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**A longitudinal investigation of school administrators' practices
and attitudes related to the use of the Michigan Education
Assessment Program test results**

Jencka, Christopher G., Ph.D.

Michigan State University, 1990

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A LONGITUDINAL INVESTIGATION OF SCHOOL ADMINISTRATORS' PRACTICES
AND ATTITUDES RELATED TO THE USE OF THE MICHIGAN
EDUCATION ASSESSMENT PROGRAM TEST RESULTS

By

Christopher G. Jencka

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ABSTRACT

A LONGITUDINAL INVESTIGATION OF SCHOOL ADMINISTRATORS' PRACTICES AND ATTITUDES RELATED TO THE USE OF THE MICHIGAN EDUCATION ASSESSMENT PROGRAM TEST RESULTS

By

Christopher G. Jencka

The purpose of this study was to describe the attitudes and practices of elementary school, junior high/middle school, and high school principals in all Michigan public school districts relative to their use of the Michigan Education Assessment Program (MEAP) test results. A sample of elementary school, junior high/middle school, and high school principals was surveyed in spring 1988. The survey had 20 forced-choice questions and one open-ended question. The data were analyzed to provide answers to the four research questions under investigation, to examine relationships between the extent of principals' use of the MEAP results and other selected variables, and to examine relationships between the extent of use of the assessment results for one purpose (e.g., to determine instructional priorities) and the extent of use for other purposes (e.g., to determine need for new programs).

Given the limitations of the study, the following major conclusions were drawn: (1) Building principals were, for the most part, responsible for determining procedures for using the MEAP

Christopher G. Jencka

results in their buildings. Less than half of the high school principals were responsible for procedures for using the MEAP results, and nearly one-fourth of the high school principals gave their guidance counselors or other personnel that responsibility; (2) A majority of principals initiated plans or were required to develop plans addressing the needs identified by the MEAP test; (3) Teachers were involved in building-level committees in the interpretation and analysis of the assessment results in almost half of the schools in Michigan; (4) The MEAP results were used "quite a bit" by principals in determining strengths and weaknesses in their reading and mathematics programs, in determining the general achievement level of the students in their schools, and for informing the school community of the achievement levels of their students; (5) The MEAP was seen as being "quite" useful when communicating achievement levels to students and parents, planning for instructional improvements, and diagnosing student learning needs; and (6) Elementary school and junior high/middle school principals believed the MEAP to be more useful and made greater use of the MEAP results than did high school principals.

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TABLE OF CONTENTS

	Page
LIST OF TABLES	vii
 Chapter	
I. BACKGROUND	1
Introduction	1
Rationale for the Study	4
Statement of the Problem and Purpose of the Research	5
Methodology	9
Definition of Terms	10
Summary and Overview	11
II. REVIEW OF LITERATURE	13
Introduction	13
Nationwide Studies	14
New Jersey	15
Florida	16
New York	19
Michigan Studies	21
Steele's 1976 Study	29
Section 1: Presentation and Analysis of Data, Major Questions	31
Section 2: Analysis of Data to Determine the Nature of Relationships Between (1) The Extent to Which School Principals Use MEAP Test Results and (2) Other Selected Variables	38
Section 3: Intercorrelation Analysis Among Selected MEAP Test Usage Variables	40
Steele's Conclusions	43
Summary	45
III. DESIGN OF THE STUDY	46
Introduction	46
Population and Sample	46
Design of the Instrument	48
Data Collection	49
Data Analysis	49

	Page
Delimitation of the Study	51
Limitations of the Study	51
Summary	51
IV. PRESENTATION OF THE DATA	52
Introduction	52
Survey Returns	54
Results of Data Analyses for the Four Research Questions	56
Research Question 1	56
Research Question 2	62
Research Question 3	69
Research Question 4	99
Results of the Chi-Square Analyses	126
Elementary School Principals	127
Junior High/Middle School Principals	131
High School Principals	135
The Total Group	136
Correlation Coefficients for "Extent of Use" of the MEAP Results for Selected Purposes	139
Elementary School Principals	140
Junior High/Middle School Principals	145
High School Principals	152
The Total Group	158
Summary	161
V. SUMMARY, CONCLUSIONS, RECOMMENDATIONS, AND REFLECTIONS	163
Summary	163
Rationale for the Study	163
Purpose of the Research	164
Methodology	164
Findings	165
Conclusions	178
Recommendations for Future Research and Practice	180
Reflections	183
APPENDICES	
A. SURVEY	186
B. COVER LETTER	192
C. FOLLOW-UP LETTER	193
D. CHI-SQUARE TABLES	194
BIBLIOGRAPHY	212

LIST OF TABLES

Table	Page
1. Number of Surveys Sent and Returned, According to the Six Strata Used by the Michigan Department of Education	55
2. MEAP Assessment Results Received by Elementary School, Junior High/Middle School, and High School Principals, and the Total Group	57
3. When Elementary School, Junior High/Middle School, and High School Principals, as Well as the Total Group, Received MEAP Reports	58
4. Person(s) Responsible for Determining Procedures for Use of the 1988 MEAP Results	60
5. Whether Principals Were Required to Develop a Plan of Action to Overcome Needs Identified by the MEAP Results	61
6. Teachers' Involvement in Analysis and Interpretation of the MEAP Results	63
7. MEAP Reports That Principals Shared With Teachers . . .	64
8. Assistance Principals Provided to Teachers to Help Them Interpret the 1988 MEAP Results	65
9. Purposes for Which Teachers Were Encouraged to Use the 1988 MEAP Individual Results	67
10. Extent to Which Elementary School Principals Used the MEAP Test Results for 14 Selected Purposes	72
11. Extent to Which Junior High/Middle School Principals Used the MEAP Test Results for 14 Selected Purposes .	79
12. Extent to Which High School Principals Used the MEAP Test Results for 14 Selected Purposes	86
13. Extent to Which the Total Group of Principals Used the MEAP Test Results for 14 Selected Purposes . . .	93

	Page
14. Elementary School Principals' Attitudes Regarding the Impact of the MEAP on the Instructional Programs in Their Schools	101
15. Junior High/Middle School Principals' Attitudes Regarding the Impact of the MEAP on the Instructional Programs in Their Schools	104
16. High School Principals' Attitudes Regarding the Impact of the MEAP on the Instructional Programs in Their Schools	108
17. The Total Group's Attitudes Regarding the Impact of the MEAP on the Instructional Programs in Their Schools	112
18. Elementary School Principals' Attitudes Regarding the Usefulness of the MEAP Test Results for Selected Purposes	116
19. Junior High/Middle School Principals' Attitudes Regarding the Usefulness of the MEAP Test Results for Selected Purposes	119
20. High School Principals' Attitudes Regarding the Usefulness of the MEAP Test Results for Selected Purposes	122
21. The Total Group's Attitudes Regarding the Usefulness of the MEAP Test Results for Selected Purposes	125
22. Results of Chi-Square Analyses for "Extent of Use" of the MEAP Results and Selected Variables	128
23. Correlation Coefficients for Selected Uses of the MEAP Assessment Results: Elementary School Principals	141
24. Correlation Coefficients for Selected Uses of the MEAP Assessment Results: Junior High/Middle School Principals	146
25. Correlation Coefficients for Selected Uses of the MEAP Assessment Results: High School Principals	153
26. Correlation Coefficients for Selected Uses of the MEAP Assessment Results: Total Group	159

	Page
D.1 Chi-Square Results: Extent of Use by Plan Requirement--Elementary School Principals	194
D.2 Chi-Square Results: Extent of Use by Establishment of Building Committee--Elementary School Principals .	195
D.3 Chi-Square Results: Extent of Use by MEAP's Impact on Instructional Program--Elementary School Principals	196
D.4 Chi-Square Results: Extent of Use by MEAP's Usefulness for Selected Purposes--Elementary School Principals	197
D.5 Chi-Square Results: Extent of Use by Percentage of Minority Students--Elementary School Principals . . .	198
D.6 Chi-Square Results: Extent of Use by Person(s) Responsible for Determining Use--Junior High/Middle School Principals	199
D.7 Chi-Square Results: Extent of Use by Plan Requirement--Junior High/Middle School Principals	200
D.8 Chi-Square Results: Extent of Use by Establishment of Building Committee--Junior High/Middle School Principals	201
D.9 Chi-Square Results: Extent of Use by MEAP's Impact on Instructional Program--Junior High/Middle School Principals	202
D.10 Chi-Square Results: Extent of Use by MEAP's Usefulness for Selected Purposes--Junior High/Middle School Principals	203
D.11 Chi-Square Results: Extent of Use by MEAP's Impact on Instructional Program--High School Principals . .	204
D.12 Chi-Square Results: Extent of Use by MEAP's Usefulness for Selected Purposes--High School Principals .	205
D.13 Chi-Square Results: Extent of Use by Person(s) Responsible for Determining Use--Total Group	206
D.14 Chi-Square Results: Extent of Use by Plan Requirement--Total Group	207

	Page
D.15 Chi-Square Results: Extent of Use by Establishment of Building Committee--Total Group	208
D.16 Chi-Square Results: Extent of Use by MEAP's Impact on Instructional Program--Total Group	209
D.17 Chi-Square Results: Extent of Use by MEAP's Useful- ness for Selected Purposes--Total Group	210
D.18 Chi-Square Results: Extent of Use by Percentage of Minority Students--Total Group	211

CHAPTER I

BACKGROUND

Introduction

In January 1970, the Michigan Department of Education began the administration of the Michigan Educational Assessment Program, hereafter referred to as MEAP. The MEAP "was initiated by the State Board of Education, supported by the Governor, and funded by the legislature initially through the enactment of the Public Acts of 1969 and subsequently under Act 38 of the Public Acts of 1970" (Michigan Department of Education, 1974, p. iii). At that time, the State Board of Education had in place a six-step educational management system designed to assist local districts in the planning of district programming and evaluation of student performance. The six steps of the cyclical planning model were (1) the identification of common goals, (2) the development of performance objectives, (3) the assessment of educational needs, (4) the analysis of delivery systems, (5) the evaluation and testing of these systems or programs, and (6) recommendations for educational improvement (Michigan Department of Education, 1974). The MEAP was designed to gather data related to step three of the model, the assessment of educational needs.

The first MEAP tests were given in grades 4 and 7 on an every-pupil basis in the areas of reading, mathematics, and the mechanics of written English. Grade four was selected because it is at the end of the "very important primary years," and grade 7 was selected because it is at the "end of the elementary sequence" (Michigan Department of Education, 1975, p. 5).

During the first four years, the MEAP was a standardized norm-referenced test designed to rank students from highest to lowest. Results were reported in percentiles. The data that the MEAP provided, however, "did not adequately serve the purpose of MEAP to provide information on the status and progress of Michigan basic skills education" (MEAP, 1988, p. 1).

Beginning with the 1973-74 school year, two significant changes were made with the MEAP: (1) the testing dates were moved from January to September, and (2) the norm-referenced assessments were replaced with objective-referenced assessments. The objective-referenced tests were designed to measure, more accurately, certain of the reading and mathematics objectives developed as part of step two of the State Board of Education's educational management system, "development of performance objectives." Currently, the MEAP tests are based on State Board of Education approved "essential skills," a revised version of those initial "performance objectives."

Because no written documentation is available as to the evolution of MEAP testing since 1976, this researcher interviewed Edward Roeber, MEAP Supervisor for the State of Michigan, in

December 1988 for the following synopsis of significant changes over the last 12 years.

In 1976, major revisions of the reading and mathematics tests given to the state's fourth and seventh graders were begun. In an effort to quell local district resistance to a perceived "top-down" mandate of the objectives tested and test format, an effort was made to garner "greater field support" of local educators. That effort was successful, and the newly revised assessment tests were pilot tested and given across the state on a continuing basis, starting in fall 1980.

Also begun in 1976 were reading and mathematics tests for tenth graders. The tests started on a voluntary basis with a limited number of high schools. Each year thereafter, and for reasons that can only be surmised (i.e., principals and teachers anticipated an eventual state mandate for tenth-grade testing), the number of high schools interested in testing increased significantly. As a result of that interest, in part, the State Board of Education approved every-pupil testing for the tenth grade in 1977. The legislature mandated the testing beginning in fall 1979.

Starting in fall 1985, the state offered, and continues to offer, health testing on a voluntary basis for grades 4, 7, and 10. Science testing was mandated on an every-pupil basis at the fourth, seventh, and tenth grades in 1986-87, on a voluntary basis in 1987-88, and was required again of all the aforementioned students in fall 1988.

The State Board of Education and the legislature continue to examine and evaluate the state's assessment program and, as always, there is some interest in considering additional testing, both in other academic areas and at other grade levels. The State Board of Education has approved, when funds become available, the shifting of science and health testing to grades 5, 8, and 11. A voluntary writing assessment has been approved for grades 3, 6, and 9. Finally, the state is developing an employability-skills assessment program for high school students. This assessment may be used in the future to endorse the diplomas of high school graduates (Roeber, 1988).

Currently, the state spends \$1,500,000 on MEAP testing for approximately 320,000 students in grades 4, 7, and 10.

Rationale for the Study

In 1976, Donald J. Steele conducted a study for the doctoral degree at The Ohio State University. The purpose of Steele's study was to determine the attitudes that Michigan school administrators held toward the MEAP and the uses they made of the MEAP results. Although a study relative to teachers' uses of and attitudes toward the MEAP had been done by Aquino (1975) before the Steele study, no data were available concerning administrators' uses of and attitudes toward the MEAP. At that time, the MEAP had been given to students in grades 4 and 7 for six years.

In the ensuing 12 years since the Steele study, the State of Michigan has continued assessing thousands of students, on an

every-pupil basis, as to their achievement levels in reading, mathematics, and science (beginning in 1987). The testing of tenth-grade students in the areas of reading and mathematics was added in fall 1979. Additional sample and voluntary testing has been done in the areas of art, career development, health, life role competencies, metrics, music, physical education, and special education (MEAP, 1988). Also, the State of Michigan has spent millions of dollars over the past 12 years in the continued development, preparation, scoring, and administration of the MEAP.

Given the importance of the MEAP both in terms of the data generated relative to student achievement levels at the individual student, school building, and district levels, and the financial investment by the state over the past 12 years, it is essential that a comprehensive study be conducted to determine how the data generated by the test are currently used by building administrators. This research will provide valuable insights for Michigan Department of Education personnel and other interested parties concerning the actual uses of MEAP results by elementary school, junior high/middle school, and high school administrators. It will also support the continuation, termination, or modification of current policies and/or practices relative to the MEAP (Roeber, 1988).

Statement of the Problem and Purpose of the Research

Not since 1976 has a comprehensive study been made to ascertain the attitudes of Michigan school administrators toward the MEAP and the uses they make of the MEAP results. The purpose of this study

was to describe the current attitudes and practices of elementary school, middle/junior high school, and high school administrators related to the use of the MEAP results in all 562 public school districts in Michigan. As in 1976, four research questions, along with certain principal characteristics and demographic data, were investigated. Those four research questions, along with updated and currently relevant subquestions, are delineated below:

1. What district-level administrative provisions are being made for Michigan school principals' use and dissemination of the MEAP test results?

a. Who determines school-level procedures for use of the MEAP test results?

b. Which MEAP test reports are being provided to school principals from the office of the superintendent, and when are these reports received?

c. Are school principals required to analyze the MEAP school results and develop a plan of action to overcome needs identified?

2. What administrative provisions are Michigan school principals making to involve teachers in the analysis, interpretation, and use of the MEAP test results?

a. Are principals establishing building test committees to analyze and interpret the MEAP test results?

b. Are school principals providing appropriate MEAP test results and explanatory materials to classroom teachers?

c. Are principals providing assistance to teachers in an effort to help them better understand and use the MEAP test results?

d. For what purposes are principals encouraging teacher use of the MEAP test results?

3. For what purposes and to what extent are Michigan school principals using the MEAP test results?

a. Are the MEAP test results being used to determine the general level of achievement of the student body?

b. Are the MEAP test results being used to inform the school community of the general level of achievement of the student body?

c. Are the MEAP test results being used to determine areas of strength and weakness within the curricular areas of reading, mathematics, and science?

d. Are the MEAP test results being used to determine instructional priorities?

e. Are the MEAP test results being used as a criterion for the placement of students in particular programs, i.e., remedial reading or mathematics programs?

f. Are the MEAP test results being used to determine need for new programs?

g. Are the MEAP test results being used to determine the effectiveness of new programs?

h. Are the MEAP test results being used to analyze teacher performance?

i. Are the MEAP test results being used to document need for determining allocation of resources, i.e., time, materials, personnel?

j. Are the MEAP test results being used to prepare proposals for funding agencies?

k. Are the MEAP test results being used to determine need for inservice education programs for teachers?

l. Are the MEAP test results being used to predict the future academic success of students?

4. What are the attitudes of Michigan school principals regarding the value of the MEAP and the utility of the test results provided by the program?

a. How useful are the MEAP test results for instructional planning decisions that the principal makes or shares in making?

b. How useful are the MEAP test results for evaluating the effectiveness of instructional programs?

c. How useful are the MEAP test results for informing parents and community groups about the status and progress of student achievement in a public school?

A secondary purpose of this investigation was to contrast the findings of this study with those of the Steele study. To facilitate a comparison of the findings of the studies, many of the original research questions and survey were retained. The findings of the Steele study are discussed in relation to this study in

Chapter IV. It should be noted that Steele was contacted in fall 1989, and he gave his permission to replicate the study.

Methodology

To determine current attitudes and practices of elementary school, junior high/middle school, and high school administrators related to the use of the MEAP results, this researcher surveyed a sample of the aforementioned school administrators. Michigan currently has 1,871 elementary schools, 768 junior high/middle schools, and 631 high schools. The research design and statistical analyses used were the result of consultation with Michigan Department of Education personnel, the Department of Research Consultation at Michigan State University, and the Department of Planning and Evaluation, Ingham Intermediate School District.

The survey used in this study had 20 questions requiring a forced-choice response and one open-ended question. Michigan Department of Education computers containing a list of all the elementary schools, junior high/middle schools, and high schools in the state were used to determine the school buildings included in the random sample.

To insure a valid longitudinal comparison of the Steele study, noted earlier in this chapter, a core of replicated survey questions was used. Certain questions were either abbreviated or deleted, based on their relevance to the 1988 MEAP assessments and this study (i.e., added response 4 to Question 7, pertaining to MEAP video; added area of science to Question 9; deleted question related

to administrators' recommendation of support regarding the future of the MEAP; and deleted questions regarding family income of students attending the administrator's school and the age of the building administrator.

In addition, a small sample of elementary schools, junior high/middle schools, and high schools was chosen for follow-up telephone interviews by the researcher to clarify the written responses and to verify the uses indicated on the returned surveys.

Analysis of the data collected was used to (1) provide a description and discussion of the responses regarding the research questions under investigation in this study, (2) examine relationships between the extent of administrative use of MEAP results and other selected variables, and (3) examine relationships between "extent of use" of assessment results for one purpose and the "extent of use" for other purposes (survey items a through o).

Definition of Terms

The following terms are discussed as they are used within the context of this study.

Classroom Listing Reports summarize for an entire classroom the information contained on the Individual Student Reports (MEAP, 1988).

Essential skills refer to minimal performance objectives, approved by the State Board of Education, for Michigan students in the areas of art, reading, writing, speaking/listening, health, life role competencies, mathematics, music, physical education, science,

social studies, and computer education (Questions and Answers About MEAP, 1988).

Individual Student Report indicates attainment or nonattainment of each objective tested for individual students (MEAP, 1988).

MEAP refers to the Michigan Educational Assessment Program.

Norm-referenced test refers to an assessment that is designed to determine a student's achievement relative to that of other students (same year in school) taking the same test.

Objective-referenced test refers to an assessment that is designed to indicate a student's achievement relative to a set of objectives or criteria.

School and District Summary Reports are used to report the assessment data for each school within the district and the overall district results.

Summary and Overview

The need for the study was established in Chapter I. The chapter included a historical perspective of the MEAP, going back to its inception in 1970. The Steele study conducted in 1976 and the rationale for this study were discussed. Also included were a statement of the problem and purpose for the research, as well as a description of data collection, presentation, and analysis.

Chapter II contains a review of the literature relevant to this study: a review of national studies, a review of Michigan studies, and a review of the Steele study of 1976.

Chapter III includes a description of the population and sample for the study, a description of the survey instrument, data-collection procedures and data analyses used, and the limitations of the study.

Chapter IV contains a review of the findings from the survey of elementary school, junior high/middle school, high school, and "total group" principals.

In Chapter V the study is summarized, followed by conclusions, recommendations for further research, and reflections.

CHAPTER II

REVIEW OF LITERATURE

Introduction

The Michigan Educational Assessment Program (MEAP) generates considerable assessment information, which is made available to educators. This writer investigated school administrators' practices and attitudes related to the use of the MEAP. Literature contained in Dissertation Abstracts International, Educational Resources Information Center (ERIC), and professional works is reviewed in this chapter.

The review of related literature is offered in three parts. In part one, the writer reviews nationwide studies that investigated the uses and attitudes of school administrators relative to school testing programs. In part two, the writer examines studies that investigated the uses and attitudes of Michigan school administrators relative to school testing programs, including the MEAP. In part three, the writer reviews the most salient findings of a 1976 study in which Michigan school administrators' practices and attitudes related to the use of MEAP test results were investigated.

The purpose of this study was to determine current data relative to the findings of the 1976 study. With that in mind, the researcher attempted to demonstrate through the literature review

that the few studies that have examined various aspects of the MEAP have failed to produce current information regarding the attitudes Michigan administrators hold toward the MEAP and the uses they make of the MEAP test results.

Nationwide Studies

Part I of this review focuses on nationwide studies that investigated the attitudes of school administrators relative to school testing programs and the uses they make of program results.

New Jersey

In fall 1972, the state of New Jersey began the New Jersey Educational Program (NJEP), a statewide testing program, to assess achievement in the basic skill areas of reading and mathematics of all fourth- and twelfth-grade students. In fall 1975, the tests were expanded to include all students in grades 4, 7, 10, and 12. The NJEP was designed to provide useful information to educational decision makers on the state and local levels concerning the state's educational system. More specifically, the assessment was intended to provide information concerning students in need of further diagnostic testing and to determine pupil, class, school, and district strengths and weaknesses so that instruction could be planned accordingly (Rojas, 1977).

In May 1976, the New Jersey Bureau of Research and Assessment, New Jersey Department of Education, conducted a survey of local districts' use of assessment data. The survey focused on four broad categories of the statewide testing program: (1) program changes,

(2) instructional changes, (3) administrative changes, and (4) dissemination of information. Survey questionnaires were distributed to all local district superintendents, and approximately half of the districts responded (Rojas, 1977).

In the category of administrative changes, data were collected in the areas of use of funds, use of staff, addition of staff, and inservice workshops of teachers and administrators. Overall, test information was used to initiate administrative changes by 36.8% of the responding districts. Twenty-two and five-tenths percent of the districts indicated a different use of funds in both the reading and math areas. Administrative changes concerning the use of staff occurred in 41.7% of the reporting districts, 20% of which occurred in scheduling. The addition of staff resulted in 8.6% of the responding districts. In the area of administrative changes concerning the initiation of inservice workshops, at the district level, an average of 16.6% initiated workshops in the areas of methodology, reading in content areas, basic reading skills, basic mathematics skills, and "other."

In addition to the above-noted percentages indicating that school administrators did consider and use data generated by the NJEP, Gary Gappert, then Assistant Commissioner, Division of Research, Planning and Evaluation, noted in his cover letter to the Rojas document that "We were pleased to note the extensive utilization of the statewide testing program results" (Rojas, 1977, p. 1)

Florida

The Florida Statewide Assessment Program tests students on their achievement of statewide objectives in the basic skill areas of mathematics, reading, and writing. The objective-referenced tests, which measure entry-level skills, are administered in the fall of each year. Results are provided for each student, school, district, and the state (Owen & Haynes, 1977).

Information about use of the statewide assessment results was of interest to the Department of Education and the state legislature. In March 1976, a survey of parents, teachers, and administrators was conducted jointly by the College of Communication at Florida State University and the Student Assessment Section of the Florida Department of Education. Two levels of administrators received and used assessment data: district administrators and building principals. For the survey each was treated as a separate group and received appropriately worded surveys. Surveys were sent to all 67 district superintendents and to all principals of schools with grade 3 and/or grade 6 (approximately 1,500 schools). Of those sent, 79% of the principal surveys were returned and 48% of the superintendent surveys were returned.

The questions on each questionnaire can be separated into five categories, each of which can be seen to ask a major question about the use of or the attitude toward the assessment test and results. The five categories are (1) Administrative Information Regarding Statewide Assessment Results, (2) Value and Use of Student Reports,

(3) Value and Use of School Reports, (4) Use of Statewide Minimal Objectives, and (5) Type of Test Information Desired.

Specific survey questions were asked relative to each of the broad categories, or major questions, noted above. Following are selected principal- and superintendent-response percentages gleaned from the survey results. The questions reviewed below were selected by choosing those questions most relevant to the present study. In addition, category 4 relates to classroom teachers' use of statewide objectives. Principals and superintendents were not given questions relative to category 4.

Major question 1: "What administrative information is needed to assure proper and thorough dissemination of Statewide Assessment results?"

Two of the survey questions designed to answer major question 1 were:

1. "How much statewide testing should be done?" Thirty-six percent of the principals indicated their preference for all grades, and 36% indicated their preference for intermittent grades. Sixty-three percent of the responding superintendents indicated a preference for intermittent grades. No clarification as to meaning of "intermittent grades" was given.

2. "Who should receive testing results?" Forty-eight percent of the principals and 69% of the superintendents thought the testing results should be made available to the general public, teachers, and educational administrators.

Major question 2: "What is the extent of use and relative value of the student reports?"

Two of the survey questions designed to answer major question 2 were:

1. "How much additional information about the student's academic strengths and weaknesses do the Statewide Assessment results add to information you already have available?" Forty-three percent of the principals indicated "some," whereas 35% indicated "considerable." Thirty-one percent of the superintendents indicated "some," and 34% indicated "considerable." Twenty-two percent of the superintendents indicated that the assessment reports added "a great deal" of additional information about a student's strengths and weaknesses. Principals and teachers, those working more closely with students, indicated only 10% and 7% to that question, respectively.

2. "How do you rate the value of the individual student reports for making instructional decisions about groups of students?" Almost one-third (32%) of the responding principals rated the value as "high." Superintendents were not asked this specific question.

Major question 3: "What is the extent of use and relative value of the school reports?"

One of the survey questions designed to answer major question 3 was:

1. "How valuable is the School Report of Statewide Assessment Results for making decisions about the strengths and weaknesses of

the school's instructional program?" Forty-three percent of the principals indicated "some," with 35% indicating "considerable." Again, superintendents seemed to value the assessment results more than principals, as 34% indicated "some" and 56% responded that the information was of "considerable" value. No indication was made as to why superintendents seemed to value the assessment results more than principals.

Major question 4: "Are statewide minimal objectives widely used in planning strategies for instruction?" As noted above, principals and superintendents were not questioned in this area.

Major question 5: "Which type of test results information is more desirable--norm referenced or criterion referenced?"

One of the survey questions designed to answer major question 5 was:

1. "For school reports, which kinds of test information would you rather have--information about how the school compared to national norms or information about the school's academic strengths and weaknesses?" This question elicited the highest percentage response of any question in the survey. Seventy-five percent of the principals and 94% of the superintendents responding indicated that they preferred "mostly data on achievement of specific skills, and some comparison to national norms."

New York

In 1975, the state of New York began a statewide testing program in reading and mathematics. The program was designed to

assure that every student who received a high school diploma had attained basic skills in reading and mathematics. Passing the "basic competency tests" became a graduation requirement in 1979 (New York State Education Department, 1980).

In early 1978, the University of the State of New York, the State Education Department, Division of Educational Testing, initiated a survey designed to determine the extent to which the program was achieving its goals, its impact upon students and schools, and its potential for strengthening the quality of education in New York State (New York State Education Department, 1980). Two different survey forms were prepared: one for high school principals and one for chief school administrators. Response rates were 82% for high school principals and 96% for chief school administrators.

High school principals and chief school administrators were surveyed on 23 topics. The topics ranged from the percentage of tenth and eleventh graders who had completed the basic competency test requirements, to the procedures used to provide special help to students failing the basic competency test, to the views of high school principals and chief school administrators about the appropriateness of the basic competency tests as a minimum standard for graduation from high school.

In terms of survey question topics relative to the administrators' attitudes toward and uses for the basic competency tests, it was found that 78% of the chief school administrators and 78% of the high school principals indicated their preference for the

"adult context" for measurement of basic skills knowledge versus the "school context" for measurement of basic skills knowledge. In addition, it was found that 59% of chief school administrators and 63% of high school principals thought the basic competency tests as a minimum standard for graduation from high school were "too low." Only 41% of the chief school administrators and 37% of the high school principals thought the competency tests as a minimum standard for graduation were "appropriate."

Michigan Studies

This section of the review contains a discussion of studies that have provided knowledge and information related to the involvement of Michigan school administrators in school testing programs and the purposes for which test results are used.

