier
8. Multiplication with two-place multiplier
9. Multiplication facts to 5×10
10. Multiplication facts to 6×10
11. Multiplication involving zero: such
as
$$\begin{array}{r} 30 \\ \times 4 \\ \hline \end{array}$$
12. Multiplication involving zero: such
as
$$\begin{array}{r} 203 \\ \times 3 \\ \hline \end{array}$$
13. Multiplication: such as
 $3 \times (4 + 5) = \square$
14. Division: basic facts to division by 5
(in form $30 \div 5$)
15. Division: basic facts to division by 5
(in form $3 \overline{)27}$)
16. Simple division with remainder such as:
In 9, there are 4 two's and how many left over?

B. FRACTIONAL NUMBERS

17. Models for simple fractions ($\frac{1}{2}, \frac{1}{3}, \frac{1}{4}, \frac{1}{5}$)
such as  for $\frac{1}{4}$
18. Relative size of simple fractions
($\frac{1}{2}$ is more than $\frac{1}{3}$)
19. Equivalent fractions: (e.g. $\frac{1}{2} = \frac{2}{4}$)
20. Simple addition of fractions (with same denominators) $\frac{1}{4} + \frac{2}{4} = \frac{3}{4}$

C. MEASUREMENT AND DENOMINATE NUMBERS

21. Linear measure: inch, foot, yard
22. Time measure: minute, hour, day, week
23. Time measure: month, year
24. Telling time
25. Money facts: identifies and totals coins,
1¢, 5¢, 10¢, 25¢, 50¢, \$1.00
26. Making change in simple store purchase
problems involving sales less than 50¢
27. Simple temperature measure: reading a
thermometer
28. Dry measure: dozen, half-dozen
29. Comparison of relative sizes of simple
geometric figures such as triangles,
squares, and rectangles (e.g., Given
several figures, the student can deter-
mine which is bigger)
30. Simple addition of denominate numbers
(e.g. $5 \text{ in.} + 6 \text{ in.} = \square$)
31. Conversion of denominate numbers (e.g.
 $14 \text{ inches} = 1 \text{ foot } 2 \text{ inches}$)

D. MISCELLANEOUS TOPICS

32. Solving equations like $6 + \square = 9$
33. Solving equations like $10 - \square = 7$
34. Solving equations like $5 \times \square = 20$
35. Solving equations like $30 \div \square = 6$
36. Simple inequalities like: $4 \circ 7$
37. Simple inequalities like: $3 + \square < 9$
38. Simple word problems with reading level adapted to appropriate level

E. NUMBER AND OPERATION

39. Numeration system: (only base ten) counting, reading and writing numerals
40. Numeration system: Roman numerals I through XII
41. Place value: grouping and regrouping
42. Place value: three-digit numeral
43. Place value: four-digit numeral
44. Place value: five-digit numeral
45. Place value: three-digit numeral in expanded notation form (e.g. $143 = 1 \text{ hundreds} + 4 \text{ tens} + 3 \text{ ones}$)
46. Place value: four-digit numeral in expanded notation form (e.g. $1542 = 1 \text{ thousands} + 5 \text{ hundreds} + 4 \text{ tens} + 2 \text{ ones}$)
47. Cardinality: counting, number of objects in a set, answers question "How many?"
48. Ordinality: answers question "Which one?" (e.g. first, sixth, last, etc.)
49. Number line: locating points on a number line for whole numbers

50. Properties of numbers: odds and evens (e.g. Mark the even number 29 61 57 34)

51. Recognition of fractional numbers in problems such as: Which shaded part shows $\frac{1}{3}$?



52. Locating points on a number line for fractional numbers named by $\frac{1}{2}$, $\frac{1}{3}$, $\frac{1}{4}$
53. Application of commutative principle (no terminology) $5 + 6 = 6 + 5$
54. Application of associative principle (no terminology) $6 + (3 + 1) = (6 + 3) + 1$
55. Concept of operation: addition, subtraction, multiplication and division (The student should know when and how to use these operations.)
56. Relation of operations: addition to subtraction, multiplication to division
57. Fundamental operations with placeholders
58. Informal concept of identity: zero and one
 $\square + 0 = 6$ or $7 + \square = 7$ and
 $\square \times 1 = 4$ or $5 \div \square = 5$
59. Simple estimation such as: $32 + 47$ is closer to 60 70 80 90
60. Number patterns: Counting by 2's, 5's, or 10's

