DOCUMENT RESUME

ED 056 060 TM 000 848

AUTHOR Puzzuoli, David A.; Alexander, Donald L.
TITLE A Study of the West Virginia State-County Testing Program.
INSTITUTION West Virginia Univ., Morgantown. Coll. of Human Resources and Education.
SPONS AGENCY Office of Education (DHEW), Washington, D.C.
PUB DATE Apr 71
NOTE 181p.

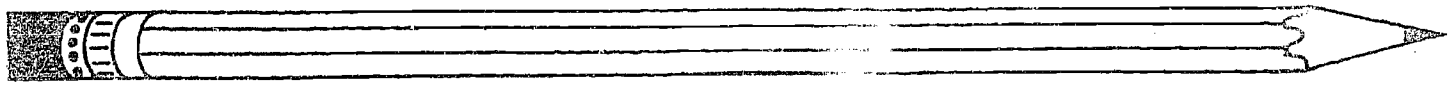
EDRS PRICE MF-$0.65 HC-$6.58
DESCRIPTORS Academic Achievement; Academic Aptitude; Achievement Tests; Curriculum Development; Educational Accountability; Educational Objectives; *Educational Planning; Educational Trends; Financial Support; Formative Evaluation; Instructional Staff; Item Analysis; Models; *Program Evaluation; School Holding Power; *State Surveys; Statistical Data; Student Enrollment; *Student Evaluation; *Testing Programs
IDENTIFIERS Otis Lennon Mental Abilities Test; School and College Ability Test; Sequential Tests of Educational Progress; Stanford Achievement Test

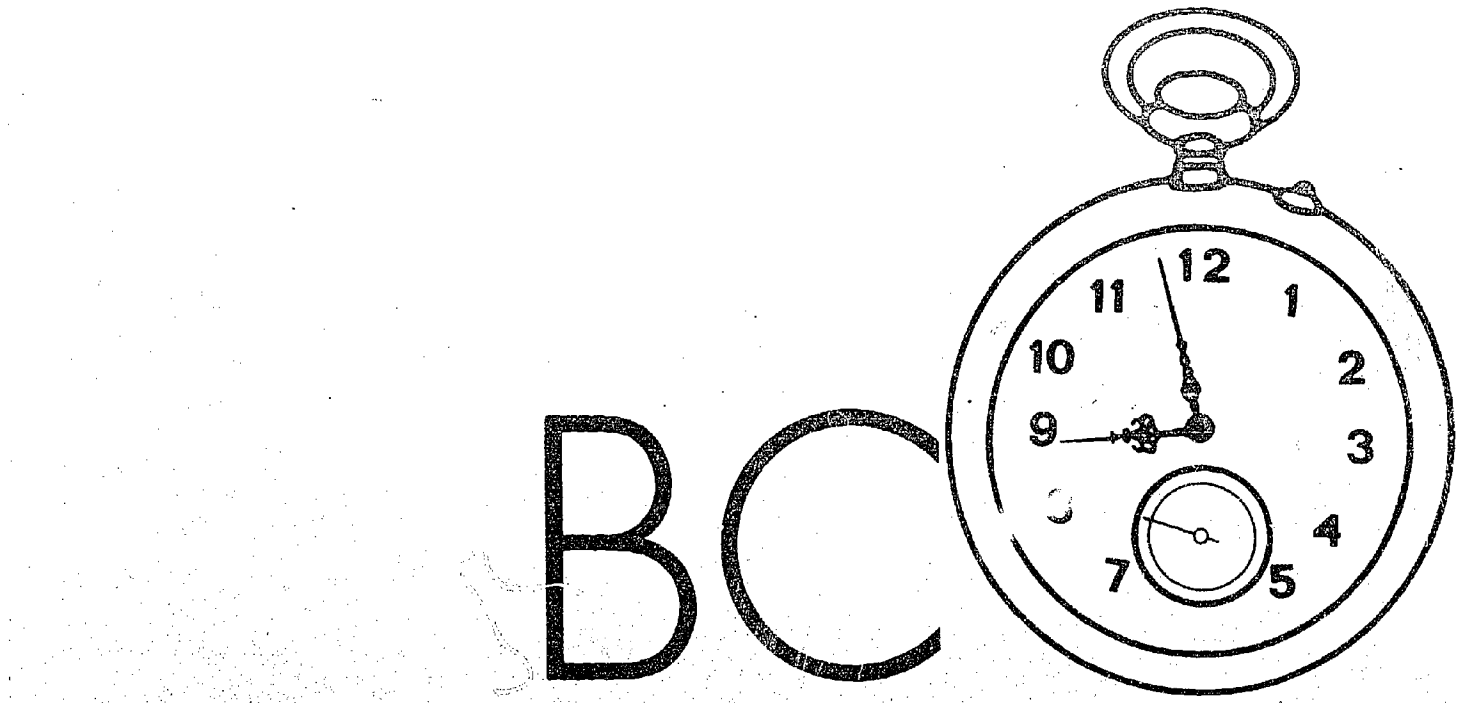
ABSTRACT

In September 1962, the State Board of Education initiated a broad annual study of the academic achievement and scholastic aptitude of West Virginia public schools called the State-County Testing Program. The results of this program in Region II West Virginia schools for 1965-66 - 1969-70 are analyzed to: 1) identify discernable trends; 2) find any significant disparities between results of the Testing Program and the objectives of the Comprehensive Education Program; 3) provide an item analysis on achievement tests used in the State-County Testing Program for academic year 1969-70. (MS)

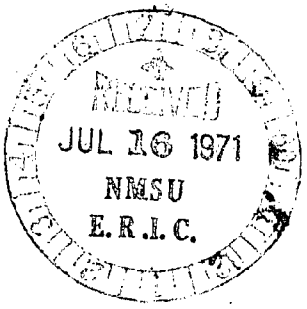
West Virginia State-County Testing Program

David A. Puzzuoli / Donald L. Alexander
West Virginia University College of Human Resources and Education





A STUDY OF THE WEST VIRGINIA STATE-COUNTY TESTING PROGRAM



David A. Puzzuoli
Donald L. Alexander
Educational Research and Field Services
College of Human Resources and Education
West Virginia University

April, 1971

The work presented or reported herein was performed pursuant to a Tital V, ESEA Grant from the U.S. Office of Education through the West Virginia State Department of Education. Any opinions expressed herein do not necessarily reflect the position or policy of these agencies.

PREFACE

This Study was funded through the Elementary and Secondary Education Act, 1965, Title V, Section 503, Flow-Through Funds granted to Region II, West Virginia, by the West Virginia State Department of Education.

The successful completion of a study of this nature requires the effort and support of many people. The authors wish to specifically identify and extend their appreciation to such agencies and persons.

The authors are indebted to the West Virginia State Department of Education for their confidence and assistance throughout this Study. The efforts put forth by Marion McCoy and Raymond Miller in retrieving all pertinent data for this study are recognized.

Gratitude is expressed to all the superintendents of the eight county school systems of Region II for permission to conduct the Study and their cooperation and assistance in retrieving data at the local level. These gentlemen are: Raymond Dispanet (Berkeley County), Cread Sions (Grant County), Bernard Hughes (Hampshire County), Gary Smith (Hardy County), T. A. Lowery (Jefferson County), S. T. McGee (Mineral County), J. Kenneth Frye (Morgan County), and Walter Schwarz (Pendleton County).

Appreciation is also extended to the Curriculum Improvement Center, Shepherd College, for their assistance in coordinating the data collection process. Particular thanks are due to James M. Molar and Chester Freed for their assistance in aiding with communications within the Region and for their support of the Study.

The Project team for this Study included Boyd Holtan, Kenneth Murray, Thomas Hatcher, Donald Alexander, David A. Puzzuoli, and Mrs. Georgia Beal, Secretary.

David A. Puzzuoli
Donald L. Alexander

TABLE OF CONTENTS

TABLE OF CONTENTS (Continued)

LIST OF TABLES

LIST OF TABLES (Continued)

LIST OF TABLES (Continued)

LIST OF TABLES (Continued)

LIST OF TABLES (Continued)

LIST OF TABLES (Continued)

LIST OF TABLES (Continued)

LIST OF FIGURES

A STUDY OF THE WEST VIRGINIA STATE-COUNTY TESTING PROGRAM

INTRODUCTION

Educational leaders in West Virginia are repeatedly seeking answers to the question "How good are our schools?" At the outset, one must recognize that this is a highly complex question and that simplistic answers are neither applicable nor available. The answer is complex because, in essence, the quality of the West Virginia schools is dependent upon many components and the components are highly interrelated and interdependent. Some of the more obvious components upon which the quality of schools rest are financial support, policy decisions, statutory and regulatory legislation, facilities and equipment, quality of professional expertise residing within the professional staff, curriculum organization and design, instructional models, and the quality of the educational leadership. In addition, factors such as community aspiration, values, and attitudes are directly related to the quality of schools. The answer to the question may be related to pupil abilities, aptitudes and interests.

In attempting to provide an answer to the question, one may isolate and analyze various sub-systems within a total school system. That is, the question may be translated to "How good is our curriculum?", "How good is our management system?","How good are our teachers?", "How good is our transportation system?", etc. One must recognize that extrapolating an answer to the question, "How good are our schools?" from the evaluation of a highly specific sub-system is

a partial answer. Generally, the results of the evaluation of a sub-system generate questions relating to the quality of all other sub-systems. The only real process for arriving at the answer is a continuous planning, implementation, and evaluation program.

It has been stated that the schools reflect to a large extent, the values, philosophy, and perceptions of the social system supporting the schools. Of equal importance is the effect the schools have upon the social system. Since the strands of social fabric and those of educational process are inextricably woven into the schools, it becomes apparent that one must determine if the schools' curricula are adequately satisfying the many interfaces of education within the total social pattern.

The curriculum becomes the instrument which projects educational objectives, a body of subject matter, provisions for interaction in the learning experiences, and a method of evaluation relative to objectives. Also included in the curriculum are control measures to be employed by the school system to oversee the learning of the pupil. Thus, the curriculum becomes a sequence of potential learning experiences established in the school for the purpose of developing the pupil, intellectually, socially and psychologically.

Comprehensive Educational Program

Through the leadership of the State Department of Education, the schools of West Virginia have "a vehicle which will provide and stimulate leadership in the development of a high-quality educational

program."[1] This plan is the Comprehensive Educational Program (C[illegible]. The CEP is a plan through which the schools of West Virginia pro[illegible]e the academic, vocational, and social experiences necessary to dev[illegible]op effective citizens in a complex democratic society.[2]

The CEP provides a rationale, program discription, essential criteria (minimum conditions and minimum offerings), enrichment cri-teria, and Expected Measurable Outcomes in 24 areas of school manage-ment and/or pupil learning experiences. These include such activities as adult education, early childhood education, school food service guidance, language arts, mathematics, school transportation, science, social studies, vocational agriculture, etc.

> The Comprehensive Educational Program for West Virginia's public schools, a rather sophisticated plan for improving curriculum throughout the State, has become an integral adjunct to our schools. The CEP has been viewed by many as a viable structure through which endeavors can effect curriculum change.[3]

State-County Testing Program

In September, 1962, the State Board of Education initiated a broad annual study of the academic achievement and scholastic aptitude of West Virginia public school pupils. The study was called "The State-County Testing Program."

---

[1]Rex M. Smith, The Comprehensive Educational Program (Charleston, W. Va.: West Virginia State Department of Education, Revised Edition, 1970), p. 1.

[2]Ibid.

[3]White Paper on the Comprehensive Educational Program in Region II, West Virginia (Shepherdstown, W. Va.: The Curriculum Improvement Center, February, 1970), p. 1.

Studies of West Virginia's educational program by the State's educational leaders have, for many years, indicated a need for better insight into educational problems. Factors which have limited statewide examination of these problems are:

1. Little or no information available at the State level on educational achievement and scholastic aptitude (intelligence) of West Virginia public school pupils.

2. Little or no information at the State level on the kinds of educational changes that are taking place.

3. Lack of current and continuing information which identifies direction for educational planning.

4. Many counties have good testing programs, but there are none identical either in terms of tests used or time of year given.

5. The State's educational program has been judged many times on information five or more years old.[4]

In view of the recognized need for better insight into the above problems, the objectives of the State-County Testing Program identified in 1962 were:

1. To provide information to the State on the educational achievement and scholastic progress of West Virginia public school pupils.

2. To provide information at the State level on the kinds of educational changes that are taking place.

3. To provide current and continuing education which identifies direction for educational planning.

---

[4]Rex M. Smith, First Report, West Virginia State-County Testing Program (Charleston, W. Va.: West Virginia State Department of Education, April, 1963), p. 1.

4. To develop "test continuity" across the State in terms of tests used, grades tested, and time of year tests are administered.

5. To provide current information on the State's educational program.

6. To provide data for the evaluation of the programs of instruction and curriculum.

7. To provide data for pupil guidance and counseling, both educational and vocational.[5]

By the academic year 1968-69, the objectives of the State-County Testing Program had evolved into the following:

1. To provide new, current, state-wide information on the scholastic aptitude and achievements of West Virginia public school students.

2. To develop a basis on which a future planning for school improvement and student guidance would be more fully developed.

3. To evaluate the instructional and curricular strengths as well as weaknesses.

4. To provide additional information for planning and research purposes.[6]

Thus, it may be observed that through the leadership of the West Virginia State Department of Education, West Virginia was provided two powerful and viable tools whereby one may assess the "quality" of the public schools. However, it must be emphasized that the "tools" were developed in isolation of each other and have different purposes and goals. This point will be discussed in greater depth in succeeding sections of this report.

---

[5]Ibid.

[6]Rex M. Smith, Eighth Report, 1968-69 State-County Testing Program (Charleston, W. Va.: West Virginia State Department of Education, August, 1969), p. 1.

Testing Instruments

The standardized tests administered by the West Virginia State Department of Education in the State-County Testing Program are (given in parenthesis are the grade levels in which the tests are administered): the Stanford Achievement Test (grades 3 and 6), the Otis-Lennon Mental Ability Test (grades 3 and 6), the Sequential Test of Educational Progress (grades 9 and 11) and the School College Ability Test (grades 9 and 11).

The Stanford Achievement Test measures pupil achievement in such curricular elements as: word meaning, paragraph meaning, spelling, language, arithmetic computations, arithmetic concepts, and science. The Sequential Test of Educational Progress measures pupil achievement in writing, reading, social studies, science, mathematics, and listening. The School College Ability Test provides a verbal score, quantitative score, and total score for the pupils. The Otis-Lennon Mental Ability Test provides a deviation I.Q. score.

Limitation of the Study

The Study was limited to the pupils in Region II, West Virginia; the following counties comprise Region II: Berkeley, Grant, Hampshire, Hardy, Jefferson, Mineral, Morgan, and Pendleton. The data analysis was limited to State-County Testing data available for the academic years 1965-66 through 1969-70.

Where appropriate, all data were analyzed and interpreted on a regional basis; no attempt was made to analyze individual pupil, county, or school data. Due to the nature of the study, the data were not subjected to statistical analysis to determine significant differences

among or between counties or significant differences between original mean scores and/or State and national norms.

Objectives of the Study

The objectives of the Study were:

1. To analyze the results of the State-County Testing Program in Region II schools, by county and region, for the five year period (1965-66 through 1969-70) to determine whether discernable trends may be identified.

2. To determine if any significant disparities can be identified between the results of the State-County Testing Program and the objectives of the Comprehensive Educational Program as provided by the 1969-70 academic year data.

3. To provide an item analysis on the academic achievement tests in the State-County Testing Program for the academic year 1969-70.

Curriculum Improvement Center

The Curriculum Improvement Center is a Project funded under the Elementary and Secondary Education Act, 1965, Title III. The Curriculum Improvement Center serves the schools of Region II and its general focus is the improvement of curriculum and instruction. The center places special emphasis upon pilot projects and the demonstration of instructional activities aimed at up-grading and enriching the quality of education and educational opportunities in Region II.

In the Center's mission to better serve the schools, it has become deeply involved in determing relevant and appropriate responses to the question "How good are our schools?" It is only through the process of attempting to secure answers to this question that the Center has become a viable and integral element in the school systems of Region II. In its efforts to better serve the schools of Region II,

the Center provided the leadership for the implementation of this Study. In addition, the Center acted as a liaison agent between/ among West Virginia, the eight county school systems in Region II, and the West Virginia State Department of Education.

INPUTS INTO THE REGION II EDUCATIONAL ENTERPRISE

The model implemented for this study was based upon the concept that the educational enterprise in Region II is a system. The authors attempted to interpret the educational enterprise of Region II as a system consisting of three (3) basic components--inputs, processor and outputs. Inputs were defined as buildings, enrollment data, teachers, equipment and financial support; such inputs as leadership, management techniques, buses, etc., were not considered in this Study. The processor was defined as the curriculum of the schools. The outputs of the curriculum were defined as pupil behavior exhibited in the State-County Testing Program results. The Comprehensive Educational Program was defined as the control factor of the system and this Study was interpreted as "feedback" into the system. Due to the availability of a complete set of contemporary data, all inputs were related to the 1968-69 academic year.

Pupil Enrollment

Net Elementary Enrollment. The elementary schools of Region II enrolled 16,299 pupils. Elementary pupils represented approximately 57.6 per cent of the total enrollment in the schools of Region II, see Table I. These students were housed in 85 elementary school buildings and each elementary school held an average of approximately 192 pupils.

Net Secondary Enrollment. The secondary schools of Region II enrolled 11,990 pupils. Secondary pupils represented approximately 42.4 per cent of the total enrollment in the schools of Region II, see Table I. These pupils were housed in 33 secondary school buildings;

TABLE I

NUMBER OF ELEMENTARY SCHOOLS NET ELEMENTARY ENROLLMENT, SECONDARY SCHOOLS, AND NET SECONDARY ENROLLMENT: REGION II, 1968-69

County	No. of Elementary Buildings	Net Elementary Enrollment	No. of Secondary Buildings	Net Secondary Enrollment	Total Enrollment
Berkeley	17	4,503	5	3.291	7,794
Grant	8	1,118	4	927	2,045
Hampshire	9	1,369	5	1,178	2,547
Hardy	8	1,225	3	947	2,172
Jefferson	18	2,865	4	1,867	4,732
Mineral	14	2,952	8	2,313	5,265
Morgan	6	1,119	2	987	2,106
Pendleton	5	1,148	2	480	1,628
Region II	85	16,299	33	11,990	28,289
W. Va.	1,300	235,627	585	184,720	420,347

Source: 1968-69 Educational Statistical Summary, W. Va. State Department of Education, Rex M. Smith.

the mean enrollment per secondary school was approximately 363 pupils.

The schools of Region II enrolled 28,289 pupils, grades 1-12, during the academic year 1968-69. The total number of school buildings in Region II was 118.

Instructional Personnel

Elementary Teachers. Table II provides data relating to the grade of certificate held by the elementary teachers in Region II, 1968-69. The region employed 669 teachers and of this number, approximately 57.1 per cent held a Bachelor's Degree, 13.3 per cent had 15 semester hours above the Bachelor's Degree, 11.7 per cent held the Master's Degree, 2.2 per cent had earned 15 semester hours credit above the Master's Degree, and 1.3 per cent had earned 30 semester hours above the Master's Degree. In addition, approximately 14.3 per cent of the elementary teachers were teaching on a second, third, or fourth class certificate. In comparison to the total population of elementary teachers in West Virginia, the elementary teachers in Region II appeared to hold a proportionately less number of Master's Degrees and a proportionately greater number of second, third, or fourth class certificates. The Region II elementary teachers appeared to hold a proportionately greater number of Bachelor's Degrees in comparison to their peer group in West Virginia.