From 1958 to 1976, the Michigan School Testing Service, Bureau of School Services, University of Michigan, conducted four major inquiries into the nature of testing programs and practices in Michigan schools (Brzezinski, 1976). The first of the studies was completed during the 1958-59 school year. Frank Womer, director of the Testing Service, was chief investigator. The membership list of the Michigan Association of Secondary School Principals was used to determine the sample population. Responses from 276 school districts were obtained, representing about 50% of the surveyed districts (Womer, 1959). The results indicated that school principals played a significant role in many aspects of school testing programs. Secondary school principals were found to be less

frequently responsible for interpreting test results to parents and teachers than were elementary principals.

Twenty percent of those principals responding indicated using test results for the administrative purposes of (1) development of continuous programs of teacher inservice, (2) evaluation of educational research, and (3) improvement of public relations. In addition, about 70% of the responding principals reported using test results for three primary administrative purposes: (1) identification of the exceptional child, (2) placement of students in particular classes, and (3) evaluation of curriculum (Womer, 1959). This initial inquiry of school administrators provided evidence of administrative involvement in test programs and insight into specific uses. The interest that was generated supported conducting the subsequent study five years later.

During the 1963-64 school year, the Michigan School Testing Service, again under the direction of Frank Womer, conducted the second study. This study differed somewhat from its predecessor in that, as well as providing information regarding testing programs and practices in Michigan, an additional purpose was to determine what changes had occurred during the five-year interval between the two surveys. Of the 524 public school districts in the state, 93%, or 514 districts, were represented in the results. By 1963, counselors or other pupil personnel specialists were the group primarily responsible for development of the district's testing program and in the selection of specific tests in 50% of the responding districts. This compares with 32% in 1959. Principals

were most responsible in 29% of the districts and superintendents in 13% of the districts.

Over the five-year period from 1959 through 1963, the primary purposes for which administrators used achievement results remained the same. Those purposes were (1) identification of the exceptional child, (2) evaluation of curriculum, and (3) placement of students in particular classes. The 1963 study also revealed a small increase in the use of test results for the purpose of educational research and a decrease in usage for the administrative purpose of inservice education and public relations.

The third in this series of surveys by the Michigan School Testing Service was conducted during the 1968-69 school year. Richard Watson, Acting Director of the Michigan School Testing Service, and William Schmalgemeier, Advisory Associate to Dr. Watson, were chief investigators for the study. The purpose for the third study was different from that of the two previous studies in that the first two sought to determine changes in test use between 1958-59 and 1963-64. The third study, as noted in their report,

. . . will not do that. Rather, efforts will be made to describe some of the apparent interrelationships between certain pieces of reported information. In this sense the direction of the present report is more a prescription for testing use than a document for past performance. (Watson & Schmalgemeier, 1970, p. 3)

The results of the third study were based on a response rate of 84%. The data showed that the primary administrative purposes for test results were (1) evaluation of curriculum and (2) development of educational goals. In addition, the data revealed that "the most

important use of test results is involved in the relationship between teacher and student" (Watson & Schmalgemeier, 1970, p. 16). In the 1970 questionnaire, Watson and Schmalgemeier asked about "organized testing programs" but gave no definition. Eighty-eight percent of the responding districts said they had organized testing programs. Thirty-nine percent of the responding districts reported they had a testing committee, of which 84% functioned for the entire district. Regarding membership of the district testing committees, the three most represented groups were principals or assistant principals (81% of the committees), counselors (75% of the committees), and teachers (44% of the committees).

The fourth and final study in the series by the Michigan School Testing Service was conducted in 1976 and was a joint effort of the Department of Education and the Michigan School Testing Service. Department of Education staff were interested in the study because of continuing concern as to what extent, if any, the recently initiated (1970) MEAP was having on testing in local districts. Frank Womer, of the Michigan School Testing Service, was interested because he had been involved in the three previous studies and this study was seen as a chance to gather longitudinal data. Evelyn J. Brzezinski was project director; the following data come from her report, "Testing in Michigan, a Twenty-Year Perspective" (Brzezinski, 1976).

Because of a desire to keep the survey brief yet to develop one that would gather a wide variety of data about testing programs, two

questionnaires were designed. A sample of districts was selected to receive questionnaire 1, which was seen as requiring more time to complete. All other K-12 districts received questionnaire 2. Some questionnaire items appeared on both surveys.

A brief discussion of the results of the 1970 surveys that were most relevant to this study follows. Questionnaires 1 and 2 and the questions that appeared on both instruments are reviewed.

Questionnaire 1. A response rate of 80% was achieved from the 149 districts that were sent questionnaire 1. The highest percentage of questionnaires (30%) was completed by directors of guidance or counselors from individual schools. The three other groups of individuals who most often completed the questionnaire were directors or staff of research evaluation or testing services (19%), superintendents or their deputies (16%), and directors of instruction or curriculum (15%). "Small" numbers of questionnaires were completed by building principals and others (Brzezinski, 1976).

When asked how the MEAP had affected the district's testing program, 42 respondents said it prompted them to use or consider using other objective-referenced assessments as part of their testing program. When asked to indicate which of the suggestions that appeared in a Michigan Department of Education publication for using state assessment data were used, 105 of the 155 responding districts reported using MEAP data in at least one of the suggested ways. Seventy-five of those districts indicated they made periodic reports to the board of education on progress made in interpretation of the assessment data and use of the results. Forty-eight

districts indicated that they appointed curriculum study groups to review test results and relate them to teaching strategies used.

When asked a short-answer question about what the most frequent use of MEAP data was, 61 districts responded. Of those, 20 used the data to work with individual students on identified needs, and 18 used the data for curriculum review. An item on the survey was used in an attempt to determine additional training and/or experiences from which local district personnel might benefit. It was evident that building-based staff were most in need of additional training regarding testing activities for both norm-referenced and objective-referenced tests. The highest percentages were seen for principals/assistant principals and teachers in the areas of interpreting results (47% and 54%, respectively), applying objective-referenced results for student or curriculum improvement (47% and 50%, respectively), and applying norm-referenced results for student or curriculum improvement (50% and 46%, respectively).

Questionnaire 2. Questionnaire 2 was sent to 379 public K-12 districts. Three hundred sixty-two districts responded, for a return rate of 96%. No data are available as to who completed the surveys. As stated before, questionnaire 2 was less comprehensive than questionnaire 1.

Districts were asked if they had a district test committee (not asked in questionnaire 1). Forty-four percent said yes, and 54% said no.

When asked to determine the degree to which various groups in the district were involved in their testing programs, the three groups that clearly surfaced were counselors or other pupil personnel specialists, teachers, and principals/assistant principals. The same three groups were most involved in the selection of tests, batteries or groups of batteries, and overall review of the testing program. Not surprisingly, the same three groups were mentioned as representatives on district test committees. Curriculum directors and superintendents were represented on only about one-third of the district committees. (It should be noted that a small percentage of districts, perhaps 20% to 25%, had curriculum directors.)

Questions common to both questionnaires. Districts were asked to list how they used test results within the district. The area receiving the highest response rate for test use was counseling of students (58 items). Other uses mentioned most were diagnosing student learning difficulties and placing students. Not considering the use of the MEAP, about one-third of the sampled K-12 districts and one-fourth of the districts responding to questionnaire 2 used objective-referenced tests. Most testing was done on a pre/post basis in September or October and May.

Relative to the purpose of the present study, Brzezinski's data revealed that over the 17 years between the initial and last study conducted by the School Testing Service, overall, building principals' role with student testing changed. In 1959, principals were most often mentioned as those "primarily responsible for test

program development and selection" (Brzezinski, 1976, p. 1). By 1976, however, "the person mentioned most often as most involved in the development and review of the testing program was the counselor or other pupil personnel specialist" (p. 12).

In spring 1986, the Office of Technical Assistance and Evaluation, Michigan State Board of Education, and the Ingham Intermediate School District conducted the Survey of District Testing Practices and Needs. The purpose of the survey was to gather data relative to district testing programs and to determine district needs as to the "development, implementation of tests and testing programs, and the reporting of test results" (Michigan State Board of Education, 1987, p. 9). Surveys were sent to all of the 562 districts in Michigan. Four hundred nineteen districts returned surveys, for a response rate of 79.8%.

As seen in previously reviewed studies, both Michigan and nationwide, three groups of school personnel were most involved in district testing programs (involved, as defined in this study, is routine administration of tests, development of new tests, and selection of new tests). Those groups were principals, teachers, and counselors. In fact, the three groups were ranked in the top three in each of the aforementioned areas. Principals were ranked number one in development and review of new tests, number one in selection of new tests, and number two in routine administration of tests (91.3% for principals and 91.6% for teachers).

When asked to what extent MEAP results were used on a school and district basis, 98% of the responding districts indicated that

MEAP results were used by school personnel. The highest three areas indicated, in descending order, were (1) to determine which essential skills are taught in which grades, (2) to report to the board of education on interpretation of test data and use of reports, and (3) to analyze other test data and relate these to assessment results.

Steele's 1976 Study

In 1976, Steele conducted a study at The Ohio State University entitled "An Investigation of Administrative Practices and Attitudes Related to the Use of Michigan Educational Assessment Program Test Results." The purpose of the Steele study was "to describe school administrators' practices and attitudes regarding the use of Michigan Educational Assessment Program test results in elementary and junior high schools in all 531 Michigan K-12 public school districts" (Steele, 1976). In that the purpose of the present study was to determine current data relative to the findings of the Steele study, a thorough review of the Steele study is warranted and follows.

The Steele study was designed to gather data on four major questions, namely:

1. What district-level administrative provisions are being made for the use and dissemination of MEAP test results?
2. What provisions are school principals making to involve teachers in the analysis, interpretation, and use of MEAP test results?

3. For what purposes and to what extent are school principals using the test results produced by MEAP?

4. What are the attitudes of school principals in Michigan regarding the value of MEAP and the utility of the test results produced by the program?

In addition to these four major questions, information was sought in the areas of school and principal characteristics.

The Steele study consisted of 23 forced-choice questions and one open-ended-response question. Approximately one-half of the questions were designed to gather data on the four major questions noted above. The second half of the survey was designed to gather demographic data relative to the characteristics of the responding principals and their work settings. Survey instruments were sent in November 1975 to all of the estimated 875 junior high schools and one-half of the estimated 2,417 elementary schools. Surveys returned by January 1, 1976, were included in the results. The survey return rate was 74% for the elementary population and 76.2% for the junior high population.

In an effort to "facilitate a clear and meaningful analysis of the data gathered" (Steele, 1976, p. 95), Steele presented and analyzed the data in three sections, namely:

1. Presentation and analysis of elementary and junior high school principals' responses to the major questions under investigation in this study, specifically:
 - a. What district-wide provisions are being made for principals' use of MEAP test results?

- b. What provisions are principals making to involve teachers in the analysis, interpretation and use of MEAP test results?
 - c. To what extent are principals using MEAP test results for specific purposes?
 - d. What are the attitudes of school principals toward the value of MEAP and the utility of the test results produced by the program?
2. Presentation and analysis of data to determine the nature of relationships between principals' responses regarding extent of use of MEAP test results and principals' responses to questions from the following categories:
- a. District-level provisions for principals' use of MEAP test results.
 - b. Principals' provisions for teacher involvement and use of MEAP test results.
 - c. Principals' attitudes toward MEAP and the test results produced by the program.
 - d. Selected school characteristics.
 - e. Selected principal characteristics.
3. Presentation and analysis of data to determine correlations between school principals' responses regarding their extent of use of MEAP test results and 12 selected purposes.

What follows is a brief description of how Steele presented and analyzed his data for each section (1, 2, and 3) and a review of his most salient findings for each of the three sections.

Section 1: Presentation and Analysis of Data, Major Questions

Section 1 data presentation and analysis. For Section 1 of his study, Steele used frequency distributions displaying raw counts and percentages for elementary and junior high principals. In that the sample design of his study included all of the junior high

principals in Michigan and the use of a 1:2 sampling ratio for the elementary principals, a weighted percentage score was computed for the nonscale-type questions to indicate more accurately how the combined universe of elementary and junior high school principals responded to the survey questions. Means and standard deviations were calculated for those questions requiring a response to an eight-point scale.

Section 1 review of findings. Section 1 survey questions were designed to gather data relative to the four major questions (Categories 1 through 4) under investigation in the Steele study. What follows is a statement of each major question as stated above and a brief review of Steele's findings.

Major Question 1: What district-wide provisions are being made for principals' use of MEAP test results?

Ninety-two percent of the responding elementary principals and 87% of the junior high principals indicated that they were receiving their schools' Individual Student Classroom Listing, Classroom Summary, and School Summary Reports. A smaller percentage, yet still a majority, of the elementary (61%) and junior high (66%) principals indicated that they were receiving the District Summary Report.

In terms of when the principals were receiving the majority of the above-mentioned reports, 83% of the elementary and junior high principals were receiving the reports by the end of January. Fifty-two percent of the elementary principals were receiving their

reports in November, whereas slightly less than half of the junior high principals were receiving their reports by that time.

Sixty-two percent of the elementary principals and 47% of the junior high principals indicated that the primary responsibility for determining school-level procedures for use of MEAP test results rested with the building principals. Six percent of the elementary principals and 26% of the junior high principals indicated that the building guidance counselor was the "primary agent" for determining how to use MEAP test results.

Only 12% of the elementary and junior high principals indicated that they were required to develop improvement plans based on the needs identified by the MEAP results.

Based on the above analysis, Steele concluded that districts were "generally" providing school principals with the appropriate reports and in a timely fashion, but that they were "deferring responsibility" to the building administrators for determining MEAP usage plans at the school level.

Major Question 2: What provisions are school principals making to involve teachers in the analysis, interpretation and use of MEAP test results?

Only 48% of the elementary principals and 47% of the junior high principals established building committees to involve teachers in "the analysis, interpretation and use of MEAP test results."

Whereas less than half of the elementary (47%) and junior high (40%) principals were providing teachers with the District Summary Report, 90% of the elementary principals were providing their

teachers the Individual Student Reports, 85% were providing the Classroom Listing Reports, 86% were providing the Classroom Summary Reports, and 81% were providing the School Summary Reports.

Similarly, at the junior high level, 92% of the principals were providing the Individual Student Reports, 84% were providing the Classroom Listing Reports, 79% were providing the Classroom Summary Reports, and 73% were providing the School Summary Reports.

Most elementary principals helped teachers understand MEAP test results by (1) conducting staff meetings to discuss the MEAP (82%), (2) distributing MEAP literature (83%), and (3) providing MEAP manuals.

Most junior high principals helped teachers understand the MEAP by (1) conducting staff meetings to discuss the MEAP (76%), (2) distributing MEAP test folders (77%), (3) providing MEAP manuals, and (4) presenting the MEAP filmstrip.

Ninety-four percent of the elementary principals indicated that they encouraged teachers to use MEAP individual student test results to assess student strengths and weaknesses, whereas 80% encouraged teachers to use MEAP results to plan instructional programs.

Junior high principals also encouraged teachers to use MEAP test results to plan instructional programs (77%) and to use individual student test results to assess student strengths and weaknesses (94%).

Based on the above data, Steele concluded that although "principals [were] providing assistance to help teachers understand

MEAP test results by distributing appropriate materials and holding teacher meetings they [were] not establishing building committees to analyze and interpret MEAP test results." Principals, at both the elementary and junior high levels, were "encouraging" teachers to use individual student test results to determine student strengths and weaknesses and to plan instructional priorities.

Major Question 3: For what purposes and to what extent are school principals using the test results produced by MEAP?

Major Question 3 was presented on the survey instrument as a series of 13 statements that suggested "potential purposes" for which MEAP results could be used by building principals.

Principals were asked to rate their "extent of use" of the potential purposes on an eight-point Likert scale. Numerical values on the scale ranged from 1 through 8. Principals were asked to denote "very little" use by recording a 1 or 2 on the scale, "some" use by recording a 3 or 4, "quite a bit" of use by recording a 5 or 6, and "extensive" use by recording a 7 or 8. Mean scores and standard deviations for each "potential use" were calculated and used for interpretation purposes.

As Steele noted in his summary of Major Question 3, "some areas of similarity" surfaced when an analysis was made of the school principals' (elementary and junior high) responses regarding the extent of use of MEAP test results. "Quite a bit" of use of MEAP test results was seen in the areas of (1) determining student achievement levels, (2) determining strengths and weaknesses in the curricular area of mathematics, and (3) determining strengths and

weaknesses in the curricular area of reading. On the average, the elementary and junior high principals indicated "some" use of MEAP results for the purposes of (1) informing the school community, (2) determining instructional priorities, and (3) determining resource allocation. A "majority" of the elementary and junior high principals indicated "very little" use of MEAP test results for five purposes: (1) determining the effectiveness of new programs, (2) analyzing teacher performance, (3) determining teacher inservice needs, (4) preparing funding proposals, and (5) predicting future academic success of students.

Two purposes received differing scores from the elementary and junior high principals. Fifty-five percent of the elementary principals indicated "very little" use of the MEAP results for placement of students, whereas 57% of the junior high principals indicated "some." In terms of using MEAP results to determine need for new programs, 51% of the elementary principals indicated "very little" use, whereas the majority of junior high principals (51%) indicated at least "some" use for that purpose.

Analysis of Steele's data showed that principals' use of MEAP test results ranged, in general, from "very little" to "quite a bit," depending on the specific purpose, and that "elementary and junior high principals [used] MEAP test results to a similar extent for some purposes, and to a differing extent for other purposes" (Steele, 1976, p. 139).

Major Question 4: What attitudes do school principals in Michigan hold toward the value of MEAP and the utility of the test results produced by the program?

Using an eight-point Likert scale, principals could denote the extent to which they supported statements designed to answer Major Question 4. Recording a 1 or 2 indicated "very little" support, recording a 3 or 4 indicated "some support," recording a 5 or 6 indicated "quite a bit" of support, and a 7 or 8 indicated "extensive" support. Frequency and percentage distributions, as well as mean scores and standard deviations, were calculated and displayed.

As Steele noted in his summary, "on the average," elementary and junior high principals believed that MEAP test results had "some" impact in the following four areas: (1) encouraging the development of a more comprehensive testing program, (2) calling attention to curricular problems not previously noted, (3) confirming tentative judgments about curricular problems, and (4) facilitating a more individualized approach to teaching. In terms of influencing community attitudes toward the school, Steele found that the majority of elementary (55%) and junior high (57%) principals saw MEAP results as having "very little" impact.

Both elementary and junior high principals indicated that, "on the average," MEAP test results were (1) "quite" useful for diagnosing student learning needs and (2) of "some" usefulness for the purposes of analyzing the relationship between resource allocation and student achievement of minimal objectives, planning

for instructional improvement, and communicating status of student learning to parents.

"Very little" support was seen from both groups of principals for the following recommendations: (1) to eliminate all every-pupil testing and introduce a statewide sampling procedure, (2) to change MEAP back to norm-referenced testing, and (3) to discontinue the assessment program.

Steele saw that, "in general," principals believed that MEAP results were having an impact on the instructional program and that the results were useful for some specific purposes. In addition, "the majority of school principals offered 'very little' support for the recommendation to discontinue the assessment program" (Steele, 1976).

Section 2: Analysis of Data to Determine
the Nature of Relationships Between
(1) The Extent to Which School
Principals Use MEAP Test Results
and (2) Other Selected Variables

Section 2 data presentation and analysis. For the second section of his study, Steele used chi-square analysis to determine the significance of relationships between principals' extent of use of MEAP results and selected variables (e.g., school and principal characteristics, principals' provisions for teacher understanding and use of MEAP test results, and school district provisions for principals' use of MEAP test results). In addition, Steele calculated contingency coefficients to determine the strengths of relationships between the variables under consideration. Only the

relationships that met the chi-square criterion of significance at the .05 level were analyzed and discussed.

Section 2 review of findings. Section 2 survey questions were designed to examine the nature of relationships between principals' extent of use of MEAP results and other variables. What follows is a review of Steele's most salient findings.

When considering the relationship between "the extent to which school principals are using MEAP test results vs. district-wide provisions for principals' use of MEAP test results," Steele found that (1) elementary principals who received MEAP results late were more likely to use the results "very little" than elementary principals who received the results early, and (2) elementary and junior high principals used the MEAP results "extensively" when they were required to develop a plan of their own initiative.

When considering the relationship between "the extent to which school principals are using MEAP test results vs. provisions principals are making to involve teachers in the use of MEAP test results," Steele found that those principals who established building-level committees to analyze and interpret MEAP test results were more likely to be using MEAP test results "extensively" than were principals who were not choosing to establish committees for that purpose.

When considering the relationship between "the extent to which school principals are using MEAP test results vs. the attitudes principals hold toward MEAP and the test results provided by the

program," Steele found that those principals who indicated that results were having "quite a bit" or "extensive" impact on the instructional program of the school were more likely to be making "quite a bit" and "extensive" use of the MEAP test results than were principals who thought the test results were having "very little" or "some" impact.

Finally, when considering the relationship between "the extent to which school principals are using MEAP test results vs. selected school characteristics of settings in which principals perform their administrative responsibilities," Steele found that elementary and junior high principals made "quite a bit" or "extensive" use of MEAP test results if they performed their administrative responsibilities (1) in urban versus rural or suburban settings, (2) in schools with a higher percentage of minorities versus schools with a smaller percentage of minorities, and (3) in schools with the lowest family income levels versus schools with average or high family income levels.

Section 3: Intercorrelation Analysis Among Selected MEAP Test Usage Variables

Section 3 data presentation and analysis. For the third section of his study, Steele calculated intercorrelations for both elementary and junior high principals among the total sample of the items used in Section 2 of his study. All correlation coefficients with a size of greater than .50 were discussed.

Section 3 review of findings. Section 3 survey questions were designed to determine whether "extent of use for one purpose is

likely to be associated with extent of use for another purpose(s)." What follows is a review of Steele's most salient findings.

Elementary principals: Steele found that the extent to which elementary principals were using MEAP test results to determine students' achievement levels was likely to be similar to the extent to which they were using MEAP test results to determine instructional priorities, and strengths and weaknesses in the curricular areas of reading and mathematics.

The extent to which MEAP results were used by elementary principals "to determine strengths and weaknesses in the curricular area of reading" was associated with three purposes: (1) to determine instructional priorities, (2) to determine strengths and weaknesses in the curricular area of mathematics, and (3) to determine the general achievement level of students.

Likewise, the three purposes associated with the extent to which MEAP results were used by elementary principals "to determine strengths and weaknesses in the curricular area of mathematics" were (1) to determine strengths and weaknesses in the curricular area of reading, (2) to determine instructional priorities, and (3) to determine the general achievement level of students.

Similarly, the extent to which elementary principals reported using MEAP test results "to determine instructional priorities" was seen as comparable to the extent to which they used MEAP results for each of the following purposes: (1) to determine general achievement levels of students, (2) to determine strengths and

weaknesses in the curricular area of mathematics, (3) to determine strengths and weaknesses in the curricular area of reading, and (4) to document need in the allocation of school resources.

The extent to which elementary principals reported using MEAP test results "to determine need for new programs" was seen as comparable to the extent to which they used MEAP results (1) to document need in the allocation of school resources and (2) to determine effectiveness of new programs.

The extent to which elementary principals reported using MEAP test results "to document need in the allocation of school resources" was comparable to the extent to which they used MEAP results (1) to determine instructional priorities and (2) to determine need for new programs.

Junior high principals: The extent to which junior high principals reported using MEAP test results "to determine the general level of achievement of the student body" was seen as similar to the extent to which they reported using MEAP results (1) to determine strengths and weaknesses in the curricular area of mathematics and (2) to determine strengths and weaknesses in the curricular area of reading.

As with elementary principals, the extent to which junior high principals reported using MEAP results "to determine strengths and weaknesses in the curricular area of mathematics" was seen as similar to the extent to which they reported using MEAP results (1) to determine the general level of achievement of the student body,

(2) to determine strengths and weaknesses in the curricular area of reading, and (3) to determine instructional priorities.

In addition, the extent to which junior high principals reported using MEAP results "to determine strengths and weaknesses in the curricular area of reading" was seen as comparable to the extent to which they reported using MEAP results (1) to determine the general level of achievement of the student body, (2) to determine strengths and weaknesses in the curricular area of mathematics, and (3) to determine instructional priorities.

The extent to which junior high principals reported using MEAP results "to determine need for new programs" was seen as likely to be similar to the extent to which they used MEAP results (1) to determine the allocation of school resources, (2) to place students in remedial programs, and (3) to determine the effectiveness of new programs.

Finally, the extent to which junior high principals reported using MEAP results "to place students in new programs" was seen as comparable to the extent to which they used MEAP results to determine the need for new programs.

Steele's Conclusions

In his conclusion, Steele noted that "the findings of this research point to certain conclusions" relative to the practices and attitudes of elementary and junior high school principals' use of MEAP test results in Michigan schools.

The majority of elementary and junior high school principals in Michigan made use of MEAP test results. The most extensive use of the results was for the purposes of determining the general level of achievement of students in the school, and determining strengths and weaknesses in the curricular areas of reading and mathematics. Principals not only supported the continuation of MEAP but supported a "gradual expansion" to other academic areas and grade levels as well.

Extensive use of MEAP results was "significantly associated" with numerous district and building-principal practices and attitudes. Extensive use of MEAP results was seen in school districts that had requirements of building principals to develop improvement plans based on needs identified by MEAP results. Extensive use was associated with local-district practices that ensured that building principals received results soon after the results were received from the Michigan Department of Education. Those principals who were making extensive use of MEAP thought the results were "useful" and were "having an impact on aspects of the instructional program" of their school. Extensive use of MEAP results was associated with the establishment of building-level teacher committees to "analyze and interpret" the assessment results. In addition, extensive use of MEAP results by junior high principals in Michigan was associated with the establishment of a districtwide committee, central office personnel, or school principal as the "agent responsible for determining procedures for use of MEAP test results."

Conclusions drawn by Steele from the demographic data were that extensive use of MEAP results was associated with elementary principals who worked in urban settings with high percentages of minority students and low-income families. At the junior high level, extensive use was seen in schools with the highest percentages of minority students and with principals who had earned an Educational Specialist, Ed.D., or Ph.D. degree.

Summary

In this chapter, literature related to the present study was reviewed in three sections. Studies in which the researchers investigated the uses and attitudes of school administrators relative to nationwide school testing programs were reviewed in the first section. The second part was a review of studies in which the uses and attitudes of Michigan school administrators were investigated relative to school testing programs, including the MEAP. In the third section, the most salient findings of a 1976 study of Michigan school principals' practices and attitudes related to the use of the MEAP were reviewed. The researcher attempted to demonstrate that the few studies that have examined various aspects of the MEAP have failed to provide current information regarding the attitudes Michigan principals hold toward the MEAP and the uses they make of the assessment results.

CHAPTER III

DESIGN OF THE STUDY

Introduction

The purpose of this study was to describe current attitudes and practices of elementary school, junior high/middle school, and high school administrators related to the use of the MEAP results in all 562 school districts in Michigan. The research design used in the study was the result of consultation with Michigan Department of Education personnel; the Department of Planning and Evaluation, Ingham Intermediate School District; and the Department of Research Consultation, Michigan State University. The population and sample, design of the instrument, data collection, data analysis, and limitations of the study are discussed in the following paragraphs.

Population and Sample

The universe for this study was the 1,871 elementary schools, 768 junior high/middle schools, and 631 high schools in Michigan. The source of data collection was the principal of each school building included in the survey. Given the large number in the universe for this study, the researcher used the technique of random sampling. As stated by Weiss and Hassett (1982), random sampling is used "to make inferences (educated guesses) about a characteristic of a population, based on data obtained from a sample of the

population" (p. 196). Upon consultation with Michigan Department of Education personnel experienced with public school surveys, it was determined that 741 elementary school principals, 299 junior high/middle school principals, and 260 high school principals would be included in the survey.

In that a geographic representation of the state for the surveys returned was desired, the researcher employed a procedure used by the MEAP in conducting its surveys of Michigan schools. The Michigan Department of Education has an alphabetized computer listing of the elementary schools, junior high/middle schools, and high schools within six geographic and community types for the state. Samples for this study were drawn from these six areas or strata:

- Stratum 1: Urban districts of Wayne, Macomb, and Oakland Counties
- Stratum 2: Urban districts of outstate southern lower peninsula, excluding districts in Stratum 1
- Stratum 3: Suburban districts of Wayne, Macomb, and Oakland Counties
- Stratum 4: Suburban districts of outstate southern lower peninsula, excluding districts in Stratum 1
- Stratum 5: Rural districts of outstate southern lower peninsula
- Stratum 6: All districts of northern lower peninsula and all districts of the upper peninsula

The number of sample members drawn from each stratum was in direct proportion to the number of elementary schools, junior high/middle schools, and high schools within each stratum and the total number of sample members desired for the state.

Design of the Instrument

To ensure a valid longitudinal comparison of the results of the Steele study noted in the Rationale for the Study portion of this dissertation, a core of survey questions used by Steele was retained and used. The survey questions were modified by this researcher and reviewed by Michigan Department of Education personnel to reflect accurately the academic areas currently being assessed and the overall relevance of the survey for MEAP testing for the 1988-89 school year. In addition, the questionnaire was pilot tested by elementary school, junior high/middle school, and high school principals representing 11 of the K-12 school districts in the Ingham Intermediate School District. Their responses were used as a guide to make further modifications to the survey.