F. GEOMETRY

61. Basic geometric figures: recognize point, line, segment
62. Basic geometric figures: recognize triangle, rectangle, square

APPENDIX E

63. Basic geometric figures: recognize circle

64. Angles: recognize an angle (e.g. Which of the following shows an angle?)

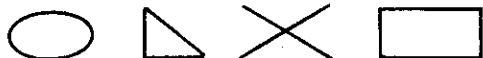


65. Angles: recognize a right angle

66. Geometric relation such as: figures with the same shape

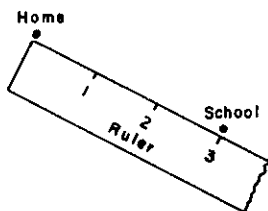
67. Geometric relations such as: figures with the same size

68. Informal concept of properties of geometric figures such as triangle, square, rectangle, and circle (e.g. Which of the following has no angles in it?)



69. Simple scale drawings and maps

(If each inch represents 2 miles, how far is it from home to school?)



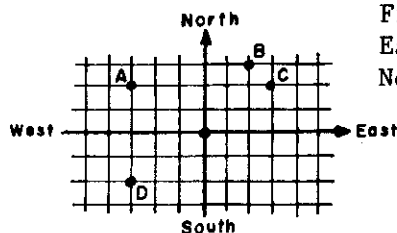
G. LOGIC

70. Simple logical reasoning problems

H. INTERPRETATION OF DATA

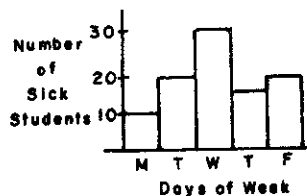
71. Association of numbers with number line: both whole numbers and fractional numbers

72. Association of numbers with scaled block or grid (e.g.



Find a dot that is East 3 units, and North 2 units.

73. Association of numbers with pictorial representation



How many students are sick on Wednesday?

10 15 20 30

I. MATHEMATICAL SENTENCES

74. Translation of words to mathematical sentences. (e.g. Write in mathematical symbols: a number greater than 8.

$\square > 8$

75. Translation of mathematical sentences to words (simple one-step)

J. SETS (No formal terminology will be used)

76. Sets, including idea of subset

77. Sets, including idea of the empty set

78. Equivalent sets: sets which have the same number of elements are equivalent

79. Cardinal number of a set

80. Operations of sets: union or joining of sets

New Jersey Educational Assessment Program

COMMENT SHEET

202

Indicate County _____

Check appropriate spaces below:

Mathematics

Reading

Grade 4

Grade 12

I. Additional topics that should be included on the test. Indicate beside each topic the rating, A, B, C, or D, that you would give it.

II. Other Comments.

APPENDIX D



State of New Jersey

DEPARTMENT OF EDUCATION

225 WEST STATE STREET

P. O. BOX 2019

TRENTON, NEW JERSEY 08625

Dear Colleague:

As you know, the New Jersey Department of Education has begun to develop a statewide educational assessment program. To develop tests that measure the skills and competencies that are deemed of greatest importance by New Jersey teachers and curriculum experts, a survey of their opinions is being undertaken. Your assistance is vital if your staff is to have an opportunity to participate in the development of the test instruments.

You will find enclosed in this package two sets of materials, one for reading and the other for mathematics.

If you are a principal of an elementary school you will find enclosed the following material: Four copies of a State Department letter, six answer sheets, six comment sheets and two List of Topics for each subject. The State Department letters and the List of Topics are reuseable. Each teacher who will respond should be provided with one copy of the letter, one copy of the answer sheet, one copy of the comment sheet and one copy of the List of Topics for the subject in which they instruct students. However, if a teacher instructs students in both reading and math they should receive one copy of the State Department letter, two answer sheets, two comment sheets and a List of Topics for both subjects.

If you are the principal of a secondary school you will find enclosed the following material: State Department letter, answer sheets, comment sheets and two different List of Topics for reading and math. These forms should be completed by all English and math teachers, reading specialists, curriculum specialists, and department chairmen who wish to participate in the program. Each teacher should receive one copy of the State Department letter, one answer sheet, one comment sheet and one copy of the appropriate List of Topics.

Teachers who do not wish to participate need not do so. If you are short of the necessary materials, please notify Mrs. J. Rogers, Educational Testing Service, Princeton, New Jersey and the necessary additional materials will be provided.

Only the completed answer sheets and used comment sheets should be returned in the postage-paid envelope which are enclosed. Please put the name and address of your school next to the words "Center No." in the upper left corner of the envelope. If at all possible return the completed materials by June 16. However, all completed material must be mailed no later than June 19.