Secondary Teachers. Table III presents data relating to the grade of certificate held by the secondary teachers of Region II, 1968-69. The Region employed 596 secondary teachers. The data indicates that approximately 57.4 per cent of the secondary teachers held Bachelor's Degrees, 15.8 per cent held the Bachelor's Degree plus 15 semester hours,

TABLE II

ELEMENTARY INSTRUCTIONAL PERSONNEL BY GRADE OF CERTIFICATE: 1968-69

County	M. A. +30	Per Cent	M. A. +15	Per Cent	M. A.	Per Cent	B. A. +15	Per Cent	B. A.	Per Cent	Second - Fourth Class	Per Cent	Total
Berkeley	4	2.3	-	0.0	21	11.9	14	7.9	98	55.4	40	22.6	177
Grant	-	0.0	-	0.0	5	10.9	6	13.0	26	56.5	9	19.6	46
Hampshire	-	0.0	2	3.8	8	15.1	12	22.6	25	47.2	6	11.3	53
Hardy	1	1.9	3	5.7	6	11.3	14	26.4	21	39.6	8	15.1	53
Jefferson	1	0.8	1	0.8	17	14.2	11	9.2	89	74.2	1	0.8	120
Mineral	2	1.7	5	4.2	9	7.6	25	21.0	62	52.1	16	13.4	119
Morgan	1	2.2	-	0.0	6	13.0	3	6.5	27	58.7	9	19.6	46
Pendleton	-	0.0	4	7.3	6	10.9	4	7.3	34	61.8	7	12.7	55
Region	9	1.3	15	2.2	78	11.7	89	13.3	382	57.1	96	14.3	669
W. Va.	167	1.7	230	2.4	1,524	15.7	1,198	12.3	5,588	57.4	1,317	13.5	9,724

Source: 1968-69 Educational Statistical Summary, W. Va. State Department of Education, Rex M. Smith

TABLE III

SECONDARY INSTRUCTIONAL PERSONNEL BY GRADE OF CERTIFICATE: 1968-69

County	M. A. +30	Per Cent	M. A. +15	Per Cent	M. A.	Per Cent	B. A. +15	Per Cent	B. A.	Per Cent	Second - Fourth Class	Per Cent	Total
Berkeley	-	0.0	1	0.6	25	15.9	13	8.3	113	72.0	5	3.2	157
Grant	4	8.7	1	2.2	9	19.6	8	17.4	23	50.0	1	2.2	46
Hampshire	3	3.6	3	5.4	11	19.6	7	12.5	32	57.1	1	1.8	56
Hardy	5	11.1	1	2.2	14	31.1	8	17.8	17	37.7	-	0.0	45
Jefferson	-	0.0	8	7.6	15	14.3	14	13.3	68	64.8	-	0.0	105
Mineral	4	3.5	4	3.5	22	19.3	28	24.6	51	44.7	5	4.4	114
Morgan	1	2.0	1	2.0	9	18.0	10	20.0	21	54.0	2	4.0	50
Pendleton	2	8.7	1	4.3	3	13.0	6	26.1	11	47.8	-	0.0	23
Region II	18	3.0	20	3.4	108	18.1	94	15.8	342	57.4	14	2.3	596
W. Va.	306	3.5	377	4.3	2,042	23.3	1,304	14.9	4,591	52.5	132	1.5	8,752

Source: 1968-69 Educational Statistical Summary, W. Va. State Department of Education, Rex M. Smith

18.1 per cent held the Master's Degree and 3.4 per cent held the Master's Degree plus 30 semester hours. In addition approximately 2.3 per cent of the secondary teachers were teaching on a second, third or fourth class certificate. In comparison to the total number of secondary teachers in West Virginia, it appears that the secondary teachers in Region II held a proportionately greater number of Bachelor's Degrees, a lesser proportion of Master's Degrees, and a greater proportion of second, third, and fourth class certificates.

Financial Resources

As given in Table IV, it can be observed that the schools of Region II expended approximately $540 per pupil in current expenditures. This approximates the mean current expenditures per pupil expended by the State of West Virginia ($541) during 1968-69.

TABLE IV

ESTIMATED CURRENT EXPENDITURES
PER PUPIL ENROLLED: 1968-69

County	Current Expenditures Per Pupil
Berkeley	$ 505
Grant	556
Hampshire	599
Hardy	532
Jefferson	571
Mineral	547
Morgan	493
Pendleton	552
Region II	540
West Virginia	$ 541

Source: Rankings of the Counties: 1969, West Virginia Education Association.

TABLE V

VALUE OF BUILDINGS, GROUNDS, AND EQUIPMENT: REGION II, 1968-69

County	Grounds	Buildings	Furniture	Apparatus	Libraries	Teach. Aids & Ed. Mat.	School Buses	Trans. Equip.	Total
Berkeley	$ 250,000	$ 5,583,500	$ 184,820	$ 64,750	$100,612	$208,200	$181,283	$ 47,165	$ 6,620,330
Grant	$ 50,000	$ 3,400,000	$ 150,000	$ 30,000	$ 40,000	$ 35,000	$ 60,000	$ 10,000	$ 3,775,000
Hampshire	$ 65,000	$ 3,000,000	$ 120,000	$ 45,500	$ 45,500	$ 80,000	$103,000	$ 30,000	$ 3,489,000
Hardy	$ 25,335	$ 1,042,000	$ 114,000	$ 60,000	$ 35,000	$ 45,000	$ 80,000	$ --	$ 1,401,335
Jefferson	$ 151,500	$ 3,778,610	$ 298,000	$130,000	$118,800	$ 90,000	$148,500	$ 42,000	$ 4,757,410
Mineral	$ 549,337	$ 4,860,500	$ 287,345	$346,000	$110,000	$103,000	$157,200	$ 60,000	$ 6,473,382
Morgan	$ 63,000	$ 1,505,000	$ 102,000	$ 25,000	$ 36,000	$ 42,000	$ 66,000	$ 25,000	$ 1,864,000
Pendleton	$ 92,400	$ 1,453,000	$ 47,000	$ 19,000	$ 34,500	$ 31,000	$112,000	$ 9,100	$ 1,798,000
Region II	$1,246,572	$24,622,610	$1,303,165	$720,250	$520,412	$634,000	$907,983	$223,265	$30,178,457

Source: 1968-69 Educational Statistical Summary, W. Va. State Department of Education, Rex M. Smith.

Data presented in Table V is a summary of the value of buildings, grounds, and equipment held by the schools of Region II, 1968-69. It can be observed that the citizens of Region II have invested $30,178,457 for school buildings, grounds and equipment. The greatest proportion of these funds (approximately 81.6 per cent) were invested in school buildings.

TABLE VI

CURRENT EXPENDITURES: REGION II, 1968-69

County	Current Expenditures
Berkeley	$ 3,938,266.51
Grant	1,517,745.54
Hampshire	1,394,743.93
Hardy	1,234,019.73
Jefferson	2,463,743.51
Mineral	2,526,643.98
Morgan	1,072,242.65
Pendleton	887,933.60
Region II	$15,035,321.45

Source: 1968-69 Educational Statistical Summary, W. Va. State Department of Education, Rex M. Smith.

In addition to the investment of approximately 30,000,000 in buildings, grounds, and equipment, the citizens of Region II expended $15,035,321.45 in current expenditures during the academic year 1968-69, see Table VI. These figures indicate that the basic capitol investment and the operation of the schools in Region II required the expenditure of large sums of monies.

In addition to the expenditure of funds by the general public to support the institution of "free education", one must also consider the investment in education made by the students. This investment is

usually entitled "foregone earnings."

In determining the true financial inputs into the schools of Region II one must consider two factors: (1) the financial support provided by citizens through taxes, gifts, etc., and (2) the investment made by students in terms of monies they may have earned if they were not attending the schools. It is recognized that foregone earnings are absent at the elementary level due to child labor laws, but foregone earnings are a reality at the secondary level. In an industrial nation such as America, these costs are borne by the student or his family. It is apparent that these costs are usually neglected by writers in the field of school finance.

Theodore W. Schultze has shown that the investment by secondary students in earnings foregone are greater than the costs borne by persons other than the student or his family.[7] Earnings foregone by students represent approximately 60 per cent of the "total costs" of schooling per student and current expenditures represent approximately 40 per cent of the "total costs."[8]

In applying Professor Schultze's formula to determine the total financial investment in the schools of Region II, it was calculated that the secondary pupils of Region II invested approximately $10,000,000 as foregone earnings into their education. Therefore, the "total costs" required to operate the schools of Region II during 1968-69 was approximately $25,000,000 ($15,000,000 in current expenditures and $10,000,000 in foregone earnings by secondary students).

---

[7]Theodore W. Schultze, The Economic Value of Edueation (New York: Columbia University Press, 1967), p. 2.

[8]Ibid., p. 28.

Summary

In summary, the basic inputs for the schools of Region II consisted of 28,289 pupils, 1,265 teachers, an investment of $30,178,457 in buildings, grounds and equipment, 118 schools valued at $24,622,610, a yearly current expenditure of $15,035,321, and an investment of $ 9,711,900 in foregone earnings by the secondary students. The outputs generated by the schools will be discussed in the following secions of this report.

RESULTS OF THE WEST VIRGINIA STATE-COUNTY TESTING PROGRAM IN REGION II

This section of the Report presents the basic data collected during the administration of the State-County Testing Program in Region II schools during the period 1965-66 through 1969-70. The data were collected from two sources, the State Department of Education and the administrative offices of the county school systems. Approximately 90 per cent of the data retrieved for analysis was obtained at the State Department of Education. For data not available at the State Department, an effort was made to collect the missing data in the files of the local school systems; this resulted in retrieving an additional 10 per cent of the data. In observing the data presented in Tables VII through XXVI, the reader will note blank spaces in which data are not reported; these data were not available at the State or local level.

Holding Power of Region II Schools

One measure of the quality of schools is the relative "holding power" the schools have on their pupils. Holding power in this Study was defined as the per cent of 5th grade pupils who graduates from high school seven years later.

Presented in Table VI-A is the per cent change in holding power of Region II schools during the period 1962-63 through 1968-69. During the Spring of 1963, the high schools of Region II graduated approximately 51.4 per cent of the Region's 5th grade enrollment of 1955-56. During the Spring of 1969, the Region's high schools graduated approximately 62.1 per cent of the Region's 5th grade enrollment of 1961-62. This change between 1963 and 1969 represented an increase of 10.7 percentage

TABLE VI-A

PER CENT CHANGE IN "HOLDING POWER" OF REGION II SCHOOLS: 1962-63, 1968-69

County	High School Graduates in Spring 1963 as Per Cent of 5th Grade Enrollment in 1955-56	High School Graduates in Spring 1969 as Per Cent of 5th Grade Enrolment in 1961-62	Net Gain	Per Cent Change
Berkeley	49.2	61.6	+12.4	25.2
Grant	48.3	65.6	+17.3	35.8
Hampshire	44.0	46.6	+ 2.6	5.9
Hardy	57.7	64.7	+ 7.0	12.1
Jefferson	41.4	53.3	+11.9	28.7
Mineral	65.0	74.1	+ 9.1	14.0
Morgan	45.1	51.0	+ 5.9	13.1
Pendleton	54.9	59.8	+ 4.9	8.9
Region	51.4	62.1	+10.7	20.8
W. Va.	50.7	63.5	+12.8	25.2

Source: Rankings of the Counties, 1965, 1970, West Virginia Education Association.

points or a per cent change of +20.8 per cent in the holding power of the Region II schools. During this same period of time, West Virginia, as a whole, increased the holding power of the schools by 25.2 per cent.

It is apparent that a continued and concerted effort must be made in order for the Region to reach the mean per cent change of the holding power of the schools in relation to the mean per cent gain made by all the schools in West Virginia. Only two sub-systems (counties) in the Region exceeded the West Virginia mean per cent increase in holding power of the schools.

Otis-Lennon Mental Ability Test

The Otis-Lennon Mental Ability Test has been designed to provide a comprehensive, carefully articulated assessment of the general mental ability or scholastic aptitude of pupils in American schools. The tests were constructed to yield a dependable measurement of the general intellective ability factor. It should be clearly understood that the test does not measure the innate mental capacity of the pupil.

Presented in Tables VII through XXII are data related to the results of the administration of the Otis-Lennon to pupils in grades 3 and 6 during the period 1965-70. Interpretations of these data appear to indicate that the pupils of Region II, as a group, may be regarded as having average intellectual ability as measured by the Otis-Lennon Mental Ability Test. Further scrutiny of the Otis-Lennon data indicates that although the interpretation that the Region's pupils hold an average intellectual ability, there is a strong tendency to score on the negative side of the national mean (100.00).

TABLE VII

SUMMARY OF MEANS AND STANDARD DEVIATIONS ACHIEVED BY GRADE 3
PUPILS ON THE OTIS-LENNON AND STANFORD ACHIEVEMENT TESTS: 1965-70, BERKELEY COUNTY

Academic Year	Otis-Lennon*		Stanford Achievement Test**													
			Word Mean		Paragraph Mean		Science Soc. St.		Spelling		Wd. St. Skills		Language		Arith. Comp.		Arith. Conc.	
	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD
1965-66	99.0	14.0	3.3	0.9	3.5	0.9	3.1	1.1	3.4	0.9	3.4	1.6	3.6	1.1	3.6	0.6	3.8	1.1
1966-67	100.5	17.6	3.3	0.8	3.4	0.9	2.9	1.0	3.5	1.0	3.4	1.6	3.6	1.1	3.5	0.6	3.6	1.1
1967-68	97.6	14.4	3.3	0.9	3.4	1.0	3.0	1.0	3.5	1.0	3.3	1.6	3.5	1.1	3.5	0.7	3.5	1.0
1968-69	99.0	14.1	3.2	0.8	3.4	1.0	3.0	1.1	3.5	1.0	3.5	1.7	3.5	1.0	3.5	0.6	3.6	1.1
1969-70	99.2	13.4	3.3	0.9	3.3	1.0	2.9	1.0	3.3	1.1	3.4	1.6	3.5	1.1	3.5	0.6	3.6	1.1

TABLE VIII

SUMMARY OF MEANS AND STANDARD DEVIATIONS ACHIEVED BY GRADE 6
PUPILS ON THE OTIS-LENNON AND STANFORD ACHIEVEMENT TESTS: 1965-70, BERKELEY COUNTY

Academic Year	Otis-Lennon*		Stanford Achievement Test**															
			Word Mean		Paragraph Mean		Spelling		Language		Arith. Comp.		Arith. Conc.		Arith. Appl.		Soc. St.		Science	
	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD
1965-66	97.9	13.7	5.6	1.5	6.0	1.7	6.0	1.9	5.8	2.0	6.3	1.6	6.2	1.4	6.3	1.9	5.9	1.7	6.0	2.1
1966-67	98.0	13.7	5.8	1.5	6.2	1.8	6.2	1.7	6.1	2.0	6.5	1.6	6.4	1.6	6.6	2.0	6.0	1.7	6.2	2.1
1967-68	95.1	13.1	5.8	1.5	6.1	1.7	6.2	1.9	6.2	2.1	6.4	1.5	6.4	1.6	6.7	2.1	6.0	1.7	6.1	2.0
1968-69	97.5	13.1	5.8	1.5	6.3	1.7	6.3	1.8	6.3	2.1	6.1	1.5	6.4	1.5	6.6	2.0	6.1	1.7	6.3	2.1
1969-70	97.5	14.5	5.9	1.5	6.2	1.8	6.2	1.8	6.3	2.0	5.9	1.3	6.3	1.5	6.5	2.1	5.9	1.7	6.2	2.2

*I.Q. Scores
**Grade Level Equivalent Scores

TABLE IX

SUMMARY OF MEANS AND STANDARD DEVIATIONS ACHIEVED BY GRADE 3
PUPILS ON THE OTIS-LENNON AND STANFORD ACHIEVEMENT TESTS: 1965-70, GRANT COUNTY

Academic Year	Otis-Lennon*		Stanford Achievement Test**															
			Word Mean		Paragraph Mean		Science Soc. St.		Spelling		Wd. St. Skills		Language		Arith. Comp.		Arith. Conc.	
	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD
1965-66			3.3	1.0	3.3	1.0	3.5	1.1	3.5	1.1	3.1	1.4	3.6	1.0	3.7	0.7	3.9	1.1
1966-67	95.4	13.4	3.1	0.7	3.2	0.8	3.3	1.1	3.2	0.9	2.8	1.2	3.4	0.9	3.6	0.7	3.6	1.0
1967-68	93.9	11.9	3.2	0.9	3.2	0.9	3.3	1.3	3.6	1.6	3.1	1.4	3.7	1.1	3.6	0.7	3.6	1.1
1968-69	94.7	12.0	3.1	0.8	3.2	0.9	3.4	1.2	3.4	1.0	3.1	1.5	3.4	0.9	3.7	0.7	3.6	1.1
1969-70	94.6	13.5	3.1	1.0	3.1	0.9	3.2	1.2	3.2	1.1	3.0	1.6	3.3	1.1	3.8	0.8	3.5	1.2

TABLE X

SUMMARY OF MEANS AND STANDARD DEVIATIONS ACHIEVED BY GRADE 6
PUPILS ON THE OTIS-LENNON AND STANFORD ACHIEVEMENT TESTS: 1965-70, GRANT COUNTY

Academic Year	Otis-Lennon*		Stanford Achievement Test**															
			Word Mean		Paragraph Mean		Spelling		Language		Arith. Comp.		Arith. Conc.		Arith. Appl.		Soc. St.		Science	
	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD
1965-66			5.6	1.4	6.3	1.8	6.4	1.8	6.2	1.9	7.0	1.6	6.6	1.6	7.1	2.0	6.0	1.6	6.6	2.3
1966-67	101.7	10.9	5.7	1.4	6.4	1.9	6.3	1.8	6.3	2.0	6.7	1.6	6.6	1.5	7.0	2.0	6.0	1.8	6.6	2.4
1967-68	99.2	12.9	5.6	1.3	6.3	1.7	6.4	2.0	6.6	2.2	6.6	1.5	6.5	1.4	7.0	2.2	6.2	1.8	6.9	2.4
1968-69	101.1	13.7	5.5	1.4	6.1	1.8	6.5	2.1	6.5	2.2	6.4	1.6	6.6	1.6	6.8	2.1	6.1	1.9	6.6	2.3
1969-70	98.2	11.0	5.7	1.3	6.1	1.6	6.2	1.7	6.3	1.9	5.8	1.3	6.4	1.3	6.5	1.8	5.9	1.5	6.4	2.0

*I.Q. Scores
**Grade Level Equivalent Scores

TABLE XI

SUMMARY OF MEANS AND STANDARD DEVIATIONS ACHIEVED BY GRADE 3
PUPILS ON THE OTIS-LENNON AND STANFORD ACHIEVEMENT TESTS: 1965-70, HAMPSHIRE COUNTY

Academic Year	Otis-Lennon*		Stanford Achievement Test**													
			Word Mean		Paragraph Mean		Science Soc. St.		Spell-ing		Wd. St. Skills		Lang-uage		Arith. Comp.		Arith. Conc.	
	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD
1965-66	94.6	15.4																
1966-67	94.0	14.4																
1967-68	95.2	14.5	3.0	0.8	3.2	1.0	3.3	1.3	3.3	1.1	3.5	1.7	3.7	1.3	3.6	0.9	3.4	1.2
1968-69	92.6	13.0	2.9	0.9	3.1	0.9	3.3	1.1	3.2	0.9	3.0	1.4	3.3	0.9	3.5	0.8	3.2	1.0
1969-70	94.4	14.2	3.1	0.9	3.3	1.0	3.3	1.2	3.3	1.0	3.6	1.8	3.7	1.1	3.7	0.8	3.5	1.2

TABLE XII

SUMMARY OF MEANS AND STANDARD DEVIATIONS ACHIEVED BY GRADE 6
PUPILS ON THE OTIS-LENNON AND STANFORD ACHIEVEMENT TESTS: 1965-70, HAMPSHIRE COUNTY

Academic Year	Otis-Lennon*		Stanford Achievement Test**															
			Word Mean		Paragraph Mean		Spell-ing		Lang-uage		Arith. Comp.		Arith. Conc.		Arith. Appl.		Soc. St.		Science	
	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD
1965-66	93.7	13.7	5.2	1.4	5.6	1.6	5.8	2.0	5	2.0	6.0	1.5	5.5	1.4	5.7	1.8	5.6	1.4	5.5	1.9
1966-67	99.3	12.5																		
1967-68	94.8	16.1	5.4	1.5	5.7	1.7	6.0	2.0	5.6	2.0	6.2	1.7	5.7	1.4	5.8	1.8	5.4	1.5	5.7	2.1
1968-69	93.6	13.5	5.2	1.2	5.5	1.6	5.7	.7	5.3	1.9	5.9	1.6	5.7	1.4	5.6	1.9	5.5	1.5	5.6	1.8
1969-70	95.6	12.8	5.6	1.4	5.9	1.9	6.2	1.7	6.1	2.1	6.7	1.8	6.1	1.6	6.0	2.0	6.1	1.8	6.1	2.2

*I.Q. Scores
**Grade Level Equivalent Scores

TABLE XIII

SUMMARY OF MEANS AND STANDARD DEVIATIONS ACHIEVED BY GRADE 3
PUPILS ON THE OTIS-LENNON AND STANFORD ACHIEVEMENT TESTS: 1965-70, HARDY COUNTY

Academic Year	Otis-Lennon*		Stanford Achievement Test**													
			Word Mean		Paragraph Mean		Science Soc. St.		Spelling		Wd. St. Skills		Language		Arith. Comp.		Arith. Conc.	
	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD
1965-66	93.3	12.8	3.0	0.8	3.2	0.8	2.9	1.0	3.2	1.0	3.4	1.5	3.1	0.8	3.4	0.7	3.3	1.0
1966-67	94.7	15.1	3.0	0.8	3.2	0.9	3.0	1.1	3.4	1.0	3.2	1.5	3.3	1.0	3.4	0.7	3.4	1.2
1967-68	93.0	13.4	3.1	0.9	3.3	0.9	3.1	1.1	3.4	1.0	3.4	1.5	3.3	0.9	3.5	0.6	3.4	1.0
1968-69	91.3	13.2	2.9	0.8	3.1	0.8	2.9	1.0	3.1	1.1	3.3	1.6	3.2	0.9	3.4	0.7	3.3	1.1
1969-70	94.1	13.5	3.0	0.8	3.2	1.0	3.0	1.1	3.3	1.2	3.6	1.8	3.3	0.9	3.4	0.7	3.6	1.3

TABLE XIV

SUMMARY OF MEANS AND STANDARD DEVIATIONS ACHIEVED BY GRADE 6
PUPILS ON THE OTIS-LENNON AND STANFORD ACHIEVEMENT TESTS: 1965-70, HARDY COUNTY