The survey used to gather data for this study had two parts. Part 1, which comprised 11 forced-choice and one open-ended question, was used to gather data relative to the four research questions of the study, namely:

1. What district-level administrative provisions are being made for Michigan school principals' use and dissemination of the MEAP test results?
2. What administrative provisions are Michigan school principals making to involve teachers in the analysis, interpretation, and use of the MEAP test results?
3. For what purposes and to what extent are Michigan school principals using the MEAP test results?

4. What are the attitudes of Michigan school principals regarding the value of the MEAP and the utility of the test results provided by the program?

Three questions in Part 1 required a response to an eight-point Likert scale.

Part 2, which comprised nine forced-choice questions, was designed to gather demographic data relative to the characteristics of the school principals and their school buildings, e.g., highest degree held, number of years in current administrative position, and total school enrollment. (A copy of the complete survey may be found in Appendix A.)

Data Collection

The six-page questionnaire, along with a cover letter (Appendix B) from the researcher and David L. Donovan, Assistant Superintendent for Technical Assistance and Evaluation, Michigan Department of Education, was mailed to survey participants the first week of April 1989. Also included was a return-addressed reply envelope. After a two-week period, a follow-up letter (Appendix C) was sent, reminding nonrespondents of the need for their responses. Because the questionnaire was not machine scorable, responses were keypunched on a computer tape for analysis.

Data Analysis

The analysis of data for this study was conducted in three parts. First, percentages and raw counts were calculated to provide a description of the responses for elementary, junior high/middle

school, high school, and "total group" principals regarding the four research questions under investigation in this study.

Second, chi-square analysis was used to determine the significance of relationships between the principals' "extent of use" of MEAP test results (Research Question 3) and their responses to questions from the following categories:

1. District-level provisions for principals' use of MEAP test results (Research Question 1).
2. Principals' provisions for teacher involvement and use of MEAP test results (Research Question 2).
3. Principals' attitudes toward the MEAP and the test results provided by the program (Research Question 4).
4. Selected school characteristics.
5. Selected principal characteristics.

Third, correlation coefficients were computed to examine relationships between the "extent of use" of MEAP assessment results for one purpose to the "extent of use" of MEAP assessment results for other purposes. For example, analyses were conducted to determine whether there was a relationship between the extent to which principals used MEAP results to "determine instructional priorities" and the extent to which principals used MEAP results to "determine need for new programs." The strength of the relationships between variables was determined by the size of the Pearson product-moment correlation coefficient.

Delimitation of the Study

The study was limited to elementary school, junior high/middle school, and high school principals in Michigan. Findings of this study, although generalizable to the elementary schools, junior high/middle schools, and high schools in Michigan, are not necessarily generalizable to schools in other states.

Limitations of the Study

The study was limited by factors intrinsic to the use of any survey questionnaire, including (a) the bias of the respondents, (b) the validity of the study depending on the willingness and ability of the respondents to provide the needed information, and (c) the possibility of misinterpretation of statements in the questionnaire.

Summary

An overview of the research design was presented in Chapter III. Included were a discussion of the population and sample of the study, a description of the survey instrument, data-collection and data-analysis procedures used in the research, and the limitations of the study.

CHAPTER IV

PRESENTATION OF THE DATA

Introduction

The purpose of this study was to describe the attitudes and practices of elementary school, junior high/middle school, and high school administrators relative to the use of the 1988 MEAP results. This chapter contains the presentation and description of data for this study. In the first section, frequencies and percentages are presented to provide a description of the responses of elementary school, junior high/middle school, and high school principals, as well as of the total group, regarding the four major questions under investigation in this study. Total group refers to the aggregate of elementary, junior high/middle, and high school principal responses. The four research questions under investigation in this study are:

1. What district-level administrative provisions are being made for Michigan school principals' use and dissemination of the MEAP test results?
2. What administrative provisions are Michigan school principals making to involve teachers in the analysis, interpretation, and use of the MEAP test results?
3. For what purposes and to what extent are Michigan school principals using the MEAP test results?

4. What are the attitudes of Michigan school principals regarding the value of the MEAP and the utility of the test results provided by the program?

In the second section, results of chi-square analyses are used to determine the significance of relationships between the principals' "extent of use" of MEAP test results (Research Question 3) and their responses to the questions from the following categories:

1. District-level provisions for principals' use of MEAP test results (Research Question 1).
2. Principals' provisions for teacher involvement and use of MEAP test results (Research Question 2).
3. Principals' attitudes toward the MEAP and the test results provided by the program (Research Question 4).
4. Selected school characteristics.
5. Selected principal characteristics.

The third section contains the correlation coefficients that were computed to examine the relationships between the "extent of use" (Question 9 of the survey) of MEAP assessment results for one purpose and the "extent of use" of MEAP results for other purposes.

The data are presented for the elementary school, junior high/middle school, and high school principals separately and as a total group. The data were analyzed using the Statistical Package for the Social Sciences (SPSS-X, 1986).

The purpose of this study was to describe current attitudes and practices of building principals related to the use of the 1988 MEAP results. A secondary purpose was to compare these current data with

the findings of Steele (1976). Each section noted above includes a discussion of whether the current findings are consistent with those of Steele. Because the MEAP was given only in grades 4 and 7 in 1976, comparisons with the Steele study are limited to data for elementary and junior high/middle school principals and items common to both studies.

Survey Returns

One thousand three hundred surveys were sent to elementary schools, junior high/middle schools, and high schools in Michigan during the first week of April 1989. Seven hundred forty-one surveys were sent to elementary schools, 299 to junior high/middle schools, and 260 to high schools. Seven hundred ninety-one surveys were returned as of May 1, 1989. Because of omissions and inaccurately completed portions of some surveys, the total number within each subgroup and for the total group noted in the statistical analyses may vary.

Because a geographic representation of the state for the surveys was desired, samples for this study were drawn from the six geographic and community types, or strata, for Michigan as used by the Michigan Department of Education (see Chapter III). The number of schools drawn from each stratum was in direct proportion to the number of elementary schools, junior high/middle schools, and high schools within each stratum and the total number of sample members desired for the state. The number of surveys sent and returned per stratum for each school type is shown in Table 1. As seen in the

table, only one stratum (junior high/middle school, Stratum 1--25.6%) had less than a 50% return rate.

Table 1.--Number of surveys sent and returned, according to the six strata used by the Michigan Department of Education.

Stratum	Schools in Stratum	Surveys Sent	Surveys Returned	% of Surveys Returned
Elementary Schools				
1	255	100	53	53.0
2	287	100	61	53.5
3	428	169	89	52.6
4	384	152	98	64.4
5	236	94	67	71.2
6	281	112	72	64.2
Total	1,871	741	440	59.2
Junior High/Middle Schools				
1	99	39	10	25.6
2	67	26	18	69.2
3	135	52	32	61.5
4	137	53	30	56.6
5	169	66	48	72.2
6	161	63	37	58.7
Total	768	299	175	58.5
High Schools				
1	47	20	14	70.0
2	49	20	16	80.0
3	101	42	32	58.1
4	134	55	33	60.0
5	152	63	37	58.7
6	148	60	45	75.0
Total	631	260	177	68.0

Results of Data Analyses for the Four Research Questions

In this section, frequencies and percentages are presented to provide a description of the responses of elementary school, junior high/middle school, and high school principals, as well as of the total group, regarding the four research questions under investigation in this study. Part 1 of the survey, Information About the Administrative Use of 1988 MEAP Test Results, was designed to gather information relative to the four research questions.

Research Question 1

What district-level administrative provisions are being made for Michigan school principals' use and dissemination of the MEAP test results?

The following questionnaire items were designed to answer Research Question 1:

1. Which 1988 MEAP assessment reports did you receive?
2. During which month did you receive the majority of the reports you checked in Item 1?
3. Who was primarily responsible for determining procedures for the use of 1988 MEAP test results in your school?
4. Were you required to develop a plan of action to overcome needs identified by the 1988 MEAP test results?

Principals' responses to Item 1, "Which 1988 MEAP assessment reports did you receive?" are shown in Table 2.

An examination of Table 2 indicates that the vast majority of principals were receiving the reports distributed by the Michigan Department of Education concerning the MEAP assessment. The highest percentages were seen with the individual student reports (total group 97.3%), with elementary principals having the highest response

rate of 98.6%). The lowest response rate can be seen for the district summary reports at each level and for the total group (77.2%). The data also show that only 3% of the principals indicated "none of the above" to Item 1.

Table 2.--MEAP assessment results received by elementary school, junior high/middle school, and high school principals, and the total group.

Reports Received	Elementary School Principals (N=430)		Junior High/Middle School Principals (N=165)		High School Principals (N=146)		Total Group (N=785)	
	N	%	N	%	N	%	N	%
Individual Student	424	98.6	161	97.6	138	94.5	723	97.3
Classroom Listing	421	97.9	149	90.3	115	78.8	685	91.7
Classroom Summary	405	94.2	145	87.9	119	81.5	669	89.9
School Summary	419	97.4	101	97.6	138	94.5	718	96.8
District Summary	336	78.1	126	76.4	106	72.6	568	77.2
None of the above	2	.5	0	0	0	0	2	.3

Principals' responses to Item 2, "During which month did you receive the majority of the reports you checked in Item 1?" are shown in Table 3.

Table 3.--When elementary school, junior high/middle school, and high school principals, as well as the total group, received MEAP reports.

Month	Elementary School Principals (N=406)		Junior High/Middle School Principals (N=150)		High School Principals (N=147)		Total Group (N=703)	
	N	%	N	%	N	%	N	%
November 1988	238	58.6	93	62.0	71	48.2	402	57.1
December 1988	124	30.5	43	28.6	48	32.6	215	30.5
January 1989	37	9.1	10	6.6	16	10.8	63	8.9
February 1989	5	1.2	3	2.0	4	2.7	12	1.7
After February 1989	2	.5	1	.7	8	5.4	11	1.5

Inspection of Table 3 shows that 57.1% of the principals indicated that they received the majority of the reports they checked in Item 1 during November 1988. Another 30.5% of the principals indicated that they received the reports during December 1988. As MEAP results are typically received at the district level during the last week in October or the first week in November, these data show that local districts were prompt in distributing assessment data to the building level. In addition, only 12.1% of the principals indicated that they received MEAP results during January, February, or after February, 1989.

A higher percentage of junior high/middle school principals (62%) received the reports in November than either elementary

principals (58.6%) or high school principals (48.2%). Five and four-tenths percent of the high school principals indicated that they received the reports after February 1989.

Responses of elementary school, junior high/middle school, and high school principals, as well as the total group, to Item 3, "Who was primarily responsible for determining procedures for the use of 1988 MEAP test results in your school?" are shown in Table 4.

Examination of Table 4 reveals that, in most cases, building principals (total group = 60.2%) were responsible for determining procedures for the use of the 1988 MEAP results in their schools. Almost seven out of ten (69.4%) of the elementary principals indicated that the building principal had the responsibility to determine use of the assessment results. Given the relative absence of counselors at the elementary level and the more common position of counselors at the junior high/middle school and high school levels, the relative percentages of building counselors having the responsibility for determining use of MEAP results is not unexpected. Only 1.7% of the elementary principals indicated that building counselors determined use of MEAP results. Eighteen and three-tenths percent of the junior high/middle school principals and 24.8% of the high school principals indicated building counselors as the persons responsible for determining procedures for use of the MEAP results.

Table 4.--Person(s) responsible for determining procedures for use of the 1988 MEAP results.

Responsible Person(s)	Elementary School Principals (N=402)		Junior High/Middle School Principals (N=153)		High School Principals (N=137)		Total Group (N=732)	
	N	%	N	%	N	%	N	%
Central office personnel	64	15.9	20	13.1	29	21.2	116	15.8
Districtwide committee	26	6.5	14	9.2	6	4.4	46	6.3
Building principal	279	69.4	81	52.9	56	40.9	441	60.2
Building-level committee	26	6.5	10	6.5	12	8.8	52	7.1
Building guidance counselor	7	1.7	28	18.3	34	24.8	77	10.5

The study participants' responses to Item 4, "Were you required to develop a plan of action to overcome needs identified by the 1988 MEAP test results?" are shown in Table 5.

As shown in Table 5, a fairly equal proportion of elementary principals indicated that plans were required (33%), that plans were not required (33.7%), and that plans were developed but not required (33.3%). A greater discrepancy was revealed at the junior high/middle school and high schools, with 47% and 46.6% of the principals, respectively, indicating that plans were not required.

Total group response showed that 40.2% of the principals responding to the survey indicated that plans were not required. Elementary principals were most often required (33%) to develop plans to address the needs identified by the MEAP assessment results. Overall, 59.9% of the principals said that plans were developed, whether or not they were required.

Table 5.--Whether principals were required to develop a plan of action to overcome needs identified by the MEAP results.

Plan Requirement	Elementary School Principals (N=427)		Junior High/Middle School Principals (N=166)		High School Principals (N=146)		Total Group (N=784)	
	N	%	N	%	N	%	N	%
Yes, plan required	141	33.0	44	26.5	44	30.1	238	30.4
No, plan not required	144	33.7	78	47.0	68	46.6	315	40.2
Plan not required, but plan developed	142	33.3	44	26.5	34	23.3	231	29.5

The preceding findings are somewhat consistent with those of Steele's study but also reflect increased awareness and use of MEAP results by building principals. In 1976, 92% of elementary principals and 87% of junior high/middle school principals received Individual Student, Classroom Listing, Classroom Summary, and School Summary Reports as compared to 98.6% and 97.6%, respectively, in

1988. Response rates for elementary principals (78.1%) and junior high/middle school principals (76.4%) who received District Report Summaries in 1988 were considerably higher than those in 1976 for elementary (61%) and junior high/middle school principals (66%). In 1976, only 12% of elementary and junior high/middle school principals were required to develop improvement plans based on the needs identified by the MEAP, as compared to 33% and 26.5%, respectively, of elementary and junior high principals in 1988.

Research Question 2

What administrative provisions are Michigan school principals making to involve teachers in the analysis, interpretation, and use of the MEAP test results?

Survey questions designed to answer Research Question 2 are:

5. Did you establish a building-level committee to involve teachers in the analysis and interpretation of the 1988 MEAP test results for your school?
6. Which assessment reports did you share with teachers in your school?
7. What assistance did you provide to help teachers understand and interpret the 1988 MEAP test results?
8. For what purposes have you encouraged teachers to use the 1988 MEAP individual student test results?

Study participants' responses to Item 5, "Did you establish a building-level committee to involve teachers in the analysis and interpretation of the 1988 MEAP test results for your school?" are shown in Table 6.

Table 6.--Teachers' involvement in analysis and interpretation of the MEAP results.

Teachers Involved?	Elementary School Principals (N=425)		Junior High/ Middle School Principals (N=166)		High School Principals (N=147)		Total Group (N=783)	
	N	%	N	%	N	%	N	%
Yes	224	52.7	83	50.0	64	43.5	389	49.7
No	201	47.3	83	50.0	83	56.5	394	50.3

As shown in Table 6, total group responses were evenly distributed between the yes-no choices for Item 5 (49.7% yes, 50.3% no). High school principals appeared to involve teachers less (43.5%) than did their elementary school (52.7%) and junior high/middle school (50%) counterparts.

Principals' responses to Item 6, "Which assessment results did you share with teachers in your school?" are shown in Table 7.

An initial review of Table 7 shows that elementary principals consistently shared more of the available MEAP reports with their staff than did junior high/middle school and high school principals. The only exception was that a slightly higher percentage of junior high/middle school principals (89.7%) shared district summaries than did their elementary school counterparts (89.1%). Conversely, high school principals least often shared reports with their teaching staffs (for example, only 40% shared district summaries with their teachers).

Table 7.--MEAP reports that principals shared with teachers.

Assessment Report Shared	Elementary School Principals (N=430)		Junior High/ Middle School Principals (N=165)		High School Principals (N=147)		Total Group (N=787)	
	N	%	N	%	N	%	N	%
Individual Student	380	88.4	132	80.0	93	63.3	644	81.8
Classroom Listing	369	85.8	125	75.8	91	61.9	615	78.1
Classroom Summary	349	81.2	116	70.3	96	65.3	594	75.5
School Summary	383	89.1	148	89.7	122	83.0	691	87.8
District Summary	251	60.0	79	47.9	59	40.1	422	53.6
None of the above	1	.2	1	.6	5	3.4	7	.9

Total group responses showed that School Summary Reports were the most often shared with teaching staffs (87.8%) and that District Summary Reports were the least shared MEAP report (53.6%). Only 9% of the principals indicated that "none of the reports" were shared with their staffs. The data displayed in Table 4 are consistent with those displayed in Table 2 in that total group responses showed that the MEAP report least often given to building principals was the District Summary Report (77.2%), and the report least often given to teachers was the District Summary Report (53.6%).

Principals' responses to Item 7, "What assistance did you provide to help teachers understand and interpret the 1988 MEAP test results?" are shown in Table 8.

Table 8.--Assistance principals provided to teachers to help them interpret the 1988 MEAP results.

Assistance Provided	Elementary School Principals (N=427)		Junior High/Middle School Principals (N=162)		High School Principals (N=132)		Total Group (N=771)	
	N	%	N	%	N	%	N	%
Conducted teacher meeting	354	82.9	117	72.2	77	55.8	574	74.4
Provided MEAP manuals	265	62.1	82	50.6	85	61.6	457	59.3
Distributed MEAP test data	334	78.2	127	78.4	101	73.2	594	77.0
Provided MEAP video	16	3.7	3	1.9	2	1.4	22	2.9
Requested inservice assistance	55	12.9	29	17.9	24	17.4	112	14.5
Other (see Appendix)	64	15.0	22	13.6	18	13.0	109	14.1

Inspection of Table 8 shows that, in terms of total group responses, 77% of the principals distributed student test data provided within Michigan Department of Education folders. The three subgroups were consistent on this item (78.2% for elementary, 78.4%

for junior high/middle school, and 73.2% for high school). Only 2.9% of the principals presented the video "Identifying and Assessing Curriculum Needs With MEAP Results." This low percentage may well be a result of principals' not being aware of the video or unavailability of the video soon after test results were received. Elementary principals exhibited the highest percentage of responses (82.9%) and high school principals the lowest (55.8%) when it came to conducting teacher meetings to analyze MEAP results.

Subgroup percentages in the "other" item were consistent (14.1% for the total group) and contained comments relative to activities not included in the survey. A sample of comments from each subgroup follows:

Elementary school:

I condensed the results into a short, readable report and listed the objectives which were lowest.

I analyzed results in relation to other data--sex, age, race, etc.

I consulted with the reading and math consultant for the district.

Junior high/middle school:

Inservice provided by area staff.

Met with department heads to analyze data.

I developed strategies for providing and improving instruction for the high needs areas.

High school:

I met with each teacher in specific areas to discuss improvement possible.

Department chairpersons/clinician have contact with individual subject area teachers.

Wrote critique of results and offered to go over results in depth with any staff member.

Study participants' responses to Item 8, "For what purposes have you encouraged teachers to use the 1988 MEAP individual student test results?" are shown in Table 9.

Table 9.--Purposes for which teachers were encouraged to use the 1988 MEAP individual results.

Purpose	Elementary School Principals (N=429)		Junior High/Middle School Principals (N=163)		High School Principals (N=139)		Total Group (N=773)	
	N	%	N	%	N	%	N	%
To diagnose students' strengths	362	84.4	136	83.4	112	80.6	649	84.0
To plan instructional programs	371	86.5	134	82.2	105	75.5	640	82.8
To group students	82	19.1	30	18.4	20	14.4	144	18.6
To communicate performance to parents	349	81.4	115	70.6	87	62.6	582	75.3
To motivate learning	208	48.5	62	38.0	61	43.9	350	45.3
Other	29	6.8	13	8.0	7	5.0	49	6.3

Examination of Table 9 shows that, aside from the "other" item on the survey, using MEAP results to group students was the area least often checked by respondents. As a total group, only 18.6% of the respondents indicated that they encouraged teachers to use MEAP results as a help when student grouping decisions were made. This low percentage is better understood, however, when one recalls that the MEAP assesses student achievement relative to the essential skills developed by Michigan educators and not a broad spectrum of skills, including those that may go beyond basic or core grade-level objectives.

The two highest percentages were seen for elementary principals in the areas of diagnosing students' strengths (84.4%) and planning instructional programs (86.5%). The purpose of motivating students was consistently low for each level, with only the elementary principals (48.5%) approaching the 50% level.

Subgroup percentages for the "other" item were again fairly consistent, with the total group percentage at 6.3%. Comments relative to purposes not included in the survey included the following sample:

Elementary school:

To review our basic instructional programs, specifically science.

Plan and evaluate instructional programs.

To determine strengths and weaknesses of curriculum.

Junior high/middle school:

To reteach weak areas.

Identify needs for school improvement plan.

High school: Educational accountability--are we getting the job done?

To get scores up in other areas in the future.

The preceding findings were consistent with those of the Steele study, with the exception that in 1976 only 73% of junior high/middle school principals and 81% of elementary principals shared School Summary Reports with their staffs as compared to 89.7% and 89%, respectively, in 1988. In addition, in 1976, 42% of elementary principals and 36% of junior high/middle school principals encouraged their teachers to use MEAP results to communicate student performance to parents, as compared to 81.4% and 70.6%, respectively, in 1988.

Research Question 3

For what purposes and to what extent are Michigan school principals using the MEAP test results?

For Research Question 3, elementary school, junior high/middle school, and high school principals were asked to respond to a series of 14 statements, representing a broad spectrum of uses of the MEAP results. The 14 selected purposes were listed in Item 9 of the survey as follows:

- a. To determine the general achievement level of the fourth-, seventh-, or tenth-grade students in your school.
- b. To inform the school community of the general achievement level of the fourth-, seventh-, or tenth-grade students in your school.
- c. To determine strengths and weaknesses in the area of mathematics.

- d. To determine strengths and weaknesses in the area of reading.
- e. To determine strengths and weaknesses in the area of science.
- f. To determine instructional priorities.
- g. To document need in the determination of school resource allocation (i.e., people, time, materials, and space).
- h. To determine placement of students in "remedial" programs.
- i. To determine need for new programs.
- j. To determine the effectiveness of new programs.
- k. To analyze teacher performance.
- l. To identify staff-development needs for teachers.
- m. To prepare proposals for funding.
- n. To predict students' future academic success.
- o. Others, please specify.

The "other" item was included so that respondents could indicate purposes not addressed in the survey. A sample of those narrative responses is given after each principal group.

Using an eight-point Likert scale (1 through 8), principals rated the extent to which they used the listed purposes of the 1988 MEAP results. A score of 1 or 2 indicated a rating of "very little" use, a 3 or 4 indicated a rating of "some" use, a 5 or 6 indicated a rating of "quite a bit" of use, and a 7 or 8 indicated the results were used "extensively."

In the following pages, data are presented for each subgroup (elementary school, junior high/middle school, and high school

principals). Total group data are presented as part of the summary for Research Question 3.

Elementary school principals. Elementary school principals' responses concerning each of the 14 selected uses of the 1988 MEAP results, as well as their mean rating for each use, are shown in Table 10. The extent to which elementary principals used the MEAP results for each of the 14 selected purposes is discussed in the following paragraphs.

a. To determine the general achievement level of the fourth-grade students in your school.

This purpose received a mean rating of 5.09, indicating that, on the average, elementary principals were using the MEAP results "quite a bit" to determine general achievement levels of students in their schools. Only 5.3% of the principals characterized their use of the MEAP results for this purpose as "very little." (See Table 10.)

b. To inform the school community of the general achievement level of the fourth-grade students in your school.

The mean rating for this purpose was 4.72, indicating that, on the average, elementary principals were using the MEAP results "quite a bit" to inform the school community of the general achievement level of students in their schools. Approximately one-third (34.6%) characterized their use of the MEAP results for this purpose as "some." (See Table 10.)

Table 10.--Extent to which elementary school principals used the MEAP test results for 14 selected purposes.

Possible Use	Extent of Use								S.D.	Mean
	Very Little		Some		Quite a Bit		Extensive			
	N	%	N	%	N	%	N	%		
To determine general student achievement levels	23	5.3	130	30.3	93	45.0	83	19.4	1.61	5.09
To inform the school community	34	10.3	147	34.6	173	40.7	61	14.4	1.66	4.72
To determine strengths and weaknesses in mathematics	9	2.1	80	18.6	218	50.7	123	28.6	1.43	5.66
To determine strengths and weaknesses in reading	16	3.8	83	19.3	211	49.0	120	27.9	1.50	5.56
To determine strengths and weaknesses in science	57	13.4	141	33.0	133	31.2	96	22.5	1.91	4.74
To determine instructional priorities	29	6.8	127	29.6	186	43.3	88	20.5	1.63	5.02
To document need for resource allocation	160	38.0	166	39.3	78	18.5	18	4.3	1.69	3.27

Table 10.--Continued.

Possible Use	Extent of Use								S.D.	Mean
	Very Little		Some		Quite a Bit		Extensive			
	N	%	N	%	N	%	N	%		
To determine remedial student placement	231	54.6	129	30.5	46	10.9	17	4.1	1.74	2.76
To determine need for new programs	191	45.5	153	36.5	63	15.1	12	2.9	1.65	2.99
To determine new program effectiveness	214	51.6	122	29.4	67	16.1	12	2.9	1.71	2.85
To analyze teacher performance	304	75.3	78	19.3	17	4.2	5	1.2	1.38	1.92
To identify staff-development needs	130	30.8	145	34.4	112	26.6	35	8.3	1.89	3.66
To prepare funding proposals	310	74.6	65	15.6	32	7.7	9	2.1	1.58	2.11
To predict students' future academic success	221	52.9	130	31.1	56	13.4	11	2.6	1.67	2.70
Other	4	40.0	0	0	4	40.0	2	20.0	2.74	4.00

c. To determine strengths and weaknesses in the area of mathematics.

Elementary principals gave this purpose a mean rating of 5.66, indicating that, on the average, they were using the MEAP results "quite a bit" to determine strengths and weaknesses in the area of mathematics in their schools. This purpose had the highest mean score of the 14 selected uses of the MEAP results. Only 2.1% of the responding principals indicated "very little" use in this area. (See Table 10.)

d. To determine strengths and weaknesses in the area of reading.

This purpose received a mean rating of 5.56, indicating that, on the average, elementary principals were also using the MEAP results "quite a bit" to determine strengths and weaknesses in the area of reading in their schools. As in mathematics, only 3.8% of the principals indicated "very little use in this area. (See Table 10.)

e. To determine strengths and weaknesses in the area of science.

The mean rating for this purpose was 4.74, indicating that, on the average, elementary principals were using the MEAP results "quite a bit" to determine strengths and weaknesses in the area of science in their schools. A higher percentage of principals (13.4%) indicated "very little" use in this area as compared to reading and mathematics. (See Table 10.)

f. To determine instructional priorities.

The mean rating for this purpose was 5.02, indicating that, on the average, elementary principals were using the MEAP results "quite a bit" to determine instructional priorities within their schools. (See Table 10.)

g. To document need in the determination of school resource allocation (i.e., people, time, materials, and space).

Elementary principals gave this purpose a mean rating of 3.27, indicating that, on the average, they were using the MEAP results to "some" extent to determine resource allocation in their schools. Thirty-eight percent of the elementary principals indicated "very little" use in this area, and only 4.3% indicated "extensive" use of the MEAP results to determine resource allocation. (See Table 10.)

h. To determine placement of students in "remedial" programs.

This purpose received a mean rating of 2.76, indicating that, on the average, elementary principals were making "some" use of the MEAP results to determine placement of students in remedial programs. A majority of the principals (54.6%) however, indicated "very little" use in this area. (See Table 10.) This finding is not surprising because the MEAP is given in grades 4, 7, and 10 and therefore would have limited use for placement in the other K-12 grades.

i. To determine need for new programs.

The mean rating for this purpose was 2.99, indicating that, on the average, elementary principals were making "some" use of the MEAP results to determine the need for new programming. Only 2.9%

of the elementary principals indicated "extensive" use, and 45.5% indicated "very little" use of the MEAP results in this area. (See Table 10.)

j. To determine the effectiveness of new programs.

Elementary principals gave this purpose a mean rating of 2.85, indicating that, on the average, they were making "some" use of the MEAP results to determine new-program effectiveness. A majority (51.6%) of the principals indicated, however, that "very little" use was made of the MEAP results when determining the effectiveness of new programs. (See Table 10.)

k. To analyze teacher performance.

This purpose received a mean rating of 1.38, indicating that, on the average, elementary principals were using the MEAP results "very little" to analyze teacher performance. More than three-fourths (75.3%) of the principals indicated "very little" use of the MEAP results in this area. (See Table 10.)

l. To identify staff-development needs for teachers.

The mean rating for this purpose was 3.66, indicating that, on the average, elementary principals made "some" use of the MEAP results to identify staff-development needs for teachers. However, 34.9% of the principals did indicate "quite a bit" or "extensive" use of the MEAP results in this area. (See Table 10.)

m. To prepare proposals for funding.

This purpose received a mean rating of 2.11, indicating that, on the average, elementary principals made "very little" use of the

MEAP results to prepare proposals for funding. Almost three-fourths (74.6%) of the principals indicated "very little" use in this area. (See Table 10.)

n. To predict students' future academic success.