Thank you for your assistance and cooperation.

Sincerely,

Director,
Educational Assessment Program

BIBLIOGRAPHY

BIBLIOGRAPHY

Books

- Ary, Donald, Lucy Chester Jacobs, and Asghar Razavieh, Introduction to Research in Education, New York, Holt, Rinehart and Wilson, Inc., 1972.
- Benson, Charles and Thomas A. Shannon, Schools Without Property Taxes: Hope or Illusion?, Bloomington, Indiana, The Phi Delta Kappa Educational Foundation, 1972.
- Education Testing Service, State Educational Assessment Programs, Princeton, New Jersey, 1971.
- Fitzgibbon, Thomas J., The Use of Standardized Instruments With Urban and Minority-Group Pupils, New York, Harcourt Brace Jovanovich, Inc., 1971.
- Kast, Fremont E. and James E. Rosenzweig, Organization and Management: A Systems Approach, McGraw Hill, Inc., New York, 1970, 498-516.
- New Jersey Education Association, Basic Statistical Data of New Jersey School Districts, 1972, Trenton, July, 1972.
- New Jersey Education Association, Economic Status of the New Jersey Teacher, 1972-73 Edition, Trenton, August, 1972.
- Oppenheim, A. N., Questionnaire Design and Attitude Measurement, New York, Basic Books, Inc., 1966.
- Roscoe, John T., Fundamental Research Statistics, New York, Holt, Rinehart and Winston, Inc., 1969.
- Sax, Gilbert, Empirical Foundations of Educational Research, Englewood Cliffs, New Jersey, Prentice-Hall, Inc., 1968.
- Sourcebook for Implementing Accountability, Tuscon, Educational Innovators Press, 1971.

Weber, Clarence A., Personnel Problems of School Administrators, New York, McGraw-Hill, Inc., 1954.

Wrightstone, J. Wayne, Thomas P. Hogan, and Muriel M. Abbott, Test Service Notebook 33: Accountability in Education and Associated Measurement Problems, New York, Harcourt Brace Jovanovich, Inc.

Articles

"A Balanced Presentation of Accountability," American Vocational Journal, 46 (February, 1971), 88-90.

"Accountability, Vouchers, and Performance Contracts," Today's Education, 46 (December, 1971), 13.

Asher, Gordon, "Educational Assessment," N. J. E. A. Review, 46 (November, 1972), 22, 23, 55.

"Assessment Program Set For Students," Burlington, New Jersey, Burlington County Times, (September 20, 1972), 32.

Baer, Clyde J., "A Plan for Converting Student Learning Tasks Into an Accountability Program of Instruction," Kansas City, Kansas City School District Department of Research and Development, (December, 1970).

Bain, Helen, "After All," Today's Education, 60 (March, 1971), 80.

Barro, Stephen M., "An Approach to Developing Accountability Measures for the Public Schools," Phi Delta Kappan, LIII (December, 1970), 196-205.

Bennett, George K., "Does Testing Cost Too Much," Test Service Bulletin, Bulletin of The Psychological Corporation, New York City, No. 42, (September, 1951).

Blaschke, Charles, "Performance Contracting Costs, Management Reform, and John Q. Citizen," Phi Delta Kappan, LIII (December, 1971), 245-247.

- Braun, Robert J., "Education Chief Fails to Get Majority: Marburger Rejected on 19-19 Vote," Newark, Star-Ledger, (November 17, 1972), 1, 33.
- Braun, Robert J., "Marburger Maps Coalition Against Power 'Interests'," Newark, Star-Ledger, (November 19, 1972), 1, 21.
- Braun, Robert J., "Marburger Vote Affected by Busing and Home Rule," Newark, Star-Ledger, (November 26, 1972), A-1, A-12.
- Brazziel, William F., "Criterion-Referenced Tests: Some Trends and Prospects," Today's Education, 61 (November, 1972), 52-53.
- "But Dallas Contract Succeeds," Phi Delta Kappan, LIII (November, 1971), 203.
- Caldwell, George L., "The Educational Management System," Viewpoints on Accountability, Tucson, Educational Innovator Press, 1971.
- Calkins, Hugh, "Financing Education in the 70's," Today's Education, 60 (February, 1971), 30-32.
- Campbell, Robert E., "Accountability and Stone Soup," Phi Delta Kappan, LIII (November, 1971), 176-178.
- Carragher, Joseph, "Cahill Predicts Troubles in Replacing Marburger," Newark, Star-Ledger, (November 19, 1972), 21.
- Cass, James, "Accountability to Whom? For What?," Saturday Review, 54 (March 20, 1971), 41.
- Cass, James, "Profit and Loss in Education," Saturday Review, 54 (August 15, 1971), 39-40.
- Catalozzi, John, "Accountability and Responsibility in Education," Journal of Education, 154 (December, 1971), 21-29.
- Chavez, Simon J., "Performance Accountability in Teacher Education," Audiovisual Instruction, 16 (March, 1971), 56-57.