Academic Year	Otis-Lennon		Stanford Achievement Test**															
			Word Mean		Paragraph Mean		Spelling		Language		Arith. Comp.		Arith. Conc.		Arith. Appl.		Soc. St.		Science	
	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD
1965-66	99.6	14.9	5.7	1.6	5.9	1.9	6.5	1.9	5.8	2.0	6.3	1.4	6.1	1.4	6.3	1.9	5.8	1.7	5.9	2.1
1966-67	101.4	12.4	5.8	1.4	6.2	1.7	6.4	1.9	6.0	1.9	6.8	1.7	6.3	1.4	6.4	1.9	6.0	1.7	6.2	2.1
1967-68	97.5	12.0	5.8	1.6	6.3	1.8	6.4	1.8	6.3	1.9	6.9	1.4	6.3	1.5	6.4	1.8	6.0	1.5	6.3	2.1
1968-69	98.5	13.7	5.7	1.7	6.1	1.9	6.5	2.0	6.1	2.1	6.8	1.9	6.3	1.8	6.4	2.2	6.1	1.9	6.5	2.4
1969-70	97.6	15.1	5.7	1.4	6.1	1.9	6.1	1.9	5.9	2.0	6.8	2.0	6.4	1.6	6.5	2.1	5.9	1.9	6.1	2.2

*I.Q. Scores
**Grade Level Equivalent Scores

TABLE XV

SUMMARY OF MEANS AND STANDARD DEVIATIONS ACHIEVED BY GRADE 3
PUPILS ON THE OTIS-LENNON AND STANFORD ACHIEVEMENT TESTS: 1965-70, JEFFERSON COUNTY

Academic Year	Otis-Lennon*		Stanford Achievement Test**													
			Word Mean		Paragraph Mean		Science Soc. St.		Spell-ing		Wd. St. Skills		Lang-uage		Arith. Comp.		Arith. Conc.	
	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD
1965-66	96.0	13.4	3.4	1.0	3.4	1.0	3.5	1.4	3.5	1.0	3.7	1.6	3.8	1.1	3.6	0.7	3.9	1.1
1966-67	94.5	14.3	3.0	0.6	3.1	0.7	2.6	0.9	3.5	1.2	3.0	1.3	3.3	0.9	3.4	0.5	3.5	1.0
1967-68	96.6	13.6	3.3	0.8	3.4	1.0	3.4	1.2	3.7	1.0	3.5	1.6	3.7	1.2	3.6	0.6	3.6	1.1
1968-69	97.1	14.4	3.3	0.9	3.4	1.1	3.4	1.3	3.8	1.9	3.8	1.8	3.7	1.2	3.6	0.6	3.6	1.2
1969-70	98.3	15.1	3.3	0.8	3.4	1.0	3.6	1.2	3.7	1.1	4.1	1.8	3.8	1.1	3.6	0.7	3.7	1.2

TABLE XVI

SUMMARY OF MEANS AND STANDARD DEVIATIONS ACHIEVED BY GRADE 6
PUPILS ON THE OTIS-LENNON AND STANFORD ACHIEVEMENT TESTS: 1965-70, JEFFERSON COUNTY

Academic Year	Otis-Lennon*		Stanford Achievement Test**																	
			Word Mean		Paragraph Mean		Spell-ing		Lang-uage		Arith. Comp.		Arith. Conc.		Arith. Appl.		Soc. St.		Science	
	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD
1965-66	99.4	13.9	6.2	1.7	6.4	1.9	6.7	1.9	6.6	2.2	6.8	1.6	6.6	1.6	6.7	2.0	6.3	1.9	6.7	2.4
1966-67	100.3	14.0	4.9	1.6	6.2	1.9	6.7	2.0	6.5	2.2	6.9	1.8	6.7	1.6	6.8	2.2	6.1	1.9	6.3	2.3
1967-68	97.9	13.7	6.0	1.6	6.4	1.8	6.5	1.8	6.4	2.1	6.6	1.6	6.7	1.5	6.9	2.0	6.2	2.0	6.6	2.4
1968-69	98.8	14.2	6.0	1.7	6.5	2.0	6.5	1.9	6.4	2.2	6.4	1.5	6.4	1.5	6.7	2.1	6.2	1.9	6.4	2.3
1969-70	97.5	13.6	5.9	1.6	6.2	1.9	6.4	1.9	6.2	2.1	6.0	1.5	6.1	1.5	6.2	2.1	6.0	1.9	6.3	2.4

*I.Q. Scores
**Grade Level Equivalent Scores

TABLE XVII

SUMMARY OF MEANS AND STANDARD DEVIATIONS ACHIEVED BY GRADE 3
PUPILS ON THE OTIS-LENNON AND STANFORD ACHIEVEMENT TESTS: 1965-70, MINERAL COUNTY

Academic Year	Otis-Lennon*		Stanford Achievement Test**															
			Word Mean		Paragraph Mean		Science Soc. St.		Spelling		Wd. St. Skills		Language		Arith. Comp.		Arith. Conc.	
	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD
1965-66	98.7	13.3	2.6	0.6	2.7	0.7	3.0	1.0	2.7	0.7	3.0	1.2	2.9	0.6	3.2	0.5	3.1	0.9
1966-67	97.9	13.4	2.6	0.6	2.8	0.6	3.2	1.2	3.0	0.8	3.1	1.4	3.0	0.6	3.3	0.7	3.1	0.9
1967-68	99.6	13.9	3.4	1.0	3.7	1.1	3.8	1.4	3.8	1.0	4.5	1.8	3.7	1.1	3.6	0.7	3.9	1.2
1968-69	101.1	14.0	3.4	1.0	3.7	1.1	3.9	1.3	3.7	1.0	4.6	1.8	3.8	1.1	3.6	0.7	3.9	1.2
1969-70	101.2	13.7	3.5	1.1	3.7	1.1	3.8	1.2	3.7	1.2	4.6	1.9	3.8	1.2	3.7	0.6	3.9	1.2

TABLE XVIII

SUMMARY OF MEANS AND STANDARD DEVIATIONS ACHIEVED BY GRADE 6
PUPILS ON THE OTIS-LENNON AND STANFORD ACHIEVEMENT TESTS: 1965-70, MINERAL COUNTY

Academic Year	Otis-Lennon*		Stanford Achievement Test**															
			Word Mean		Paragraph Mean		Spelling		Language		Arith. Comp.		Arith. Conc.		Arith. Appl.		Soc. St.		Science	
	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD
1965-66	99.5	12.9	4.7	1.5	6.2	1.9	6.2	1.9	5.9	1.9	6.2	1.6	6.0	1.6	6.2	1.9	6.1	1.7	6.2	2.2
1966-67	102.4	12.4	6.3	1.4	6.9	1.8	6.7	1.9	6.7	2.0	6.7	1.5	6.7	1.5	7.3	2.0	6.7	1.8	7.0	2.3
1967-68	99.1	14.5	5.7	1.5	6.3	1.8	6.1	1.9	6.1	2.2	6.4	1.7	6.4	1.6	6.6	2.2	6.1	1.8	6.3	2.2
1968-69	99.6	14.5	5.9	1.7	6.2	1.9	6.2	1.9	6.2	2.2	6.0	1.5	6.2	1.5	6.5	2.1	6.1	1.9	6.4	2.4
1969-70	99.7	14.1	5.9	1.6	6.2	1.9	6.2	1.9	6.0	2.2	5.8	1.5	6.1	1.5	6.3	2.2	6.1	1.9	6.3	2.3

*I.Q. Scores
**Grade Level Equivalent Scores

TABLE XIX

SUMMARY OF MEANS AND STANDARD DEVIATIONS ACHIEVED BY GRADE 3
PUPILS ON THE OTIS-LENNON AND STANFORD ACHIEVEMENT TESTS: 1965-70, MORGAN COUNTY

Academic Year	Otis-Lennon*		Stanford Achievement Test**															
			Word Mean		Paragraph Mean		Science Soc. St.		Spell-ing		Wd. St. Skills		Lang-uage		Arith. Comp.		Arith. Conc.	
	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD
1965-66	94.5	11.3	3.4	1.1	3.4	1.0	3.8	1.6	3.9	1.3	3.7	1.7	3.8	1.2	3.3	0.6	3.8	1.3
1966-67	97.4	13.6	3.4	1.2	3.4	1.1	3.8	1.4	3.9	1.3	3.9	1.7	3.9	1.2	3.4	0.6	3.8	1.3
1967-68	94.2	11.8	3.4	1.0	3.5	1.0	3.8	1.3	4.0	1.1	3.9	1.7	3.8	1.1	3.5	0.7	3.8	1.2
1968-69	97.1	14.9	3.6	1.3	3.5	1.0	4.1	1.4	4.0	1.2	4.0	1.8	4.0	1.2	3.6	0.9	3.9	1.2
1969-70	97.2	14.1	3.6	1.4	3.5	1.1	4.1	1.4	4.0	1.2	4.0	1.7	4.0	1.3	3.7	0.7	3.9	1.2

TABLE XX

SUMMARY OF MEANS AND STANDARD DEVIATIONS ACHIEVED BY GRADE 6
PUPILS ON THE OTIS-LENNON AND STANFORD ACHIEVEMENT TESTS: 1965-70, MORGAN COUNTY

Academic Year	Otis-Lennon*		Stanford Achievement Test**															
			Word Mean		Paragraph Mean		Spell-ing		Lang-uage		Arith. Comp.		Arith. Conc.		Arith. Appl.		Soc. St.		Science	
	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD
1965-66	100.5	12.2	5.7	1.4	6.0	1.7	6.2	1.8	6.1	2.0	6.4	1.7	6.0	1.6	6.0	1.9	5.7	1.5	6.[illegible]	1.8
1966-67	102.0	11.6	5.9	15.	6.2	1.7	6.2	1.7	6.2	2.0	6.4	1.7	6.3	1.5	6.5	2.0	6.2	1.7	6.3	2.2
1967-68	97.7	12.9	5.9	1.6	6.3	1.8	6.3	1.7	6.4	2.2	6.1	1.7	6.4	1.5	6.3	2.0	6.0	1.8	6.6	2.3
1968-69	98.1	11.0	5.7	1.3	6.0	1.5	6.5	1.8	6.1	1.8	6.1	1.3	6.1	1.3	5.9	1.7	6.1	1.6	6.1	1.9
1969-70	96.1	1.37	5.6	1.5	6.1	1.7	6.0	1.7	6.0	1.9	6.0	1.4	6.2	1.7	6.0	2.0	6.1	1.8	6.5	2.3

*I.Q. Scores
**Grade Level Equivalent Scores

TABLE XXI

SUMMARY OF MEANS AND STANDARD DEVIATIONS ACHIEVED BY GRADE 3
PUPILS ON THE OTIS-LENNON AND STANFORD ACHIEVEMENT TESTS: 1965-70, PENDLETON COUNTY

	Otis-Lennon*		Stanford Achievement Test**															
			Word Mean		Paragraph Mean		Science Soc. St.		Spell-ing		Wd. St. Skills		Lang-uage		Arith. Comp.		Arith. Conc.	
Year	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD
1965-66	93.1	12.3	3.1	0.9	3.1	0.9	3.1	1.1	3.3	1.0	2.7	1.4	3.5	0.9	3.6	0.5	3.2	1.1
1966-67	93.3	13.8	3.1	0.9	3.1	0.9	3.3	1.0	3.4	0.9	3.0	1.5	3.2	0.8	3.5	0.6	3.3	1.0
1967-68	92.0	13.4	3.2	0.9	3.2	0.9	3.2	1.0	3.5	0.9	3.3	1.6	3.4	0.9	3.5	0.6	3.4	1.0
1968-69	91.2	15.2	3.3	0.9	3.3	1.1	3.1	1.1	3.6	1.0	3.3	1.7	3.5	1.1	3.5	0.7	3.4	1.2
1969-70	91.5	14.0	3.2	1.0	3.2	1.0	3.1	1.2	3.4	1.1	2.8	1.4	3.3	1.0	3.5	0.7	3.3	1.1

TABLE XXII

SUMMARY OF MEANS AND STANDARD DEVIATIONS ACHIEVED BY GRADE 6
PUPILS ON THE OTIS-LENNON AND STANFORD ACHIEVEMENT TESTS: 1965-70, PENDLETON COUNTY

	Otis-Lennon*		Stanford Achievement Test**															
			Word Mean		Paragraph Mean		Spell-ing		Lang-uage		Arith. Comp.		Arith. Conc.		Arith. Appl.		Soc. St.		Science	
Academic Year	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD
1965-66	95.7	15.5	5.2	1.6	5.6	1.8	6.0	2.3	5.5	2.2	6.4	1.8	5.8	1.6	5.8	1.9	5.3	1.6	5.5	2.1
1966-67	98.7	13.0	5.6	1.6	6.0	1.8	6.2	1.9	5.6	2.1	6.3	1.7	5.8	1.5	6.0	2.0	5.4	1.6	6.0	2.2
1967-68	96.2	11.8	5.4	1.3	6.1	1.5	6.1	1.7	5.8	2.0	5.1	1.7	5.8	1.4	6.1	2.0	5.5	1.5	6.0	2.1
1968-69	95.9	13.9	5.6	1.5	6.1	1.9	6.1	1.8	5.9	2.2	6.1	1.9	5.8	1.6	6.0	2.0	5.5	1.7	5.8	2.2
1969-70	93.6	13.4	5.3	1.3	5.6	1.5	5.8	1.7	5.7	2.2	6.3	1.9	5.9	1.5	5.9	1.9	5.4	1.4	5.4	2.0

*I.Q. Scores
**Grade Level Equivalent Scores

Professional literature provides evidence that a child's socio-economic background has a considerable influence upon his performance on a standardized testing instrument. The schools of Region II should make a diligent effort in order to determine if the tendency for the pupils to score on the negative side of the national mean is due to the inappropriateness of the test or other variables. This observation is highlighted when one observes the standard deviations achieved by the pupils in comparison to the national standard deviation (16). The pupils in Region II were a more homogeneous group than the national normative sample of pupils.

Stanford Achievement Test

Data presented in Tables VII through XXII provide the mean grade level equivalent scores achieved by the pupils on the Stanford Achievement Tests, by county and sub-tests. The primary objective in the interpretation of these data was to determine if any discernable trends, either positive or negative, were observable; in addition, observations were made to determine if no trend was observable or "no change" in the behavior of the pupils could be identified. The reader is cautioned that the interpretations are limited to pupil behavior as measured by the Stanford Achievement Test.

Grade Three. The Stanford Achievement Test administered to the grade 3 pupils was composed of 8 sub-tests; these were: Word Meaning, Paragraph Meaning, Science-Social Studies, Spelling, Word Study Skills, Language, Arithmetic Computation, and Arithmetic Concepts. During the five academic years under study, it appears that there was no change in pupil behavior on the sub-tests of paragraph meaning and arithmetic

concepts. There was a slight negative trend in the science-social studies sub-test. Slight to strong positive trends were observable in the word meaning, word study skills, language, spelling, and arithmetic computation sub-tests for the third grade pupils in Region II. Thus, the third grade pupils showed a positive trend in five sub-tests, a negative trend in one sub-test and remained "unchanged" in their performance on two sub-tests of the Stanford Achievement Test.

Grade Six. The Stanford Achievement Test administered to the grade 6 pupils was composed of nine sub-tests; they were: Word Meaning, Paragraph Meaning, Spelling, Language, Arithmetic Computation, Arithmetic Concepts, Arithmetic Application, Social Studies, and Science. During the five academic year period under study, it appears that there was "no change" in pupil behavior on the sub-tests of word meaning, spelling, and social studies. A slight negative trend was observable in the arithemetic computation sub-test. Slight to strong positive trends were observed in the sub-tests of paragraph meaning, language, arithmetic concepts, arithmetic application, and science for the sixth grade pupils in Region II. Thus, the sixth grade pupils showed a positive trend in five sub-tests; a negative trend in one sub-test and remain "unchanged" on three sub-tests in their performance on the Stanford Achievement Test.

The trends were reported as Regional trends; the reader is directed to Tables VII through XXII to determine trends in specific counties. For example, Table XVII (grade 3, Mineral County) provides an example of a strong positive trend in pupil behavior as measured by the Stanford Achievement Test. As further research relating to planning in

Region II, it is suggested that decision-makers attempt to ascertain answers to the question "What variables influence pupil behavior, as measured by a standardized achievement test, to either increase, decrease, or remain unchanged?"

In terms of the frequency of observable positive or negative trends in the changes of pupil behavior, as measured by a standardized achievement test, it appears that the schools of Region II are providing learning experiences which have helped to improve the pupil's performance. The "score" reads as the following: Seventeen sub-tests were administered to the third and sixth grade pupils in Region II over a period of five academic years. The pupils showed a tendency to improve their performance on ten sub-tests, a tendency to regress in their performance on two sub-tests, and remained "unchanged" in their performance on five sub-tests.

School College Ability Test

The School College Ability Test generated verbal, quantitative and total scores. These data are reported in Tables XXIII through XXXVIII. The SCAT is a predictive test; it attempts to measure a student's ability to succeed in his school course work.

Grade Nine. During the five academic year period under study, no apparent change was found in the behavior of ninth grade pupils on the verbal score; a negative trend was found to exist in the quantitative and total scores of the SCAT.

Grade Eleven. In interpreting the data in Tables XXIII through XXXVIII relating to the eleventh grade pupils in Region II, a distinct trend is observable. The trend is negative in nature and is found in

TABLE XXIII

SUMMARY OF MEANS AND STANDARD DEVIATIONS ACHIEVED BY GRADE 9 PUPILS ON THE SCAT AND STEP TESTS: 1965-70, BERKELEY COUNTY

Academic Year	School College Aptitude Test* Verbal $\bar{X}$	Verbal SD	Quantitative $\bar{X}$	Quantitative SD	Total $\bar{X}$	Total SD	Sequential Test of Educational Progress* Math $\bar{X}$	Math SD	Science $\bar{X}$	Science SD	Soc. St. $\bar{X}$	Soc. St. SD	Read. $\bar{X}$	Read. SD	Writ. $\bar{X}$	Writ. SD	List. $\bar{X}$	List. SD
1965-66	269.7	13.9	288.0	15.0	278.9	11.7	265.7	13.8	271.7	12.0	266.4	14.3	278.8	15.9	273.0	15.8	282.8	15.0
1966-67	269.9	13.8	287.6	15.7	278.9	12.1	264.8	13.2	271.8	12.1	265.8	14.5	276.9	16.8	273.3	16.0	282.1	14.8
1967-68	270.0	13.4	286.9	14.6	278.6	11.3	264.1	14.0	270.6	12.7	265.8	14.5	274.9	18.1	271.1	16.8	280.6	15.6
1968-69	269.7	14.0	285.4	14.7	277.9	11.7	263.8	13.8	270.9	12.3	263.2	14.5	276.0	16.7	268.7	16.1	280.5	15.5
1969-70	269.3	13.8	283.3	14.0	276.8	11.2	263.2	13.6	271.5	11.6	263.2	13.2	275.4	16.5	268.1	16.9	278.4	14.2

TABLE XXIV

SUMMARY OF MEANS AND STANDARD DEVIATIONS ACHIEVED BY GRADE 11 PUPILS ON THE SCAT AND STEP TESTS: 1965-70, BERKELEY COUNTY

Academic Year	School College Aptitude Test* Verbal $\bar{X}$	Verbal SD	Quantitative $\bar{X}$	Quantitative SD	Total $\bar{X}$	Total SD	Sequential Test of Educational Progress* Math $\bar{X}$	Math SD	Science $\bar{X}$	Science SD	Soc. St. $\bar{X}$	Soc. St. SD	Read. $\bar{X}$	Read. SD	Writ. $\bar{X}$	Writ. SD	List. $\bar{X}$	List. SD
1965-66	278.0	13.6	295.8	17.1	286.0	12.9	277.5	13.6	280.6	11.3	274.8	13.0	290.5	15.9	285.4	16.9	289.9	13.7
1966-67	277.5	14.2	292.0	17.2	284.4	13.3	273.5	15.4	279.9	11.4	273.8	13.1	288.1	17.7	2[illegible].6	16.4	291.3	14.7
1967-68	278.4	11.6	290.5	13.6	284.2	10.9	264.8	13.2	271.8	12.1	265.8	14.5	276.9	16.8	273.3	16.0	282.1	14.8
1968-69	279.6	14.2	292.6	17.0	285.9	13.1	274.0	14.5	280.0	11.6	274.9	14.0	290.9	16.9	284.4	17.4		
1969-70	278.6	13.5	289.8	16.5	284.1	12.5	272.9	13.4	277.3	11.2	270.3	12.9	287.0	16.4	279.2	16.3	287.9	12.6