The mean rating for this purpose was 2.70, indicating that, on the average, elementary principals were making "some" use of the MEAP results to predict students' academic success. Again, a slight majority (52.9%) of the responding principals indicated "very little" use in this area. (See Table 10.)

o. Others, please specify.

The following are some of the comments made by elementary principals relative to the purposes for which they used the 1988 MEAP results: "To determine material needs--SEMS, AIMS, etc. for science," "To determine alignments of testing and curriculum," and "To generate variables for university course work."

The preceding findings are consistent with those of the Steele study with the exception of Items b and f. Steele found that elementary principals used the MEAP results to "some" extent (mean = 3.08) "to inform the school community of the general achievement level of the fourth-grade students in their school," whereas the findings of the present study indicated that elementary principals used the MEAP results "quite a bit" (mean = 4.72) for this purpose. Also, Steele found that elementary principals used the MEAP results to "some" extent (mean = 4.21) "to determine instructional priorities," whereas the findings of the present study indicated

that elementary principals used the MEAP results "quite a bit" (mean = 5.02) for this purpose.

Junior high/middle school principals. Junior high/middle school principals' responses concerning each of the 14 selected uses of the 1988 MEAP results, as well as their mean rating for each use, are shown in Table 11. The extent to which these principals used the MEAP results for each of the 14 selected purposes is discussed in the following paragraphs.

a. To determine the general achievement level of the seventh-grade students in your school.

This purpose received a mean rating of 4.73, indicating that, on the average, junior high/middle school principals used the MEAP results "quite a bit" to determine general student achievement levels in their schools. Twelve and nine-tenths percent of the principals indicated "extensive" use of the results and only 3.1% indicated "very little" use of the MEAP results for this purpose. (See Table 11.)

b. To inform the school community of the general achievement level of the seventh-grade students in your school.

Junior high/middle school principals gave this purpose a mean rating of 4.98, indicating that, on the average, they used the MEAP results "quite a bit" to inform the school community of the general achievement level of students in their school. Almost one-fifth (18.8%) of the principals indicated that they used the MEAP results "extensively" and only 5.5% indicated "very little" use in this area. (See Table 11.)

Table 11.--Extent to which junior high/middle school principals used the MEAP test results for 14 selected purposes.

Possible Use	Extent of Use								S.D.	Mean
	Very Little		Some		Quite a Bit		Extensive			
	N	%	N	%	N	%	N	%		
To determine general student achievement levels	5	3.1	72	44.2	65	39.9	21	12.9	1.49	4.73
To inform the school community	9	5.5	53	32.1	72	43.6	31	18.8	1.64	4.98
To determine strengths and weaknesses in mathematics	5	3.0	37	22.7	82	50.3	39	24.0	1.54	5.39
To determine strengths and weaknesses in reading	6	3.6	45	27.4	81	49.3	32	19.5	1.55	5.19
To determine strengths and weaknesses in science	24	14.6	35	39.7	52	31.7	23	14.1	1.83	4.39
To determine instructional priorities	23	14.1	65	39.8	56	34.4	19	11.7	1.73	4.42
To document need for resource allocation	74	45.1	63	38.5	24	14.6	3	1.8	1.61	3.02

Table 11.--Continued.

Possible Use	Extent of Use								S.D.	Mean
	Very Little		Some		Quite a Bit		Extensive			
	N	%	N	%	N	%	N	%		
To determine remedial student placement	72	44.4	51	31.5	33	20.4	6	3.7	1.80	3.12
To determine need for new programs	64	39.5	63	38.9	30	18.5	5	3.1	1.62	3.20
To determine new program effectiveness	86	54.2	46	28.9	35	15.7	2	1.2	1.59	2.76
To analyze teacher performance	128	80.5	22	13.8	9	5.7	0	0	1.20	1.75
To identify staff-development needs	66	40.9	56	34.8	34	21.2	5	3.1	1.76	3.13
To prepare funding proposals	107	67.8	36	22.7	13	8.2	2	1.3	1.52	2.18
To predict students' future academic success	84	52.5	51	31.9	21	13.1	4	2.5	1.68	2.66
Other	2	40.0	1	20.0	1	20.0	1	20.0	2.96	3.60

c. To determine strengths and weaknesses in the area of mathematics.

This purpose received a mean rating of 5.39, indicating that, on the average, junior high/middle school principals used the MEAP results "quite a bit" to determine strengths and weaknesses in the area of mathematics in their schools. A total of 74.3% of the principals rated this use as either "quite a bit" or "extensive." As with elementary principals, this was the highest rated use of the MEAP results. Only 3% of the principals indicated "very little" use in this area. (See Table 11.)

d. To determine strengths and weaknesses in the area of reading.

The mean rating for this purpose was 5.19, indicating that, on the average, junior high/middle school principals used the MEAP results "quite a bit" to determine strengths and weaknesses in the area of reading in their schools. This rating was consistent with the elementary principals' rating in that this was the second highest rated purpose for the junior high/middle school principals. (See Table 11.)

e. To determine strengths and weaknesses in the area of science.

This purpose received a mean rating of 4.39, indicating that, on the average, junior high/middle school principals made "some" use of the MEAP results to determine strengths and weaknesses in the area of science in their schools. This finding is somewhat deceiving, however, in that 45.8% of the junior high/middle school

principals gave this use a rating of "quite a bit" or "extensive." Fourteen and six-tenths percent of the principals indicated "very little" use of the MEAP results in this area. (See Table 11.)

f. To determine instructional priorities.

Junior high/middle school principals gave this purpose a mean rating of 4.42, indicating that, on the average, they made "some" use of the MEAP results to determine instructional priorities in their schools. Once again, however, a high percentage (46.1%) of the principals gave this purpose a rating of "quite a bit" or "extensive." (See Table 11.)

g. To document need in the determination of school resource allocation (i.e., people, time, materials, and space).

This purpose received a mean rating of 3.02, indicating that, on the average, junior high/middle school principals made "some" use of the MEAP results to document need in the determination of school resource allocation. Forty-five and one-tenth percent indicated "very little" use of the MEAP results and only 1.8% indicated "extensive" use in this area. (See Table 11.)

h. To determine placement of students in "remedial" programs.

The mean rating for this purpose was 3.12, indicating that, on the average, junior high/middle school principals made "some" use of the MEAP results to determine placement of students in "remedial" programs. (See Table 11.) As with the elementary principals' rating in this area, the MEAP was given only in the seventh grade

during a student's junior high/middle school years and would therefore have limited utility to assist with grouping concerns.

i. To determine need for new programs.

Junior high/middle school principals gave this purpose a mean rating of 3.20, indicating that, on the average, they made "some" use of the MEAP results to determine need for new programs. Almost 40% (39.5%) indicated "very little" use for the MEAP results in this area. (See Table 11.)

j. To determine the effectiveness of new programs.

This purpose received a mean rating of 2.76, indicating that, on the average, junior high/middle school principals made "some" use of the MEAP results to determine the effectiveness of new programs. It should be noted, however, that 54.2% of the principals indicated "very little" use for the MEAP results in this area. (See Table 11.)

k. To analyze teacher performance.

The mean rating for this purpose was 1.20, the lowest rating given by the junior high/middle school principals, indicating that, on the average, the principals used the MEAP results "very little" to analyze teacher performance. Only one out of five principals made "some" use or "quite a bit" of use of the MEAP results in this area, and no principal indicated making extensive use of the MEAP results to analyze teacher performance. (See Table 11.)

l. To identify staff-development needs for teachers.

The mean rating for this purpose was 3.13, indicating that, on the average, junior high/middle school principals made "some" use of

the MEAP results to assist with the identification of staff-development needs for teachers. (See Table 11.)

m. To prepare proposals for funding.

This purpose received a mean rating of 1.52, indicating that, on the average, junior high/middle school principals made "very little" use of the MEAP results to prepare funding proposals. Only 9.5% of the principals indicated "quite a bit" or "extensive" use of the MEAP results in this area. (See Table 11.)

n. To predict students' future academic success.

Junior high/middle school principals gave this purpose a mean rating of 1.68, indicating that, on the average, they made "very little" use of the MEAP results to predict students' future academic success. Fifteen and six-tenths percent of the principals indicated "quite a bit" or "extensive" use of the MEAP results for this purpose. (See Table 11.)

o. Others, please specify.

Two comments made by junior high/middle school principals relative to other purposes for which they used the 1988 MEAP results are as follows: "To determine minimum learning objectives" and "To demonstrate the poor correlation between MEAP science results and science education."

The preceding findings are consistent with those of the Steel study with the exception of Items b and n. Steele found that junior high/middle school principals used the MEAP results to "some" extent (mean = 3.34) "to inform the school community of the general

achievement level of the seventh-grade students in their school," whereas the findings of the present study indicated that junior high/middle school principals used the results "quite a bit" (mean = 4.98) for this purpose. Also, Steele found that junior high/middle school principals used the MEAP results "very little" (mean = 2.26) "to predict students' future academic success," whereas the findings of this study indicated that junior high/middle school principals made "some" (mean = 2.66) use of the MEAP results for this purpose.

High school principals. High school principals' responses concerning each of the 14 selected uses of the 1988 MEAP results, as well as their mean rating for each use, are shown in Table 12. The extent to which high school principals used the MEAP results for each of the 14 selected purposes is discussed in the following paragraphs.

a. To determine the general achievement level of the tenth-grade students in your school.

This purpose received a mean rating of 4.08, indicating that, on the average, high school principals used the MEAP results to "some" extent to determine the general achievement level of the tenth-grade students in their schools. More than one out of four (28.7%) made very little use of the MEAP results and only 11.7% made "extensive" use of the results in this area. (See Table 12.)

b. To inform the school community of the general achievement level of the tenth-grade students in your school.

High school principals gave this purpose a mean rating of 4.28, indicating that, on the average, they made "some" use of the MEAP

Table 12.--Extent to which high school principals used the MEAP test results for 14 selected purposes.

Possible Use	Extent of Use								S.D.	Mean
	Very Little		Some		Quite a Bit		Extensive			
	N	%	N	%	N	%	N	%		
To determine general student achievement levels	27	28.7	24	25.5	32	34.1	11	11.7	2.11	4.08
To inform the school community	26	25.7	25	24.8	31	30.7	19	18.8	2.24	4.28
To determine strengths and weaknesses in mathematics	8	5.6	27	18.4	70	47.9	41	28.1	1.58	5.48
To determine strengths and weaknesses in reading	10	6.9	29	20.0	67	46.2	39	26.9	1.69	5.38
To determine strengths and weaknesses in science	28	19.7	36	25.4	54	38.0	24	16.9	1.95	4.55
To determine instructional priorities	25	17.2	57	39.3	46	31.7	17	11.8	1.81	4.23
To document need for resource allocation	59	42.7	45	32.6	28	20.3	6	4.3	1.80	3.20

Table 12.--Continued.

Possible Use	Extent of Use								S.D.	Mean
	Very Little		Some		Quite a Bit		Extensive			
	N	%	N	%	N	%	N	%		
To determine remedial student placement	56	40.9	43	31.4	22	16.0	16	11.7	2.12	3.39
To determine need for new programs	54	39.1	46	33.3	30	21.7	8	5.8	1.86	3.35
To determine new program effectiveness	78	56.5	40	28.9	17	12.3	3	2.1	1.63	2.64
To analyze teacher performance	104	81.2	18	14.1	5	3.9	1	.8	1.19	1.76
To identify staff-development needs	69	50.4	37	27.0	28	20.5	3	2.2	1.79	2.86
To prepare funding proposals	88	67.2	29	22.1	12	9.2	2	1.5	1.50	2.16
To predict students' future academic success	71	53.0	44	32.8	17	12.7	2	1.5	1.66	2.60
Other	0	0	0	0	0	0	0	0	0	0

results to inform the school community of the general achievement level of the tenth-grade students in their schools. Twenty-five and seven-tenths percent of the principals indicated that the MEAP results were used "very little" for this purpose. (See Table 12.)

c. To determine strengths and weaknesses in the area of mathematics.

This purpose received a mean rating of 5.48, indicating that, on the average, high school principals used the MEAP results "quite a bit" to determine strengths and weaknesses in the area of mathematics. As with junior high/middle school and elementary principals, this area was rated the highest of the 14 selected uses of the MEAP results (5.66 for elementary and 5.39 for junior high/middle school principals). Also consistent with the figures for the other two levels (2.1% for elementary and 3.0% for junior high/middle school principals) is that only 5.6% of the high school principals indicated "very little" use of the MEAP results to determine strengths and weaknesses in their mathematics programs. (See Table 12.)

d. To determine strengths and weaknesses in the area of reading.

The mean rating for this purpose was 5.38, indicating that, on the average, high school principals made "quite a bit" of use of the MEAP results to determine strengths and weaknesses in the area of reading. This area was rated second highest by high school principals, as it was by elementary and junior high/middle school

principals. Also consistent was the low percentage (6.9%) seen in the "very little" column. (See Table 12.)

e. To determine strengths and weaknesses in the area of science.

High school principals gave this purpose a mean rating of 4.55, indicating that, on the average, they made "quite a bit" of use of the MEAP results to determine strengths and weaknesses in the area of science. Almost one out of five (19.7%) of the principals, however, indicated "very little" use of the MEAP results for this purpose. (See Table 12.)

f. To determine instructional priorities.

The mean rating for this purpose was 4.23, indicating that, on the average, high school principals made "some" use of the MEAP results to determine instructional priorities. (See Table 12.)

g. To document need in the determination of school resource allocation (i.e., people, time, materials, and space).

This purpose received a mean rating of 3.20, indicating that, on the average, high school principals made "some" use of the MEAP results to document need in the determination of school resource allocation. Slightly more than three-fourths (75.3%) of the principals indicated "very little" or "some" use of the MEAP results for this purpose. (See Table 12.)

h. To determine placement of students in "remedial" programs.

High school principals gave this purpose a mean rating of 3.39, indicating that, on the average, they used the MEAP results to "some" extent to determine placement of students in "remedial"

programs. Slightly more than four out of ten (42.7%) principals indicated "very little" use of the MEAP results in this area. (See Table 12.) As noted when discussing the findings for junior high/middle school and elementary school principals, because the MEAP assesses only "essential skills" and is administered at only one grade level, its usefulness for student placements is minimal.

i. To determine need for new programs.

This purpose received a mean rating of 3.35, indicating that, on the average, high school principals made "some" use of the MEAP results to determine need for new programs. Only 5.8% indicated "extensive" use in this area. (See Table 12.)

j. To determine the effectiveness of new programs.

The mean rating for this purpose was 2.64, indicating that, on the average, high school principals made "some" use of the MEAP results to determine the effectiveness of new programs in their schools. Eighty-five and four-tenths percent of the high school principals, however, made "very little" or "some" use of the MEAP results for this purpose. (See Table 12.)

k. To analyze teacher performance.

High school principals gave this purpose a mean rating of 1.19, indicating that, on the average, they used the MEAP results "very little" to analyze teacher performance. (See Table 12.) This rating was consistent with that of the elementary and junior high/middle school principals; of the 14 selected purposes, this one received the lowest rating of principals at all three levels.

l. To identify staff-development needs for teachers.

The mean rating for this purpose was 2.86, indicating that, on the average, high school principals made "some" use of the MEAP results to identify staff-development needs for their teaching staffs. Slightly more than one-half (50.4%) of the principals indicated "very little" use in this area. (See Table 12.)

m. To prepare proposals for funding.

This purpose received a mean rating of 2.16, indicating that, on the average, high school principals made only "some" use of the MEAP results to prepare proposals for funding. (See Table 12.)

n. To predict students' future academic success.

High school principals gave this purpose a mean rating of 2.60, indicating that, on the average, they used the MEAP results to "some" extent to predict students' future academic success. More than one-half (53%) of the principals indicated "very little" use of the MEAP results for this purpose. (See Table 12.)

o. Others, please specify.

One high school principal wrote in another purpose for which the 1988 MEAP results were used: "To develop lessons for groups of low-achieving students within classes--to assess new math textbook suitability."

Total group. In this section, the findings for Research Question 3 are discussed in terms of the total group, as well as for individual subgroups. This section also serves as a summary of the extent to which the MEAP results were used for various purposes by

elementary school, junior high/middle school, and high school principals in Michigan.

The total group's responses concerning each of the 14 selected uses of the 1988 MEAP results, as well as their mean rating for each use, are shown in Table 13. The extent to which the total group of principals used the MEAP results for each of the 14 selected purposes is discussed in the following paragraphs.

a. To determine the general achievement level of the fourth-, seventh-, or tenth-grade students in your school.

This purpose received a mean rating of 4.89, indicating that, on the average, building principals used the MEAP results "quite a bit" to determine the general achievement level of the students in their schools. (See Table 13.) Ratings ranged from a high of 5.09 for elementary principals to a low of 4.08 for junior high/middle school principals. Elementary principals had the highest percentage (45%) for the rating of "quite a bit."

b. To inform the school community of the general achievement level of the fourth-, seventh-, or tenth-grade students in your school.

The mean rating for this purpose was 4.72, indicating that, on the average, building principals made "quite a bit" of use of the MEAP results to inform the school community of the general achievement levels of the students in their schools. (See Table 13.) Junior high/middle school principals gave the highest mean rating (4.98) and high school principals gave the lowest mean rating (4.28) to this purpose.

Table 13.--Extent to which the total group of principals used the MEAP test results for 14 selected purposes.

Possible Use	Extent of Use								S.D.	Mean
	Very Little		Some		Quite a Bit		Extensive			
	N	%	N	%	N	%	N	%		
To determine general student achievement levels	56	7.6	240	33.0	305	41.9	127	17.5	1.69	4.89
To inform the school community	82	11.2	238	32.4	291	40.8	115	15.7	1.75	4.72
To determine strengths and weaknesses in mathematics	23	3.0	155	19.8	384	49.2	219	28.0	1.50	5.57
To determine strengths and weaknesses in reading	33	4.2	168	21.6	375	48.0	205	26.2	1.56	5.45
To determine strengths and weaknesses in science	112	14.5	261	33.6	250	32.2	153	19.7	1.90	4.63
To determine instructional priorities	83	10.6	267	34.2	303	38.8	128	16.4	1.73	4.71
To document need for resource allocation	301	39.2	298	38.9	139	18.1	15	3.8	1.69	3.23

Table 13.--Continued.

Possible Use	Extent of Use								S.D.	Mean
	Very Little		Some		Quite a Bit		Extensive			
	N	%	N	%	N	%	N	%		
To determine remedial student placement	370	48.4	243	31.8	107	14.0	45	5.9	1.86	3.01
To determine need for new programs	321	42.2	280	36.8	134	17.6	27	3.5	1.69	3.15
To determine new program effectiveness	393	52.1	228	30.2	114	15.1	20	2.6	1.68	2.82
To analyze teacher performance	562	76.7	131	17.8	34	4.7	6	.8	1.31	1.87
To identify staff-development needs	280	36.7	257	33.7	183	24.0	43	5.6	1.85	3.38
To prepare funding proposals	537	71.9	139	18.6	58	7.8	13	1.7	1.53	2.12
To predict students' future academic success	394	52.2	239	31.7	102	13.6	19	2.5	1.69	2.71
Other	6	40.0	1	6.6	5	33.4	3	20.0	2.72	3.86

c. To determine strengths and weaknesses in the area of mathematics.

The total group's mean rating for this purpose was 5.57, indicating that, on the average, building principals made "quite a bit" of use of the MEAP results to determine strengths and weaknesses in the area of mathematics in their schools. This was the highest rated use, not only for the total group but also for the elementary school principals (mean = 5.66), junior high/middle school principals (mean = 5.359), and high school principals (5.48). Only 3% of the total group made "very little" use of the MEAP results for this purpose. (See Table 13.)

d. To determine strengths and weaknesses in the area of reading.

This purpose received a mean rating of 5.45, indicating that, on the average, building principals made "quite a bit" of use of the MEAP results to determine strengths and weaknesses in their reading programs. (See Table 13.) This purpose was rated second highest by each of the subgroups (elementary principals' mean = 5.56, junior high/middle school principals' mean = 5.19, high school principals' mean = 5.38).

e. To determine strengths and weaknesses in the area of science.

This purpose received a mean rating of 4.63, indicating that, on the average, building principals used the MEAP results "quite a bit" to determine strengths and weaknesses in their science programs. Slightly more than one-third (33.6%), however, indicated

that "some" use was made of the MEAP results in this area. (See Table 13.)

f. To determine instructional priorities.

The mean rating for this purpose was 4.71, indicating that, on the average, building principals made "quite a bit" of use of the MEAP results to determine instructional priorities in their schools. Almost four out of ten (38.8%) of the principals indicated "quite a bit" of use. Percentages ranged from 10.6% indicating "very little use of MEAP results in this area of 16.4% indicating "extensive" use. (See Table 13.)

g. To document need in the determination of school resource allocation (i.e., people, time, materials, and space).

The mean rating for this purpose was 3.23, indicating that, on the average, building principals used the MEAP results to "some extent" to document need in the determination of school resource allocations in their schools. (See Table 13.)

h. To determine placement of students in "remedial" programs.

This purpose received a mean rating of 3.01, indicating that, on the average, building principals made "some" use of the MEAP results to determine placement of students in "remedial" programs. Means ranged from a low of 2.76 for elementary principals to a high of 3.39 for high school principals. (See Table 13.) Because the MEAP test is administered in the tenth grade, the higher mean for high school principals may mean that the data generated by the MEAP can be used for an additional two years. As noted in comments for each subgroup relative to this question, the MEAP, which assesses

"essential" skills, is currently given only in grades 4, 7, and 10 and would therefore seem to have limited utility across a K-12 system.

i. To determine need for new programs.

The mean rating for this purpose was 3.15, indicating that, on the average, building principals made "some" use of the MEAP results to determine need for new programs. (See Table 13.)

j. To determine the effectiveness of new programs.

This purpose received a mean rating of 2.82, indicating that, on the average, building principals used the MEAP results to "some" extent to determine the effectiveness of new programs. More than half (52.1%) of the principals, however, indicated "very little" use for the MEAP results in this area and only 2.6% indicated "extensive" use. (See Table 13.)

k. To analyze teacher performance.

The mean rating for this purpose was 1.87, indicating that, on the average, building principals made "very little" use of the MEAP results to analyze teacher performance. Of the 14 selected uses for the MEAP results, this one had the lowest mean for the total group as well as for each of the subgroups (elementary principals' mean = 1.92, junior high/middle school principals' mean = 1.75, high school principals' mean = 1.76). Only 5.5% of the total group indicated "quite a bit" or "extensive" use of the MEAP results for this purpose. Conversely, more than three-fourths of the responding principals indicated "very little" use in this area. (See Table 13.)

l. To identify staff-development needs for teachers.

The mean rating for this purpose was 3.38, indicating that, on the average, building principals used the MEAP results to "some" extent to identify staff-development needs for teachers. Means ranged from a high of 3.66 for elementary principals to a low of 2.86 for high school principals. In terms of total group response, more than seven out of ten (70.4%) of the principals indicated "very little" or "some" use of the MEAP results in this area. (See Table 13.)

m. To prepare proposals for funding.

This purpose received a mean rating of 2.12, indicating that, on the average, building principals made "very little" use of the MEAP results to prepare proposals for funding. (See Table 13.)

n. To predict students' future academic success.

The mean rating for this purpose was 2.71, indicating that, on the average, building principals made "some" use of the MEAP results to predict students' future academic success. More than half (52.2%) of the principals indicated, however, that they made "very little" use of the MEAP results in this area.

o. Others, please specify.

"Other" purposes specified by respondents were noted in the subgroup presentations.

Research Question 4

What are the attitudes of Michigan school principals regarding the value of the MEAP and the utility of the test results provided by the program?

For Research Question 4, elementary school, junior high/middle school, and high school principals were asked to respond to questionnaire Items 10 and 11, again using an eight-point Likert scale. In the following pages, each question is stated, followed by the responses to that question. For each question, the data are presented for each subgroup (elementary school, junior high/middle school, and high school principals). Total group data are presented as part of a summary for each item for Research Question 4.

10. Using the above scale [1 and 2 = very little, 3 and 4 = some, 5 and 6 = quite a bit, 7 and 8 = extensively], rate the extent MEAP results have had an impact on the instructional program in your school:
 - a. In encouraging the development of a more comprehensive testing program.
 - b. In calling attention to a curricular problem(s) not previously noted for your school.
 - c. In confirming previous tentative judgments about a curricular problem(s) in your school.
 - d. In facilitating a more individualized instructional approach to teaching.
 - e. In influencing community attitudes toward your school.
 - f. In narrowing the curriculum to just the MEAP tested objectives in a subject area.
 - g. In narrowing instruction to just the MEAP tested subject areas (mathematics, reading, and science).
 - h. Others, please specify.

Elementary school principals. Elementary school principals' responses concerning each of the seven areas of impact listed in Item 10, as well as the mean rating of the extent of impact in each area, are shown in Table 14. In the following paragraphs, each area of impact is discussed separately. "Other" areas not listed in the questionnaire but mentioned by respondents are also cited.

a. Encouraging the development of a more comprehensive testing program.

The mean rating for this item was 3.25, indicating that, on the average, elementary principals thought the MEAP had had "some" impact in encouraging a more comprehensive testing program. Almost four out of ten (38.2%) principals, however, thought the MEAP had had "very little" impact in this area. (See Table 14.)

b. In calling attention to a curricular problem(s) not previously noted for your school.

The mean rating for this item was 4.20, indicating that, on the average, elementary principals thought the MEAP had had "some" impact in calling attention to previously unknown curricular problems in their schools. Almost one out of three (32.2%) principals indicated the MEAP had had "quite a bit" of impact in this area. (See Table 14.)

c. In confirming previous tentative judgments about a curricular problem(s) in your school.

The mean rating for this item was 4.19, indicating that, on the average, elementary principals believed the MEAP had had "some"

Table 14.--Elementary school principals' attitudes regarding the impact of the MEAP on the instructional programs in their schools.

Area of Impact	Extent of Impact								S.D.	Mean
	Very Little		Some		Quite a Bit		Extensive			
	N	%	N	%	N	%	N	%		
Encouraging a more comprehensive testing program	160	38.2	167	39.9	73	17.4	19	4.5	1.74	3.25
Calling attention to curriculum problems	79	18.6	159	37.6	136	32.2	49	11.6	1.81	4.2
Confirming previous judgments about curricular problems	64	15.1	177	41.9	151	35.7	31	7.3	1.64	4.19
Facilitating individualized instruction	125	29.8	202	48.1	82	19.5	11	2.6	1.58	3.40
Influencing community attitudes	98	23.2	151	35.6	125	29.6	49	11.6	1.90	4.07
Narrowing the curriculum to just MEAP tested items	293	69.9	100	23.9	16	3.8	10	2.4	1.47	2.12
Narrowing instruction to just MEAP tested subject areas	316	75.6	82	19.6	12	2.9	8	1.9	1.35	1.94
Other	5	62.5	2	25.0	1	12.5	0	0	1.80	2.12

impact in confirming previous tentative judgments relative to curricular problem(s) in their schools. (See Table 14.)

d. In facilitating a more individualized instructional approach to teaching.

The mean rating for this item was 3.40, indicating that, on the average, elementary principals thought the MEAP had had "some" impact in facilitating a more individualized approach to teaching in their schools. Only 2.6% of the principals indicated an "extensive" impact by the MEAP in this area. (See Table 14.)

e. In influencing community attitudes toward your school.

The mean rating for this item was 4.07, indicating that, on the average, elementary principals believed the MEAP had had "some" impact in influencing community attitudes toward their schools. Almost one-fourth (23.2%) of the principals indicated "very little" impact in this area, however. (See Table 14.)

f. In narrowing the curriculum to just the MEAP tested objectives in a subject area.

The mean rating for this item was 2.12, indicating that, on the average, elementary principals thought the MEAP had had "very little" impact in narrowing their schools' curriculum to just the MEAP tested objectives in a subject area. Only 6.2% of the elementary principals indicated that the MEAP had had "quite a bit" of impact in this area. (See Table 14.)

g. In narrowing instruction to just MEAP tested subject areas (mathematics, reading, and science).

The mean rating for this item was 1.35, indicating that, on the average, elementary principals believed the MEAP had had "very little" impact in narrowing instruction to just the MEAP tested area. Less than 5% (4.8%) of the principals indicated "quite a bit" or "extensive" impact by the MEAP in this area. (See Table 14.)

h. Others, please specify.

Some of the comments made by elementary principals relative to the impact the MEAP had had in areas not included on the survey were: "Have reaffirmed our commitment to excellence and equity" and "Shifting focus to science and mathematics."

The preceding findings are consistent with those of the Steele study with the exception of Item e. Steele found that elementary principals thought the MEAP had had "very little" impact (mean = 2.48) "in influencing community attitudes" toward their schools, whereas the findings of the present study indicated that elementary principals thought the MEAP had had "some impact (mean = 4.07) in this area.

Junior high/middle school principals. Junior high/middle school principals' responses concerning each of the seven areas of impact listed in Item 10, as well as the mean rating of the extent of impact in each area, are shown in Table 15. In the following paragraphs, each area of impact is discussed separately. "Other" areas not listed in the questionnaire but mentioned by respondents are also cited.

Table 15.--Junior high/middle school principals' attitudes regarding the impact of the MEAP on the instructional programs in their schools.