- DiFurio, Elspeth, "Computer Assisted Education Takes First Step in County," Burlington, New Jersey, Burlington County Times, (September 16, 1972), 6.
- DiFurio, Elspeth, "Standardized Testing of Pupils Seen Laden with Pitfalls," Burlington, New Jersey, Burlington County Times, (October 12, 1972), 48.
- Duristine, Richard M., "An Accountability Information System," Phi Delta Kappan, LII (December, 1970), 236-239.
- "Education System Is Being Studied," Denton Record Chronicle, (April 12, 1971), 10A.
- English, Fenwich and James Zaharis, "Are Accountability and Governance Compatible?," Phi Delta Kappan, LII (February, 1971), 374-375.
- Farr, Roger and others, "How to Make a Pile in Performance Contracting," Phi Delta Kappan, LIII (February, 1972), 367-369.
- "Finance Study Completed," Phi Delta Kappan, LIII (January, 1972), 336-337.
- Friedman, Milton, "Homogenized Schools," Newsweek, 79 (February 28, 1972), 77.
- Gallup, George, "The Third Annual Survey of the Public's Attitudes Toward the Public Schools, 1971," Phi Delta Kappan, LIII (September, 1971), 33-48.
- Hall, Keith A., "Computer-Assisted Instruction: Problems and Performance," Phi Delta Kappan, LII (June, 1971), 628-631.
- "How Education Groups View Contracting," Nation's Schools, 86 (October, 1970), 86-87.
- Innes, Thomas C., "Measurement, Accountability and Humaneness," Measurement and Evaluation in Guidance, 4 (July, 1971), 90-98.

- Law, Alexander I., "The Impact of Mandated Evaluation of Education," paper read before the Twentieth Annual Western Regional Conference on Testing Problems, May 7, 1971.
- Lessinger, Leon, "Engineering Accountability for Results in Public Education," Phi Delta Kappan, LII (December, 1970), 217-225.
- Lessinger, Leon, "Teachers in an Age of Accountability," Instructor, 80 (June-July, 1971), 19-20.
- Lieberman, Myron, "An Overview of Accountability," Phi Delta Kappan, LII (December, 1970), 194-195.
- Martin, Reed, "Performance Contracting: Making It Legal," Education Digest, 36 (April, 1971), 1-4.
- Martin, Reed and Charles Blaschke, "Contracting for Educational Reform," Phi Delta Kappan, LII (March, 1971), 403-406.
- Mecklenburger, James, "Vouchers at Alum Rock," Phi Delta Kappan, LIV (September, 1972), 23-25.
- Mecklenburger, James A. and John A. Wilson, "The Performance Contract in Gary," Phi Delta Kappan, LII (March, 1971), 406-410.
- Mecklenburger, James A. and John A. Wilson, "The Performance Contracts in Grand Rapids," Phi Delta Kappan, LII (June, 1971), 590-594.
- "MUS-E and IGE: More Alphabet Soup or Valid Change?," N. J. E. A. Review, 45 (January, 1972), 28-31, 54.
- National Education Association, "Accountability and the Classroom Teacher," Today's Education, 60 (March, 1971), 41-56.
- "NEA Gives Conditional Approval," Education Digest, 36 (April, 1971), 4.
- Neff, Frederick C., "1984: Accountability Arrives," N. J. E. A. Review, 45 (May, 1972), 20-23.