*Raw Scores

TABLE XXV

SUMMARY OF MEANS AND STANDARD DEVIATIONS ACHIEVED BY GRADE 9
PUPILS ON THE SCAT AND STEP TESTS: 1965-70, GRANT COUNTY

Academic Year	School College Aptitude Test* Verbal $\bar{X}$	Verbal SD	Quantitative $\bar{X}$	Quantitative SD	Total $\bar{X}$	Total SD	Sequential Test of Educational Progress* Math $\bar{X}$	Math SD	Science $\bar{X}$	Science SD	Soc. St. $\bar{X}$	Soc. St. SD	Read. $\bar{X}$	Read. SD	Writ. $\bar{X}$	Writ. SD	List. $\bar{X}$	List. SD
1965-66	268.9	13.4	288.9	14.0	278.7	10.8	266.8	13.3	272.7	11.9	264.1	13.9	279.1	16.0	272.2	16.3	284.1	15.7
1966-67	270.0	12.6	287.5	13.9	278.8	10.1	267.9	12.4	272.8	10.7	266.1	12.6	275.1	16.4	272.0	14.8	281.9	12.8
1967-68	266.2	13.6	285.4	15.2	276.1	11.4	264.9	13.8	271.8	13.6	264.7	14.7	277.0	16.3	268.5	15.9	280.8	13.6
1968-69	262.9	14.6	279.0	15.7	271.9	12.5	261.4	15.	270.6	13.9	262.6	14.2	269.3	18.7	263.7	18.2		
1969-70	264.2	13.8	280.8	14.2	273.3	11.4	258.7	15.2	267.2	11.7	259.5	13.0	269.9	18.8	263.5	17.2	279.0	14.7

TABLE XXVI

SUMMARY OF MEANS AND STANDARD DEVIATIONS ACHIEVED BY GRADE 11
PUPILS ON THE SCAT AND STEP TESTS: 1965-70, GRANT COUNTY

Academic Year	School College Aptitude Test* Verbal $\bar{X}$	Verbal SD	Quantitative $\bar{X}$	Quantitative SD	Total $\bar{X}$	Total SD	Sequential Test of Educational Progress* Math $\bar{X}$	Math SD	Science $\bar{X}$	Science SD	Soc. St. $\bar{X}$	Soc. St. SD	Read. $\bar{X}$	Read. SD	Writ. $\bar{X}$	Writ. SD	List. $\bar{X}$	List. SD
1965-66	274.7	13.0	294.3	14.7	283.7	11.3	275.4	14.0	281.9	11.1	273.9	12.4	289.0	14.9	282.4	16.7	290.4	12.7
1966-67	275.1	13.6	295.2	14.2	284.3	11.3	275.3	13.2	279.7	11.6	270.6	12.7	285.1	17.2	280.3	16.0	288.1	13.8
1967-68	276.1	12.1	292.0	13.5	283.7	10.6	271.2	13.0	280.4	9.4	272.2	9.9	287.4	14.3	280.1	14.8		
1968-69	273.2	14.4	286.8	17.5	280.2	13.2	271.0	14.5	277.8	11.2	270.9	13.8	291.4	21.3	275.5	18.0		
1969-70	274.7	13.9	288.3	16.4	281.5	12.2	269.7	16.5	278.4	12.5	269.5	13.7	284.2	19.4	275.5	17.3	288.0	13.7

*Raw Scores

TABLE XXVII

SUMMARY OF MEANS AND STANDARD DEVIATIONS ACHIEVED BY GRADE 9 PUPILS ON THE SCAT AND STEP TESTS: 1965-70, HAMPSHIRE COUNTY

Academic Year	School College Aptitude Test* Verbal $\bar{X}$	Verbal SD	Quantitative $\bar{X}$	Quantitative SD	Total $\bar{X}$	Total SD	Math $\bar{X}$	Math SD	Science $\bar{X}$	Science SD	Soc. St. $\bar{X}$	Soc. St. SD	Reading $\bar{X}$	Reading SD	Writing $\bar{X}$	Writing SD	Listening $\bar{X}$	Listening SD
1965-66	264.4	15.0	285.1	16.2	275.0	12.9	262.8	15.0	270.6	13.6	263.9	15.8	275.3	17.6	269.3	16.4		
1966-67	265.0	13.9	283.9	15.7	274.9	12.0	262.0	14.9	270.0	13.0	262.0	14.8	272.0	17.5	268.3	18.0	281.0	15.7
1967-68	264.0	14.9	279.0	17.5	273.0	13.6	260.0	16.8	271.0	12.3	263.0	16.4	272.0	17.9	267.0	18.0	280.0	16.1
1968-69	262.9	14.1	277.6	14.2	271.4	11.6	259.4	13.5	269.6	11.9	259.4	13.3	269.7	17.1	263.5	16.7	277.9	16.3
1969-70	265.1	13.3	282.9	15.0	274.6	11.5	260.0	15.9	270.7	12.5	260.7	14.0	273.0	17.6	265.7	16.8	277.6	15.1

TABLE XXVIII

SUMMARY OF MEANS AND STANDARD DEVIATIONS ACHIEVED BY GRADE 11 PUPILS ON THE SCAT AND STEP TESTS: 1965-70, HAMPSHIRE COUNTY

Academic Year	School College Aptitude Test* Verbal $\bar{X}$	Verbal SD	Quantitative $\bar{X}$	Quantitative SD	Total $\bar{X}$	Total SD	Sequential Test of Educational Progress* Math $\bar{X}$	Math SD	Science $\bar{X}$	Science SD	Soc. St. $\bar{X}$	Soc. St. SD	Read. $\bar{X}$	Read. SD	Writ. $\bar{X}$	Writ. SD	List. $\bar{X}$	List. SD
1965-66	274.6	13.3	292.4	14.1	282.9	11.3	274.2	10.5	280.3	10.6	273.5	12.7	289.0	16.8	284.1	14.8	287.4	12.1
1966-67	272.0	14.2	288.0	17.3	279.0	13.3	271.0	15.6	277.0	11.6	269.0	12.0	283.0	17.3	282.0	12.2	283.0	13.2
1967-68	275.6	13.0	290.5	12.8	282.9	11.2	273.7	12.0	279.4	10.1	274.0	10.9	288.9	13.0	283.8	13.1		
1968-69	275.9	14.6	288.4	17.3	282.1	13.5	275.0	12.3	279.7	12.5	273.9	12.7	287.7	17.9	284.0	17.8		
1969-70	273.9	14.5	282.9	17.9	278.9	13.9	269.9	15.3	276.4	11.4	270.1	12.7	283.9	18.7			281.5	13.7

*Raw Scores

TABLE XXIX

SUMMARY OF MEANS AND STANDARD DEVIATIONS ACHIEVED BY GRADE 9 PUPILS ON THE SCAT AND STEP TESTS: 1965-70, HARDY COUNTY

Academic Year	School College Aptitude Test* Verbal $\bar{X}$	Verbal SD	Quantitative $\bar{X}$	Quantitative SD	Total $\bar{X}$	Total SD	Sequential Test of Educational Progress* Math $\bar{X}$	Math SD	Science $\bar{X}$	Science SD	Soc. St. $\bar{X}$	Soc. St. SD	Read. $\bar{X}$	Read. SD	Writ. $\bar{X}$	Writ. SD	List. $\bar{X}$	List. SD
1965-66	267.9	14.3	288.0	14.0	277.9	11.0	266.9	11.7	273.7	10.9	266.1	13.1	276.5	15.7	272.9	13.7	281.2	13.5
1966-67	270.1	14.1	288.4	13.7	279.1	10.9	266.2	14.0	274.4	12.8	266.5	13.9	277.3	18.0	271.4	17.2	284.5	14.0
1967-68	268.4	13.4	284.9	15.0	277.0	11.5	264.0	13.6	272.4	12.2	265.9	13.1	276.3	16.3	269.1	17.3	283.5	14.1
1968-69	265.5	14.1	283.4	16.5	275.1	12.1	259.7	14.8	268.8	12.9	261.9	14.0	272.7	18.0	263.7	17.7	276.5	13.9
1969-70	268.4	13.1	285.3	15.0	277.1	11.1	262.8	13.5	270.7	13.3	262.8	13.5	274.1	16.6	269.0	15.9	279.8	13.0

TABLE XXX

SUMMARY OF MEANS AND STANDARD DEVIATIONS ACHIEVED BY GRADE 11 PUPILS ON THE SCAT AND STEP TESTS: 1965-70, HARDY COUNTY

Academic Year	School College Aptitude Test* Verbal $\bar{X}$	Verbal SD	Quantitative $\bar{X}$	Quantitative SD	Total $\bar{X}$	Total SD	Sequential Test of Educational Progress* Math $\bar{X}$	Math SD	Science $\bar{X}$	Science SD	Soc. St. $\bar{X}$	Soc. St. SD	Read. $\bar{X}$	Read. SD	Writ. $\bar{X}$	Writ. SD	List. $\bar{X}$	List. SD
1965-66	277.3	13.4	295.6	15.4	285.7	11.8	276.8	13.7	279.7	10.4	274.6	12.1	288.6	17.4	281.8	16.7	289.6	12.2
1966-67	278.0	1..2	293.5	14.8	285.3	10.5	274.7	14.2	280.3	10.7	273.0	12.7	288.8	15.0	280.9	14.7	289.2	11.2
1967-68	277.4	11.6	290.2	10.8	283.8	9.0	275.5	10.2	279.7	8.2	274.1	.9	289.9	15.8	283.1	12.4	288.4	11.0
1968-69	277.4	14.8	290.9	15.7	283.9	12.6	273.9	14.7	281.9	10.5	273.5	.4	290.9	16.8	283.3	16.9	289.6	12.4
1969-70	276.0	14.6	290.4	17.4	283.0	13.2	271.5	16.6	279.3	12.3	272.3	14.0	288.1	18.0	281.5	17.1	288.3	13.9

TABLE XXXI

SUMMARY OF MEANS AND STANDARD DEVIATIONS ACHIEVED BY GRADE 9 PUPILS ON THE SCAT AND STEP TESTS: 1965-70, JEFFERSON COUNTY

Academic Year	School College Aptitude Test* Verbal $\bar{X}$	Verbal SD	Quantitative $\bar{X}$	Quantitative SD	Total $\bar{X}$	Total SD	Sequential Test of Educational Progress* Math $\bar{X}$	Math SD	Science $\bar{X}$	Science SD	Soc. St. $\bar{X}$	Soc. St. SD	Read. $\bar{X}$	Read. SD	Writ. $\bar{X}$	Writ. SD	List. $\bar{X}$	List. SD
1965-66	269.4	13.8	291.9	14.7	280.1	11.5	265.9	13.1	273.4	13.5	265.7	14.3	279.0	15.2	272.7	15.2	282.7	15.5
1966-67	268.9	12.6	288.3	14.4	278.5	10.8	264.9	12.7	269.6	12.5	265.4	14.7	275.7	16.4	271.6	15.4	282.2	15.0
1967-68	268.4	13.9	288.2	14.3	278.2	11.3	262.8	13.9	269.5	12.9	264.0	14.4	273.2	18.0	269.3	16.8	282.8	17.1
1968-69	268.1	14.8	286.4	15.4	277.4	12.2	262.7	13.7	270.7	13.4	265.6	16.6	277.0	16.7	271.4	17.1		
1969-70																		

TABLE XXXII

SUMMARY OF MEANS AND STANDARD DEVIATIONS ACHIEVED BY GRADE 11 PUPILS ON THE SCAT AND STEP TESTS: 1965-70, JEFFERSON COUNTY

Academic Year	School College Aptitude Test* Verbal $\bar{X}$	Verbal SD	Quantitative $\bar{X}$	Quantitative SD	Total $\bar{X}$	Total SD	Sequential Test of Educational Progress* Math $\bar{X}$	Math SD	Science $\bar{X}$	Science SD	Soc. St. $\bar{X}$	Soc. St. SD	Read. $\bar{X}$	Read. SD	Writ. $\bar{X}$	Writ. SD	List. $\bar{X}$	List. SD
1965-66	278.8	14.9	296.7	17.0	287.1	13.7	275.1	15.3	282.6	12.9	276.0	14.2	291.8	16.9	286.3	16.5	293.3	17.1
1966-67	276.9	13.2	294.7	16.1	285.1	12.2	273.9	14.8	278.5	11.4	273.7	13.2	288.5	16.4	283.2	16.2	291.1	14.9
1967-68	276.7	11.1	294.4	12.9	284.8	9.8	272.6	11.7	280.0	8.0	272.9	10.9	286.2	13.5	279.8	14.1	286.5	11.1
1968-69	276.9	12.7	291.4	14.2	283.9	11.1	273.5	13.7	280.2	10.4	273.9	12.1	290.5	15.7	283.4	16.8		
1969-70																		

*Raw Scores

TABLE XXXIII

SUMMARY OF MEANS AND STANDARD DEVIATIONS ACHIEVED BY GRADE 9 PUPILS ON THE SCAT AND STEP TESTS: 1965-70, MINERAL COUNTY

Academic Year	School College Aptitude Test* Verbal $\bar{X}$	Verbal SD	Quantitative $\bar{X}$	Quantitative SD	Total $\bar{X}$	Total SD	Sequential Test of Educational Progress* Math $\bar{X}$	Math SD	Science $\bar{X}$	Science SD	Soc. St. $\bar{X}$	Soc. St. SD	Read. $\bar{X}$	Read. SD	Writ. $\bar{X}$	Writ. SD	List. $\bar{X}$	List. SD
1965-66	267.0	14.6	287.0	16.8	277.1	13:0	264.2	14.2	270.6	12.4	265.5	14.3	276.0	16.7	271.4	16.1	282.1	15.1
1966-67																		
1967-68	268.0	14.7	285.5	17.2	277.1	13.0	263.2	15.2	271.0	13.3	264.7	15.3	276.0	17.9	270.1	17.2	282.2	16.6
1968-69	265.3	13.9	283.1	15.9	274.6	12.1	260.6	14.3	268.3	13.0	261.4	14.1	271.1	18.6	264.1	16.8		
1969-70	267.0	15.3	284.1	17.0	276.0	13.1	262.6	15.1	270.2	13.5	262.9	15.4	272.6	18.8	265.6	18.8	278.1	17.6

TABLE XXXIV

SUMMARY OF MEANS AND STANDARD DEVIATIONS ACHIEVED BY GRADE 11 PUPILS ON THE SCAT AND STEP TESTS: 1965-70, MINERAL COUNTY

Academic Year	School College Aptitude Test* Verbal $\bar{X}$	Verbal SD	Quantitative $\bar{X}$	Quantitative SD	Total $\bar{X}$	Total SD	Sequential Test of Educational Progress* Math $\bar{X}$	Math SD	Science $\bar{X}$	Science SD	Soc. St. $\bar{X}$	Soc. St. SD	Read. $\bar{X}$	Read. SD	Writ. $\bar{X}$	Writ. SD	List. $\bar{X}$	List. SD
1965-66	276.2	14.3	291.1	17.7	283.3	13.8	274.2	15.2	278.9	12.7	274.3	13.2	288.0	19.0	283.8	17.4	288.8	14.6
1966-67																		
1967-68	274.1	11.8	287.7	15.2	280.9	11.3	270.9	12.5	278.1	9.4	272.7	10.6	287.6	13.4	280.0	13.6		
1968-69	274.4	13.4	288.3	16.9	281.3	12.5	272.1	15.2	278.1	11.0	272.0	12.4	287.8	17.0	280.9	16.6	287.4	14.9
1969-70	274.7	15.5	286.5	19.5	280.7	15.0	270.7	17.0	277.2	12.3	271.9	13.8	286.5	18.3	280.3	18.3	287.1	15.8

*Raw Scores

TABLE XXXV

SUMMARY OF MEANS AND STANDARD DEVIATIONS ACHIEVED BY GRADE 9 PUPILS ON THE SCAT AND STEP TESTS: 1965-70, MORGAN COUNTY

Academic Year	School College Aptitude Test* Verbal $\bar{X}$	Verbal SD	Quantitative $\bar{X}$	Quantitative SD	Total $\bar{X}$	Total SD	Sequential Test of Educational Progress* Math $\bar{X}$	Math SD	Science $\bar{X}$	Science SD	Soc. St. $\bar{X}$	Soc. St. SD	Read. $\bar{X}$	Read. SD	Writ. $\bar{X}$	Writ. SD	List. $\bar{X}$	List. SD
1965-66	267.7	15.3	287.9	16.1	277.9	13.3	264.6	14.5	270.5	12.8	263.0	14.8	273.8	16.0			278.3	15.8
1966-67																		
1967-68																	287.0	16.1
1968-69	263.7	14.0	278.0	15.2	271.9	12.0	255.5	16.4	267.6	11.2	260.0	14.0	264.1	19.5	258.9	17.3		
1969-70	286.6	13.0	283.1	13.1	276.5	10.9	262.2	13.4	271.2	13.9	263.1	15.2	273.1	17.1	267.6	18.0	277.5	14.9

TABLE XXXVI

SUMMARY OF MEANS AND STANDARD DEVIATIONS ACHIEVED BY GRADE 11 PUPILS ON THE SCAT AND STEP TESTS: 1965-70, MORGAN COUNTY

Academic Year	School College Aptitude Test* Verbal $\bar{X}$	Verbal SD	Quantitative $\bar{X}$	Quantitative SD	Total $\bar{X}$	Total SD	Sequential Test of Educational Progress* Math $\bar{X}$	Math SD	Science $\bar{X}$	Science SD	Soc. St. $\bar{X}$	Soc. St. SD	Read. $\bar{X}$	Read. SD	Writ. $\bar{X}$	Writ. SD	List. $\bar{X}$	List. SD
1965-66	277.9	11.9	295.0	15.8	285.6	11.3	277.3	14.6	282.2	12.3	274.4	12.8	289.6	14.5	285.3	15.2	288.0	11.1
1966-67																		
1967-68	275.6	13.4	293.8	14.8	284.2	12.1	274.3	11.4	280.4	10.0	271.6	11.5	280.3	14.0	278.6	15.3		
1968-69	276.1	14.3	288.4	16.8	282.4	12.9	270.9	15.7	280.6	11.7	272.7	12.5	282.4	19.6	273.7	18.4		
1969-70	272.2	15.2	287.9	17.4	282.4	14.5	272.6	15.6	279.8	14.2	272.4	14.5	288.0	19.0	279.6	20.0	284.4	16.2

*Raw Scores

TABLE XXXVII

SUMMARY OF MEANS AND STANDARD DEVIATIONS ACHIEVED BY GRADE 9 PUPILS ON THE SCAT AND STEP TESTS: 1965-70, PENDLETON COUNTY

Academic Year	School College Aptitude Test* Verbal $\bar{X}$	Verbal SD	Quantitative $\bar{X}$	Quantitative SD	Total $\bar{X}$	Total SD	Sequential Test of Educational Progress* Math $\bar{X}$	Math SD	Science $\bar{X}$	Science SD	Soc. St. $\bar{X}$	Soc. St. SD	Read. $\bar{X}$	Read. SD	Writ. $\bar{X}$	Writ. SD	List. $\bar{X}$	List. SD
1965-66	264.5	12.3	285.1	16.5	275.0	11.3	261.9	14.3	269.6	10.5	262.1	13.1	273.0	15.8	269.1	14.9	279.3	14.2
1966-67	266.9	14.2	288.6	16.8	277.7	12.3	264.5	13.2	271.3	10.8	263.0	13.0	277.8	17.1	269.9	17.0	282.3	
1967-68	266.5	12.5	37.9	16.0	277.0	11.3	263.1	12.7	268.5	11.0	259.7	12.5	276.4	15.0	267.8	15.4	280.8	13.7
1968-69	264.5	16.2	284.8	20.0	274.9	15.2	260.1	16.8	268.7	11.9	262.3	16.1	272.2	18.6	265.6	18.1	275.7	16.4
1969-70	268.0	13.8	286.1	17.8	277.1	12.9	262.6	14.6	271.6	12.3	262.7	14.0	275.2	16.3	268.8	15.0	279.3	13.8

TABLE XXXVIII

SUMMARY OF MEANS AND STANDARD DEVIATIONS ACHIEVED BY GRADE 11 PUPILS ON THE SCAT AND STEP TESTS: 1965-70, PENDLETON COUNTY

Academic Year	School College Aptitude Test* Verbal $\bar{X}$	Verbal SD	Quantitative $\bar{X}$	Quantitative SD	Total $\bar{X}$	Total SD	Sequential Test of Educational Progress* Math $\bar{X}$	Math SD	Science $\bar{X}$	Science SD	Soc. St. $\bar{X}$	Soc. St. SD	Read. $\bar{X}$	Read. SD	Writ. $\bar{X}$	Writ. SD	List. $\bar{X}$	List. SD
1965-66	273.1	14.4	289.1	18.2	280.8	13.7	271.3	17.1	277.9	9.8	271.4	12.3	284.5	16.7	280.2	15.4	285.5	12.9
1966-67	271.6	13.0	285.6	18.0	278.5	13.1	270.3	14.7	278.4	10.9	269.5	12.1	285.9	15.6	278.7	14.7	285.7	13.3
1967-68	272.2	9.6	287.7	15.0	279.6	9.9	271.6	11.7	279.6	7.5	267.3	7.6	283.5	10.8	279.4	11.8		
1968-69	274.2	12.3	290.9	18.1	282.0	12.2	272.8	15.5	279.9	11.6	274.7	12.8	287.1	16.7	280.7	16.4	287.0	12.9
1969-70	275.2	11.8	291.8	17.2	282.9	11.9	274.2	13.7	280.4	11.6	272.9	13.2	287.9	15.7	282.6	15.4	287.1	11.1

all three scores--verbal, quantitative, and total--of the SCAT.