Area of Impact	Extent of Impact								S.D.	Mean
	Very Little		Some		Quite a Bit		Extensive			
	N	%	N	%	N	%	N	%		
Encouraging a more comprehensive testing program	63	38.4	52	31.7	42	25.6	7	4.3	1.81	3.36
Calling attention to curriculum problems	37	22.5	55	33.6	62	37.8	10	6.1	1.71	4.18
Confirming previous judgments about curricular problems	34	20.7	56	34.2	64	39.0	10	6.1	1.71	4.14
Facilitating individualized instruction	61	37.3	64	39.0	35	21.3	4	2.4	1.63	3.28
Influencing community attitudes	25	15.1	64	39.0	56	34.2	19	11.6	1.82	4.32
Narrowing the curriculum to just MEAP tested items	112	69.2	38	23.4	11	6.8	1	.6	1.36	2.14
Narrowing instruction to just MEAP tested subject areas	121	74.7	32	19.8	8	4.9	1	.6	1.25	1.92
Other	6	66.7	0	0	1	11.1	2	22.2	3.06	3.11

a. In encouraging the development of a more comprehensive testing program.

The mean rating for this item was 3.36, indicating that, on the average, junior high/middle school principals believed the MEAP had had "some" impact in encouraging the development of a more comprehensive assessment program in their schools. Only 4.3% of the principals indicated an "extensive" impact in this area, and more than one-third (38.4%) thought the MEAP had had "very little" impact on their testing programs. (See Table 15.)

b. In calling attention to a curricular problem(s) in your school.

As shown in Table 15, the mean rating for this item was 4.18, indicating that, on the average, junior high/middle school principals believed the MEAP had had "some" impact in calling attention to a previously unnoted problem(s) in their schools' curricula. Forty-three and three-tenths percent of the principals indicated either "quite a bit" or "extensive" impact in this area, however.

c. In confirming previous tentative judgments about a curricular problem(s) in your school.

The mean rating for this item was 4.14, indicating that, on the average, junior high/middle school principals believed the MEAP had had "some" impact in confirming previous judgments about curricular problem(s) in their schools. (See Table 15.)

d. In facilitating a more individualized instructional approach to teaching.

The mean rating for this item was 3.28, indicating that, on the average, junior high/middle school principals thought the MEAP had had "some" impact in facilitating more individualized instruction in their schools. More than one-third of the principals (37.3%) thought the MEAP had had "very little" impact in this area. (See Table 15.)

e. In influencing community attitudes toward your school.

As shown in Table 15, the mean rating for this item was 4.32, indicating that, on the average, junior high/middle school principals thought the MEAP had had "some" impact in influencing attitudes of the community about their schools. This item had the highest mean for junior high/middle school principals for Question 10 and the lowest percentage of response in the "very little" column (15.1%).

f. In narrowing the curriculum to just the MEAP tested objectives in a subject area.

The mean rating for this item was 2.14, indicating that, on the average, junior high/middle school principals believed the MEAP had had "very little" impact in this area. Just 7.4% of the principals indicated that the MEAP had had "quite a bit" or "extensive" impact in narrowing their curriculum. (See Table 15.)

g. In narrowing instruction to just the MEAP tested subject areas (mathematics, reading, and science).

As shown in Table 15, the mean rating for this item was 1.25, indicating that, on the average, junior high/middle school

principals believed the MEAP had had "very little" impact in narrowing instruction in their schools. Almost three-fourths (74.7%) of the principals indicated "very little" impact in this area. This item had the lowest mean for junior high/middle school principals for Question 10.

h. Others, please specify.

Some of the comments made by junior high/middle school principals relative to the impact the MEAP had had in areas not included in the survey were as follows: "Especially in English sections, a real attempt is made to remediate weak areas" and "Discouraged the continuation of the comprehensive testing program previously in place (time constraints)."

The preceding findings are consistent with those of the Steele study in that each area common to this study and the Steele study was rated identically in terms of impact (i.e., very little, some, and so on). However, the Steele study indicated a mean of 2.57 for item 3 (influencing community attitudes), just .07 into the "some" classification. The current study indicated a mean of 4.32 for item e, also in the "some" classification yet with a considerably higher mean (only .18 from "quite a bit"). This means that junior high/middle school principals in 1988 thought the MEAP had a more significant impact than did principals in 1976.

High school principals. High school principals' responses concerning each of the seven areas of impact listed in Item 10, as well as the mean rating of the extent of impact in each area, are shown in Table 16. In the following paragraphs, each area of impact

Table 16.--High school principals' attitudes regarding the impact of the MEAP on the instructional programs in their schools.

Area of Impact	Extent of Impact								S.D.	Mean
	Very Little		Some		Quite a Bit		Extensive			
	N	%	N	%	N	%	N	%		
Encouraging a more comprehensive testing program	57	40.5	49	34.7	26	18.5	9	6.3	1.85	3.27
Calling attention to curriculum problems	36	24.8	47	32.5	45	31.0	17	11.7	1.92	4.05
Confirming previous judgments about curricular problems	32	22.2	48	33.4	43	29.9	21	14.6	1.93	4.16
Facilitating individualized instruction	57	40.5	54	38.3	27	19.1	3	2.1	1.68	3.10
Influencing community attitudes	36	25.5	45	31.9	43	30.5	17	12.1	2.01	4.05
Narrowing the curriculum to just MEAP tested items	109	78.4	23	16.6	7	5.0	0	0	1.45	1.87
Narrowing instruction to just MEAP tested subject areas	112	81.2	20	14.5	6	4.3	0	0	1.08	1.71
Other	2	66.7	0	0	0	0	1	33.3	3.46	3.00

is discussed separately. "Other" areas not listed in the questionnaire but mentioned by respondents are also cited.

a. In encouraging the development of a more comprehensive testing program.

The mean rating for this item was 3.27, indicating that, on the average, high school principals believed the MEAP had had "some" impact in encouraging a more comprehensive assessment program in their schools. Slightly more than four out of ten (40.5%) of these principals indicated "very little" impact in this area, however. (See Table 16.)

b. In calling attention to a curricular problem(s) not previously noted for your school.

The mean rating for this item was 4.05, indicating that, on the average, high school principals thought the MEAP had had "some" impact in calling attention to previously unnoted curricular problems in their schools. (See Table 16.)

c. In confirming previous tentative judgments about a curricular problem(s) in your school.

As shown in Table 16, the mean rating for this item was 4.16, indicating that, on the average, high school principals believed the MEAP had had "some" impact in confirming judgments about curricular problems in their schools. This item had the highest mean for high school principals for Question 10.

d. In facilitating a more individualized instructional approach to teaching.

The mean rating for this item was 3.10, indicating that, on the average, high school principals thought the MEAP had had "some" impact in facilitating a more individualized instructional approach by the teachers in their buildings. Only 2.1% indicated "extensive" impact by the MEAP and more than four out of ten (40.5%) indicated "very little" impact by the MEAP in this area. (See Table 16.)

e. In influencing community attitudes toward your school.

The mean rating for this item was 4.05, indicating that, on the average, high school principals believed the MEAP had had "some" impact in influencing community attitudes toward their schools. Slightly more than one-fourth (25.5%) of the principals indicated "very little" impact in this area. (See Table 16.)

f. In narrowing the curriculum to just the MEAP tested objectives in a subject area.

The mean rating for this item was 1.87, indicating that, on the average, high school principals thought the MEAP had had "very little" impact in narrowing the curriculum in subject areas assessed by the MEAP. Only 5% of the principals indicated "quite a bit" of impact by the MEAP, and none indicated "extensive" impact. Seventy-eight and four-tenths percent of the principals indicated "very little" impact of MEAP results in this area. (See Table 16.)

g. In narrowing instruction to just the MEAP tested objectives in a subject area.

As shown in Table 16, the mean rating for this item was 1.71, indicating that, on the average, high school principals believed the MEAP had had "very little" impact in narrowing instruction to the

MEAP tested areas of mathematics, reading, or science. More than eight out of ten (81.2%) of the principals indicated "very little" impact in this area, and none of them indicated "extensive" impact.

h. Others, please specify.

A sample of comments made by high school principals relative to the impact the MEAP had had in areas not included in the survey follows: "Shifting grade levels in which courses are offered to please the state, i.e., moving biology from grade 9 to 10" and "Encouraging an overall emphasis of building instructional skills, strategies, and techniques."

Total group. In this section, the findings for Research Question 4, questionnaire Item 10, are discussed in terms of the total group, as well as for individual subgroups. This section also serves as a summary of the attitudes of the total group regarding the impact of the MEAP on the instructional programs in their schools.

The total group's responses concerning the selected areas of MEAP impact, as well as their mean rating for each area, are shown in Table 17. The findings concerning each area of impact are presented in the following paragraphs.

a. In encouraging the development of a more comprehensive testing program.

This item had a mean rating of 3.26, indicating that, on the average, the total group believed the MEAP had had "some" impact on the development of a more comprehensive testing program in their

Table 17.--The total group's attitudes regarding the impact of the MEAP on the instructional programs in their schools.

Area of Impact	Extent of Impact								S.D.	Mean
	Very Little		Some		Quite a Bit		Extensive			
	N	%	N	%	N	%	N	%		
Encouraging a more comprehensive testing program	297	38.7	288	37.6	146	19.0	36	4.7	1.76	3.26
Calling attention to curriculum problems	156	20.2	278	35.8	262	33.8	79	10.2	1.80	4.21
Confirming previous judgments about curricular problems	137	17.6	294	38.0	279	36.1	64	8.3	1.71	4.18
Facilitating individualized instruction	255	33.3	342	44.5	153	19.9	18	2.3	1.60	3.31
Influencing community attitudes	166	21.6	275	35.7	241	31.2	89	11.5	1.90	4.14
Narrowing the curriculum to just MEAP tested items	546	71.6	169	22.2	35	4.7	13	1.7	1.40	2.08
Narrowing instruction to just MEAP tested subject areas	579	76.1	144	19.0	27	3.6	11	1.5	1.29	1.91
Other	14	58.3	4	16.7	3	12.5	3	12.5	2.45	2.87

schools. The mean scores of the three subgroups fell within a fairly narrow range, from a low of 3.25 for the elementary principals to a high of 3.36 for junior high/middle school principals, indicating similar perceptions of the MEAP in this area. (See Table 17.)

b. In calling attention to a curricular problem(s) in your school.

The mean rating for this item was 4.21, indicating that, on the average, the total group thought the MEAP had had "some" impact in calling attention to a previously unnoted curricular problem(s) in their schools. Again, mean scores fell within a narrow range, from a high of 4.20 for elementary principals to a low of 4.16 for high school principals. (See Table 17.)

c. In confirming previous tentative judgments about a curricular problem(s) in your school.

The mean rating for this item was 4.18, indicating that, on the average, the total group believed the MEAP had had "some" impact in confirming tentative judgments about a curricular problem(s) in the principals' schools. Again, only a slight variance existed among the mean ratings of the three subgroups (elementary principals' mean = 4.19, junior high/middle school principals' mean = 4.14, high school principals' mean = 4.16). (See Table 17.)

d. In facilitating a more individualized instructional approach to teaching.

As shown in Table 17, the mean rating for this item was 3.31, indicating that, on the average, the total group believed the MEAP

had had "some" impact in facilitating more individualized instruction in their schools. It appears that elementary principals perceived a greater impact of the MEAP in this area (mean = 3.40) than did either junior high/middle school or high school principals (means = 3.28 and 3.10, respectively).

e. In influencing community attitudes toward your school.

This item had a mean rating of 4.14, indicating that, on the average, the total group thought the MEAP had had "some" impact in influencing community attitudes toward their schools. Junior high/middle school principals had the highest mean (4.32), whereas elementary and high school principals had similar means (4.07 and 4.05, respectively). (See Table 17.)

f. In narrowing the curriculum to just the MEAP tested objectives in a subject area.

As shown in Table 17, the mean rating for this item was 2.08, indicating that, on the average, the total group thought the MEAP had had "very little" impact in narrowing local curricula to just the MEAP tested objectives in a particular subject area. High school principals showed the lowest mean (1.87), with junior high principals the highest at 2.14 and elementary principals at 2.12.

g. In narrowing instruction to just the MEAP tested subject areas (mathematics, reading, and science).

The mean rating for this item was 1.91, indicating that, on the average, the total group believed the MEAP had had "very little" impact in narrowing instruction in Michigan schools to just the MEAP

tested subject areas of mathematics, reading and science. Once again, high school principals showed the lowest mean (1.71) and elementary principals showed the highest (1.94, still within the "very little" category).

h. Others, please specify. Comments by the total group were included in the subgroup presentations.

In the following pages, responses to questionnaire Item 11 are presented for each subgroup and for the total group of principals. Item 11 is restated as it appeared in the questionnaire.

11. Using the scale provided above [1 and 2 = very little, 3 and 4 = some, 5 and 6 = quite a bit, 7 and 8 = extensively], rate the extent to which you believe MEAP test results are useful to you for the following purposes.
 - a. Diagnosis of student learning needs.
 - b. Analysis of the relationship between the allocation of school resources and student achievement of minimal objectives.
 - c. Planning for instructional improvements.
 - d. Communicating status of student learning to parents and students.

Elementary school principals. Elementary school principals' responses concerning the usefulness of the MEAP test results for selected purposes, as well as their mean rating for each purpose, are shown in Table 18. Findings regarding the usefulness of the MEAP results for each of the four selected purposes are discussed in the following paragraphs.

Table 18.--Elementary school principals' attitudes regarding the usefulness of the MEAP test results for selected purposes.

Purpose	Extent of Usefulness								S.D.	Mean
	Very Little		Some		Quite a Bit		Extensive			
	N	%	N	%	N	%	N	%		
Diagnosis of student learning needs	47	11.0	148	34.6	165	38.7	67	15.7	1.75	4.70
Analysis of relationship between allocation of school resources and student achievement of minimal objectives	154	36.5	159	37.7	87	20.6	22	5.2	1.77	3.36
Planning for instructional improvements	33	7.6	121	28.4	187	43.8	86	20.2	1.67	5.03
Communicating status of student learning to parents and students	33	7.7	146	34.1	184	43.0	65	15.2	1.64	4.81

a. Diagnosis of student learning needs.

The mean rating for this item was 4.70, indicating that, on the average, elementary principals rated the MEAP test results as "quite" useful in terms of diagnosing student learning needs. Fifteen and seven-tenths percent of the principals rated the MEAP's usefulness in this area as "extensive," and 11% indicated "very little" use for MEAP results in this area. (See Table 18.)

b. Analysis of the relationship between the allocation of school resources and student achievement of minimal objectives.

As shown in Table 18, this item had a mean rating of 3.36, indicating that, on the average, elementary principals thought the MEAP test results had "some" usefulness in this area. More than one-third (36.5%) of these principals, however, rated the MEAP test results as having "very little" usefulness in this area.

c. Planning for instructional improvements.

This item had a mean rating of 5.03, indicating that, on the average, elementary principals believed the MEAP test results were "quite" useful in planning for instructional improvements in their schools. Slightly more than two out of ten (20.2%) of the principals rated the MEAP's usefulness as "extensive," and only 7.6% saw the MEAP as having "very little" usefulness in this area. (See Table 18.)

d. Communicating status of student learning to parents and students.

The mean rating for this item was 4.81, indicating that, on the average, elementary principals rated the MEAP test results as being

"quite" useful in communicating the level of student learning to parents and students. More than one-third (34.1%) saw the MEAP as having "some" usefulness, and only 7.7% thought the MEAP had "very little" usefulness in this area. (See Table 18.)

The preceding findings are consistent with those of the Steele study with the exception of Items c and d. In 1976, Elementary principals rated the MEAP as having "some" usefulness (mean = 4.40) when "planning for instructional improvements" and when "communicating status of student learning to parents and students" (mean = 3.31). The findings of this study indicated that the MEAP test results were seen as being "quite" useful in these areas (means = 5.03 and 4.81, respectively).

Junior high/middle school principals. Junior high/middle school principals' responses concerning the usefulness of the MEAP test results for selected purposes, as well as their mean rating for each purpose, are shown in Table 19. Findings regarding the usefulness of the MEAP results for each of the four selected purposes are discussed in the following paragraphs.

a. Diagnosis of student learning needs.

The mean rating for this item was 4.58, indicating that, on the average, junior high/middle school principals rated the MEAP test results as "quite" useful in terms of diagnosing student learning needs. Close to half (43.3%) of the principals believed the MEAP test results had "very little" or only "some" usefulness in this area, however. (See Table 19.)

Table 19.--Junior high/middle school principals' attitudes regarding the usefulness of the MEAP test results for selected purposes.

Purpose	Extent of Usefulness								S.D.	Mean
	Very Little		Some		Quite a Bit		Extensive			
	N	%	N	%	N	%	N	%		
Diagnosis of student learning needs	21	12.8	50	30.5	72	43.9	21	12.8	1.72	4.58
Analysis of relationship between allocation of school resources and student achievement of minimal objectives	63	39.1	58	36.0	35	21.8	5	3.1	1.73	3.24
Planning for instructional improvements	24	14.7	51	31.3	65	39.9	23	14.1	1.80	4.57
Communicating status of student learning to parents and students	17	10.6	54	33.5	68	42.2	22	13.7	1.66	4.75

b. Analysis of the relationship between the allocation of school resources and student achievement of minimal objectives.

As shown in Table 19, the mean rating for this item was 3.24, indicating that, on the average, junior high/middle school principals rated the MEAP test results as having "some" usefulness in this area. Almost four out of ten (39.1%) of the principals indicated "very little" usefulness of the MEAP test results for this purpose.

c. Planning for instructional improvements.

This item had a mean rating of 4.57, indicating that, on the average, principals rated the MEAP test scores as being "quite" useful when planning for instructional improvements. Almost half (46%) of these principals, however, believed the MEAP test results had only "very little" or "some" usefulness for this purpose. (See Table 19.)

d. Communicating status of student learning to parents and students.

The mean rating for this item was 4.75, indicating that, on the average, junior high/middle school principals rated the MEAP test results as "quite" useful when communicating the level of student learning to parents and students. Close to one-third (33.5%) of the principals believed the MEAP test results had only "some" usefulness and 10.6% believed they had "very little" usefulness for this purpose. (See Table 19.)

The preceding findings are consistent with those of the Steele study with the exception of Items c and d. In 1976, junior high/

middle school principals rated the MEAP test results as having "some" usefulness in terms of "planning for instructional improvements" and "communicating the status of student learning to parents and students" (means = 4.48 and 3.57, respectively). The findings of this study revealed that junior high/middle school principals rated the MEAP test results as being "quite" useful for both purposes (means = 4.57 and 4.75, respectively).

High school principals. High school principals' responses concerning the usefulness of the MEAP test results for selected purposes, as well as their mean rating for each purpose, are shown in Table 20. Findings regarding the usefulness of the MEAP results for each of the four selected purposes are discussed in the following paragraphs.

a. Diagnosis of student learning needs.

The mean rating for this item was 4.39, indicating that, on the average, high school principals rated the MEAP test results as having "some" usefulness in terms of diagnosing student learning needs. Conversely, 16.6% thought the MEAP test results had "very little" usefulness, and 13.7% believed the results had "extensive" usefulness for this purpose. (See Table 20.)

b. Analysis of the relationship between the allocation of school resources and student achievement of minimal objectives.

As shown in Table 20, this item had a mean rating of 3.36, indicating that, on the average, high school principals thought the MEAP test results had "some" usefulness in this area. Only 23.1% of

Table 20.--High school principals' attitudes regarding the usefulness of the MEAP test results for selected purposes.

Purpose	Extent of Usefulness								S.D.	Mean
	Very Little		Some		Quite a Bit		Extensive			
	N	%	N	%	N	%	N	%		
Diagnosis of student learning needs	24	16.6	50	34.5	51	35.2	20	13.7	1.83	4.39
Analysis of relationship between allocation of school resources and student achievement of minimal objectives	46	33.1	61	43.8	22	15.9	10	7.2	1.82	3.36
Planning for instructional improvements	21	14.6	51	35.4	52	36.1	20	13.9	1.82	4.47
Communicating status of student learning to parents and students	19	13.3	48	33.6	52	36.4	24	16.8	1.86	4.66

the principals indicated "quite a bit" or "extensive" usefulness of the MEAP results for this purpose.

c. Planning for instructional improvements.

The mean rating for this item was 4.47, indicating that, on the average, high school principals rated the MEAP test results as having "some" usefulness when planning for instructional improvements in their schools. Fourteen and six-tenths percent of the high school principals rated the MEAP results as having "very little" usefulness in this area, and 13.9% said they had "extensive" usefulness for this purpose. (See Table 20.)

d. Communicating status of student learning to parents and students.

As shown in Table 20, the mean rating for this item was 4.66, indicating that, on the average, high school principals rated the MEAP test results as being "quite" useful when communicating the level of student learning to parents and students. The results were rated as "quite" useful by 16.8% of the principals and as having "very little" usefulness by 13.3%.

Total group. In this section, the findings for Research Question 4, questionnaire Item 11, are discussed in terms of the total group, as well as for individual subgroups. This section also serves as a summary of the attitudes of the total group regarding the usefulness of the MEAP test results for selected purposes.

The total group's responses concerning the usefulness of the MEAP results for four specific purposes, as well as their mean

rating for each purpose, are shown in Table 21. The findings concerning each purpose are presented in the following paragraphs.

a. Diagnosis of student learning needs.

As shown in Table 21, the mean rating for this item was 4.64, indicating that, on the average, the total group rated the MEAP test results as being "quite" useful when diagnosing student learning needs. Elementary school principals gave the highest rating of 4.70 (quite useful) and high school principals the lowest at 4.39 (some usefulness). Junior high/middle school principals rated the MEAP results as "quite" useful by just .08 points (mean = 4.58).

b. Analysis of the relationship between the allocation of school resources and student achievement of minimal objectives.

This item had a mean rating of 3.35, indicating that, on the average, the total group rated the MEAP test results as having "some" usefulness for this purpose. All subgroups rated similarly the usefulness of the MEAP results in this area (elementary principals' mean = 3.36, junior high/middle school principals' mean = 3.24, high school principals' mean = 3.36).

c. Planning for instructional improvements.

The mean rating for this item was 4.83, indicating that, on the average, the total group rated the MEAP test results as being "quite" useful when planning for instructional improvements in their schools. Elementary school principals gave the highest rating (5.03) and high school principals the lowest (4.47). Junior high/middle school principals rated the MEAP results at 4.57. High

Table 21.--The total group's attitudes regarding the usefulness of the MEAP test results for selected purposes.

Purpose	Extent of Usefulness								S.D.	Mean
	Very Little		Some		Quite a Bit		Extensive			
	N	%	N	%	N	%	N	%		
Diagnosis of student learning needs	94	12.0	264	33.9	307	39.4	115	14.7	1.75	4.64
Analysis of relationship between allocation of school resources and student achievement of minimal objectives	274	35.9	294	38.4	159	20.7	38	5.0	1.77	3.35
Planning for instructional improvements	80	10.2	135	30.3	323	41.7	138	17.8	1.74	4.83
Communicating status of student learning to parents and students	72	9.3	262	33.8	325	41.9	116	15.0	1.68	4.77

school principals were the only subgroup to rate the MEAP results as being useful to "some" extent for this purpose. (See Table 21.)

d. Communicating status of student learning to parents and students.

The mean score for this item was 4.77, indicating that, on the average, the total group rated the MEAP test results as being "quite" useful when communicating the level of student learning to parents and students. All three subgroups rated the MEAP results as being "quite" useful in this area (elementary school principals' mean = 4.81, junior high/middle school principals' mean = 4.75, high school principals' mean = 4.66).

Results of the Chi-Square Analyses

In this section, results of the chi-square analyses are used to determine the statistical significance of relationships between the principals' "extent of use" of the MEAP results (Item 9 a-o) and principals' responses to Research Questions 1, 2, and 4, as well as principal and building characteristics.

To determine principals' "extent of use" of the MEAP assessment results, the scores on the scale of 1 (very little) through 8 (extensively) for each item of Item 9 were totaled and then divided by the numbers of items that were endorsed by the individual respondents. Items 1, 6, 7, and 8 were not included in the chi-square analyses because chi-square does not lend itself to questions with multiple responses (SPSS-X, 1986).

Those relationships that met the chi-square criterion of significance at the .05 level are discussed in this section. The relationships that met that criterion are identified by an asterisk in Table 22.

Table 22 contains the results of the chi-square analyses for "extent of use" of the MEAP assessment results and selected variables from Research Questions 1, 2, and 4, as well as principal and building characteristics. Numerous variables were found to be significantly related to the extent to which building principals in Michigan were using the MEAP assessment results. The variables found to be statistically significant for the three subgroups and the total group are discussed in the following pages.

Elementary School Principals

A requirement to develop a plan of action to overcome needs identified by the 1988 MEAP test results. As shown in Table 22, a statistically significant relationship was found between elementary principals' "extent of use" of the MEAP results and whether or not they were required to develop a plan of action to overcome needs identified by the 1988 MEAP assessment results. An examination of the percentages in the cells of Table D.1 (Appendix D) indicates that elementary principals who used the MEAP results "extensively" were more likely to develop a plan of action to overcome needs identified by the MEAP assessment than were those principals who did not use the MEAP results extensively. The chi-square table also shows that 38.5% of the principals indicating "extensive" use of the

Table 22.--Results of chi-square analyses for "extent of use" of the MEAP results and selected variables.

Selected Variables	Elementary School Principals				Junior High/Middle School Principals				High School Principals				Total Group			
	N	df	χ^2	p	N	df	χ^2	p	N	df	χ^2	p	N	df	χ^2	p
<u>District-level Provisions for Principals' Use:</u>																
Month MEAP results received	404	16	11.64364	.768	152	20	18.09516	.581	139	12	7.29078	.837	738	20	17.15591	.642
Person responsible for determining use	400	16	20.65743	.192	153	16	39.95774	.000*	137	16	15.02721	.522	732	16	26.24788	.050*
Plan requirement	427	8	25.59774	.001*	166	8	18.10528	.019*	146	8	13.04231	.110	784	8	46.80696	.000*
<u>Principals' Provisions for Teacher Use:</u>																
Building committee established	425	4	15.62384	.003*	166	4	17.99840	.001*	147	4	5.56061	.234	783	4	27.99623	.000*
<u>Principals' Attitudes Toward MEAP Assessment Results:</u>																
Impact of assessment results on instructional programs	433	16	323.10975	.000*	166	16	152.00511	.000*	147	16	111.98308	.000*	791	16	665.33868	.000*
Usefulness of MEAP assessment results	433	16	416.29480	.000*	166	16	72.62378	.000*	147	16	154.65034	.000*	791	16	702.33826	.000*
<u>School Building Characteristics:</u>																
Location of school	431	8	6.55953	.584	163	8	12.00935	.150	146	8	2.95568	.937	786	8	7.15142	.520
Total school enrollment	428	16	10.82287	.820	163	16	23.23899	.107	145	16	17.09255	.379	782	16	13.21693	.056
School setting	426	8	13.37774	.099	162	8	2.80649	.945	145	8	7.99229	.434	779	8	11.02600	.200
Percentage of minority students	433	12	26.39684	.009*	165	12	19.20058	.083	147	12	9.60414	.650	785	12	33.54037	.000*a
<u>Principal Characteristics:</u>																
Gender	430	4	7.49084	.112	165	4	6.43175	.169	147	4	3.85972	.425	784	4	2.85110	.583
Highest academic degree	429	12	16.46591	.170	166	12	6.43638	.892	145	12	3.22189	.993	781	12	8.81011	.719
Years as administrator	431	12	12.05264	.441	162	12	7.78052	.802	143	12	16.29174	.178	776	12	11.05228	.524
Years in position	430	16	22.78834	.119	166	16	18.23382	.310	146	16	20.46874	.199	784	16	12.80527	.686

*Significant at the .05 level.

MEAP results developed plans of action even though they were not required to do so.

Establish a building-level committee to involve teachers in the analysis and interpretation of the 1988 MEAP results. A statistically significant relationship was found between elementary principals' "extent of use" of the MEAP results and whether or not they established a building-level committee to involve teachers in the analysis and interpretation of the 1988 MEAP results for their schools. (See Table 22.) An examination of the percentages in the cells of Table D.2 (Appendix D) suggests that elementary principals who made "extensive" use of the MEAP results were more likely to establish a building-level committee to involve teachers in the analysis and interpretation of the 1988 MEAP results than were those who did not use the MEAP results extensively.

Impact of the MEAP assessment results on the instructional program in their schools. As shown in Table 22, a statistically significant relationship was found between elementary principals' "extent of use" of the MEAP results and their attitudes about the impact they believed the MEAP had had on the instructional programs in their schools. An examination of the percentages in the cells of Table D.3 (Appendix D) suggests that elementary principals who made "extensive" use of the MEAP results were more likely to believe that the MEAP had had an "extensive" impact on the instructional programs in their schools than were principals who used the MEAP results "quite a bit" or "some."

Principals' attitudes toward the usefulness of the MEAP assessment results. A statistically significant relationship was found between elementary principals' "extent of use" of the MEAP results and their attitudes toward the usefulness of those results for selected purposes (Item 11, a-d) in their schools. (See Table 22.) An examination of the percentages in the cells of Table D.4 (Appendix D) strongly suggests that elementary principals who made "extensive" use of the MEAP results also believed the use of the MEAP results was "extensive" for the selected purposes in their schools. Only 9% of the principals who made "extensive" use of the MEAP results thought there was "very little" or "some" usefulness of the MEAP results for the purposes indicated.