- "New Jersey Assessment Program Slated," Burlington, New Jersey, Burlington County Times, (November 2, 1972), 27.
- New Jersey Department of Education, "Dealing With Student Unrest: State's School Districts to Submit Copies of Plans," New Jersey Education, Trenton, 6 (November, 1972), 6.
- New Jersey Department of Education, "Educational Assessment in New Jersey," Trenton, 1972, (14 pp.).
- New Jersey Department of Education, "Educational Assessment in New Jersey," Trenton, 1972, (10 pp.).
- New Jersey Department of Education, letter to principals accompanying educational assessment program questionnaires, Trenton, 1972.
- New Jersey Department of Education, letter to teachers accompanying educational assessment program questionnaires, Trenton, 1972.
- New Jersey Department of Education, "New Developments in Teacher Education and Certification Aimed at Improvement," New Jersey Education, Trenton, 6 (September, 1972), 4-6.
- New Jersey Department of Education, "Statewide Reading Tests Seen for 1973-74," New Jersey Education, Trenton, 6 (February, 1972), 7.
- New Jersey Department of Education, "Statewide Tests Involve Teachers," New Jersey Education, Trenton, 6 (October, 1972, 1, 4.
- New Jersey Education Association, "N. J. E. A. Speaks Out on Teacher Evaluation," Trenton, 1972.
- New Jersey Education Association, "New Jersey Starts to Test," N. J. E. A. Review, 46 (November, 1972), 56.
- New Jersey Education Association, "Parents, Teachers File Testing Suit," N. J. E. A. Reporter, 15 (December 14, 1972), 3.

- New Jersey Education Association, "Per-Pupil Expenditures for Instructional Material, 1970-71," Trenton, September, 1972.
- New Jersey Education Association, "Sixty Days to Release," N. J. E. A. Review, 46 (October, 1972), 6.
- New Jersey Education Association, "Statewide Testing Soon," N. J. E. A. Review, 46 (October, 1972), 4.
- New Jersey Education Association, "Testing Promises," N. J. E. A. Review, 46 (November, 1972), 4.
- New Jersey Education Association, "The New Jersey Public School Teacher, 1971," September, 1972.
- New Jersey Education Association, "The Public School Principal: An NJEA Policy Statement," Trenton, 1972.
- New Jersey Education Association, "When Tenure is Jeopardized," N. J. E. A. Review, 46 (October, 1972), 64.
- "NJEA Votes to Oppose Marburger," Philadelphia Inquirer, (November 3, 1972), 31.
- "New Jersey Grows by a Million," 1972 Bulletin Almanac, 49th ed., edited by Isadore Lichstein, Philadelphia, Bulletin Company, 1972.
- "Newsnotes: Payments to Parents?," Phi Delta Kappan, LIII (March, 1972), 454.
- "Newsnotes: Property Tax Challenge," Phi Delta Kappan, LIII (January, 1972), 336.
- "Newsnotes: Shock Waves of Tax Decision," Phi Delta Kappan, LIII (November, 1971), 202.
- "Newsnotes: Teachers' Organizations Try Performance Contracting," Phi Delta Kappan, LII (December, 1970), 250.
- "OEO, Educators Debate Value of Performance Contracting," Phi Delta Kappan, LIII (March, 1972), 451-452.

- "Outlook for Teacher Incentives," Nation's Schools, 86 (November, 1970), 51-55, 97.
- Page, Ellis B., "How We all Failed at Performance Contracting," Phi Delta Kappan, LIV (October, 1972), 115-117.
- "Performance Contracting," Phi Delta Kappan, LII (December, 1970), 225.
- "Performance Contracting Clouds and Controversy Over Texas," Nation's Schools, 86 (October, 1970), 85-88.
- "Performance Contracting Results Are Mixed, Rand Report Says," Phi Delta Kappan, LIII (February, 1972), 391.
- "Performance Contracting Set-Back," N. J. E. A. Review, 45 (January, 1972), 41.
- "Poor Performance," Newsweek, 79 (February 14, 1972), 97.
- Popham, W. James, "Teaching Skill Under Scrutiny," Phi Delta Kappan, LII (June, 1971), 599-602.
- Porter, John W., "The Accountability Story in Michigan," Phi Delta Kappan, LIV (October, 1972), 98-99.
- Preston, H. LeBaron, "The Supreme Court and School Finance: Some Possibilities," Phi Delta Kappan, LIV (October, 1972), 120-123.
- Primack, Robert, "Accountability for the Humanists," Phi Delta Kappan, LII (June, 1971), 620-621.
- Reynolds, Jerry D., "Performance Contracting . . . Adapted," Education Digest, 36 (April, 1971), 5-7.
- Rice, Arthur H., "Good Teachers Stand to Benefit From Accountability Plans," Nation's Schools, 86 (November, 1970), 16.
- Rice, Arthur H., "Looking Forward," Nation's Schools, 89 (May, 1972), 28.