These results appear dramatic and require immediate attention by the decision-makers in the schools in Region II. The strong negative trends found in the results of the administration of SCAT to ninth and eleventh grade pupils may be related to the socio-economic backgrounds of the students and the use of paper and pencil tests.

There does, however, appear to be a more rational explanation. The reader should recall that the holding power of the schools in Region II has increased. It can logically be hypothesized that the increase in holding power was due to the reducation in the number of drop-outs. Research has indicated that, generally, the drop-out performs at a lower level on paper and pencil tests than does the high school graduate. Therefore, it would appear logical to assume that the negative trend of pupil performance on the SCAT would be expected.

Sequential Test of Educational Progress

The achieved mean scores of the ninth and eleventh grade pupils in Region II on the STEP are presented in Tables XXIII through XXXVIII. At both grade levels, the STEP was composed of six sub-tests; they were: Mathematics, Science, Social Studies, Reading, Writing, and Listening.

Grade Nine. During the five academic year period under study, the ninth grade pupils in Region II showed a slight to strong negative trend in their performance on the mathematics, social studies, reading, and writing sub-tests. Their performance appeared to be unchanged in the science and listening sub-tests. There were no discernable positive trends.

Grade Eleven. During the five academic year period under study, the eleventh grade pupils in Region II showed a slight to strong negative trend in their performance on the mathematics, science, social studies, and reading sub-tests. Their performance appeared to be unchanged on the writing and listening sub-tests. There were no discernable positive trends.

Of the twelve sub-tests administered to the ninth and eleventh grade pupils, eight negative trends were identified, four instances of unchanged behavior and no positive trends were identified for the pupils performance on the STEP during the five academic year period under study.

It should be recalled that the SCAT is a predictive instrument and that its predictive ability is highly correlated to pupil performance on the STEP. Thus, it was expected that since a negative trend was found in pupil performance on the SCAT a corresponding negative performance would be found in the results of the administration of the STEP.

The above explanation in no way should be used as evidence for not changing the learning experiences of the pupils in Region II. The reverse appears to be true; that is, the curriculum builders of Region II should be constantly aware of the characteristics of its pupils. Evidence presented relating to the holding power and the performance of ninth and eleventh grade pupils on the SCAT provides a strong basis for curricular change. The curriculum decision-makers must constantly monitor the total system in order to adjust the schools to its client group--pupils. Although many other factors are involved in the results of the SCAT and STEP, evidence is present to support the thesis that

curricular changes appropriate to identified pupil needs should be implemented in all of the schools of Region II.

Item Response Analysis

Presented in Appendix A are Tables XXXIX through LIX showing item response analysis by test, sub-test, grade, county and Region. Item response analysis was defined for this Study as the per cent correct responses of total responses retrieved for each test item in each sub-test of the State-County Testing Program.

Item response analysis was not performed for grade 3 because these data were not available. In addition, item response analysis was not provided for Jefferson County; the item response analysis was performed for the data retrieved for the academic year 1969-70, and Jefferson County did not participate in the State-County Testing Program during that academic year. Regional data for this portion of the Study was calculated as a mean response for the seven remaining counties of Region II.

Social Studies. The per cent of correct responses to individual test items in the social studies sub-tests ranged from 14.0 per cent correct response to 95.0 per cent correct response for the pupils in grade 6; the mean per cent correct response per test item was 52.7. The per cent correct responses to individual test items in the social studies sub-test ranged from 19.2 per cent correct response to 86.3 per cent correct for the pupils in grade 9; the mean per cent correct response per test item was 54.2. The per cent of correct responses to individual test items in the social studies sub-test ranged from 16.6 per cent correct response to 77.7 per cent correct response for the

pupils in grade eleven; the mean per cent correct response per test item was 43.9

Arithmetic Application. The per cent of correct responses to individual test items and the arithmetic applications sub-test ranged from 8.0 per cent correct response to 75.0 per cent correct response for the pupils in grade six; the mean per cent correct response per test item was 48.6.

Arithmetic Computation. The per cent of correct responses to individual test items in the arithmetic computation sub-test ranged from 4.0 per cent correct response to 83.0 per cent correct response for the pupils in grade 6; the mean per cent correct response per test item was 48.1.

Arithmetic Concepts. The per cent of correct responses to individual test items in the arithmetic concepts sub-tests ranged from 17.0 per cent correct response to 78.0 per cent correct response for the pupils in grade six; the mean per cent correct response per test item was 46.2.

Mathematics. The per cent correct responses to individual test items in the mathematics sub-test ranged from 17.1 per cent correct response to 82.0 per cent correct response for the pupils in grade nine; the mean per cent correct response per test item was 48.3. The per cent of correct responses to individual test items in the mathematics sub-test ranged from 16.0 per cent correct response to 92.4 per cent correct response for the pupils in grade eleven; the mean per cent correct response per test item was 42.5.

Science. The per cent of correct responses to individual test items in the science sub-test ranged from 25.0 per cent correct response

to 84.0 per cent correct response for the pupils in grade six; the mean per cent correct response per test item was 54.3. The per cent of correct responses to individual test items in the science sub-test ranged from 20.4 per cent correct response to 86.7 per cent correct response for the pupils in grade nine; the mean per cent correct response per test item was 51.0. The per cent of correct responses to individual test items in the science sub-test ranged from 7.5 per cent correct response to 79.0 per cent correct response for the pupils in grade eleven; the mean per cent correct response per test item was 41.2.

Language. The per cent of correct responses to individual test items in the language sub-test ranged from 9.0 per cent correct response to 96.0 per cent correct response for the pupils in grade six; the mean per cent correct response per test item was 61.6.

Paragraph Meaning. The per cent of correct responses to individual test items in the paragraph meaning sub-test ranged from 17.0 per cent correct response to 86.0 per cent correct response for the pupils in grade six; the mean per cent correct response per test item was 54.1.

Spelling. The per cent of correct responses to individual test items in the spelling sub-test ranged from 18.0 per cent correct response to 93.0 per cent correct response for the pupils in grade six; the mean per cent correct response per test item was 55.4.

Word Meaning. The per cent of correct responses to individual test items in the word meaning sub-test ranged from 11.0 per cent correct response to 88.0 per cent correct response for the pupils in grade six; the mean per cent correct response per test item was 49.2.

Reading. The per cent of correct responses to individual test

items in the reading sub-test ranged from 30.1 per cent correct response to 88.0 per cent correct response for the pupils in grade nine; the mean per cent correct response per test item was 57.4. The per cent of correct responses to individual test items in the reading sub-test ranged from 27.4 per cent correct response to 89.9 per cent correct response for the pupils in grade eleven; the mean per cent correct response per test item was 58.2.

Writing. The per cent of correct responses to individual test items in the writing sub test ranged from 11.8 per cent correct response to 89.0 per cent correct response for the pupils in grade nine; the mean per cent correct response per test item was 51.7. The per cent of correct responses to individual test items in the writing sub-test ranged from 16.6 per cent correct response to 76.6 per cent correct response for the pupils in grade eleven; the mean per cent correct response per test item was 48.1.

Listening. The per cent of correct responses to individual test items in the listening sub-test ranged from 18.2 per cent correct response to 88.0 per cent correct response for the pupils in grade nine; the mean per cent correct response per test item was 60.9. The per cent of correct responses to individual test items in the listening sub-test ranged from 17.0 per cent correct response to 90.4 per cent correct response for the pupils in grade eleven; the mean per cent correct response per test item was 56.9.

One may assume that the mean per cent correct response per test item provides some indication of success the pupils in Region II achieved in the State-County Testing Program. That is, if the pupils in Region II achieved a higher mean per cent correct response per test item on sub-

test "X" than on sub-test "Y" it may be assumed the pupils were more proficient in curricular area "X" than in curricular area "Y", all other conditions being equal. Further, one may rank the sub-tests on the basis of the mean per cent correct response per test item achieved by pupils.

Using the above rationale, the success of sixth grade pupils in Region II on the sub-tests of the Stanford Achievement Test would provide the following rank ordering, enclosed within the parentheses is the mean per cent correct response per test item for the sub-test: Language (61.6), Spelling (55.4), Science (54.3), Paragraph Meaning (54.1), Social Studies (52.7), Word Meaning (49.2), Arithmetic Application (48.6), Arithmetic Computation (48.1), and Arithmetic Concepts (46.2).

The success of ninth grade pupils in Region II on the sub-tests of the STEP would provide the following rank order, enclosed within the parentheses is the mean per cent correct response per test item for the sub-tests: Listening (60.9), Reading (57.4), Social Studies (54.2), Writing (51.7), Science (51.0), and Mathematics (48.9).

The success of eleventh grade pupils in Region II on the sub-tests of the STEP would provide the following rank order, enclosed within the parentheses is the mean per cent correct response per test item for the sub-tests: Reading (58.2), Listening (56.9), Writing (48.1), Social Studies (43.9), Mathematics (42.5), and Science (41.2).

From the above analysis, one may generalize that the pupils in Region II enjoyed their greatest success, as measured by a standardized achievement test, in language arts; this was followed by social studies and science with mathematics in the final position. The reader is

cautioned that this is a generalization; the schools of Region II should make an in-depth study of the curriculum as related to the item response data presented in Appendix A.

In addition to the broad generalization presented above, the schools of Region II should analyze each test item in each sub-test in relation to the curricular objectives of a school, county, or the Region. In this way, the data may be used to determine the strengths and weaknesses of the curricula implemented within the Region and provide a sound basis for planning future pupil learning experiences.

THE RELATIONSHIP OF CEP-EXPECTED MEASURABLE OUTCOMES AND THE STATE-COUNTY TESTING PROGRAM

In a previous section of this Report, it was stated that the West Virginia State Department of Education had developed a Comprehensive Educational Program in order to assist local school systems in planning and developing the total edcuational enterprise. Within this context, the development of the CEP generated Expected Measurable Outcomes in the curricular areas of arithmetic, language arts, science, and social studies. One objective of this Study was to determine if any relationships existed between the CEP-EMO's and the State-County Testing Program.

In order to determine if a relationship existed between the CEP-EMO's and the State-County Testing Program, a CEP-EMO, State-County Testing Program test item matrix for each grade level was developed. The results of this matrix are displayed in Tables LX through LXXII, Appendix B. At this point, the authors wish to emphasize that any relationship between CEP-EMO's and test items, or lack of relationship, is <u>not</u> to be construed as a value judgment of the quality of the EMO's or test items.

All interpretations of the data presented in Tables LX through LXXII must be considered under the following constructions:

1. The Comprehensive Educational Program and the State-County Testing Program have respective goals, purposes, and objectives, and a real difference exists between them.

2. It was not expected that all EMO's were designed to be measured only by a paper and pencil standardized test.

3. Due to the copyright dates of the standardized tests administered in the State-County Testing Program, it was recognized that all test items do not correlate with modern curriculum trends, i.e., new social studies, new mathematics, etc. However, many of the EMO's were related to modern curricular trends.

4. The actual association of a test item with a CEP-EMO was a professional judgment; it is recognized that considerable debate can be generated relative to the "exact" association of a test item with a specific EMO. It should be emphasized that when the EMO test item association appeared to be highly debatable, the association was not reported.

5. As stated by the State Department of Education, the CEP-EMO's are in a transitional or developmental stage; that is, it is expected that many of the CEP-EMO's will be refined and more accurately described in terms of "measurability" as the State Department of Education publishes later editions of the CEP.

Findings

Grade Three. The analysis of the 47 arithmetic EMO's and the Stanford Achievement Test, arithmetic, indicate that nine of the 47 EMO's were measured by one or more test items. The analysis of the 21 language arts EMO's and the Stanford Achievement Test, language arts sub-tests, indicate that six of the 21 EMO's were measured by one or more test items. The analysis of the 30 science EMO's and the Stanford Achievement Test, science, indicate that two of the 30 EMO's were measured by one or more test items. The analysis of the seven social studies EMO's and the Stanford Achievement Test, social studies, indicate that none of the seven EMO's were measured by one or more test items.

Grade Six. The analysis of the 47 arithmetic EMO's and the Stanford Achievement Test, arithmetic, indicate that eleven of the 47 EMO's were measured by one or more test items. The analysis of the 21

language arts EMO's and the Stanford Achievement Test, language arts sub-tests, indicate that five of the 21 EMO's were measured by one or more test items. The analysis of the 30 science EMO's and the Stanford Achievement Test, science, indicate that four of the 30 EMO;s were measured by one or more test items. The analysis of the seven social studies EMO's and the Stanford Achievement Test, social studies, indicate that one of the seven EMO's were measured by one or more test items.

Grade Nine. The analysis of the 47 arithmetic EMO's and the Stanford Achievement Test, arithmetic, indicate that nine of the 47 EMO's were measured by one or more test items. The analysis of the 21 language arts EMO's and the Stanford Achievement Test, language arts sub-tests, indicate that six of the 21 EMO's were measured by one or more test items. The analysis of the 58 science EMO's and the Stanford Achievement Test, science, indicate that four of the 57 EMO's were measured by one or more test items. The analysis of the three social studies EMO's and the Stanford Achievement Test, social studies, indicate that none of the three EMO's were measured by one or more test items.

Grade Eleven. The analysis of the 47 arithmetic EMO's and the Stanford Achievement Test, arithmetic, indicate that nine of the 47 EMO's were measured by one or more test items. The analysis of the 21 language arts EMO's and the Stanford Achievement Test, language arts sub-tests, indicate that six of the 21 EMO's were measured by one or more test items. The analysis of the 58 science EMO's and the Stanford Achievement Test, science, indicate that seven of the 58 EMO's

were measured by one or more test items. The analysis of the three social studies EMO's and the Stanford Achievement Test, social studies, indicate that none of the three EMO's were measured by one or more test items.

The results of this analysis indicate that approximately 20.2 per cent of the arithmetic CEP-EMO's for all grade levels were measured by the State-County Testing Program; 27.4 per cent of the language arts CEP-EMO's for all grade levels were measured by the State-County Testing Program; 8.8 per cent of the science CEP-EMO's for all grade levels were measured by the State-County Testing Program; 3.6 per cent of the social studies CEP-EMO's for all grade levels were measured by the State-County Testing Program. Overall, for grades 3, 6, 9 and 11, approximately 15.6 per cent of the total CEP-EMO's in arithmetic, language arts, science, and social studies were measured by the State-County Testing Program.

Accountability

The above data generate debate relating to the minimal interfacing found between the CEP-EMO's and the State-County Testing Program. Excluding the costs incurred at the local level, which includes teacher, secretarial, administrative, and pupil time, West Virginia expends approximately $1,000,000 annually through the CEP and approximately $400,000 in the State-County Testing Program. It would appear reasonable that a higher degree of interfacing should exist between the two programs in order to: (1) improve assessment of the success of local school systems in achieving the objectives of CEP, (2) provide additional evidence for administering the State-County Testing Program, and (3) refine the process

for identifying major dysfunctions within West Virginia schools, the dysfunctions would be identified in a more objective manner.

The term "accountability" is beginning to have a greater and greater influence upon education. Basically, accountability requires that schools account for the factors of time, cost, and performance in operationalizing their programs.

West Virginia leads the Nation in that it has operationalized two components basic to any accountability model--CEP and the State-County Testing Program. The integration of the school budget with the CEP and the State-County Testing Program would provide the State an opportunity to develop and implement a comprehensive accountability model.

Further, a higher degree of interfacing would deter the possibility of policy debates being awarded to the most proficient debater; in the past, policy debates have too often shifted to a search for a winning argument as opposed to the correct solution. Decisions on trade-offs, priorities, and resource allocations would be backed up with data rather than intuition alone.

This Study has indicated that the CEP-EMO's and the results of the State-County Testing Program can be analyzed in order to determine the degree of success West Virginia schools are enjoying in meeting the State's educational goals. Further refinement of research methodology and analysis, CEP-EMO's, and State-County Testing Program design would precipitate greater crystallized and meaningful results. Discussions presented in following sections of this Report will provide further evidence to support these remarks.

SUCCESS OF REGION II PUPILS IN ACHIEVING CEP-EMO's

This section of the Report discusses the success pupils in Region II had in achieving CEP-EMO's. In previous sections of this Report CEP-EMO's were associated with specific State-County Testing Program test items; also data have been provided which indicated the per cent correct responses achieved by pupils on specific State-County Testing Program test items. By associating the three variables--CEP-EMO's, test items, and per cent correct response per test item--one can determine the degree of success the pupils of Region II had in achieving CEP-EMO's in social studies, arithmetic, science, and language arts. For example, if 50.0 per cent of the pupils correctly responded to State-County Testing Program test items associated with a specific CEP-EMO, it may be inferred that the pupils in Region II achieved a 50.0 per cent level of success in achieving the CEP-EMO.

The CEP-EMO's do not define an associated degree of performance whereby one may determine when an EMO has been successfully achieved or not. However, normal standards for measurable objectives, generally, define success as when a pupil achieves a 90.0 per cent level of performance. However, the reader should recall that data were presented as group data and the mean per cent correct response associated with the CEP-EMO indicates the mean per cent of pupils who successfully achieved the EMO.

Social Studies

Sixth Grade. At the sixth grade level only one of the seven CEP-EMO's in social studies was measured by the State-County Testing Program; this EMO was measured by 29 test items, see Table LXXIII. The regional

TABLE LXXIII

SUMMARY OF THE PERCENT CORRECT RESPONSES OF TOTAL RESPONSES PER GRADE LEVEL ON EXPECTED MEASURABLE OUTCOMES AS MEASURED BY THE STATE-COUNTY TESTING PROGRAM ITEMS: SOCIAL STUDIES, GRADE 6. 1969-70 BY COUNTY AND REGION

Expected Measurable Outcomes	Grade	N*	Berkeley	Grant	Hampshire	Hardy	Mineral	Morgan	Pendleton	Region
11. Given illustrations and sentences which demonstrate precise examples of a geographic center, latitude, longitude, earth rotation and its effect on time, time zones, systems of land survey, urban street grids, southeast, southwest, northwest, azimuth and degrees of latitude and longitude, the student identifies each and states an example of each.	6	29	55.7	54.2	56.2	55.6	55.1	56.0	47.3	56.2

*Number of test items associated Expected Measurable Outcomes.

mean correct response was 56.2. This indicates that approximately 56.2 per cent of the pupils in Region II correctly responded to the 29 test items.

Arithmetic

Sixth Grade. At the sixth grade level, eleven arithmetic CEP-EMO's were measured by the State-County Testing Program, see Table LXXIV. The degree of success for sixth grade pupils ranged from 41.6 per cent to 78.0 per cent; the mean success achieved by the sixth grade pupils on the eleven EMO's was 53.9 per cent.

Ninth Grade. At the ninth grade, nine arithmetic CEP-EMO's were measured by the State-County Testing Program, see Table LXXIV. The degree of success for ninth grade pupils ranged from 39.6 per cent to 63.4 per cent. The mean success achieved by the ninth grade pupils on the nine EMO's was 49.9 per cent.

Eleventh Grade. At the eleventh grade, nine arithmetic CEP-EMO's were measured by the State-County Testing Program, see Table LXXIV. The degree of success for eleventh grade pupils ranged from 25.2 per cent to 69.0 per cent. The mean success achieved by the eleventh grade pupils on the nine EMO's was 44.6 per cent.

Science

Grade Six. At the sixth grade level, four science CEP-EMO's were measured by the State-County Testing Program, see Table LXXV. The degree of success for sixth grade pupils ranged from 49.0 per cent to 58.0 per cent. The mean success achieved by the sixth grade pupils on the four EMO's was 54.0 per cent.

Grade Nine. At the ninth grade level, three science CEP-EMO's

TABLE LXXIV

SUMMARY OF THE PER CENT CORRECT RESPONSES OF TOTAL RESPONSES PER GRADE LEVEL ON EXPECTED MEASURABLE OUTCOMES AS MEASURED BY THE STATE-COUNTY TESTING PROGRAM ITEMS: ARITHMETIC, GRADES 6, 9, AND 11 1969-70 BY COUNTY AND REGION

Expected Measurable Outcomes	Grade	N*	Berkeley	Grant	Hampshire	Hardy	Mineral	Morgan	Pendleton	Region
2. Recalls and uses facts, terms, and symbols related to a process.	6	102	51.3	51.4	51.8	54.7	48.8	48.8	48.4	50.3
	9	24	53.2	46.9	48.2	51.6	52.8	52.2	52.0	51.5
	11	32	42.0	39.3	37.8	40.3	39.8	41.1	43.3	40.2
3. States an idea in mathemathical terminology.	6	1	75	78	68	56	69	58	59	69
	9	4	53.9	47.0	52.2	54.3	54.3	51.8	54.6	50.0
	11	3	19.8	23.8	25.4	25.0	27.0	27.1	23.7	25.2
4. Distinguishes between the properties of numbers, sets, and geometric ideas and forms.	6	1	78	81	79	78	73	83	79	78
	9	5	48.6	42.0	46.0	48.2	49.1	47.9	50.3	47.9
	11	1	42.4	41.0	42.3	40.5	37.5	37.4	45.8	40.2
5. Identifies and clarifies a concept to make logical implications.	6	1	67	67	73	72	66	68	68	68
	11	4	37.5	36.3	42.5	41.6	40.3	43.2	43.2	40.6
6. Applies known facts to a new problem situation.	6	5	41.4	44.8	40.0	44.8	40.8	42.8	39.6	41.6
	9	14	49.9	46.3	46.1	48.0	49.0	48.6	48.6	48.4
	11	1	68.6	77.6	65.6	73.0	64.4	77.2	66.4	69.0
7. Discovers generalizations by extending a concept.	6	1	43	31	50	47	45	51	37	44
8. Justifies a generalization by stating logical reasons for each step of justification.	11	1	53.4	58.7	50.9	62.2	51.9	52.8	66.3	55.4
15. Records memorized facts to find solutions.	6	10	42.6	39.8	56.4	55.4	41.7	48.0	52.7	46.0
16. Uses a known fact related to the problem.	6	27	52.1	51.8	53.2	56.2	49.5	49.9	50.2	51.4
	9	15	53.2	48.7	50.2	52.7	53.1	54.2	52.2	52.4
	11	23	39.1	39.7	41.1	43.2	42.6	43.9	43.7	42.0

TABLE LXXIV (CONT.)