Percentage of minority students in their schools. As shown in Table 22, a statistically significant relationship was found between elementary principals' "extent of use" of the MEAP results and the approximate percentage of minority students in their schools, as indicated in questionnaire Item 16. An examination of the percentages in the cells of Table D.5 (Appendix D) suggests that elementary principals who made "extensive" use of the MEAP results came from schools with very low percentages (0% to 9%) of minority students or from buildings with the higher percentage of minority students (10.6% to 100%).

The preceding findings are consistent with those of the Steele study in that the variables found to be significantly related in this study, as well as the conclusions drawn from the chi-square tables, were also significantly related in the Steele study. Two

additional relationships, however, were found to be significant in the Steele study. Those were the extent to which elementary principals used the MEAP results and the setting in which their schools were located and the month in which the principals received the majority of their MEAP reports. Steele found that elementary principals "who work in elementary schools in urban settings are more likely to be using MEAP test results 'quite a bit' or 'extensively' than are principals who work in elementary schools in suburban or rural settings." Steele also found that elementary principals "who receive MEAP test results late are more likely to use MEAP results 'very little' than are principals who receive test results early."

Junior High/Middle School Principals

Person primarily responsible for determining procedures for the use of the 1988 MEAP assessment results. A statistically significant relationship was found between junior high/middle school principals' "extent of use" of the MEAP results and persons primarily responsible for determining procedures for the use of the 1988 MEAP assessment results. (See Table 22.) An examination of the percentages in the cells of Table D.6 (Appendix D) suggests that junior high/middle school principals who made "extensive" use of the MEAP results were more likely to be in schools where the principal or a district wide committee determined procedures for the use of the 1988 MEAP test results. Also, building principals who made

"very little" or "some" use of the MEAP results were more likely to be in schools where the building guidance counselor was the person primarily responsible for determining procedures for the use of the assessment results.

A requirement to develop a plan of action to overcome needs identified by the 1988 MEAP assessment results. As shown in Table 22, a statistically significant relationship was found between junior high/middle school principals' "extent of use" of the MEAP results and whether or not they were required to develop a plan of action to overcome needs identified by the 1988 MEAP results. An examination of the percentages in the cells of Table D.7 (Appendix D) suggests that junior high/middle school principals making "extensive" or "quite a bit" of use of the MEAP results were more likely to be in buildings that were required to develop plans of action to overcome needs identified by the MEAP assessment results than were principals indicating "very little" or "some" use.

Established a building-level committee to involve teachers in the analysis and interpretation of the 1988 MEAP assessment results. A statistically significant relationship was found between junior high/middle school principals' "extent of use" of the MEAP results and whether or not they established a building-level committee to involve teachers in the analysis and interpretation of the 1988 MEAP assessment results for their schools. (See Table 22.) An examination of the percentages in the cells of Table D.8 (Appendix D) suggests that junior high/middle school principals who made

"extensive" use of the MEAP results were more likely to be in schools that established building-level committees than were those principals who did not use the MEAP results extensively. Also, clearly an inverse relationship existed in that principals who indicated "very little" use of the MEAP results were not likely to establish a building-level committee to involve teachers in the analysis and interpretation of the assessment results.

Impact of the MEAP assessment results on the instructional program in their schools. As shown in Table 22, a statistically significant relationship was found between junior high/middle school principals' "extent of use" of the MEAP results and their attitudes about the impact they thought the MEAP had had on the instructional programs in their schools. An examination of the percentages in the cells of Table D.9 (Appendix D) suggests that junior high/middle school principals who made "extensive" or "quite a bit" of use of the MEAP results were more likely to believe that the MEAP had had "quite a bit" or an "extensive" impact on the instructional programs in their schools than were principals who made "very little" or "some" use of the MEAP results.

Principals' attitudes toward the usefulness of the MEAP assessment results. As shown in Table 22, a statistically significant relationship was found between junior high/middle school principals' "extent of use" of the MEAP results and their attitudes toward the usefulness of those results for selected purposes (Item 11, a-d) in their schools. An examination of the percentages in the cells of Table D.10 (Appendix D) suggests that junior high/middle

school principals who made "extensive" or "quite a bit" of use of the MEAP results also rated the usefulness of the selected purposes as "quite a bit" or "extensive." Only 5.4% of the principals who made "extensive" use of the MEAP results rated the usefulness of the selected purposes as "very little."

These preceding findings are consistent with those of the Steele study in that all of the variables found to be significantly related in this study, as well as the conclusions drawn from the chi-square tables, were significantly related in the Steele study. Two additional relationships, however, were found to be statistically significant in the Steele study. Those were the extent to which junior high/middle school principals used the MEAP results and the percentage of minority students in their schools and the highest college degree held by the principals. Steele found that junior high/middle school principals "who work in schools with the highest percentage of minority students (10.6% to 100%) are more likely to be making 'quite a bit' or 'extensive' use of MEAP results than are principals who work in schools with lower percentages of minority students (0% to 10.5%)." Steele also found that junior high/middle school principals who had earned either a Educational Specialist degree or an Ed.D. or Ph.D. degree were more likely "to be making 'quite a bit' or 'extensive' use of MEAP results" than were junior high/middle school principals who had earned either a B.A. or an M.A. as their highest degree.

High School Principals

Impact of the MEAP assessment results on the instructional program in their schools. A statistically significant relationship was found between high school principals' "extent of use" of the MEAP results and their attitudes about the impact they thought the MEAP had had on the instructional programs in their schools. (See Table 22.) An examination of the percentages in the cells of Table D.11 (Appendix D) suggests that high school principals who made "extensive" use of the MEAP results were more likely to think that those results had had an "extensive" impact on the instructional programs in their schools than were principals who had "quite a bit," "some," or "very little" use of those results. Only 5.4% of the principals who indicated "extensive" use thought the MEAP had had "very little" impact on their instructional programs.

Principals' attitudes toward the usefulness of the MEAP assessment results. As shown in Table 22, a statistically significant relationship was found between high school principals' "extent of use" of the MEAP results and their attitudes toward the usefulness of those results for selected purposes (Item 11, a-d) in their schools. An examination of the percentages in the cells of Table D.12 (Appendix D) suggests that high school principals who made "extensive" use of the MEAP results also rated the usefulness of the selected purposes as "extensive."

The Total Group

Person primarily responsible for determining procedures for use of the 1988 MEAP assessment results. As shown in Table 22, a statistically significant relationship was found between the total group's "extent of use" of the MEAP results and the person(s) primarily responsible for determining the procedures for use of the 1988 MEAP assessment results. An examination of the percentages in the cells of Table D.13 (Appendix D) suggests that this relationship was true regardless of the degree of use.

A requirement to develop a plan of action to overcome needs identified by the 1988 MEAP test results. A statistically significant relationship was found between the total group's "extent of use" of the MEAP results and whether or not they were required to develop a plan of action to overcome needs identified by the 1988 MEAP assessment results. (See Table 22.) An examination of the percentages in Table D.14 (Appendix D) suggests that total-group principals who made "extensive" use of the MEAP results were more likely to be in buildings that were required to develop plans of action to overcome needs identified by the MEAP results. Almost one-third (32.8%) of the principals indicating "extensive" use of the MEAP results were likely to be in buildings that developed plans of action even though they were not required to do so. Also, total-group principals who indicated "very little" or "some" use of the MEAP results were more likely to be in buildings that were not

required to develop plans of action to overcome needs identified by the 1988 MEAP assessment results for their schools.

Established a building-level committee to involve teachers in the analysis and interpretation of the 1988 MEAP assessment results.

A statistically significant relationship was found between the total group's "extent of use" of the MEAP results and whether or not they established a building-level committee to involve teachers in the analysis and interpretation of the 1988 MEAP results. (See Table 22.) An examination of the percentages in the cells of Table D.15 (Appendix D) suggests that principals who made "extensive" use of the MEAP results were likely to be in schools that were required to establish building-level committees to involve teachers in the analysis and interpretation of the 1988 MEAP results. Further examination suggests that principals who made "very little" use of the MEAP results were not likely to be in schools that were required to establish building-level committees. It should be noted that building principals who made "quite a bit" of use of the MEAP results appeared to have a 50/50 chance of being in schools that were required to establish building-level committees.

Impact of the MEAP assessment results on the instructional program in schools. As shown in Table 22, a statistically significant relationship was found between principals' extent of use" of the MEAP results and their attitudes about the impact they thought the MEAP had had on the instructional programs in their

schools. An examination of the percentages in the cells of Table D.16 (Appendix D) suggests that principals who made "extensive" use of the MEAP results were more likely to feel that those results had had an "extensive" impact on the instructional program in their schools than were principals who used the MEAP results "quite a bit," "some," or "very little."

Principals' attitudes toward the usefulness of the MEAP assessment results. A statistically significant relationship was found between the principals' "extent of use" of the MEAP results and their attitudes toward the usefulness of those results for selected purposes (Item 11, a-d) in their schools. (See Table 22.) An examination of the percentages in the cells of Table D.17 (Appendix D) strongly suggests that principals who made "extensive" use of the MEAP results also believed that results were used "extensively" for the selected purposes in their schools. Only 9.6% of the principals who made "extensive" use of the MEAP results thought there was "very little" or "some" usefulness of the MEAP results for the purposes indicated.

Percentage of minority students in Michigan schools. As shown in Table 22, a statistically significant relationship was found between principals' "extent of use" of the MEAP results and the approximate percentage of minority students in their schools, as indicated in Item 16). An examination of the percentages in the cells of Table D.18 (Appendix D) suggests that principals who made "extensive" use of the MEAP results were in schools with a very low percentage (0 to .9%) of minority students or the highest percentage

increment in the survey, 10.6% to 100% minority students. Almost 70% (69.2%) of the principals who indicated "extensive" use of the MEAP results came from schools with these percentages of minority students.

Correlation Coefficients for "Extent of Use"
of the MEAP Results for Selected Purposes

Correlation coefficients were computed to examine the relationships between elementary school, junior high/middle school, high school, and total group principals' "extent of use" of the MEAP assessment results for one purpose and the "extent of use" of those results for other purposes (Item 9, a-n). For example, analyses were conducted to determine whether there was a relationship between the extent to which principals used the MEAP results "to determine strengths and weaknesses in the area of mathematics" and the extent to which they used those results "to determine placement of students in remedial programs." The results of these analyses are discussed in this section.

The strength of the relationships between variables was determined by the size of the Pearson product-moment correlation coefficient. Because of the large number of variables in the correlation matrices, an alpha level of .001 was chosen as the criterion for statistical significance. The use of such a stringent alpha level protected against Type I error when determining the significance of the correlations. Also, because of the unique character of the data collected for this study and the distributions

of the correlations, it was decided that correlations of .50 and higher would be designated as significant. Correlations with an absolute value of .50 to .64 were considered moderate ("likely"), .65 to .79 strong ("very likely"), and .80 to .99 very strong ("exceedingly likely").

In the following pages, data are presented for each subgroup (elementary school, junior high/middle school, and high school principals) separately, followed by the results for the total group of principals.

Elementary School Principals

The correlation coefficients for selected uses of the MEAP assessment results for elementary school principals are shown in Table 23. Correlations meeting the criterion for significance are noted with an asterisk.

Statistically significant correlations were found between the extent to which elementary principals used the MEAP results "to determine the general achievement level" of the fourth-grade students in their schools and the extent to which they used those results "to determine strengths and weaknesses in the area of mathematics" (.5928) and "to determine strengths and weaknesses in the area of reading" (.5786). Both correlations were seen as moderate, suggesting that it is likely the "extent of use" of the MEAP results for these purposes by elementary principals was similar.

Table 23.--Correlation coefficients for selected uses of the MEAP assessment results: Elementary school principals.

	Use of the MEAP Assessment Results												
	9b	9c	9d	9e	9f	9g	9h	9i	9j	9k	9l	9m	9n
9a	.4310	.5928	.5786	.3378	.4675	.3904	.3139	.3544	.2465	.2114	.3974	.2424	.3039
9b		.3224	.3148	.2864	.2781	.3018	.2371	.3104	.2669	.2150	.2342	.2634	.2135
9c			.8431*	.5169*	.6501*	.4644	.2286	.3126	.2896	.2344	.4183	.2072	.3201
9d				.5166*	.6126*	.4212	.2725	.2773	.2687	.2483	.4128	.2161	.3263
9e					.4121	.3456	.1545	.2617	.2618	.1958	.3033	.2134	.2126
9f						.5410*	.3073	.4286	.3822	.2937	.5419*	.3136	.3996
9g							.4251	.5027*	.4051	.3379	.4632	.4619	.3477
9h								.3939	.4120	.3292	.2697	.4078	.3831
9i									.6279*	.3680	.4628	.4925	.3105
9j										.4856	.4526	.3578	.3524
9k											.4579	.31999	.3683
9l												.4056	.3846
9m													.4001

Key to uses:

- 9a = To determine general achievement level of students in your school.
- 9b = To inform school community of students' general achievement level.
- 9c = To determine strengths and weaknesses in the area of mathematics.
- 9d = To determine strengths and weaknesses in the area of reading.
- 9e = To determine strengths and weaknesses in the area of science.
- 9f = To determine instructional priorities.
- 9g = To document need in determination of school resource allocation.
- 9h = To determine placement of students in "remedial" programs.
- 9i = To determine need for new programs.
- 9j = To determine effectiveness of new programs.
- 9k = To analyze teacher performance.
- 9l = To identify staff-development needs for teachers.
- 9m = To prepare proposals for funding.
- 9n = To predict students' future academic success.

*Significant at the .001 level.

Statistically significant correlations were also found between the extent to which elementary principals used the MEAP results "to determine strengths and weaknesses in the area of mathematics" for the fourth-grade students in their schools and the extent to which they used those results "to determine strengths and weaknesses in the area of reading" (.8431) and "to determine instructional priorities" (.6501). Both correlations were seen as strong, suggesting that it is highly likely that the "extent of use" of the MEAP results for these purposes by elementary principals was similar.

As shown in Table 23, a moderate correlation was found between the extent to which elementary principals used the MEAP results "to determine strengths and weaknesses in the area of mathematics" and the extent to which they used those results "to determine strengths and weaknesses in the area of science" (.5169) in their schools. These data suggest that it is likely that the "extent of use" of the MEAP results by elementary principals for these purposes was similar.

Statistically significant correlations were found to exist between the extent to which elementary principals used the MEAP results "to determine strengths and weaknesses in the area of reading" in their schools and the extent to which they used those results "to determine strengths and weaknesses in the area of science" (.5166) and "to determine instructional priorities" (.6126). The strength of both relationships was seen as moderate,

suggesting that it likely that the "extent of use" of the MEAP results for these purposes by elementary principals was similar.

As shown in Table 23, a statistically significant correlation was found between the extent to which elementary principals used the MEAP results "to determine instructional priorities" and the extent to which they used those results "to document need in the determination of school resource allocation" (.5410) and "to identify staff-development needs for teachers" (.5419). The strength of both relationships was seen as moderate, suggesting that it is likely that the "extent of use" of the MEAP results by elementary principals for these purposes was similar.

A statistically significant correlation was found between the extent to which elementary principals used the MEAP results "to document need in the determination of school resource allocation" and "to determine need for new programs" (.5027). The strength of the correlation was seen as moderate, suggesting that it is likely that the "extent of use" of the MEAP results for these purposes by elementary principals was similar.

As seen in Table 23, a statistically significant correlation was found between the extent to which elementary principals used the MEAP results "to determine need for new programs" and "to determine the effectiveness of new programs" (.6279). The strength of the correlation was seen as moderate, suggesting that it is likely that the "extent of use" of the MEAP results by elementary principals for these purposes was similar.

Of the 11 correlations found to be statistically significant for elementary principals in this study, seven were consistent with the findings of the Steele study. Those are the extent to which elementary principals used the MEAP results "to determine the general achievement level" of the students in their schools with the extent to which they used the results "to determine strengths and weaknesses in the area of mathematics" and "to determine strengths and weaknesses in the area of reading"; the extent to which they used the results "to determine the strengths and weaknesses in mathematics" with the extent to which they used the results "to determine instructional priorities"; the extent to which they used the results "to determine strengths and weaknesses in the area of reading" with the extent to which they used the results "to determine instructional priorities"; the extent to which they used the results "to determine instructional priorities" with the extent to which they used the results "to document need in the determination of school resource allocation"; the extent to which they used the results "to document need in the determination of resource allocation" with the extent to which they used the results "to determine need for new programs"; and the extent to which they used the results "to determine need for new programs" with the extent to which they used the results "to determine the effectiveness of new programs."

Two correlations found to be significant in the Steele study but not corroborated in this study were the extent to which elementary principals used the MEAP results "to determine the

general achievement level" of the students in their schools with the extent to which they used the results "to determine instructional priorities"; and the extent to which they used the results "to determine placement of students in remedial programs" with the extent to which they used the results "to determine need for new programs." The Steele study did not include Item 9e, "to determine strengths and weaknesses in the area of science."

Junior High/Middle School Principals

The correlation coefficients for selected uses of the MEAP assessment results for junior high/middle school principals are shown in Table 24. Correlations meeting the criterion for statistical significance are noted with an asterisk.

Statistically significant correlations were found between the extent to which junior high/middle school principals used the MEAP results "to determine the general achievement level" of the seventh-grade students in their schools and the extent to which they used those results (1) "to inform the school community of the general achievement level of the seventh-grade students in their school" (.6150), (2) "to determine strengths and weaknesses in the area of mathematics" (.6852), (3) "to determine strengths and weaknesses in the area of reading" (.6204), (4) "to determine strengths and weaknesses in the area of science" (.5045), (5) "to determine instructional priorities" (.5729), and (6) "to document need in the determination of school resource allocation" (.5120). The

Table 24.--Correlation coefficients for selected uses of the MEAP assessment results: Junior high/middle school principals.

	Use of the MEAP Assessment Results												
	9b	9c	9d	9e	9f	9g	9h	9i	9j	9k	9l	9m	9n
9a	.6150*	.6852*	.6204*	.5045*	.5729*	.5120*	.3566	.3682	.4121	.2297	.3942	.2634	.3243
9b		.5690*	.4882	.3538	.4026	.3702	.3284	.3241	.3048	.1376	.3702	.2412	.2881
9c			.8469*	.5444*	.6703*	.4767	.3282	.3525	.3164	.1888	.3153	.2558	.1978
9d				.5406*	.6661*	.4768	.2882	.3654	.3488	.2194	.3457	.1895	.1507
9e					.5476*	.5264*	.1911	.2635	.3119	.1721	.2638	.1262	.2062
9f						.6389*	.3332	.4335	.4968	.2952	.3990	.2829	.2095
9g							.4125	.5149*	.5019*	.3784	.4709	.4017	.2937
9h								.4917	.5134*	.4102	.4102	.3859	.4840
9i									.7124*	.3501	.4901	.4517	.3952
9j										.4848	.5198*	.4743	.4888
9k											.5401*	.3925	.3695
9l												.4628	.2925
9m													.3307

Key to uses:

- 9a = To determine general achievement level of students in your school.
- 9b = To inform school community of students' general achievement level.
- 9c = To determine strengths and weaknesses in the area of mathematics.
- 9d = To determine strengths and weaknesses in the area of reading.
- 9e = To determine strengths and weaknesses in the area of science.
- 9f = To determine instructional priorities.
- 9g = To document need in determination of school resource allocation.
- 9h = To determine placement of students in "remedial" programs.
- 9i = To determine need for new programs.
- 9j = To determine effectiveness of new programs.
- 9k = To analyze teacher performance.
- 9l = To identify staff-development needs for teachers.
- 9m = To prepare proposals for funding.
- 9n = To predict students' future academic success.

*Significant at the .001 level.

correlation between the extent to which junior high/middle school principals used the MEAP results "to determine the general achievement level" of the students in their schools and the extent to which they used those results "to determine strengths and weaknesses in the area of mathematics" was considered strong, suggesting that it is very likely that the "extent of use" of the MEAP results for these purposes by the junior high/middle school principals was similar. The remaining correlations were seen as moderate, suggesting that it is likely that the "extent of use" of the MEAP results for these purposes by the principals was similar.

Statistically significant correlations were also found between the extent to which junior high/middle school principals used the MEAP results "to inform the school community of the general achievement level" of the students in their schools and the extent to which they used those results "to determine strengths and weaknesses in the area of mathematics" (.5690). The correlation was seen as moderate, suggesting that it is likely that the "extent of use" of the MEAP results for these purposes was similar.

As shown in Table 24, statistically significant correlations were found between the extent to which junior high/middle school principals used the MEAP results "to determine strengths and weaknesses in the area of mathematics" and the extent to which they used those results (1) "to determine strengths and weaknesses in the area of reading" (.8469), (2) "to determine strengths and weaknesses in the area of science" (.5444), and (3) "to determine instructional

priorities" (.6703). The correlation between the extent to which junior high/middle school principals used the MEAP results "to determine strengths and weaknesses in the area of mathematics" and the extent to which they used those results "to determine strengths and weaknesses in the area of science" was considered moderate, suggesting that it is likely that the "extent of use" of the results for these purposes by the principals was similar. The correlations between the extent to which principals used the MEAP results "to determine strengths and weaknesses in the area of mathematics" and the extent to which they used those results "to determine strengths and weaknesses in the area of reading" and "to determine instructional priorities" were considered strong, suggesting that the "extent of use" of the MEAP results for these purposes by the junior high/middle school principals was very likely to be similar.

Statistically significant correlations were found between the extent to which junior high/middle school principals used the MEAP results "to determine strengths and weaknesses in the area of reading" and the extent to which they used those results "to determine strengths and weaknesses in the area of science" (.5406) and "to determine instructional priorities" (.6661). The correlation between the extent to which principals used the MEAP results "to determine strengths and weaknesses in the area of reading" and "to determine strengths and weaknesses in the area of science" was considered moderate, suggesting that it is likely that the "extent of use" of the MEAP results for both purposes by these principals was similar. The correlation between the extent to which

principals used the MEAP results "to determine strengths and weaknesses in reading" and "to determine instructional priorities" was considered strong, indicating that it is very likely that the "extent of use" of the MEAP results for both purposes by the principals was similar.

As shown in Table 24, statistically significant correlations were found between the extent to which junior high/middle school principals used the MEAP results "to determine strengths and weaknesses in the area of science" and the extent to which they used those results "to determine instructional priorities" (.5476) and "to document need in the determination of school resource allocation" (.5264). The correlations were considered moderate, suggesting that it is likely that the "extent of use" of the MEAP results for these purposes by junior high/middle school principals was similar.

A statistically significant correlation was found between the extent to which junior high/middle school principals used the MEAP results "to determine instructional priorities" and the extent to which they used those results "to document need in the determination of resource allocation" (.6389). The correlation between the extent to which they used the MEAP results "to determine instructional priorities" and "to document need in the determination of school resource allocation" was considered moderate, suggesting that it is likely that the "extent of use" of the MEAP results for these purposes by the principals was similar.

Statistically significant correlations were found between the extent to which junior high/middle school principals used the MEAP results "to document need in the determination of school resource allocation" and the extent to which they used those results "to determine need for new programs" (.5149) and "to determine the effectiveness of new programs" (.5019). The correlations were considered moderate, suggesting that it is likely that the "extent of use" of the MEAP results for these purposes by the principals was similar.

A statistically significant correlation was also found between the extent to which junior high/middle school principals used the MEAP results "to determine placement of students in remedial programs" and the extent to which they used those results "to determine the effectiveness of new programs" (.5134). The correlation was considered moderate, suggesting that it is likely that the "extent of use" of the MEAP results for these purposes by junior high/middle school principals was similar.

As shown in Table 24, a statistically significant correlation was found between the extent to which junior high/middle school principals used the MEAP results "to determine need for new programs" and the extent to which they used those results "to determine the effectiveness of new programs" (.7124). The correlation between the extent to which principals used the MEAP results "to determine need for new programs" and "to determine the effectiveness of new programs" was considered strong, indicating

that it is very likely that the "extent of use" of the MEAP results for these purposes by the principals was similar.

A statistically significant correlation was found between the extent to which junior high/middle school principals used the MEAP results "to determine the effectiveness of new programs" and the extent to which they used those results "to identify staff development needs for teachers" (.5198). The correlation was considered moderate, suggesting that it is likely that the "extent of use" of the MEAP results for these purposes by the principals was similar.

Finally, a statistically significant relationship was found between the extent to which junior high/middle school principals used the MEAP results "to analyze teacher performance" and the extent to which they used those results "to identify staff development needs for teachers" (.5401). The correlation was considered moderate, suggesting that it is likely that the "extent of use" of the MEAP results for these purposes by the principals was similar.

Of the 20 correlations found to be significant for junior high/middle school principals in this study, eight were consistent with the findings of the Steele study. Those are the extent to which junior high/middle school principals used the MEAP results "to determine the general achievement level" of the students in their schools and the extent to which they used those results "to determine strengths and weaknesses in the area of mathematics" and "to determine strengths and weaknesses in the area of reading"; the

extent to which they used the results "to determine strengths and weaknesses in the area of mathematics" with the extent to which they used the results "to determine strengths and weaknesses in the area of reading" and "to determine instructional priorities"; the extent to which they used the results "to determine strengths and weaknesses in the area of reading" with the extent to which they used the results "to determine instructional priorities"; the extent to which they used the results "to document need in the determination of school resource allocation" with the extent to which they used the results "to determine need for new programs"; and the extent to which they used the results "to determine need for new programs" with the extent to which they used the results "to determine the effectiveness of new programs."

One correlation found to be significant in the Steele study but not corroborated in this study was the extent to which junior high/middle school principals used the MEAP results "to determine placement of students in remedial programs" and the extent to which they used the results "to determine need for new programs." The Steele study did not include Item 9e, "to determine strengths and weaknesses in the area of science."

High School Principals

Correlation coefficients for selected uses of the MEAP assessment results for high school principals are shown in Table 25. Correlations meeting the criterion for statistical significance are noted with an asterisk.

Table 25.--Correlation coefficients for selected uses of the MEAP assessment results: High school principals.

	Use of the MEAP Assessment Results												
	9b	9c	9d	9e	9f	9g	9h	9i	9j	9k	9l	9m	9n
9a	.7372*	.4999	.4642	.3592	.3152	.2765	.2600	.2270	.3020	.2364	.1354	.1755	.1438
9b		.5087*	.4957	.3887	.2556	.1624	.2169	.2850	.3822	.2195	.2661	.2254	.1824
9c			.8725*	.6237*	.5863*	.4214	.3284	.4326	.3972	.2499	.4286	.2773	.2727
9d				.6414*	.6228*	.4439	.2703	.3612	.4541	.2484	.4708	.3131	.2542
9e					.4978	.2975	.0908	.3746	.3584	.3092	.4118	.2619	.2821
9f						.5438	.3850	.4654	.4776	.3315	.5325*	.3439	.3432
9g							.4167	.5617*	.6203*	.3055	.4123	.4320	.3666
9h								.5883*	.4191	.1568	.2863	.4151	.3760
9i									.6269*	.3205	.4712	.4324	.4898
9j										.4438	.5321*	.5273*	.4252
9k											.5129*	.2338	.3780
9l												.5443*	.3674
9m													.3926

Key to uses:

- 9a = To determine general achievement level of students in your school.
- 9b = To inform school community of students' general achievement level.
- 9c = To determine strengths and weaknesses in the area of mathematics.
- 9d = To determine strengths and weaknesses in the area of reading.
- 9e = To determine strengths and weaknesses in the area of science.
- 9f = To determine instructional priorities.
- 9g = To document need in determination of school resource allocation.
- 9h = To determine placement of students in "remedial" programs.
- 9i = To determine need for new programs.
- 9j = To determine effectiveness of new programs.
- 9k = To analyze teacher performance.
- 9l = To identify staff-development needs for teachers.
- 9m = To prepare proposals for funding.
- 9n = To predict students' future academic success.

*Significant at the .001 level.

A statistically significant correlation was found between the extent to which high school principals used the MEAP results "to determine the general achievement level" of the tenth-grade students in their schools and the extent to which they used those results "to inform the school community of the general achievement level" (.7272) of the students in their schools. This correlation was considered strong, suggesting that it is very likely that the extent to which high school principals used the MEAP results "to determine the general achievement level" of the students in their schools was very likely to be similar to the extent to which they used those results "to inform the school community of the general achievement level" of the students in their schools.

As shown in Table 25, a statistically significant correlation was also found between the extent to which high school principals used the MEAP results "to inform the school community of the general achievement level" of the students in their schools and the extent to which they used those results "to determine strengths and weaknesses in the area of mathematics" (.5087). The correlation was seen as moderate, suggesting that it is likely that high school principals' "extent of use" of the MEAP results for both purposes was similar.

Statistically significant correlations were found between the extent to which high school principals used the MEAP Results "to determine strengths and weaknesses in the area of mathematics" and (1) "to determine strengths and weaknesses in the area of reading"

(.8725), (2) "to determine strengths and weaknesses in the area of science" (.6237), and (3) "to determine instructional priorities" (.5863). The correlation between the extent to which high school principals used the MEAP results "to determine strengths and weaknesses in the area of mathematics" and "to determine strengths and weaknesses in the area of reading" was considered very strong, suggesting that it is exceedingly likely that the principals' "extent of use" of the MEAP results for these purposes was similar. The correlations between the extent to which high school principals used the MEAP results "to determine strengths and weaknesses in the area of mathematics" and the extent to which they used the MEAP results "to determine strengths and weaknesses in the area of science" and "to determine instructional priorities" were considered moderate, suggesting that the principals' "extent of use" of the MEAP results for these purposes was likely to be similar.