- Rosenfeld, Michael and Ronald Wilkes, "Evaluation of Title III Programs in the Detroit Public Schools," Pittsburg, American Institute for Research, September, 1971.
- Rubin, James H., "Marburger Voices Stand," Burlington, New Jersey, Burlington County Times, (November 2, 1972), 3.
- Saretsky, Gary, "The OEO Performance Contract Experiment and the John Henry Effect," Phi Delta Kappan, LIII (May, 1972), 579-581.
- "Satisfaction Guaranteed or Money Back," Saturday Review, 54 (August 15, 1971), 54-55.
- Seltz, Judith, "A Teacher's Guide to Performance Contracting," Grade Teacher, 88 (April, 1971), 32-35, 76-79.
- Sherman, H. C., "Accountability Not New," Phi Delta Kappan, LII (December, 1970), 253.
- Small, Alan A., "Accountability in Victorian England," Phi Delta Kappan, LIII (March, 1972), 438-439.
- "State to Test Math and Reading Skills," Burlington, New Jersey, Burlington County Times, (October 10, 1972), 27.
- Stein, Helen, "Glossary of Educational Terms," Pennsylvania School Boards Association Bulletin, XXXVI (March-April, 1972), 15-17.
- Stellner, Douglas, H. and John Carter, "Individualized Performance-Based Educational Programs," Viewpoints on Accountability, Tucson, Educational Innovator Press, 1971.
- Sterner, Jack, "Accountability by Public Demand," American Vocational Journal, 46 (February, 1971), 33-37.
- Stiles, Lindley J., "A Hundred Years Before Texarkana," Journal of Educational Research, 64 (May-June, 1971), front and rear covers.

- Sullivan, Ronald, "Fight Over Marburger Poses a Threat to Cahill," New York Times, (November 4, 1972), 103, 135.
- Sullivan, Ronald, "Jersey Rejects Education Chief," New York Times, (November 17, 1972), 1, 32.
- Swanker, Ester M. and Bernard E. Donovan, "Voucher Demonstration Project: Problems and Promise," Phi Delta Kappan, LII (December, 1970), 244.
- "Teacher Performance Contracts," Phi Delta Kappan, LIII (January, 1972), 340.
- "Tests Rouse Fears," Burlington, New Jersey, Burlington County Times, (January 22, 1973), 6.
- Thomas, Hollie and Anna Mahaffrey, "Educational Priorities: A Means of Establishing Accountability," Business Education Forum, 26 (January, 1972), 9-10.
- "Three Reports of Performance Contracting Now in Action," Instructor, 80 (June-July, 1971), 23-26.
- VanGelder, Lawrence, "Rejected Educator," New York Times, (November 17, 1972), 32.
- Vlaanderen, Russell B. and Eric L. Lindman, "Inter-governmental Relations and the Governance of Education," Denver, Education Commission of the States, 1971.
- Williams, Lois, "Governance Is Integral to Accountability," Today's Education, 60 (April, 1971), 59-60.
- Wilson, John Oliver, "Performance Contracting: An Experiment in Accountability," Instructor, 80 (June-July, 1971), 21-22.
- Woodington, Donald D., "Accountability From the Viewpoint of a State Commissioner of Education," Phi Delta Kappan, LIV (October, 1972), 95-97.

Wynne, Edward, "Education Research: A Profession in Search of a Constituency," Phi Delta Kappan, LII (December, 1970), 245-247.

Public Documents

County Superintendent of Schools, Burlington County Public School Directory, 1971-72, Mount Holly, New Jersey, 1971.

County Superintendent of Schools, Burlington County Public School Directory, 1972-73, Mount Holly, New Jersey, 1972.

Unpublished Materials

Bernabei, Raymond, "Instructional Accountability," unpublished paper read before the American Association of School Administrators, Atlantic City, New Jersey, February 14, 1972.

Lea, Randall J., "An Analysis of Perceptions of the Criteria of a Planning Programming Budget System in Public Schools as Held by Three Groups of Educators," unpublished doctoral dissertation, Department of Education, North Texas State University, Denton, Texas, 1971.

Kolesar, H., "Accountability: Its Implications for Provisional and State Governments," unpublished paper read before the Northwest Association of Secondary and Higher Education, Reno, Nevada, December 6, 1971.

Richburg, James R., "The Movement for Accountability in Education," unpublished paper read before the Annual Convention, National Council for the Social Studies, Denver, Colorado, November, 1971.

Wetherington, Allen Burton, "Measures of Local Fiscal Ability to Support Public Schools," unpublished doctoral dissertation, Department of Education, North Texas State University, Denton, Texas, 1959.