Expected Measurable Outcomes	Grade	N*	Berkeley	Grant	Hampshire	Hardy	Mineral	Morgan	Pendleton	Region
19. Estimates the result to aid finding the solution.	6	2	47.0	51.5	48.0	46.0	45.0	49.0	50.5	47.5
	9	3	40.8	39.7	34.0	40.8	39.6	39.4	42.0	39.6
25. Identifies the question to be answered in the context of the problem situation.	6	19	51.4	51.1	47.5	50.0	48.8	46.8	46.4	49.5
	9	37	50.0	45.0	46.3	48.9	49.6	47.7	48.8	48.6
	11	22	42.9	39.3	41.9	42.2	42.2	43.4	44.1	42.6
26. Selects relevant information needed to solve the problem.	6	13	49.8	50.6	41.8	51.0	46.8	42.3	43.0	47.1
	9	28	48.2	43.2	43.9	49.4	47.9	46.4	46.8	46.9
	11	33	47.1	43.6	44.0	45.5	47.2	47.5	47.5	46.1
29. Generalizes the solution for similar situations.	9	1	62.0	61.4	62.4	61.9	64.2	70.2	65.1	63.4

*Number of test items associated with the Expected Measurable Outcomes.

TABLE LXXV

SUMMARY OF THE PER CENT CORRECT RESPONSES OF TOTAL RESPONSES PER GRADE LEVEL ON EXPECTED MEASURABLE OUTCOMES AS MEASURED BY THE STATE-COUNTY TESTING PROGRAM ITEMS: ELEMENTARY SCIENCE, GRADE 6 1969-70 BY COUNTY AND REGION

Expected Measurable Outcomes	Grade	N*	Berkeley	Grant	Hampshire	Hardy	Mineral	Morgan	Pendleton	Region
3. Makes a reasonable conclusion or reognizes trends in a set of data.	6	58	54.6	57.3	53.4	52..	54.9	56.1	47.3	54.3
30. Understands the conceptual model of the universe.	6	1	55	59	57	48	62	65	58	58
31. Understands the relationship between an organism and its environment.	6	4	52.3	53.8	55.8	58.3	53.3	52.8	44.5	54.8
32. Understands the broad conceptual schemes pertaining to conservation laws.	6	1	45	52	49	53	51	50	44	49

*Number of test items associated with the Expected Measurable Outcomes.

TABLE LXXVI

SUMMARY OF THE PER CENT CORRECT RESPONSES OF TOTAL RESPONSES BER GRADE LEVEL ON EXPECTED MEASURABLE OUTCOMES AS MEASURED BY THE STATE-COUNTY TESTING PROGRAM ITEMS: SECONDARY SCIENCE, GRADES 9 AND 11 1969-70 BY COUNTY AND REGION

Expected Measurable Outcomes	Grade	N	Berkeley	Grant	Hampshire	Hardy	Mineral	Morgan	Pendleton	Region
14. Identifies the necessary safeguards in an experimental or practical situation.	11	1	67.5	58.1	57.4	70.3	59.2	66.7	73.8	63.3
15. Uses appropriate experimental procedures suitable to the solution of the problem and devises an experiment appropriate to the solution of the problem.	11	1	34.2	23.9	30.2	32.4	32.5	41.5	32.7	29.5
20. Draws a generalization and a conclusion based on data and suggested mathematics formulas or verbal generalization to summarize the relationships shown in the data.	9	22	56.7	52.0	53.2	45.6	52.9	55.1	56.6	54.2
	11	21	40.9	41.1	36.7	43.8	41.4	44.1	41.5	40.6
21. Devises an experiment to test a hypothesis about an unfamiliar situation.	11	1	29.1	20.5	34.6	29.7	26.9	34.1	24.3	28.4
22. Recognizes that sufficient data is or is not available to support a conclusion.	9	1	45.8	73.3	42.9	36.7	42.5	43.3	41.3	43.5
	11	2	27.4	28.2	24.1	24.3	25.2	25.2	28.0	25.9
27. Maintains an alert skepticism toward statements of authority in scientific discourse	11	1	49.6	50.4	36.4	45.9	44.5	48.8	51.4	45.7
48. Selects a learned theory or principle that is consistent with given facts, observations, or data.	9	9	61.9	54.6	57.8	46.9	58.0	51.4	64.8	58.8
	11	13	43.4	43.0	39.5	40.5	41.8	50.4	50.3	45.0

*Number of test items associated with the Expected Measurable Outcomes.

were measured by the State-County Testing Program, see Table LXXVI. The degree of success for ninth grade pupils ranged from 43.5 per cent to 58.8 per cent. The mean success achieved by the ninth grade pupils on the three EMO's was 52.2 per cent.

Grade Eleven. At the eleventh grade level, seven science CEP-EMO's were measured by the State-County Testing Program, see Table LXXVI. The degree of success for eleventh grade pupils ranged from 25.9 per cent to 63.3 per cent. The mean success achieved by the eleventh grade pupils on the seven EMO's was 39.8 per cent.

Language Arts

Grade Six. At the sixth grade level, five language arts CEP-EMO's were measured by the State-County Testing Program, see Table LXXVII The degree of success for sixth grade pupils ranged from 52.1 per cent to 58.8 per cent. The mean success achieved by the sixth grade pupils on the five EMO's was 54.5 per cent.

Grade Nine. At the ninth grade level, six language arts CEP-EMO's were measured by the State-County Testing Program, see Table LXXVII. The degree of success of ninth grade pupils ranged from 41.4 per cent to 57.1 per cent. The mean success achieved by the ninth grade pupils on the six EMO's was 51.3 per cent.

Grade Eleven. At the eleventh grade level, six language arts CEP-EMO's were measured by the State-County Testing Program, see Table LXXVII. The degree of success of eleventh grade pupils ranged from 46.1 per cent to 55.5 per cent. The mean success achieved by the eleventh grade pupils on the six EMO's was 51.7 per cent.

During the academic year 1969-70, the pupils in Region II achieved

TABLE LXXVII

SUMMARY OF THE PER CENT CORRECT RESPONSES OF TOTAL RESPONSES PER GRADE LEVEL ON EXPECTED MEASURABLE OUTCOMES AS MEASURED BY THE STATE-COUNTY TESTING PROGRAM ITEMS: LANGUAGE ARTS, GRADES 6, 9, AND 11 1969-70 BY COUNTY AND REGION

Expected Measurable Outcomes	Grade	N*	Berkeley	Grant	Hampshire	Hardy	Mineral	Morgan	Pendleton	Region
6. The learner analyzes the variability of language design and transforms sentences and paragraphs to convey ideas.	6	92	69.5	61.3	59.5	58.8	57.2	60.9	56.8	58.8
9. The learner locates and notes pertinent literature to clarify, support and/or disprove his ideas.	6	136	53.2	52.6	50.4	51.8	53.0	50.7	47.6	52.1
	9	44	56.4	51.2	53.2	45.0	53.4	55.6	54.1	54.2
	11	43	54.3	50.3	54.5	55.2	54.7	55.8	57.2	54.4
11. The learner discriminates types of information in mass media (television, radio, newspaper, magazine, books, motion pictures, plays and advertising) as to whether the information is fact, opinion or fiction.	6	192	54.2	54.0	51.3	52.3	53.1	52.2	49.5	53.0
	9	58	43.0	40.8	40.6	42.6	40.7	42.4	41.3	41.4
	11	61	55.4	51.5	54.7	57.4	54.8	56.7	58.0	55.5
12. The learner selects and compares values found in historical literature with modern literature and reacts to the events of the time.	9	12	59.9	53.1	58.6	54.4	56.5	57.3	55.6	57.1
	11	15	57.0	52.8	47.2	56.2	54.3	57.3	52.4	54.3
13. The learner's attitudes toward others are in part a reflection of his ability to select and synthesize concepts evolving from literature.	6	192	54.2	54.0	51.3	52.8	53.1	52.2	49.5	53.0
	9	108	55.9	50.9	52.9	54.6	54.3	54.3	56.8	53.4
	11	108	54.3	52.5	52.5	53.8	54.0	54.4	54.9	53.4
15. The learner writes his ideas, views and opinions in a form and style acceptable to him and his readers.	6	56	55.0	56.2	54.6	53.8	55.8	54.0	50.9	55.4
	9	26	54.9	51.1	52.6	55.1	53.0	55.1	56.1	53.6
	11	13	44.2	42.8	46.0	47.0	46.3	47.7	45.8	46.1
16. The learner writes ideas, views and opinions about situations, events or persons and can identify the most effective and appropriate form (narrative, descriptive, expository or argumentative) being used.	9	44	49.5	44.6	47.5	48.0	46.7	49.3	49.6	47.9
	11	33	42.9	42.4	44.1	42.3	45.9	45.3	47.3	46.2

*Number of test items associated with the Expected Measurable Outcomes.

a mean success of 50.2 per cent in the Expected Measurable Outcomes for arithmetic, science, language arts, and social studies, as measured by associated State-County Testing Program test items. The interpretation of this data indicates that approximately 50.2 per cent of the pupils in Region II (grades six, nine, and eleven) achieved 100.0 per cent success in the CEP-EMO's associated with social studies, arithmetic, science, and language arts, as measured by State-County Testing Program test items. Also, the data indicate that approximately 49.8 per cent of the students failed to achieve 100.0 success in the measured CEP-EMO's.

A detailed examination of the above data indicates that the per cent of pupils in Region II achieving success in attaining the CEP-EMO's decreased at each successively higher level. In a previous section of this Report, see Tables VII through XXXVIII, it was indicated that the achievement of pupils, especially at the senior high school level, decreased during the five academic years under study. It is apparent that selective intervening actions must be taken by the curricular decision-makers in Region II in order to inhibit the two significant trends identified by this Study. The schools of Region II should undertake a concerted research and evaluation program relating to the system's inputs, control mechanism, feedback systems, and processor (curriculum).

Lay and professional reactions to the above may center on the thesis that it is not sound curricular policy to "teach for a test." Questions arising from the results of this Study cannot be "rationalized" with such a simplistic response. Test results, as utilized in this Study, should be interpreted as an essential feed-back element in the Region's

mission to provide the most relevant and appropriate curriculum for its pupils.

The Comprehensive Educational Program was developed by West Virginia's total professional community--representatives of the State Department, local education agencies and higher education. This development incurred the utilization of significant amounts of professional expertise, man-hours, and resources in order to develop logical and rational educational goals based on the needs of West Virginia. In the absence of a better formulated "Plan," the CEP should be considered as the basic or minimal control mechanism for directing the course of education in West Virginia. Local school systems have the responsibility to develop additional control mechanisms (local goals and objectives) to supplement and/or expand the State's minimum goals and objectives.

Although local school systems have minimum control of inputs as related to pupils, they have a large amount of control as related to such inputs as teachers, instructional modes, ancillary personnel, equipment, learning tools, etc. The Region's educational decision-makers need to determine the effectiveness of various inputs and their interactions in order to optimize the learning environment. For example, what is the "best" mix of teachers, teacher-aides, and pupils? Is learning enhanced when the traditional teaching model is changed from six teachers per 150 pupils to 3 teachers and 6 teacher-aides per 150 pupils?

More importantly, curricular decision-makers need to throughly assess the needs and characteristics of the pupils, prior to curriculum development. This Study was global in nature; however, enough specificity was provided to indicate that State-County Testing Program data, i.e.,

CEP-EMO, test item results, can and should be more fully recognized in curriculum building--from the individual classroom to the Region.

A SELF-STUDY MODEL FOR REGION II SCHOOLS

A flow diagram of a planning decision-making process appropriate for a self-study model for Region II schools is presented in Figure 1. The model is flexible and may be adjusted to meet individual school building, county, regional, or State level self-studies.

The model can be used to continuously monitor the impact present or future learning experiences have upon the pupils of Region II. It is both a planning model and an evaluative model for the continuous development of schools in Region II. Basically, the model is a "loop" system, whereby the decision-makers are continuously receiving feedback upon the success of the system.

Model Definition

After the basic philosophy, goals, and purposes of a school have been defined, the next logical step is to develop objectives, see Figure 1. The system then has to determine if the objectives are appropriate to the needs. Within the model, needs may be defined as those identified by the pupil, community, region, state, or nation. If it is determined that the objectives are not appropriate to the identified needs, the system must begin to search for new objectives, objectives appropriate to identified needs.

After it has been determined that the objectives are appropriate to the needs, the system begins to develop a curriculum. The system then begins to compare the curriculum with the objectives. If the system determines that the curriculum is not comparable to the objectives, the

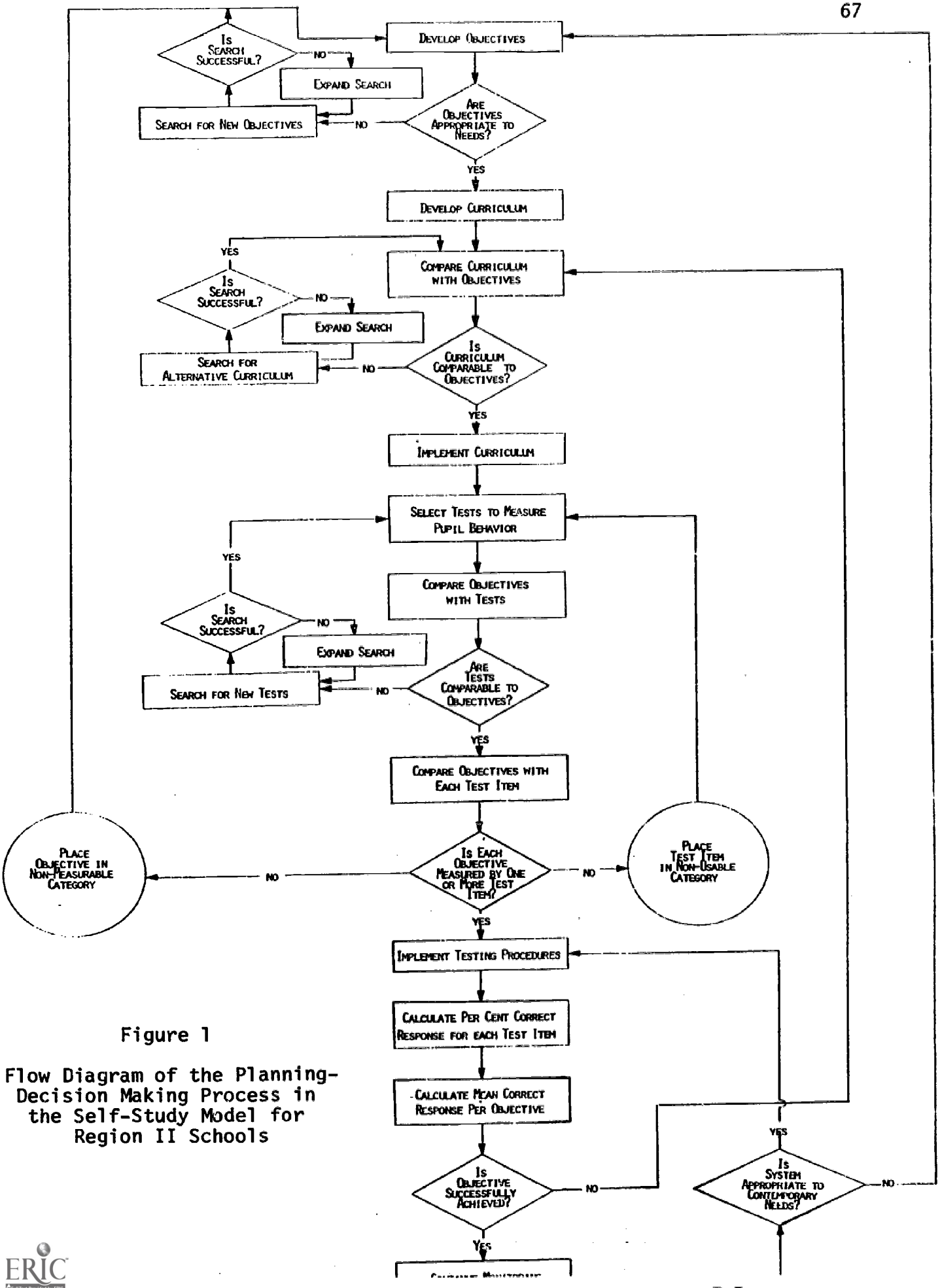


Figure 1

Flow Diagram of the Planning-Decision Making Process in the Self-Study Model for Region II Schools

system must search for an alternative curriculum. The system stays within this loop until the search is successful.'

After it has been determined that the curriculum is comparable to the objectives, the system begins to implement the curriculum. The next phase in the model indicates that the system must begin to select tests to measure pupil behavior. The system then begins to compare its objectives with the testing instruments. A decision must be reached in order to determine if the tests are comparable to the objectives. If the tests are not comparable, the system enters a search loop until it selects tests which measure pupil behavior in accord with the objectives of the system.

After the basic tests are selected, the system begins to compare the objectives with each test item. At this point, the system must address itself to the question "Is each objective measured by one or more test items?" If the question is answered in the negative, the system has two alternatives. Objectives may revert to a non-measurable category, non-measurable in terms of the selected tests, and the system proceeds through a review of the "measurability" of the objective. Secondly, the system may encounter a test item which is not associated with an objective. In this case, the test item is placed in a non-usable category and returned to the system for review.

After it has been determined that each objective is measured by one or more test items, the system implements its testing program. After the testing has been completed, the per cent correct response for each test item is calculated and the mean correct response per objective is calculated.

After this analysis, the system must determine if the objective has been successfully achieved. If the objective has not been successfully achieved, the system must again compare the curriculum with its objectives. If it has been determined that the objective has been successfully achieved, the system does not remain static. There is a continuous monitoring of the system in order to determine if the system is appropriate to contemporary needs.

If it has been determined that the system is functioning in a manner appropriate to contemporary needs, the system is permitted to continue to function. However, if it has been determined that the system is no longer appropriate to contemporary needs, the decision-makers must return to the original phase of the model--develop objectives.

The model is being offered to curricular specialists, supervisors, principals, coordinators, superintendents, etc., in Region II to assist them in determining the quality of their schools as related to the Comprehensive Educational Program and the State-County Testing Program. As previously indicated, this study was concerned with Regional trends. Necessarily, data were reported on individual counties within the Region; however, individual school data were not reported. It would appear appropriate that this Study should be replicated at the individual school building level. This would enable principals to determine the success of the individual schools, identify school strengths and weaknesses, and assist in formulating and implementing appropriate intervention actions.

In retrieving the data necessary to implement this Study, it became apparent that CEP guidelines and results of the State-County

Testing Program were not being utilized to their fullest extent. The authors recognize there were certain environmental constraints, i.e., resources, policies, facilities, etc., which tended to inhibit the optimization of the CEP and results of the State-County Testing Program at the local level. Also, each local school system had their own priorities, resource allocation determinations, and other factors which determine the extent to which available data is utilized.

However, one must recognize that the citizens of West Virginia have supported the Comprehensive Educational Program and the State-County Testing Program with their tax monies for a number of years. This support has included millions of dollars. And, unless the programs are curtailed, will require the expenditure of millions of tax dollars in future years. Thus, it is incumbent upon the professional educators of West Virginia--State, regional, and local--to retrieve the maximum benefit from the tax monies provided for education in West Virginia. It would appear that through a minimal effort, the schools of Region II could optimize the use of the results of the State-County Testing Program and provide more relevant pupil learning experiences by following the guidelines of the Comprehensive Educational Program.

The schools of Region II appear to be at a critical point in their developmental history. Evidence presented in this report indicates that pupil behavior in the State-County Testing Program has regressed both over time and during an individual group of pupils progression through grade levels.

This study also indicated that the educational enterprise in Region II requires the expenditure of large sums of money. Relating to

the financial investment and pupil behavior on standardized tests, the following questions require consideration:

1. Has the investment of puplic funds in Region II schools been sufficient or insufficient?

2. Are the schools of Region II implementing the most effective curriculum possible in terms of the resources available to the schools?