As shown in Table 25, statistically significant correlations were found between the extent to which high school principals used the MEAP results "to determine strengths and weaknesses in the area of reading" and the extent to which they used those results "to determine strengths and weaknesses in the area of science" (.6414) and "to determine instructional priorities" (.6228). These correlations were considered moderate, suggesting that principals' "extent of use" of the MEAP results for these purposes was likely to be similar.

A statistically significant correlation was found between the extent to which high school principals used the MEAP results "to

determine instructional priorities" and the extent to which they used those results "to identify staff development needs for teachers" (.5325). This correlation was considered moderate, suggesting that principals' "extent of use" of the MEAP results for these purposes was likely to be similar.

Statistically significant correlations were also found between the extent to which high school principals used the MEAP results "to document need in the determination of school resource allocation" and the extent to which they used those results "to determine need for new programs" (.5617) and "to determine the effectiveness of new programs" (.6203). These correlations were considered moderate, suggesting that the principals' "extent of use" of the MEAP results for these purposes was likely to be similar.

As shown in Table 25, a statistically significant correlation existed between the extent to which high school principals used the MEAP results "to determine placement of students in 'remedial' programs" and the extent to which they used those results "to determine need for new programs" (.5883). This correlation was considered moderate, suggesting that principals' "extent of use" of the MEAP results for these purposes was likely to be similar.

A statistically significant correlation was found between the extent to which high school principals used the MEAP results "to determine need for new programs" and the extent to which they used those results "to determine the effectiveness of new programs" (.6269). This correlation was considered moderate, suggesting that

principals' "extent of use" of the MEAP results for these purposes was likely to be similar.

Also shown in Table 25 is that statistically significant correlations were found between the extent to which high school principals used the MEAP results "to determine the effectiveness of new programs" and the extent to which they used those results "to identify staff development needs for teachers" (.5321) and "to prepare proposals for funding" (.5273). These correlations were considered moderate, suggesting that principals' "extent of use" of the MEAP results for these purposes was likely to be similar.

Statistically significant correlations also were found between the extent to which high school principals used the MEAP results "to analyze teacher performance" and the extent to which they used those results "to identify staff development needs for teachers" (.5129). This correlation was considered moderate, suggesting that principals' "extent of use" of the MEAP results for these purposes was likely to be similar.

A statistically significant correlation was found between the extent to which high school principals used the MEAP results "to identify staff development needs for teachers" and the extent to which they used those results "to prepare proposals for funding" (.5443). This correlation was considered moderate, suggesting that principals' "extent of use" of the MEAP results for these purposes was likely to be similar.

The Total Group

Correlation coefficients for selected uses of the MEAP assessment results for the total group of principals are shown in Table 26. Correlations meeting the criterion for statistical significance are noted with an asterisk.

As shown in Table 26, statistically significant correlations were found between the extent to which total-group principals used the MEAP results "to determine the general achievement level" of the students in their schools and the extent to which they used those results (1) "to inform the school community of the general achievement level" (.5394) of the students in their schools, (2) "to determine strengths and weaknesses in the area of mathematics" (.5939), and (3) "to determine strengths and weaknesses in the area of reading" (.5684). The correlations were seen as moderate, suggesting that principals' "extent of use" of the MEAP results for these purposes was likely to be similar.

Statistically significant correlations were also found between the extent to which total-group principals used the MEAP results "to determine strengths and weaknesses in the area of mathematics" and the extent to which they used those results (1) "to determine strengths and weaknesses in the area of reading" (.8575), (2) "to determine strengths and weaknesses in the area of science" (.5582), and (3) "to determine instructional priorities" (.6233). The correlation between the extent to which the total-group principals used the MEAP results "to determine strengths and weaknesses in the

Table 26.--Correlation coefficients for selected uses of the MEAP assessment results: Total group.

	Use of the MEAP Assessment Results												
	9b	9c	9d	9e	9f	9g	9h	9i	9j	9k	9l	9m	9n
9a	.5394*	.5939*	.5684*	.3847	.4770	.3906	.2783	.3202	.2970	.2186	.3705	.2185	.2865
9b		.4091	.3809	.3045	.2952	.2735	.2359	.2984	.2733	.1925	.2571	.2496	.2240
9c			.8575*	.5582*	.6233*	.4589	.2780	.3502	.3229	.2246	.4027	.2285	.2914
9d				.5617*	.6136*	.4422	.2800	.3212	.3327	.2386	.4156	.2282	.2843
9e					.4542	.3738	.1577	.2789	.2884	.2092	.3178	.1908	.2319
9f						.5545*	.2981	.4140	.4320	.2895	.5194*	.3046	.3366
9g							.4230	.5263*	.4791	.3300	.4433	.4329	.3415
9h								.4766	.4350	.1568	.2863	.4151	.3760
9i									.6522*	.3314	.4351	.4607	.3662
9j										.4465	.4611	.3986	.3851
9k											.4759	.3204	.3610
9l												.4324	.3534
9m													.3835

Key to uses:

- 9a = To determine general achievement level of students in your school.
- 9b = To inform school community of students' general achievement level.
- 9c = To determine strengths and weaknesses in the area of mathematics.
- 9d = To determine strengths and weaknesses in the area of reading.
- 9e = To determine strengths and weaknesses in the area of science.
- 9f = To determine instructional priorities.
- 9g = To document need in determination of school resource allocation.
- 9h = To determine placement of students in "remedial" programs.
- 9i = To determine need for new programs.
- 9j = To determine effectiveness of new programs.
- 9k = To analyze teacher performance.
- 9l = To identify staff-development needs for teachers.
- 9m = To prepare proposals for funding.
- 9n = To predict students' future academic success.

*Significant at the .001 level.

area of mathematics" and the extent to which they used those results "to determine strengths and weaknesses in the area of reading" was seen as very strong, suggesting that it was exceedingly likely that the principals' "extent of use" of the MEAP results for these purposes was similar. The correlations between the extent to which total-group principals used the MEAP results "to determine strengths and weaknesses in the area of mathematics" and the extent to which they used those results "to determine strengths and weaknesses in the area of science" and "to determine instructional priorities" was seen as moderate, suggesting that it was likely that the principals' "extent of use" of the MEAP results for these purposes was likely to be similar.

Statistically significant correlations were found between the extent to which total-group principals used the MEAP results "to determine strengths and weaknesses in the area of reading" and the extent to which they used those results "to determine strengths and weaknesses in the area of science" (.5617) and "to determine instructional priorities" (.6136). The strength of these correlations was seen as moderate, suggesting that the principals' "extent of use" of the MEAP results for these purposes was likely to be similar.

Statistically significant correlations also were found between the extent to which total-group principals used the MEAP results "to determine instructional priorities" and the extent to which they used those results "to document need in the determination of school

resource allocation" (.5545) and "to identify staff development needs for teachers" (.5194). The strength of these correlations was seen as moderate, suggesting that principals' "extent of use" of the MEAP results for these purposes was likely to be similar.

As shown in Table 26, a statistically significant correlation was found between the extent to which total-group principals used the MEAP results "to document need in the determination of resource allocation" and the extent to which they used those results "to determine need for new programs" (.5263). This correlation was seen as moderate, suggesting that principals' "extent of use" of the MEAP results for these purposes was likely to be similar.

Finally, a statistically significant correlation was found between the extent to which total-group principals used the MEAP results "to determine need for new programs" and the extent to which they used those results "to determine the effectiveness of new programs" (.6522). This correlation was considered strong, suggesting that it was very likely that principals' "extent of use" of the MEAP results for these purposes was very likely to be similar.

Summary

The data relative to the four research questions of the study, the chi-square analysis for the "extent of use" of MEAP results, and the correlation coefficients for "extent of use" of MEAP results for selected purposes were reported in this chapter. Chapter V contains

a summary of the major findings, conclusions based on those findings, and recommendations for practice and for further research.

CHAPTER V

SUMMARY, CONCLUSIONS, RECOMMENDATIONS, AND REFLECTIONS

This chapter contains the following subsections: summary, conclusions, recommendations, and reflections.

Summary

Rationale for the Study

In 1970, the Michigan Department of Education began the administration of the Michigan Educational Assessment Program (MEAP). The first MEAP tests were given in grades four and seven on an every-pupil basis in the areas of reading, mathematics, and the mechanics of written English. In 1976, after four years of MEAP assessments, Donald J. Steele conducted doctoral research at The Ohio State University to determine school principals' practices and attitudes regarding the use of MEAP test results. In the ensuing 12 years, Michigan has continued assessing thousands of students, on an every-pupil basis, in the areas of reading, mathematics, and science (beginning in 1987). The testing of tenth-grade students in the areas of reading and mathematics was added in fall 1979. Not since 1976 has a comprehensive study been administered to ascertain more current data relative to Michigan school administrators' attitudes toward and uses of the MEAP test results.

Purpose of the Research

The purpose of this study was to describe the attitudes and practices of elementary school, junior high/middle school, and high school principals in all Michigan public school districts relative to their use of the MEAP results. As in 1976, four research questions, along with updated and relevant subquestions, were investigated. The four research questions are as follows:

1. What district-level administrative provisions are being made for Michigan school principals' use and dissemination of the MEAP test results?
2. What administrative provisions are Michigan school principals making to involve teachers in the analysis, interpretation, and use of the MEAP test results?
3. For what purposes and to what extent are Michigan school principals using the MEAP test results?
4. What are the attitudes of Michigan school principals regarding the value of the MEAP and the utility of the test results provided by the program?

Methodology

To determine current attitudes toward and uses of the MEAP results by school administrators, the researcher surveyed a sample of elementary school, junior high/middle school, and high school principals in Michigan. The survey contained 20 forced-choice questions and one open-ended question. Michigan Department of Education computers were used to determine the school buildings to

include in the random sampling. To ensure a valid longitudinal comparison with the Steele study, a core of replicated survey questions was used. Questions were either abbreviated or deleted, based on their relevance to the 1988 MEAP assessment and this study. Analysis of the data was used to (1) provide answers to the four research questions under investigation in this study; (2) examine relationships between the extent of administrative use of the MEAP results and other selected variables (chi-square analyses), and (3) examine relationships between the "extent of use" of the MEAP assessment results for one purpose and the "extent of use" of those results for other purposes (correlation coefficients).

Findings

The following is a summary of the most salient findings of the data analyses for the four research questions, the chi-square analyses for "extent of use" of the MEAP results, and the correlation coefficients for "extent of use" of the MEAP results for selected purposes. Findings are designated as pertaining to elementary school, junior high/middle school, or high school principals. If no such designation is mentioned, the findings were derived from data for the total group of principals. A brief summary of how the findings of this study differed from those of the Steele study is included at the end of this section.

Research Question 1. For Research Question 1, "What district-level administrative provisions are being made for Michigan school principals' use and dissemination of the MEAP test results?" it was

found that, by far, the majority of principals were receiving the MEAP reports generated by the Michigan Department of Education. Only .3% indicated that they did not receive any of the reports sent to local districts. Most of the principals (57.1%) received the majority of reports in November; only 12% received reports after January. In most cases (60.2%), the building principals (69.4% for elementary and 52.9% for junior high/middle school principals) were responsible for determining procedures for use of the MEAP results. Less than half (40.9%) of the high school principals indicated that they were responsible for determining procedures for using the MEAP results; 24.8% of them indicated that their counselors had that responsibility. One-third (33%) of the elementary school principals, 26.5% of the junior high/middle school principals, and 30.1% of the high school principals reported that improvement plans based on needs identified by the MEAP were required. Overall, almost six out of ten principals (59.9%) indicated that plans to address the needs identified by the MEAP results were either required or initiated by the principal.

Research Question 2. For Research Question 2, "What administrative provisions are Michigan school principals making to involve teachers in the analysis, interpretation, and use of the MEAP test results?" it was found that approximately one-half (49.7%) of the principals established a building-level committee to involve teachers in the analysis and interpretation of the MEAP results. With only one exception (89.7% of junior high/middle school principals reported sharing school summary reports, as compared to

89.1% of elementary principals), a much higher percentage of elementary principals shared the MEAP reports with their teachers than did junior high/middle school or high school principals. Merely .9% of the principals did not share any of the reports with their teachers. Approximately three-fourths (74.4%) of the principals conducted teacher meetings to analyze assessment results and distributed MEAP test data (77%) from within the teacher test results folders provided by the Michigan Department of Education as a way of assisting their staffs with understanding and interpreting the MEAP results. Seventeen and nine-tenths percent of the junior high/middle school principals and 17.4% of the high school principals requested inservice assistance of central office, evaluation, or guidance staff, as compared to only 12.9% of elementary principals. Principals encouraged teachers to use the individual student test results from the MEAP most in the areas of diagnosing student academic strengths and weaknesses, for planning their instructional programs, and to communicate student performance to parents and students. Fewer than two out of ten principals (18.6%) encouraged teachers to use the results for student grouping purposes.

Research Question 3. For Research Question 3, "For what purposes and to what extent are Michigan school principals using the MEAP test results?" it was found that principals used the MEAP results "quite a bit" to determine strengths and weaknesses in their reading and mathematics programs and "very little" to prepare

proposals for funding and to analyze teacher performance. Findings at each school building level were consistent except for the purpose of "determining the general achievement level" of the students in their schools and "informing the school community" of the general achievement level of the students in their schools. High school principals used the MEAP results to "some" extent for these purposes, whereas elementary and junior high/middle school principals used the results "quite a bit" for these purposes. In addition, elementary principals used the MEAP results "quite a bit" to determine instructional priorities, whereas junior high/middle school and high school principals used the MEAP results to "some" extent for those purposes.

Research Question 4. For Research Question 4, "What are the attitudes of Michigan school principals regarding the value of the MEAP and the utility of the test results provided by the program?" it was found that each principal group rated the MEAP results as having only "some" impact on the instructional programs of their schools. Two exceptions were in the areas of "narrowing the curriculum to just the MEAP tested objectives in a subject area" and "narrowing instruction to just the MEAP tested subject areas" (mathematics, reading, and science). Each principal group rated the MEAP results as having "very little" impact in those areas. In terms of the extent to which principals rated the MEAP results as being useful for selected purposes, each principal group indicated that those results were "quite" useful for "communicating the status of student learning to parents and students" but rated the results

as having only "some" utility for analyzing the "relationship between the allocation of school resources and student achievement of minimal objectives." Elementary school and junior high/middle school principals rated the MEAP results as being "quite" useful for "diagnosing student learning needs" and "planning for instructional improvements," but high school principals rated the MEAP results as having only "some" utility in those areas.

Chi-square analyses. Results of the chi-square analyses showed that elementary principals who made "extensive" use of the MEAP results were more likely to develop a plan of action to overcome needs identified by those results, to establish a building-level committee to involve teachers in the analysis and interpretation of the results, and to believe that the MEAP results had an extensive impact on the instructional program in their schools than those elementary principals who did not use the MEAP results extensively. Also, the elementary principals who made extensive use of the results believed the usefulness of the results was "extensive" for selected purposes in their schools, e.g., when planning for instructional improvement and diagnosing student learning needs. In addition, those principals who made extensive use of the results were more likely to come from buildings with a very low percentage (0% to .9%) of minority students or from schools with a much higher percentage (10.6% to 100%) of minority students.

Results of the chi-square analyses also showed that junior high/middle school principals who made "extensive" use of the MEAP

results were more likely to be in schools where the building principal or a districtwide committee determined procedures for using the results. Junior high/middle school principals who made "very little" or "some" use of the results were more likely to be in schools where the building guidance counselor was the person primarily responsible for determining procedures for using the results. Those junior high/middle school principals who made "extensive" use of the MEAP results were also likely to be in schools that were required to develop plans of action to overcome needs identified by the MEAP results and in schools that established building-level committees to involve teachers in analyzing the results. Junior high/middle school principals who made "extensive" or "quite a bit" of use of the results were more likely to believe those results had "quite a bit" or an "extensive" impact on the instructional program in their schools and rated the usefulness of the MEAP results as "quite a bit" or "extensive."

The chi-square analyses also showed that high school principals who made "extensive" use of the MEAP results were more likely to believe that those results had an "extensive" impact on the instructional programs in their schools and that the usefulness of the results for selected purposes was "extensive."

Overall, the building principals were the persons primarily responsible for determining the procedures for using the MEAP results in their buildings. Extensive use of the MEAP results for selected purposes was strongly associated with the principals' belief that the MEAP results had an "extensive" impact on their

instructional programs and that the usefulness of those results was "extensive."

Correlation coefficients. Numerous correlation coefficients for selected uses of the MEAP results by elementary principals met the criterion for statistical significance. The following correlations were seen as "strong," suggesting that it was "highly likely" that principals' "extent of use" of the MEAP results for these purposes was similar: the extent to which elementary principals used the results to determine strengths and weaknesses in the area of mathematics and in the area of reading, and to determine instructional priorities.

Those correlations seen as "moderate," suggesting that it was "likely" that principals' "extent of use" of the MEAP results for these purposes was similar, were as follows: (1) the extent to which elementary principals used the results to determine the general achievement levels of the students in their schools, and to determine strengths and weaknesses in the areas of mathematics and reading; (2) the extent to which principals used the results to determine strengths and weaknesses in the area of mathematics and in the area of science; (3) the extent to which principals used the results to determine instructional priorities and strengths and weaknesses in the areas of reading and science; (4) the extent to which elementary principals used the results to determine instructional priorities and the extent to which they used the results to document need in resource allocation and to identify

staff-development needs for teachers; (5) the extent to which elementary principals used the results to document need in the determination of school resource allocation and to determine need for new programs; and (6) the extent to which elementary principals used the results to determine the need for new programs and to determine the effectiveness of new programs.

Several correlation coefficients for selected uses of the MEAP results by junior high/middle school principals met the criterion for statistical significance. The following correlations were seen as "strong," suggesting that it was "highly likely" that the principals' "extent of use" of the MEAP results for those purposes was similar: (1) the extent to which junior high/middle school principals used the results to determine the general achievement level of the students in their schools and to determine strengths and weaknesses in the area of mathematics; (2) the extent to which these principals used the results to determine strengths and weaknesses in the area of mathematics and in the area of reading and to determine instructional priorities; (3) the extent to which principals used the results to determine strengths and weaknesses in the area of reading and to determine instructional priorities; and (4) the extent to which junior high/middle school principals used the results to determine need for new programs and to determine the effectiveness of new programs.

The following correlations were seen as "moderate," suggesting that it was "likely" that principals' "extent of use" of the MEAP results for these purposes was similar: (1) the extent to which

junior high/middle school principals used the results to determine the general achievement level of the students in their schools and to inform the school community of the general achievement level of the students in their schools, to determine strengths and weaknesses in the areas of reading and science, to determine instructional priorities, and to document need in the determination of school resource allocation; (2) the extent to which these principals used the results to inform the school community of the general achievement level of their students and to determine strengths and weaknesses in the area of mathematics; (3) the extent to which principals used the results to determine strengths and weaknesses in the area of mathematics and in the area of science; (4) the extent to which junior high/middle school principals used the results to determine strengths and weaknesses in the area of reading and in the area of science; (5) the extent to which principals used the results to determine strengths and weaknesses in the area of science, to determine instructional priorities, and to document need in the determination of resource allocation; (6) the extent to which these principals used the results to determine instructional priorities and to document need in the determination of resource allocation; (7) the extent to which junior high/middle school principals used the results to document need in the determination of resource allocation, to determine need for new programs, and to determine the effectiveness of new programs; (8) the extent to which these principals used the results to determine placement of students in

remedial programs and to determine the effectiveness of new programs; (9) the extent to which principals used the results to determine the effectiveness of new programs and to identify staff-development needs for teachers; and (10) the extent to which junior high/middle school principals used the results to analyze teacher performance and to identify staff-development needs for teachers.

Numerous correlation coefficients for selected uses of the MEAP results by high school principals met the criterion for statistical significance. The following correlations were seen as "strong," suggesting that it was "highly likely" that principals' "extent of use" of the MEAP results for these purposes was similar: (1) the extent to which high school principals used the MEAP results to determine the general achievement level of the students in their schools and to inform the school community of the general achievement level of the students in their schools and (2) the extent to which these principals used the results to determine strengths and weaknesses in the area of mathematics and in the area of reading.

The following correlations were seen as "moderate," suggesting that it was "likely" that principals' "extent of use" of the MEAP results for these purposes was similar: (1) the extent to which high school principals used the MEAP results to inform the school community of the general achievement level of the students in their schools and to determine strengths and weaknesses in the area of mathematics; (2) the extent to which high school principals used the results to determine strengths and weaknesses in the area of

mathematics and in the area of science, and to determine instructional priorities; (3) the extent to which these principals used the results to determine strengths and weaknesses in the area of reading and in the area of science, and to determine instructional priorities; (4) the extent to which high school principals used the results to determine instructional priorities and to identify staff-development needs for teachers; (5) the extent to which principals used the results to document need in the determination of school resource allocation, to determine need for new programs, and to determine the effectiveness of new programs; (6) the extent to which high school principals used the results to determine placement of students in remedial programs and to determine need for new programs; (7) the extent to which high school principals used the results to determine need for new programs and to determine the effectiveness of new programs; (8) the extent to which principals used the results to determine the effectiveness of new programs, to identify staff-development needs for teachers, and to prepare proposals for funding; (9) the extent to which high school principals used the results to analyze teacher performance and to identify staff-development needs for teachers; and (10) the extent to which high school principals used the results to identify staff-development needs for teachers and to prepare proposals for funding.

Several correlation coefficients for selected uses of the MEAP results by the total group of principals met the criterion for

statistical significance. The following correlations were seen as "strong," suggesting that it was "highly likely" that principals' "extent of use" of the MEAP results for these purposes was similar: (1) the extent to which principals used the results to determine strengths and weaknesses in the area of mathematics and to determine strengths and weaknesses in the area of reading; and (2) the extent to which principals used the results to determine need for new programs and to determine the effectiveness of new programs.

The following correlations were seen as "moderate," suggesting that it was "likely" that principals' "extent of use" of the MEAP results for these purposes was similar: (1) the extent to which principals used the results to determine the general achievement level of the students in their schools, to inform the school community of the general achievement level of the students in their schools, and to determine strengths and weaknesses in the areas of mathematics and reading; (2) the extent to which principals used the results to determine strengths and weaknesses in the area of mathematics and in the area of science, and to determine instructional priorities; (3) the extent to which principals used the MEAP results to determine strengths and weaknesses in the area of science and to determine instructional priorities; (4) the extent to which principals used the results to determine instructional priorities, to document need in the determination of school resource allocation, and to identify staff-development needs for teachers; and (5) the extent to which principals used the MEAP results to

document need in the determination of resource allocation and to determine need for new programs.

Comparison of results with those of the Steele study. What follows is a brief summary of how the most notable findings of the Steele (1976) study differ from those of the present research.

A greater percentage of elementary and junior high/middle school principals received building MEAP reports from central office personnel in 1988 than in 1976, and the percentage of school buildings required to develop plans to address student academic needs identified by the MEAP has more than doubled--from 12% in 1976 to 30.4% in 1988 (total group).

A much higher percentage of elementary and junior high/middle school principals shared school summary reports with their staffs in 1988 than in 1976 (92% of elementary principals and 87% of junior high/middle school principals in 1976, compared to 98.6% and 97.6%, respectively, in 1988).

In 1976, Steele found that elementary and junior high/middle school principals used the MEAP results to "some" extent "to inform the school community of the general achievement levels" of the students in their schools, as opposed to "quite a bit" for both groups in 1988.

In 1976, Steele found that elementary and junior high/middle school principals thought that the MEAP results had "very little" impact in "influencing community attitudes" toward their schools, as contrasted with this study's findings that those principal groups thought the MEAP results had "some" impact in that area.

In 1988, both elementary and junior high/middle school principals believed the MEAP results were "quite" useful when "planning for instructional improvements" and when "communicating the status of student learning to parents and students," as compared with 1976, when principals believed the MEAP results had only "some" usefulness in those areas.

Steele found that elementary principals who worked in urban settings were more likely to use the MEAP results "quite a bit" or "extensively" than were principals who worked in suburban or rural settings. Steele also found that elementary principals who received the MEAP test results late were more likely to use those results "very little" than were principals who received the test results early. Neither of these findings was corroborated in the present study.

Conclusions

From the preceding findings, several conclusions were drawn relative to the attitudes and practices of Michigan school building administrators regarding their use of the 1988 MEAP assessment results:

1. The vast majority of building administrators received the MEAP reports generated for their buildings by the Michigan Department of Education, and most of the principals received the reports from the central offices in a timely fashion.

2. Building principals were, for the most part, responsible for determining procedures for using the assessment results in their

schools. However, fewer than half of the high school principals indicated they were responsible for determining procedures for MEAP use, and nearly one-fourth of the high school principals gave their school counselors or other school personnel that responsibility.

3. A majority of principals initiated plans or were required to develop plans addressing the needs identified by the MEAP.

4. Almost all of the principals shared at least some of the MEAP reports with their staffs; elementary principals shared by far the most reports.

5. Teachers were involved in building-level committees in the interpretation and analysis of the assessment results in almost half of the schools in Michigan.

6. Diagnosing students' academic strengths and weaknesses, planning for instructional programs, and communicating students' academic performance to parents and students were areas in which principals most encouraged teacher use of the MEAP results.

7. The MEAP assessment results were used "quite a bit" by principals in determining strengths and weaknesses in their reading and mathematics programs, in determining the general academic achievement level of the students in their schools, and in informing the school community of the achievement levels of students in their schools; the results were used much less to analyze teacher performance.

8. Principals believed the MEAP results had only "some" or even less of an impact, overall, on their instructional programs,

but thought the MEAP results were "quite" useful when communicating achievement levels to students and parents, planning for instructional improvements, and diagnosing student learning needs.

9. Extensive use of the MEAP results by principals was strongly associated with principals' belief that the MEAP results had an "extensive" impact on their instructional programs and that the usefulness of the results was "extensive."

10. Principals used the MEAP results to a similar extent when evaluating their reading and mathematics programs and somewhat less so when evaluating their science programs.

11. Elementary and junior high/middle school principals believed the MEAP results were more useful and made greater use of those results than did high school principals.

Recommendations for Future Research and Practice

Based on the findings of this study, the following recommendations for further research are offered:

1. Investigation is needed to determine whether there is a relationship between the "extent of use" of MEAP results for various purposes at the building level and the achievement levels of students, as measured by the MEAP, at the building level.

2. Research is needed to determine whether there is a relationship between the extent of teacher involvement in the analysis and interpretation of MEAP results and the resulting teacher commitment to including the objectives tested by the MEAP in their instructional programs.

3. Research is needed to understand the impact of "institutional commitment" (policy and practice in place at the board of education, central office, and building levels) to the MEAP and its relationship with the "extent of use" of MEAP results at the district and building levels and the impact on student achievement levels.

4. Research is required to determine whether MEAP improvement plans, which include teacher involvement and participation (in place in about half of the districts in Michigan), have an impact on student achievement levels.

5. Given the relatively low rating ("very little" to "some" for each building level for survey question 10) that the MEAP results had in terms of the impact on the instructional programs in schools, further investigation is needed to determine how best to design the MEAP to increase its instructional value and utility to local districts and schools.

6. Additional research efforts should focus on determining whether differences exist between the districts in the six geographic and community types used by the Department of Education in Michigan (noted in Chapter III) in terms of board of education, central office, and building-level practices relative to the MEAP and resulting student achievement levels.

7. Further investigation is needed to determine why some principals have a more positive attitude toward the MEAP and value the results, at the building and individual student levels, more than other building administrators. This research should focus on

determining the characteristics of those principals (e.g., training in student assessment data analysis, training in use of specific data provided by the MEAP).

8. This study should be replicated in five years to determine the attitudes and practices of school administrators relative to the MEAP in light of any additional academic areas and grade levels that may be tested (science test given in grades 5, 8, and 11 as of fall 1989) and to establish a current data base regarding the MEAP and school administrators in Michigan.

Based on the findings of this study, the following recommendations for future practice are offered:

1. The Michigan Department of Education must continue to work with local boards of education, superintendents, and building principals to increase the perceived value and utility of the MEAP in terms of local practice relative to the MEAP and desired outcomes for children.

2. Local boards of education and superintendents must work with their staffs and community to determine the role MEAP objectives are to play in their instructional programs and then to publicize that role so the community may judge the assessment results in the proper perspective.

3. Local boards of education and administrators must also guard against overemphasizing how well their students perform on the MEAP. In that MEAP objectives are considered minimal or "essential" objectives, they do not represent, nor are they intended to

represent, a well-rounded, enriched curriculum for Michigan children. Placing too much of an emphasis on the MEAP and how well their students score (for the positive public relations value, for example) may lead to a narrowing of the curriculum that students are taught.