Answers to these questions lie in the concept of "incremental learning costs"--costs required to raise the learning level of a pupil one increment. That is, How much does it cost to raise the reading level of a pupil one month? How much does it cost to raise the pupil one grade level in a specific subject matter area? Due to the budgetary methods employed in the schools of West Virginia, these questions cannot be answered at the present time.

There is a great temptation for one to study trends in school finance and, subsequently, study the trends in pupil learning behavior and then an attempt is made to correlate finance and pupil learning behavior. However, one must recall that a correlation does not necessarily imply cause-and-effect relationships. Instead of correlational studies, the schools of Region II should begin to apply cost analysis and cost benefit budgetary techniques in order to determine the most effective and efficient curriculum and input mix necessary to meet the needs of pupils in Region II.

Such studies would determine if the investment of tax monies in Region II schools is adequate or inadequate. These studies, necessarily, would cause the Region's schools to thoroughly investigate all inputs, control factors (goals, purposes, objectives, etc.), processing

mechanisms, (curriculum, instructions models, etc.), and feedback systems (testing programs, testing instruments, etc.). The self-study model discussed in this section of the Report provides the foundation whereby the schools may initiate procedures for a continuous planning, implementing, evaluation program to monitor the effectiveness and efficiency of the curriculum.

The implementation of a program to determine the effectiveness and efficiency of school monies requires considerable amounts of resources and time; it will not occur over-night. The Curriculum Improvement Center occupies a strategic position for providing the leadership for such a program. However, the Curriculum Improvement Center cannot provide this leadership in isolation; it requires the combined efforts of both the lay and professional communities in each of the eight counties in the Region.

"How Good Are Our Schools?"

Through the data presented in this Report, it can be concluded that the schools of Region II are good. However, good is a relative term; good implies that a comparison has been made. It should be recalled that the schools of Region II were not compared to either each other, to other regions in the State, or to State or National norms.

A comparison was made. The outputs, "pupil behavior," was compared to a control mechanism "CEP." This comparison is, in reality, the most important comparison which could be made. The results of the Study indicate that the schools of Region II have made significant progress in meeting the objectives of the Comprehensive Educational Program.

The authorization of this Study by the schools of Region II provides unobtrusive evidence that the schools are good. The professional leadership of the Region II schools should be commended for authorizing this Study in an attempt to assess the quality of the schools; these actions indicate that the schools of the Region are searching for methods and means to improve the quality of education received by the children in Region II, from good to excellent or superior--society can have no higher goal.

APPENDIX A

Item Response Analysis Showing Per Cent Correct Responses of Total Responses Per Test Item on the SAT, Grade 6, and the STEP, Grades 9 and 11

TABLE XXXIX

ITEM RESPONSES ANALYSIS SHOWING PER CENT CORRECT RESPONSES OF TOTAL RESPONSE PER TEST ITEM: STANFORD ACHIEVEMENT TEST, SOCIAL STUDIES, GRADE 6 1969-70 BY COUNTY AND REGION

Test Item	County							Region
	Berkeley	Grant	Hampshire	Hardy	Mineral	Morgan	Pendleton	
1	97	98	94	93	94	95	89	95
2	95	96	87	85	89	86	90	91
3	65	67	68	67	66	68	62	66
4	74	85	72	61	78	81	73	75
5	83	83	88	88	83	85	79	84
6	87	88	87	85	85	85	77	86
7	65	70	64	63	71	84	58	68
8	45	54	49	51	49	39	50	47
9	72	69	76	74	59	72	68	69
10	61	66	69	58	61	57	64	62
11	70	74	73	67	73	82	59	72
12	64	73	73	64	73	73	48	68
13	52	41	70	48	54	62	50	54
14	52	55	56	53	49	55	57	53
15	51	45	58	62	61	54	52	55
16	47	43	52	44	51	49	45	48
17	56	48	57	51	57	55	50	55
18	43	49	43	43	45	50	41	45
19	62	52	53	44	57	63	49	57
20	50	62	59	53	50	44	54	52

TABLE XXXIX (CONT.)

Test Item	County							Region
	Berkeley	Grant	Hampshire	Hardy	Mineral	Morgan	Pendleton	
21	50	54	45	44	54	47	54	50
22	58	70	49	51	61	71	41	58
23	45	58	53	52	57	45	58	51
24	45	57	51	49	62	57	51	52
25	52	60	57	51	57	57	53	55
26	46	50	50	49	42	50	37	46
27	39	40	40	37	40	37	30	38
28	68	34	44	39	70	54	46	58
29	40	36	38	47	40	51	38	41
30	39	33	52	43	37	55	33	41
31	45	46	32	36	41	46	31	42
32	39	43	51	39	38	43	41	41
33	40	36	43	36	37	39	28	38
34	39	53	49	60	52	45	51	47
35	43	53	40	36	35	44	32	41
36	28	22	25	26	29	22	22	26
37	32	23	32	33	32	29	28	31
38	30	31	26	29	31	27	33	30
39	32	41	36	35	34	28	30	33
40	26	26	24	36	33	29	30	29
41	29	41	32	26	31	25	25	30
42	25	33	25	28	24	23	17	25

TABLE XXXIX (CONT.)

Test Item	County							Region
	Berkeley	Grant	Hampshire	Hardy	Mineral	Morgan	Pendleton	
43	27	21	24	32	25	24	24	26
44	12	11	17	17	16	12	21	14
45	23	21	25	26	19	17	24	22
46	91	96	91	86	86	86	80	89
47	80	79	79	80	78	79	63	78
48	70	76	71	70	69	76	54	70
49	54	63	48	50	57	57	50	54
50	54	62	53	42	55	53	45	53
51	64	69	71	64	65	58	57	64
52	70	72	77	62	68	64	62	69
53	4	42	37	44	44	47	32	43
54	44	43	50	39	44	42	41	44
55	44	42	33	39	42	27	32	39
56	62	55	77	66	67	68	53	56
57	57	51	56	58	59	48	54	65
58	53	50	54	54	55	48	44	56
59	56	49	54	58	52	54	41	52
60	75	76	80	78	75	81	67	53
61	62	62	64	65	62	65	51	76
62	70	64	71	78	69	72	54	62
63	52	52	51	51	52	56	46	69
64	56	51	56	61	51	65	46	52

TABLE XXXIX (CONT.)

Test Item	County							Region
	Berkeley	Grant	Hampshire	Hardy	Mineral	Morgan	Pendleton	
65	58	47	51	56	58	64	47	55
66	60	54	54	61	57	58	45	56
67	59	62	57	64	57	64	52	57
68	57	52	58	64	58	57	45	59
69	36	29	36	31	37	28	29	57
70	46	45	52	47	40	54	45	40
71	38	42	46	33	43	47	50	46
72	38	36	40	43	42	45	34	42
73	37	30	36	40	32	39	33	40
74	28	22	28	27	23	21	21	35

TABLE XL

ITEM RESPONSES ANALYSIS SHOWING PER CENT CORRECT RESPONSES OF TOTAL RESPONSE PER TEST ITEM: SEQUENTIAL TEST OF EDUCATIONAL PROGRESS, SOCIAL STUDIES, GRADE 9
1969-70 BY COUNTY AND REGION

Test Item	Berkeley	Grant	Hampshire	Hardy	COUNTY Mineral	Morgan	Pendleton	Region
					PART I			
1	65.1	63.3	61.8	49.6	66.1	65.2	59.8	63.9
2	59.8	50.0	52.8	51.8	55.1	58.5	60.0	56.2
3	68.0	63.3	58.5	48.6	69.5	62.0	56.0	64.0
4	42.3	33.5	31.1	28.6	41.4	33.1	31.2	37.4
5	81.2	79.7	72.2	62.6	80.1	83.7	81.7	78.5
6	44.6	45.6	39.2	39.6	46.3	40.8	40.8	43.5
7	34.0	31.0	26.4	25.7	31.4	32.4	32.8	31.3
8	41.4	34.8	28.3	7.9	42.8	38.0	49.6	37.4
9	77.3	74.7	67.0	64.7	73.0	77.3	78.6	73.9
10	85.3	82.3	78.8	71.9	80.7	88.7	84.8	82.3
11	57.9	50.6	60.8	56.4	59.1	64.8	56.0	59.0
12	64.2	58.9	52.4	60.0	63.7	62.7	63.2	61.7
13	64.1	57.3	51.9	54.7	60.0	55.3	54.0	58.1
14	40.0	25.3	34.9	30.9	38.4	41.5	33.6	36.7
15	83.0	72.8	68.9	71.4	79.8	77.5	7.9	72.9
16	56.3	62.7	61.8	53.6	62.3	66.9	48.0	58.9
17	64.2	61.4	60.8	58.3	61.4	63.8	56.3	61.8
18	88.8	81.6	81.6	85.7	84.0	92.3	84.8	85.9
19	86.5	83.5	79.2	75.0	82.6	87.3	84.8	83.4
20	86.7	83.5	81.6	67.9	7.0	85.2	76.8	63.7
21	84.1	80.4	75.5	71.2	82.6	87.3	84.1	81.6
22	84.1	74.7	75.0	67.1	76.3	78.9	80.0	78.3

TABLE XL (CONT.)

Test Item	Berkeley	Grant	Hampshire	Hardy	COUNTY Mineral	Morgan	Pendleton	Region
23	81.6	75.3	73.6	64.3	77.4	88.7	70.4	77.4
24	59.6	57.6	51.9	48.6	6.5	67.0	52.0	77.5
25	90.8	84.8	80.7	75.5	87.4	90.8	81.0	86.3
26	65.3	60.1	60.8	57.9	60.5	63.4	68.0	62.6
27	45.7	43.7	45.8	44.3	46.7	42.3	45.6	45.4
28	44.1	38.6	39.2	49.3	47.4	44.4	45.6	44.4
29	65.1	62.7	66.0	57.6	64.4	67.6	65.6	64.5
30	61.2	49.4	60.8	59.3	64.2	69.7	60.0	60.6
31	44.6	51.3	57.1	46.4	46.0	46.5	55.2	48.0
32	47.1	49.4	51.0	55.0	48.1	43.0	38.4	47.7
33	34.0	23.4	26.4	29.5	27.0	31.7	32.0	29.8
34	79.3	70.9	72.2	62.1	43.7	76.1	80.8	67.5
35	54.7	48.1	51.4	50.7	50.0	56.3	54.8	51.7
					PART II			
1	78.2	69.6	67.0	78.4	73.3	71.1	77.6	74.3
2	36.6	29.1	41.0	62.1	34.9	25.4	38.4	37.3
3	61.6	58.2	53.3	56.4	57.9	58.5	54.4	58.2
4	56.6	56.3	39.2	42.9	53.3	50.0	63.2	52.6
5	44.2	43.0	49.5	39.6	42.1	55.6	43.7	39.0
6	64.2	61.4	57.5	60.0	63.5	66.2	68.0	63.1
7	36.3	44.9	42.5	42.9	37.4	43.7	48.0	40.0
8	43.2	59.5	50.5	55.0	67.2	70.4	52.8	55.1
9	33.6	28.5	35.8	46.8	36.5	43.0	36.8	36.1
10	33.3	29.7	35.8	41.4	36.7	39.4	45.6	37.0
11	44.4	39.9	39.2	48.6	41.6	45.8	49.6	43.5
12	43.2	33.5	34.9	35.0	56.0	40.8	44.8	47.8

TABLE XL (CONT.)

Test Item	Berkeley	Grant	Hampshire	Hardy	COUNTY Mineral	Morgan	Pendleton	Region
13	69.2	60.1	67.9	64.7	65.8	67.6	71.2	67.1
14	51.2	48.7	45.3	52.9	52.3	45.8	49.6	50.1
15	49.4	43.7	45.3	46.4	49.5	48.6	52.8	48.4
16	37.9	33.5	38.2	30.0	36.3	33.8	36.0	36.1
17	54.9	39.9	48.1	43.2	57.7	55.6	52.8	52.4
18	43.7	37.3	38.2	34.3	46.0	47.2	40.8	42.4
19	32.8	36.7	37.3	47.1	39.8	31.0	39.2	34.4
20	42.1	44.3	39.2	36.4	45.8	45.1	52.8	43.4
21	80.5	69.6	73.6	71.9	78.6	79.6	84.0	77.7
22	53.3	46.2	45.8	49.3	53.7	50.0	52.0	51.2
23	64.4	57.6	57.1	54.3	62.8	56.3	62.4	61.0
24	68.5	60.1	63.2	62.1	59.5	72.5	68.0	64.7
25	63.0	50.0	52.4	54.7	56.7	61.3	64.8	58.4
26	20.7	22.8	22.2	25.0	22.6	26.1	23.2	22.5
27	31.0	31.0	30.7	26.4	32.8	40.8	52.8	33.4
28	38.4	32.9	34.4	31.4	36.7	31.7	34.4	35.6
29	39.8	29.7	41.0	34.5	42.3	35.2	44.8	39.2
30	47.8	42.4	49.1	55.0	47.2	46.5	47.2	45.3
31	67.8	55.7	55.2	59.3	68.6	60.6	62.4	63.8
32	57.2	50.6	49.5	50.7	55.1	42.3	54.4	53.3
33	66.2	51.9	60.8	46.8	62.8	65.5	61.6	61.5
34	18.9	19.0	13.7	20.0	23.5	19.7	14.4	19.2
35	39.1	35.4	36.3	34.3	37.0	42.3	35.2	37.5

TABLE XLI

ITEM RESPONSES ANALYSIS SHOWING PER CENT CORRECT RESPONSES OF TOTAL RESPONSE PER TEST ITEM: SEQUENTIAL TEST OF EDUCATIONAL PROGRESS, SOCIAL STUDIES, GRADE 11 1969-70 BY COUNTY AND REGION

Test Item	Berkley	Grant	Hampshire	COUNTY Hardy	Mineral	Morgan	Pendleton	Region
				PART I				
1	21.8	21.4	21.5	31.3	27.8	23.6	17.8	24.7
2	45.4	47.0	37.4	40.0	46.3	47.2	43.0	44.0
3	42.0	37.6	30.7	45.3	46.3	55.3	47.7	43.7
4	67.2	50.4	66.3	61.3	67.2	62.6	78.5	65.2
5	45.4	30.8	36.2	38.7	49.2	53.7	37.4	43.1
6	40.3	72.6	42.3	41.3	25.7	61.0	63.6	43.6
7	31.1	34.2	32.5	35.3	34.1	57.4	29.9	35.8
8	40.3	42.7	42.3	48.0	51.3	54.5	57.0	48.5
9	61.3	50.4	57.4	65.3	59.0	64.2	72.0	60.7
10	58.0	55.5	46.0	52.7	53.7	59.3	50.5	53.4
11	21.8	31.6	31.9	30.7	35.2	43.1	39.3	33.6
12	42.0	38.5	37.4	38.7	43.1	47.2	43.0	41.6
13	60.0	49.6	49.4	47.3	52.9	56.9	47.7	52.0
14	34.5	28.2	29.4	24.0	26.7	26.0	22.4	27.2
15	23.5	19.7	13.5	16.0	18.0	20.3	14.0	17.7
16	54.6	54.7	57.1	56.9	60.1	57.7	50.5	57.0
17	71.4	75.2	65.0	67.3	74.1	74.8	68.2	17.3
18	17.6	15.4	21.5	16.7	14.3	14.6	19.6	16.6
19	32.8	26.5	28.8	29.3	28.3	32.5	23.4	28.8
20	30.3	24.8	33.1	23.3	25.4	25.2	25.2	26.6
21	32.8	35.0	36.8	34.7	40.2	48.8	32.7	37.9
22	47.7	35	38.0	37.3	39.9	31.7	32.7	38.1
23.	41.2	32.5	41.7	45.3	38.4	43.1	39.3	40.0
24	34.5	27.4	32.5	31.3	34.7	40.7	33.6	33.7

TABLE XLI (CONT.)

Item	Berkley	Grant	Hampshire	Hardy	Mineral	Morgan	Pendleton	Region
				COUNTY				
25	34.5	39.3	36.2	46.0	37.6	40.7	43.0	39.2
26	26.1	39.3	42.3	45.3	41.8	62.6	43.0	42.8
27	40.3	45.3	43.6	40.0	41.3	44.7	46.7	42.6
28	37.8	25.6	39.9	38.7	28.6	28.5	36.4	32.9
29	48.7	48.7	52.8	56.7	50.8	64.2	59.9	53.9
30	46.2	53.0	53.4	63.3	51.6	47.2	58.9	53.2
31	19.3	29.1	29.4	28.7	31.2	26.0	38.3	29.3
32	47.9	40.0	40.5	47.3	39.9	45.5	46.7	42.9
33	57.1	68.4	56.4	60.0	69.8	62.6	59.8	63.5
34	20.2	22.2	22.1	20.0	23.5	19.5	22.4	21.9
35	62.2	54.7	49.7	57.3	64.8	59.3	58.9	59.3
				PART II				
1	70.6	61.5	66.9	73.3	77.8	75.6	83.2	73.6
2	78.2	69.2	73.6	84.7	77.5	79.7	81.3	77.7
3	25.2	27.4	25.2	34.0	30.2	28.5	26.2	55.8
4	34.5	27.4	27.6	28.0	33.9	35.0	29.9	31.4
5	20.2	26.5	23.3	26.-	26.5	20.3	18.7	24.0
6	40.3	41.9	33.1	48.0	38.4	39.8	43.9	40.1
7	66.4	59.8	64.4	79.3	69.6	71.5	79.4	69.9
8	26.9	27.4	35.6	33.3	31.7	29.3	36.4	31.7
9	31.1	25.6	31.3	38.0	30.4	43.9	34.6	32.9
10	38.7	29.9	35.0	53.3	32.8	26.0	54.2	37.3
11	47.9	53.0	49.1	51.3	58.9	60.2	60.7	55.1
12	31.1	31.6	30.7	36.0	40.2	34.1	33.6	35.3
13	36.1	32.5	36.2	34.7	42.9	38.2	32.7	37.7
14	36.1	39.3	30.1	28.7	39.9	30.9	17.8	29.2
15	64.7	53.8	53.4	76.0	62.2	56.1	66.4	61.9

TABLE XLI (CONT.)

Test Item	COUNTY Berkley	Grant	Hampshire	Hardy	Mineral	Morgan	Pendleton	Region
16	42.0	41.9	37.4	35.3	43.9	39.8	36.4	40.3
17	52.9	59.0	49.7	56.7	53.2	48.8	39.8	51.0
18	43.7	41.0	42.9	41.3	46.3	51.2	44.9	44.8
19	27.7	42.7	32.5	36.7	34.9	29.3	31.8	34.0
20	56.3	43.6	46.6	57.3	50.5	49.6	57.9	49.9
21	42.9	38.5	31.9	42.0	36.8	35.0	43.9	38.0
22	55.5	45.3	46.0	51.3	50.5	54.5	59.8	51.2
23	70.6	72.6	74.2	80.0	69.0	74.8	73.8	72.7
24	16.8	17.9	14.1	12.0	17.5	19.5	10.3	15.8
25	57.1	59.8	52.8	63.3	65.1	65.9	55.1	60.9
26	59.7	53.0	61.3	67.3	66.9	61.0	68.2	63.5
27	32.8	30.8	30.1	32.7	36.2	35.0	40.2	31.8
28	73.1	73.5	74.2	78.7	76.2	69.1	72.9	74.6
29	39.5	44.4	39.9	49.3	51.6	36.6	43.9	45.4
30	33.6	30.8	31.3	35.3	33.1	26.8	32.7	32.2
31	30.3	51.6	30.7	36.0	35.7	22.8	41.1	35.2
32	71.4	71.8	63.8	72.7	68.0	73.2	72.0	66.3
33	60.5	58.1	58.9	60.0	62.2	55.3	59.8	59.9
34	49.6	67.5	46.6	59.3	54.0	59.3	66.4	56.3
35	31.1	55.6	39.3	38.0	38.9	40.7	48.6	40.5

TABLE XLII

ITEM RESPONSES ANALYSIS SHOWING PER CENT CORRECT RESPONSES OF TOTAL RESPONSE PER TEST ITEM: STANFORD ACHIEVEMENT TEST, ARITHMETIC APPLICATION, GRADE 6 1969-70 BY COUNTY AND REGION

Test Item	County							Region
	Berkeley	Grant	Hampshire	Hardy	Mineral	Morgan	Pendleton	
1	78	77	68	69	74	68	71	74
2	75	76	68	73	77	78	71	75
3	75	80	69	75	76	71	71	74
4	63	69	58	58	63	54	63	62
5	73	75	73	70	68	69	63	71
6	76	70	70	70	71	62	63	71
7	77	81	74	69	70	75	72	74
8	63	65	55	66	58	62	50	61
9	63	65	51	55	62	48	53	59
10	47	33	30	35	48	37	37	41
11	65	65	53	55	61	55	59	61
12	45	51	45	48	44	32	47	44
13	75	73	63	67	69	76	66	71
14	60	64	48	52	56	60	53	57
15	55	49	46	52	52	43	40	50
16	53	63	63	57	47	38	50	52
17	67	70	59	68	66	66	50	65
18	59	62	59	61	56	54	41	57
19	36	40	40	39	37	38	49	38
20	32	31	25	26	32	25	54	31

TABLE XLII (CONT.)