Reflections

In addition to the formal analyses and findings reported in this study, other more personal observations and insights are offered:

1. Considering the immense amount of data generated by the Steele study in 1976 and this study, the writer was struck by the overall consistency of the results. The relatively few results that differed, however, were of no surprise given the fairly high profile that the MEAP has assumed over the years each winter in local newspapers and school newsletters. Principals and their school districts do use the MEAP more today to inform their communities about the achievement levels of their students, and they do believe that the MEAP can be an influence on local community attitudes about their schools (whether they like it or not).

2. In addition, numerous comments made by principals on the surveys represented strong and varied opinions about the MEAP and made this writer even more aware of the sometimes intense polarity of opinions that Michigan administrators hold toward the MEAP. For the most part, comments were mixed and ranged from quite negative, like "MEAP is viewed primarily as a propaganda tool" and "MEAP tests

are a farce," to positive comments like "MEAP is an excellent benchmark tool," "MEAP is very valuable as it encourages educators to meet the needs of our students," and "We appreciate the feedback in math and reading."

3. Given that the MEAP is administered to tenth graders in the state on an every-pupil basis and that a significant amount of data is generated relative to student achievement levels, it is imperative that more high school principals become directly involved, in a leadership role, with MEAP testing. Approximately one-fourth of the high school principals indicated that their building guidance counselor was the "person primarily responsible for determining procedures for use" of their MEAP results. The writer suspects this figure is low and that other building personnel play this significant role with the MEAP. Not having the building "leader" directly involved with the MEAP sends a strong signal to building staff and students that MEAP testing and the results are not important. The principal's direct involvement is necessary to help ensure that students do their best and to ensure that staff members use the results to program for overall, desired student outcomes.

4. Finally, if a more comprehensive study relative to principals' attitudes and practices regarding the MEAP is carried out, this writer strongly recommends that individual building levels be investigated exclusively of the others (an elementary principal study separate from junior high/middle school and high school principals). This would allow for survey development to be more

tailored to the different levels and a more focused analysis and interpretation of data.

APPENDICES

APPENDIX A

SURVEY

SURVEY OF ADMINISTRATIVE USES OF THE FALL 1988
MICHIGAN EDUCATIONAL ASSESSMENT TEST RESULTS

Mailing Instructions: Return one copy by April 28 in the envelope accompanying this survey.

Directions: Please circle your response to each question. Do not sign your name to the survey. Please answer all questions in terms of your uses of the 1988-89 (Fall 1988) Michigan Education Assessment Program (MEAP) test results. You indicate your voluntary agreement to participate by completing and returning this questionnaire.

PART I: Information About The Administrative Use Of
1988 MEAP Test Results

1. Which 1988 MEAP assessment reports did you receive?

- (Circle all that apply)
- (1) Individual Student Reports
 - (2) Classroom Listing Reports
 - (3) Classroom Test Item Analysis
 - (4) School Summary Reports
 - (5) District Summary Reports
 - (6) None of the Above

2. During which month did you receive the MAJORITY of the reports you checked in item 1?

- (Circle ONE only)
- (1) November, 1988
 - (2) December, 1988
 - (3) January, 1989
 - (4) February, 1989
 - (5) After February, 1989

3. Who was PRIMARILY responsible for determining procedures for the use of 1988 MEAP test results in your school?

- (Circle ONE only)
- (1) Central office personnel
 - (2) A district-wide committee
 - (3) The building principal
 - (4) A building-level committee
 - (5) A building guidance counselor(s)

4. Were you REQUIRED to develop a plan of action to overcome needs identified by the 1988 MEAP test results?

(Circle ONE only)

- (1) Yes
- (2) No
- (3) Not required, but a plan has been developed

5. Did you establish a building level committee to involve teachers in the analysis and interpretation of the 1988 MEAP test results for your school?

(Circle ONE only)

- (1) Yes
- (2) No

6. Which assessment reports did you share with teachers in your school?

(Circle ALL that apply)

- (1) Individual Student Reports
- (2) Classroom Listing Reports
- (3) Classroom Test Analysis Reports
- (4) School Summary Report
- (5) District Summary Report
- (6) None of the Above

7. What assistance did you provide to help teachers understand and interpret the 1988 MEAP test results?

(Circle ALL that apply)

- (1) Conducted teacher meeting to analyze test results.
- (2) Provided manuals and other interpretive aids developed by the Michigan Department of Education.
- (3) Distributed test data within the teacher test results folders provided by the Michigan Department of Education.
- (4) Presented Michigan Department of Education video tape "Identifying and Addressing Curriculum Needs with MEAP Results."
- (5) Requested inservice assistance of central office, evaluation, or guidance personnel.
- (6) Others, please specify _____

.

8. For what purposes have you encouraged teachers to use the 1988 MEAP individual student tests results?

(Circle ALL that apply)

- (1) To diagnose students' strong and weak points.
- (2) To plan instructional programs.
- (3) To group students in accordance with similar needs.
- (4) To communicate student performance to parents and students.
- (5) To motivate increased student learning.
- (6) Others, please specify _____

NOTE: For the following questions (9-11), please respond by choosing the number from the scale below which most accurately reflects your response to each item. Place your response in the blank provided to the left of each item.

	1	2	3	4	5	6	7	8
SCALE:	Very		Some		Quite		Extensively	
	Little				a Bit			

EXAMPLE: A "4" response shows your perception to be "Some" (but more toward "Quite a Bit").
A "3" response shows your perception to be "Some" (but more toward "Very Little").

9. Using the scale provided above, rate the extent to which you have USED the 1988 MEAP test results for the following purposes:
- ___ a. To determine the general achievement level of the fourth, seventh and/or tenth grade students in your school.
 - ___ b. To inform the school community of the general achievement level of the fourth, seventh and/or tenth grade students in your school.
 - ___ c. To determine strengths and weaknesses in the area of MATHEMATICS.
 - ___ d. To determine strengths and weaknesses in the area of READING.
 - ___ e. To determine strengths and weaknesses in the area of SCIENCE.
 - ___ f. To determine instructional priorities.

- ___g. To document need in the determination of school resource allocation (i.e., people, time, materials and space).
- ___h. To determine placement of students in "remedial" programs.
- ___i. To determine need for new programs.
- ___j. To determine the effectiveness of new programs.
- ___k. To analyze teacher performance.
- ___l. To identify staff development needs for teachers.
- ___m. To prepare proposals for funding.
- ___n. To predict students' future academic success.
- ___o. Others, please specify_____.

	1	2	3	4	5	6	7	8
SCALE	Very		Some		Quite		Extensively	
	Little				a Bit			

10. Using the above scale, rate the extent MEAP assessment results have had an IMPACT on the instructional program in your school.

- ___a. In encouraging the development of a more comprehensive testing program.
- ___b. In calling attention to a curricular problem(s) not previously noted for your school.
- ___c. In confirming previous tentative judgments about a curricular problem(s) in your school.
- ___d. In facilitating a more individualized instructional approach to teaching.
- ___e. In influencing community attitudes toward your school.
- ___f. In narrowing the curriculum to just the MEAP tested objectives in a subject area.
- ___g. In narrowing instruction to just the MEAP tested subject areas (Mathematics, Reading and

Science).

___h. Others, please specify_____

11. Using the scale provided above, rate the extent to which you believe MEAP test results are USEFUL to you for the following purposes.

___a. Diagnosis of student learning needs.

___b. Analysis of the relationship between the allocation of school resources and student achievement of minimal objectives.

___c. Planning for instructional improvements.

___d. Communicating status of student learning to parents and students.

12. Use the space on the reverse side to make additional comments about the strengths and weaknesses of the MEAP and the test results provided if you desire to do so (be brief).

PART II: Descriptive Information About School and Principal

13. Which category best describes the location of your school?

(Circle ONE only)

(1) Tri-County Metropolitan Area (Wayne, Oakland and Macomb Counties).

(2) Lower Peninsula, excluding Tri-County Metropolitan Area.

(3) Upper Peninsula.

14. What is the total student enrollment in your school?

(Circle ONE only)

(1) 150 students or less

(2) 151 to 300 students

(3) 301 to 500 students

(4) 501 to 1,000 students

(5) More than 1,000 students

15. Which of the following terms best describes the setting in which your school is located?

(Circle ONE only)

(1) Rural

(2) Urban

(3) Suburban

16. What is the approximate percentage of minority students in your school?

(Circle ONE only)

- (1) 0 to 0.9%
- (2) 1 to 2.5%
- (3) 2.6 to 10.5%
- (4) 10.6 to 100%

17. Please indicate whether you are male or female.

(Circle)

- (1) Male
- (2) Female

18. What is the highest degree you hold?

(Circle ONE only)

- (1) B.A., B.S.
- (2) M.A., M.S.
- (3) Ed. Specialist
- (4) Ph.D., Ed.D.

19. For how many years have you held an administrative position?

(Circle ONE only)

- (1) 5 years or less
- (2) 6 to 10 years
- (3) 11 to 20 years
- (4) More than 20 years

20. For how many years have you held your present position?

(Circle ONE only)

- (1) 1 year or less
- (2) 2 to 5 years
- (3) 6 to 10 years
- (4) 11 to 20 years
- (5) More than 20 years

21. Is your school an elementary, junior high/middle school, or high school?

(Circle ONE only)

- (1) elementary school
- (2) junior high/middle school
- (3) high school

APPENDIX B

COVER LETTER



STATE OF MICHIGAN
DEPARTMENT OF EDUCATION

P.O. Box 30008
Lansing, Michigan 48909

April 4, 1989

STATE BOARD OF EDUCATION

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Ex Officio

Dear Principal:

This past fall, your school participated in the annual Michigan Educational Assessment Program (MEAP) tests of mathematics, reading and science. The MEAP results were returned to you later in the school year.

We are interested in obtaining information about administrators' use of the 1988-89 MEAP test results. In an effort to gather this information, the Michigan Department of Education and Mr. Chris Jencka, a Michigan State University doctoral candidate and an administrator in the Williamston Community School District, are cooperatively conducting a statewide study of elementary, middle/junior-high and high school principals. The results of this survey will be used to make longitudinal comparisons to a similar study conducted during the 1974-75 school year. The enclosed questionnaire will be used to gather the necessary information.

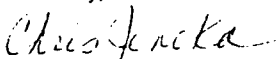
Your school has been randomly selected to participate in this study. We hope that you will be willing to invest a few minutes of your time and fill out the enclosed questionnaire. Please complete and return the questionnaire in the enclosed envelope by **April 28, 1989**. Your participation will help assure that the data represents the views of all principals in Michigan.

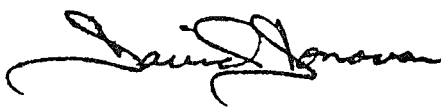
Be assured that the questionnaires themselves will be held in the strictest confidence. No identification of principal, school or school district will be provided, nor is such identification requested from you in completing the survey. The numbers on the return envelope indicate the grade level of the MEAP test given in your school and the geographic area of the State. No identification of your individual school building is possible. You may choose not to participate at all or not to answer certain questions without penalty.

We know that you will be interested in the results of this study. Therefore, an abstract of the study will be available upon request by contacting Mr. Jencka in Williamston at the address shown below. The abstract will be available by December 1, 1989.

We thank you in advance for your willingness to complete the enclosed survey. If you have any questions about this study or the survey, please feel free to contact Mr. Jencka.

Sincerely,


Chris Jencka
Principal
Williamston Elementary School
416 Highland Street
Williamston, MI 48895
(517) 655 2174


David L. Donovan
Assistant Superintendent
Office of Technical Assistance
and Evaluation
(517) 373-8374

Enclosure



APPENDIX C

FOLLOW-UP LETTER



STATE OF MICHIGAN
DEPARTMENT OF EDUCATION

P.O. Box 30008
Lansing, Michigan 48909

STATE BOARD OF EDUCATION

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GOV. JAMES J. BLANCHARD
Ex Officio

April 21, 1989

Dear Principal,

Recently you should have received a letter from David Donovan and myself concerning the voluntary survey of the uses of the Michigan Education Assessment Program (MEAP) test results in your building. Enclosed with the letter was a survey. The purpose of this letter is to remind you to complete the survey and return it to me by April 28. Since only a sample of schools was selected to participate in this study, we are hopeful that the principal in each selected school completes and returns the survey.

If you have completed the survey and returned it, I appreciate the time you took to do so. If you have yet to do so, my hope is that you will take a few minutes to complete and return it.

If you have misplaced the survey another copy can be obtained by calling me at home or Williamston Elementary School at 517-655-2174. Once again, I thank you for your assistance.

Appreciatively,

Chris Jencka

517-339-0104
5557 Wood Valley
Haslett, Mi. 48840



APPENDIX D

CHI-SQUARE TABLES

Table D.1.--Chi-square results: Extent of use by plan requirement--
elementary school principals.

Extent of Use		Plan Requirement			Total
		Yes	No	Not Required But Developed	
Very little	n	20	42	27	89
	Row %	22.5	47.2	30.3	20.8
	Col. %	14.2	29.2	19.0	
Some	n	31	42	32	105
	Row %	29.5	40.0	30.5	24.6
	Col. %	22.0	29.2	22.5	
Quite a bit	n	39	41	40	120
	Row %	32.5	34.2	33.3	28.0
	Col. %	27.7	28.5	28.2	
Extensively	n	49	18	42	109
	Row %	45.0	16.5	38.5	25.5
	Col. %	34.8	12.5	29.6	
Total	n	141	144	142	427
	Row %	33.0	33.7	33.3	100.0

Chi-square = 25.59774

df = 6

p = .001

Table D.2.--Chi-square results: Extent of use by establishment of building committee--elementary school principals.

Extent of Use		Building Committee Established		Total
		Yes	No	
Very little	n	36	53	89
	Row %	40.4	59.6	20.9
	Col. %	16.1	26.4	
Some	n	54	51	105
	Row %	51.4	48.6	24.7
	Col. %	24.1	25.4	
Quite a bit	n	60	59	119
	Row %	50.4	49.6	28.0
	Col. %	26.8	29.4	
Extensively	n	70	38	108
	Row %	64.8	35.2	25.4
	Col. %	31.3	18.9	
Total	n	224	201	425
	Row %	52.7	47.3	100.0

Chi-square = 15.62384

df = 4

p = .003

Table D.3.--Chi-square results: Extent of use by MEAP's impact on instructional program--elementary school principals.

Extent of Use		MEAP's Impact				Total
		Very Little	Some	Quite a Bit	Extensive	
Very little	n	50	21	17	2	90
	Row %	55.6	23.3	18.9	2.2	20.8
	Col. %	61.7	21.0	13.1	1.7	
Some	n	18	38	31	20	107
	Row %	16.8	35.5	29.0	18.7	24.7
	Col. %	22.2	38.0	23.8	17.4	
Quite a bit	n	11	33	47	28	121
	Row %	9.1	27.3	38.8	23.1	27.9
	Col. %	13.6	33.0	36.2	24.3	
Extensively	n	1	8	35	65	111
	Row %	.9	7.2	31.5	58.6	25.6
	Col. %	1.2	8.0	26.9	56.5	
Total	n	81	100	130	115	433
	Row %	18.7	23.1	30.0	26.6	100.0

Chi-square = 323.10975

df = 16

p = .000

Table D.4.--Chi-square results: Extent of use by MEAP's usefulness for selected purposes--elementary school principals.

Extent of Use		MEAP's Usefulness				Total
		Very Little	Some	Quite a Bit	Extensive	
Very little	n	47	26	14	2	90
	Row %	52.2	28.9	15.6	2.2	20.8
	Col. %	67.1	23.0	12.0	1.6	
Some	n	14	42	35	16	107
	Row %	13.1	39.3	32.7	15.0	24.7
	Col. %	20.0	37.2	29.9	12.5	
Quite a bit	n	8	36	44	32	121
	Row %	6.6	29.8	36.4	26.4	27.9
	Col. %	11.4	31.9	37.6	25.0	
Extensively	n	1	9	23	78	111
	Row %	.9	8.1	20.7	70.3	25.6
	Col. %	1.4	8.0	19.7	60.9	
Total	n	70	113	117	128	433
	Row %	16.2	26.1	27.0	29.6	100.0

Chi-square = 416.29480

df = 16

p = .000

Table D.5.--Chi-square results: Extent of use by percentage of minority students--elementary school principals.

Extent of Use		Percentage of Minority Students				Total
		0-.9%	1.0-2.5%	2.6-10.5%	10.6-100%	
Very little	n	45	16	11	18	90
	Row %	50.0	17.8	12.2	20.0	20.8
	Col. %	24.2	17.0	20.4	18.2	
Some	n	44	27	16	20	107
	Row %	41.1	25.2	15.0	18.7	24.7
	Col. %	23.7	28.7	29.6	20.2	
Quite a bit	n	57	26	19	19	121
	Row %	47.1	21.5	15.7	15.7	15.7
	Col. %	30.6	27.7	35.2	19.2	
Extensively	n	37	24	8	42	111
	Row %	33.3	21.6	7.2	37.8	25.6
	Col. %	19.9	25.5	14.8	42.4	
Total	n	186	94	54	99	433
	Row %	43.3	21.7	12.5	22.9	100.0

Chi-square = 26.396840

df = 12

p = .009

Table D.6.--Chi-square results: Extent of use by person(s) responsible for determining use--junior high/middle school principals.

Extent of Use		Person(s) Responsible					Total
		C.O.	D.C.	B.P.	B.Com.	B. Coun.	
Very little	n	5	--	25	3	8	41
	Row %	12.2		61.0	7.3	19.5	26.8
	Col. %	25.0		30.9	30.0	28.6	
Some	n	7	3	18	3	11	42
	Row %	16.7	7.1	42.9	7.1	26.2	27.5
	Col. %	35.0	21.4	22.2	30.0	39.3	
Quite a bit	n	5	1	24	--	7	37
	Row %	13.5	2.7	64.9		18.9	24.2
	Col. %	25.0	7.1	29.6		25.0	
Extensively	n	3	9	14	4	2	32
	Row %	9.4	28.1	43.8	12.5	6.3	20.9
	Col. %	15.0	64.3	17.3	40.0	7.1	
Total	n	20	14	81	10	28	153
	Row %	13.1	9.2	52.9	6.5	18.3	100.0

Chi-square = 39.95774

df = 16

p = .000

Key: C.O. = central office, D.C. = districtwide committee, B.P. = building principal, B.Com. = building committee, B.Coun. = building counselor.

Table D.7.--Chi-square results: Extent of use by plan requirement--
junior high/middle school principals.

Extent of Use		Plan Requirement			Total
		Yes	No	Not Required But Developed	
Very little	n	5	26	15	45
	Row %	11.8	55.6	33.3	27.1
	Col. %	11.4	32.1	34.1	
Some	n	8	26	10	44
	Row %	18.2	59.1	22.7	26.5
	Col. %	18.2	33.3	22.7	
Quite a bit	n	15	14	10	39
	Row %	38.5	35.9	25.6	23.5
	Col. %	34.1	17.9	22.7	
Extensively	n	16	12	9	37
	Row %	43.2	32.4	24.3	22.3
	Col. %	36.4	15.4	20.5	
Total	n	44	78	44	166
	Row %	26.5	47.0	26.5	100.0

Chi-square = 18.18528

df = 8

p = .019

Table D.8.--Chi-square results: Extent of use by establishment of building committee--junior high/middle school principals.

Extent of Use		Building Committee Established		Total
		Yes	No	
Very little	n	13	32	45
	Row %	28.9	71.1	27.1
	Col. %	15.7	38.6	
Some	n	19	25	44
	Row %	43.2	56.8	26.5
	Col. %	22.9	30.1	
Quite a bit	n	24	15	39
	Row %	61.5	38.5	23.5
	Col. %	28.9	18.1	
Extensively	n	26	11	37
	Row %	70.3	29.7	22.3
	Col. %	31.3	13.3	
Total	n	83	83	166
	Row %	50.0	50.0	100.0

Chi-square = 17.99840

df = 4

p = .001

Table D.9.--Chi-square results: Extent of use by MEAP's impact on instructional program--junior high/middle school principals.

Extent of Use		MEAP's Impact				Total
		Very Little	Some	Quite a Bit	Extensive	
Very little	n	25	10	11	--	45
	Row %	55.6	22.2	22.2		27.1
	Col. %	73.5	38.5	15.9		
Some	n	7	8	20	9	44
	Row %	15.9	18.2	45.5	20.5	26.5
	Col. %	20.6	30.8	31.7	22.0	
Quite a bit	n	2	4	18	15	39
	Row %	5.1	10.3	46.2	38.5	23.5
	Col. %	5.9	15.4	28.6	36.6	
Extensively	n	--	4	15	17	36
	Row %		10.8	40.5	45.9	22.3
	Col. %		15.4	23.8	41.5	
Total	n	34	26	63	41	164
	Row %	18.7	23.1	30.0	26.6	100.0

Chi-square = 152.00511

df = 16

p = .000

Table D.10.--Chi-square results: Extent of use by MEAP's usefulness for selected purposes--junior high/middle school principals.

Extent of Use		MEAP's Usefulness				Total
		Very Little	Some	Quite a Bit	Extensive	
Very little	n	25	14	2	4	45
	Row %	55.6	31.1	4.4	8.9	27.1
	Col. %	61.0	35.9	4.7	9.8	
Some	n	11	15	12	5	44
	Row %	25.0	34.1	27.3	11.4	26.5
	Col. %	26.8	38.5	27.9	12.2	
Quite a bit	n	2	6	17	14	39
	Row %	5.1	15.4	43.6	35.9	23.5
	Col. %	4.9	15.4	39.5	34.1	
Extensively	n	2	4	12	18	37
	Row %	5.4	10.8	32.4	48.6	22.3
	Col. %	4.9	10.3	27.9	43.9	
Total	n	41	39	43	41	166
	Row %	24.7	23.5	25.9	24.7	100.0

Chi-square = 72.62378

df = 16

p = .000

Table D.11.--Chi-square results: Extent of use by MEAP's impact on instructional program--high school principals.

Extent of Use		MEAP's Impact				Total
		Very Little	Some	Quite a Bit	Extensive	
Very little	n	28	10	11	1	50
	Row %	56.0	20.0	22.0	2.0	34.0
	Col. %	70.0	41.7	26.8	2.6	
Some	n	5	5	12	7	29
	Row %	17.2	17.2	41.4	24.1	19.7
	Col. %	12.5	20.8	29.3	17.9	
Quite a bit	n	5	6	11	8	30
	Row %	16.7	20.0	36.7	26.7	20.4
	Col. %	12.5	25.0	26.8	20.5	
Extensively	n	2	3	7	23	37
	Row %	5.4	8.1	18.9	62.2	25.2
	Col. %	5.0	12.5	17.1	59.0	
Total	n	40	24	41	39	147
	Row %	27.2	16.3	27.9	26.5	100.0

Chi-square = 111.98308

df = 16

p = .000

Table D.12.--Chi-square results: Extent of use by MEAP's usefulness for selected purposes--high school principals.

Extent of Use		MEAP's Usefulness				Total
		Very Little	Some	Quite a Bit	Extensive	
Very little	n	26	14	10	--	50
	Row %	52.0	28.0	20.0		34.0
	Col. %	72.2	40.0	25.0		
Some	n	6	13	5	5	29
	Row %	20.0	44.8	17.2	17.2	19.7
	Col. %	16.7	37.1	12.5	14.7	
Quite a bit	n	4	6	14	6	30
	Row %	13.3	70.0	46.7	20.0	20.4
	Col. %	11.1	17.1	35.0	17.6	
Extensively	n	--	2	11	23	37
	Row %		5.4	29.7	62.2	25.2
	Col. %		5.7	27.5	67.6	
Total	n	36	35	40	34	147
	Row %	24.5	23.8	27.2	23.1	100.0

Chi-square = 154.65034

df = 16

p = .000

Table D.13.--Chi-square results: Extent of use by person(s) responsible for determining use--total group.

Extent of Use		Person(s) Responsible					Total
		C.O.	D.C.	B.P.	B.Com.	B. Coun.	
Very little	n	28	9	114	11	21	183
	Row %	15.3	4.9	62.3	6.0	11.5	25.0
	Col. %	24.1	19.6	25.9	21.2	27.3	
Some	n	30	11	105	10	22	178
	Row %	16.9	6.2	59.0	5.6	12.4	24.3
	Col. %	25.9	23.9	23.8	19.2	28.6	
Quite a bit	n	19	8	123	14	21	185
	Row %	10.3	4.3	66.5	7.6	11.4	25.3
	Col. %	16.4	17.4	27.9	26.9	27.3	
Extensively	n	37	16	97	17	12	179
	Row %	20.7	8.9	54.2	9.5	6.7	24.5
	Col. %	31.9	34.8	22.0	32.7	15.6	
Total	n	116	46	441	52	77	732
	Row %	15.8	6.3	60.2	7.1	10.5	100.0

Chi-square = 26.74788

df = 16

p = .050

Key: C.O. = central office, D.C. = districtwide committee, B.P. = building principal, B.Com. = building committee, B.Coun. = building counselor.

Table D.14.--Chi-square results: Extent of use by plan requirement--total group.

Extent of Use		Plan Requirement			Total
		Yes	No	Not Required But Developed	
Very little	n	34	106	52	192
	Row %	17.7	55.2	27.1	24.5
	Col. %	14.3	33.7	22.5	
Some	n	51	84	51	186
	Row %	27.4	45.2	27.4	23.7
	Col. %	21.4	26.7	22.1	
Quite a bit	n	68	72	63	203
	Row %	33.5	35.5	31.0	25.9
	Col. %	28.6	22.9	27.3	
Extensively	n	82	49	64	195
	Row %	42.1	25.1	32.8	24.9
	Col. %	34.5	15.6	27.7	
Total	n	238	315	231	784
	Row %	30.4	40.2	29.5	100.0

Chi-square = 46.80696

df = 8

p = .000

Table D.15.--Chi-square results: Extent of use by establishment of building committee--total group.

Extent of Use		Building Committee Established		Total
		Yes	No	
Very little	n	70	123	193
	Row %	36.3	63.7	24.6
	Col. %	18.0	31.2	
Some	n	91	95	186
	Row %	48.9	51.1	23.8
	Col. %	23.4	24.1	
Quite a bit	n	101	101	202
	Row %	50.0	50.0	25.8
	Col. %	26.0	25.6	
Extensively	n	122	72	194
	Row %	62.9	37.1	24.8
	Col. %	31.4	18.3	
Total	n	389	394	783
	Row %	49.7	50.3	100.0

Chi-square = 27.99623

df = 4

p = .000

Table D.16.--Chi-square results: Extent of use by MEAP's impact on instructional program--total group.

Extent of Use		MEAP's Impact				Total
		Very Little	Some	Quite a Bit	Extensive	
Very little	n	108	44	39	3	194
	Row %	55.7	22.7	20.1	1.5	24.5
	Col. %	66.7	27.7	15.6	1.5	
Some	n	31	53	68	13	188
	Row %	16.5	28.2	36.2	19.1	23.8
	Col. %	19.1	33.3	27.2	17.5	
Quite a bit	n	19	46	81	56	204
	Row %	9.3	22.5	39.7	27.5	25.8
	Col. %	11.7	28.9	32.4	27.2	
Extensively	n	3	16	62	111	197
	Row %	1.5	8.1	31.5	56.3	24.9
	Col. %	1.9	10.1	24.8	53.9	
Total	n	162	159	250	206	791
	Row %	20.5	70.1	31.6	26.0	100.0

Chi-square = 665.33868

df = 16

p = .000

Table D.17.--Chi-square results: Extent of use by MEAP's usefulness for selected purposes--total group.

Extent of Use		MEAP's Usefulness				Total
		Very Little	Some	Quite a Bit	Extensive	
Very little	n	103	57	27	6	194
	Row %	53.1	29.6	13.9	3.1	24.5
	Col. %	66.9	29.2	12.6	2.8	
Some	n	32	73	54	28	188
	Row %	17.0	38.8	28.7	14.9	23.3
	Col. %	20.8	37.4	25.2	12.9	
Quite a bit	n	15	49	84	55	204
	Row %	7.4	24.0	41.2	27.0	25.8
	Col. %	9.7	75.1	39.3	25.3	
Extensively	n	3	16	48	128	197
	Row %	1.5	8.1	24.4	65.0	24.9
	Col. %	1.9	8.2	22.4	59.0	
Total	n	154	195	214	217	791
	Row %	19.5	24.7	27.1	27.4	100.0

Chi-square = 702.33826

df = 16

p = .000

Table D.18.--Chi-square results: Extent of use by percentage of minority students--total group.

Extent of Use		Percentage of Minority Students				Total
		0- .9%	1.0-2.5%	2.6-10.5%	10.6-100%	
Very little	n	83	42	31	37	193
	Row %	43.0	21.8	16.1	19.2	24.6
	Col. %	25.5	22.6	27.7	23.0	
Some	n	74	48	32	33	187
	Row %	39.6	25.7	17.1	17.6	23.8
	Col. %	22.7	25.8	28.6	20.5	
Quite a bit	n	92	49	34	28	203
	Row %	45.3	24.1	16.7	13.8	25.9
	Col. %	28.2	26.3	30.4	17.6	
Extensively	n	72	45	15	63	195
	Row %	36.9	23.1	7.7	32.3	24.8
	Col. %	22.1	24.2	13.4	39.1	
Total	n	326	186	112	161	785
	Row %	41.5	23.7	14.3	20.5	100.0

Chi-square = 33.540370

df = 12

p = .009

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