Test Item	County							Region
	Berkeley	Grant	Hampshire	Hardy	Mineral	Morgan	Pendleton	
21	62	67	55	64	62	54	58	61
22	47	47	52	54	49	35	46	47
23	43	35	39	51	42	36	33	41
24	48	49	35	47	44	42	38	44
25	48	46	48	55	45	38	42	46
26	59	65	55	65	51	55	57	5
27	40	40	38	43	38	30	33	38
28	41	40	40	45	33	36	31	38
29	33	26	20	35	33	26	25	30
30	35	43	37	52	36	41	40	39
31	33	44	34	38	34	30	24	34
32	26	22	22	28	28	21	26	25
33	40	38	38	40	39	39	37	39
34	53	62	58	61	54	59	47	55
35	25	25	23	34	25	28	24	26
36	38	51	32	48	39	39	34	39
37	23	17	16	27	22	19	20	21
38	8	6	7	6	7	6	14	8
39	20	19	18	13	14	19	20	18

TABLE XLIII

ITEM RESPONSES ANALYSIS SHOWING PER CENT CORRECT RESPONSES OF TOTAL RESPONSES PER TEST ITEM: STANFORD ACHIEVEMENT TEST, ARITHMETIC COMPUTATION, GRADE 6 1969-70 BY COUNTY AND REGION

	County							Region
Test Item	Berkeley	Grant	Hampshire	Hardy	Mineral	Morgan	Pendleton	
1	85	83	87	88	76	86	72	83
2	78	78	75	80	80	83	79	79
3	79	79	79	79	73	74	65	76
4	72	71	78	76	70	77	67	72
5	65	67	71	70	60	66	60	65
6	69	66	69	77	65	76	63	69
7	66	72	81	71	65	63	69	68
8	67	60	70	75	58	75	52	65
9	43	46	65	64	46	44	46	48
10	68	67	74	74	63	65	60	67
11	70	67	75	78	64	72	70	70
12	68	70	78	75	64	65	70	69
13	61	61	72	67	55	66	69	62
14	61	62	67	70	57	57	57	61
15	60	57	67	71	59	71	69	63
16	31	47	55	46	37	32	42	38
17	57	64	50	61	52	29	50	53
18	46	48	54	53	43	48	46	47
19	28	22	59	60	33	30	53	37
20	43	36	42	51	37	48	39	42

TABLE XLIII (CONT.)

Test Item	County							Region
	Berkeley	Grant	Hampshire	Hardy	Mineral	Morgan	Pendleton	
21	30	25	51	42	30	34	37	34
22	55	53	72	62	56	65	61	59
23	58	54	68	63	58	58	61	59
24	49	28	65	62	41	49	48	48
25	58	67	75	75	62	72	70	65
26	42	31	60	53	42	42	49	44
27	54	37	50	46	48	42	41	48
28	32	35	54	51	32	46	49	39
29	35	35	41	52	34	34	37	37
30	29	28	49	56	26	40	58	36
31	40	46	40	50	33	25	39	38
32	26	23	43	41	25	32	55	31
33	30	27	35	38	30	30	32	31
34	16	14	30	29	20	20	34	21
35	20	19	24	27	22	16	31	22
36	10	5	12	14	9	7	17	10
37	5	6	8	11	5	8	13	7
38	8	6	10	10	9	11	17	9
39	3	1	5	11	2	5	7	4

TABLE XLIV

ITEM RESPONSES ANALYSIS SHOWING PER CENT CORRECT RESPONSES OF TOTAL RESPONSES PER TEST ITEM: STANFORD ACHIEVEMENT TEST, ARITHMETIC CONCEPTS, GRADE 6 1969-70 BY COUNTY AND REGION

Test Item	County							Region
	Berkeley	Grant	Hampshire	Hardy	Mineral	Morgan	Pendleton	
1	67	67	73	72	66	68	68	68
2	75	78	68	56	69	58	59	69
3	79	83	66	75	66	66	62	72
4	78	81	79	78	73	83	79	78
5	72	73	55	70	60	58	46	64
6	52	71	60	64	47	61	59	56
7	57	65	47	56	51	27	50	52
8	74	75	74	76	74	71	63	73
9	71	72	74	73	71	68	66	71
10	55	57	54	55	55	57	48	55
11	72	77	69	73	64	65	61	69
12	33	18	42	38	28	28	37	32
13	43	31	50	47	45	51	37	44
14	65	69	46	58	59	55	51	60
15	42	44	34	40	42	38	29	40
16	67	74	56	58	60	66	51	63
17	39	29	48	45	37	30	39	38
18	56	52	53	57	53	64	43	55
19	47	46	51	49	39	52	45	46
20	36	38	27	33	34	26	33	33

TABLE XLIV (CONT.)

Test Item	County							Region
	Berkeley	Grant	Hampshire	Hardy	Mineral	Morgan	Pendleton	
21	39	21	25	27	28	37	35	32
22	58	43	41	38	53	53	38	50
23	30	26	20	24	25	18	23	25
24	21	20	24	29	26	24	19	23
25	31	38	36	40	29	27	27	32
26	34	22	24	32	25	43	29	30
27	16	17	18	27	15	14	24	17
28	35	44	38	43	41	42	35	39
29	32	44	34	43	34	38	33	35
30	17	20	20	26	20	20	16	19
31	16	22	17	14	17	15	22	17
32	22	23	18	25	18	14	26	21

TABLE XLV

ITEM RESPONSES ANALYSIS SHOWING PER CENT CORRECT RESPONSES OF TOTAL RESPONSES PER TEST ITEM: SEQUENTIAL TEST OF EDUCATIONAL PROGRESS, MATH, GRADE 9 1969-70 BY COUNTY AND REGION

Test Item	Berkeley	Grant	Hampshire	Hardy	COUNTY Mineral	Morgan	Pendleton	Region
					PART I			
1	75.2	65.8	65.7	66.9	72.5	68.8	66.7	70.8
2	83.8	77.2	84.0	84.2	79.9	78.7	85.7	82.0
3	61.6	44.3	55.4	52.5	54.3	49.6	55.6	55.4
4	62.0	61.4	62.4	61.9	64.2	70.2	65.1	63.4
5	19.8	22.2	21.1	21.6	22.4	22.7	18.3	21.1
6	61.1	53.8	41.8	49.0	58.0	55.3	57.9	55.8
7	37.3	36.7	31.9	41.7	28.6	32.6	36.5	34.4
8	39.3	43.7	27.2	30.2	34.4	26.2	33.3	34.8
9	30.8	21.5	36.6	29.5	39.0	35.5	31.7	33.0
10	49.3	39.9	48.4	53.2	46.9	51.8	50.0	48.3
11	31.9	47.5	36.2	41.7	37.2	46.8	31.7	37.0
12	53.5	53.2	47.9	53.2	46.9	50.4	53.2	50.9
13	53.2	56.3	43.7	49.6	53.3	53.9	48.4	51.8
14	78.3	70.9	63.4	71.2	77.8	79.4	71.4	74.8
15	66.7	57.0	58.7	59.7	59.1	70.9	69.0	63.0
16	64.3	59.5	51.2	69.1	64.7	55.3	53.2	61.3
17	31.9	24.1	30.5	30.2	31.6	25.5	24.6	29.0
18	58.3	56.3	55.4	55.4	55.9	56.7	60.3	57.0
19	68.3	60.1	68.5	70.5	68.1	68.8	69.8	67.9
20	32.0	20.9	37.1	28.8	32.8	43.3	36.5	32.8
21	56.5	46.2	54.5	51.8	51.0	61.7	55.6	54.0
22	65.5	53.8	67.1	61.9	65.8	68.1	66.7	64.7
23	30.4	22.8	29.6	46.0	34.2	34.0	35.7	32.4

Test Item	Berkeley	Grant	Hampshire	Hardy	COUNTY Mineral	Morgan	Pendleton	Region
24	41.4	45.6	43.2	46.0	46.0	39.7	46.0	43.7
25	43.8	43.7	40.4	40.3	46.9	39.7	46.0	43.7
					PART II			
1	61.8	54.4	68.1	69.8	60.3	61.0	61.9	62.1
2	52.1	53.2	52.6	60.4	57.3	51.8	54.8	54.3
3	19.0	18.4	17.4	15.8	22.6	13.5	13.5	18.6
4	63.6	60.1	67.6	71.2	66.3	68.8	64.3	65.5
5	64.3	62.0	59.6	56.8	61.0	46.8	61.1	60.5
6	73.6	69.0	59.6	73.4	75.5	69.5	75.4	71.8
7	59.1	56.3	53.1	63.3	64.2	58.9	57.1	59.6
8	51.9	34.8	43.7	49.6	54.7	46.8	54.0	49.6
9	49.6	43.0	48.8	47.5	51.3	46.1	46.8	48.7
10	19.0	27.2	18.8	25.9	27.7	27.7	28.6	23.8
11	51.2	36.7	42.7	47.5	51.0	54.6	42.9	48.2
12	65.0	53.2	49.8	53.2	63.3	61.0	55.6	59.8
13	68.3	54.4	61.0	61.9	63.3	57.4	67.5	63.5
14	37.9	26.6	31.9	30.9	37.9	44.7	27.8	35.5
15	14.3	23.4	16.9	14.4	19.3	12.1	23.0	17.1
16	62.1	49.4	54.5	64.7	54.4	60.3	64.3	58.1
17	36.6	28.5	30.0	38.1	27.9	31.2	39.7	30.3
18	54.0	46.8	46.5	61.9	45.0	58.9	52.8	51.2
19	23.9	28.5	28.2	31.7	32.3	30.5	31.7	28.6
20	62.3	61.4	62.9	61.9	59.6	66.0	61.9	61.9
21	35.6	33.5	35.6	36.0	33.9	37.6	30.2	34.8
22	50.7	36.7	46.0	44.6	48.0	41.1	52.4	47.1

TABLE XLV (CONT.)

Test Item	Berkeley	Grant	Hampshire	Hardy	COUNTY Mineral	Morgan	Pendleton	Region
23	57.0	47.5	54.5	61.2	61.7	56.0	63.5	46.0
24	45.2	34.8	42.3	38.1	44.3	34.0	43.7	42.1
25	46.5	36.1	43.2	41.7	47.8	36.2	46.8	44.3

TABLE XLVI

ITEM RESPONSES ANALYSIS SHOWING PER CENT CORRECT RESPONSES OF TOTAL RESPONSES PER TEST ITEM: SEQUENTIAL TEST OF EDUCATIONAL PROGRESS, MATH, GRADE 11 1969-70 BY COUNTY AND REGION

Test Item	Berkley	Grant	Hampshire	COUNTY Hardy	Mineral	Morgan	Pendleton	Region
				PART I				
1	57.6	50.4	63.8	66.2	60.6	61.8	72.0	61.6
2	28.8	21.5	22.7	27.7	26.6	40.7	37.4	28.4
3	50.8	45.3	44.2	50	45.7	39.8	47.7	46.1
4	30.5	29.1	31.3	27.0	30.9	35.8	26.2	30.3
5	44.1	48.7	55.2	50.7	48.1	52.8	43.9	49.2
6	38.1	39.3	36.2	47.3	40.7	44.7	40.2	40.9
7	47.5	28.2	40.5	32.4	37.8	36.6	36.4	37.2
8	68.6	53.8	59.5	58.1	60.6	66.7	75.7	62.3
9	31.4	29.1	20.9	20.9	24.2	25.2	21.5	24.4
10	68.6	77.8	65.6	73.0	64.4	77.2	66.4	69.0
11	58.5	59.0	50.9	57.4	57.7	64.2	53.3	57.2
12	44.1	35.4	33.7	35.8	39.6	41.5	42.1	38.7
13	41.5	46.2	30.1	46.6	39.1	35.0	63.6	41.6
14	40.8	41.9	38.7	37.2	40.7	26.0	44.9	39.1
15	42.4	38.5	25.2	27.7	33.0	37.4	43.0	34.1
16	93.2	88.0	94.4	93.2	91.0	94.3	95.3	92.4
17	54.2	36.7	54.0	57.4	50.8	57.7	60.7	52.7
18	29.7	17.9	33.7	32.4	27.4	24.4	40.2	29.1
19	42.4	41.0	42.3	40.5	37.5	37.4	45.8	40.2
20	35.6	27.3	40.5	41.2	39.1	38.2	37.4	37.8
21	34.7	41.0	50.9	46.6	48.7	46.3	47.6	46.2
22	33.1	21.4	17.2	29.7	22.6	21.1	20.6	23.4
23	15.3	25.6	18.4	25.0	21.3	21.1	13.1	20.4
24	26.3	31.6	28.8	33.1	29.3	39.0	27.1	30.5

TABLE XLVII

ITEM RESPONSES ANALYSIS SHOWING PER CENT CORRECT RESPONSES OF TOTAL RESPONSES PER TEST ITEM: STANFORD ACHIEVEMENT TEST, SCIENCE, GRADE 6 1969-70 BY COUNTY AND REGION

Test Item	County							Region
	Berkeley	Grant	Hampshire	Hardy	Mineral	Morgan	Pendleton	
1	85	85	87	83	84	84	74	84
2	82	80	77	77	81	75	71	79
3	60	61	70	66	64	66	53	63
4	84	87	77	83	83	88	67	82
5	53	70	56	52	57	57	48	56
6	76	81	80	75	82	85	65	78
7	82	89	77	85	80	85	76	82
8	78	80	68	63	73	70	62	73
9	66	72	58	63	66	74	55	65
10	77	76	73	80	75	81	64	76
11	66	65	63	60	64	68	50	64
12	76	73	68	74	66	70	59	71
13	68	86	66	61	67	85	63	70
14	61	75	78	78	67	59	60	67
15	66	67	64	59	65	64	45	64
16	74	78	71	55	66	82	54	70
17	71	75	73	72	69	82	63	72
18	57	61	56	66	55	49	50	56
19	58	59	55	61	56	67	43	58
20	71	73	66	67	68	79	64	70

TABLE XLVI (CONT.)

Test Item	Berkley	Grant	Hampshire	COUNTY Hardy	Mineral	Morgan	Pendleton	Region
25	34.7	38.5	39.9	36.5	38.0	39.8	29.9	37.2
				PART II				
1	56.0	61.5	64.4	56.8	52.1	52.8	54.2	56.1
2	12.7	23.1	19.0	21.6	22.3	18.7	26.2	20.1
3	47.5	42.7	36.2	39.9	50.8	41.5	35.5	43.8
4	27.1	31.6	27.0	33.1	37.0	38.2	26.2	32.6
5	23.7	24.8	28.2	23.6	22.3	29.3	17.8	24.0
6	26.3	27.4	26.4	25.7	28.9	22.8	25.2	26.7
7	56.8	44.4	46.6	50.7	43.4	39.0	49.5	46.3
8	56.8	42.7	45.4	52.0	53.2	55.3	49.5	51.1
9	41.5	36.8	42.3	48.0	44.4	40.7	54.2	44.0
10	49.2	52.1	43.6	52.0	48.9	52.8	57.9	50.4
11	27.1	19.7	28.8	39.9	29.0	35.8	31.8	30.2
12	46.6	42.7	31.9	39.9	51.3	44.7	45.8	44.5
13	56.8	50.4	59.5	60.8	59.0	66.7	53.3	57.2
14	50.0	51.3	54.6	45.3	54.3	61.8	46.7	52.5
15	27.1	31.6	22.7	24.3	29.0	30.9	29.0	27.8
16	81.4	74.4	62.6	79.7	69.1	70.7	85.0	73.0
17	67.8	66.7	63.2	69.0	66.2	70.7	62.6	66.5
18	17.8	17.1	19.6	22.3	21.5	18.7	30.8	21.1
19	57.5	41.0	55.8	54.7	48.1	55.3	57.0	53.2
20	66.1	64.1	58.3	60.8	62.0	52.8	65.4	61.3
21	17.8	15.4	17.2	14.9	14.6	16.3	18.7	16.0
22	53.4	58.7	50.9	62.2	51.9	52.8	66.3	55.4
23	45.8	37.6	42.9	37.2	42.8	39.8	43.9	41.6
24	33.9	41.0	29.4	30.4	34.0	35.8	44.9	34.8
25	11.9	19.7	17.2	16.9	20.7	22.8	15.0	18.4

TABLE XLVII (CONT.)

Test Item	County							Region
	Berkeley	Grant	Hampshire	Hardy	Mineral	Morgan	Pendleton	
21	51	56	45	58	51	48	59	52
22	61	52	59	55	56	54	57	57
23	52	57	60	57	53	60	54	55
24	50	52	48	51	54	54	43	51
25	60	59	51	55	61	51	50	58
26	55	48	40	51	54	43	38	45
27	64	61	58	64	69	57	62	63
28	60	67	61	51	52	59	55	58
29	62	67	72	71	67	66	56	63
30	55	59	57	48	62	65	58	58
31	54	48	50	45	51	49	40	50
32	45	52	49	53	51	50	44	49
33	50	49	50	48	49	50	46	49
34	60	67	63	53	56	59	51	59
35	59	71	60	68	60	64	41	61
36	54	65	57	54	52	35	39	52
37	45	46	41	40	43	45	45	44
38	38	31	29	35	40	36	46	37
39	44	37	36	40	43	57	30	42
40	45	43	35	42	46	50	35	44
41	42	41	49	50	40	42	32	42
42	25	39	29	33	29	36	33	30

TABLE XLVII (CONT.)

Test Item	County							Region
	Berkeley	Grant	Hampshire	Hardy	Mineral	Morgan	Pendleton	
43	48	68	59	50	59	55	41	54
44	46	36	34	41	43	55	45	44
45	50	46	51	36	50	54	33	48
46	42	60	57	50	45	44	51	47
47	36	45	43	38	40	48	39	40
48	56	57	54	46	55	51	41	53
49	40	34	32	31	40	36	36	37
50	36	45	28	33	31	47	28	35
51	55	65	61	53	51	49	39	54
52	48	31	39	35	53	44	35	44
53	27	28	27	26	32	25	28	28
54	28	25	28	30	37	31	22	30
55	29	36	20	27	25	23	24	27
56	26	23	21	18	28	29	28	25
57	38	46	37	38	39	37	32	38
58	21	19	26	29	29	28	23	25

TABLE XLVIII

ITEM RESPONSES ANALYSIS SHOWING PER CENT CORRECT RESPONSES OF TOTAL RESPONSES PER TEST ITEM: SEQUENTIAL TEST OF EDUCATIONAL PROGRESS, SCIENCE, GRADE 9
1969-70 BY COUNTY AND REGION

Test Item	Berkeley	Grant	Hampshire	Hardy	COUNTY Mineral	Morgan	Pendleton	Region
1	83.5	81.0	80.7	40.6	81.1	83.7	87.3	79.3
2	83.3	79.1	76.9	82.7	73.7	76.6	81.0	79.1
3	68.5	55.7	60.8	63.3	62.4	61.7	73.8	64.4
4	51.7	44.9	52.8	52.5	48.0	52.5	48.4	50.2
5	70.1	62.7	70.3	71.9	61.7	74.5	73.8	68.2
6	81.0	74.1	71.2	71.2	72.5	72.3	73.8	75.2
7	59.8	53.8	55.2	50.4	53.8	58.9	57.9	56.3
8	41.7	57.9	50.9	16.5	45.5	64.5	68.3	46.9
9	41.1	44.3	44.3	39.6	42.0	48.2	30.2	41.7
10	37.3	25.3	33.0	27.3	37.4	35.5	36.5	34.8
11	93.8	81.0	85.5	67.6	66.4	85.1	88.1	81.8
12	64.1	60.8	56.6	46.8	62.8	62.4	55.6	60.5
13	53.1	44.3	46.7	43.2	47.3	41.1	50.8	48.2
14	50.4	51.3	48.1	43.9	51.5	46.1	49.2	49.5
15	32.9	36.7	29.2	20.9	36.7	34.0	23.0	32.2
16	80.1	76.6	77.8	60.4	73.0	78.0	87.3	76.6
17	41.8	40.5	41.0	41.0	34.4	34.8	35.7	38.7
18	78.6	69.0	75.9	51.8	74.8	79.4	68.3	73.7
19	51.1	46.8	50.5	51.1	52.9	60.9	57.9	52.4
20	47.8	47.5	45.8	40.3	46.2	51.1	60.3	47.7
21	43.0	43.0	34.0	32.4	46.4	44.0	48.4	42.4
22	18.9	19.0	17.0	14.4	26.1	18.4	23.8	20.4
23	40.2	31.0	32.5	32.4	31.4	27.0	42.9	34.8

TABLE XLVIII (CONT.)

Test Item	Berkeley	Grant	Hampshire	Hardy	COUNTY Mineral	Morgan	Pendleton	Region
24	35.5	34.8	23.1	26.6	29.8	37.6	29.4	32.7
25	52.2	46.2	43.5	42.4	48.5	56.0	55.6	49.5
26	48.5	37.3	42.9	36.7	42.5	43.3	41.3	43.5
27	67.3	60.8	61.3	51.8	61.4	55.3	69.8	62.6
28	33.2	34.8	37.8	25.9	38.1	30.5	28.6	34.0
29	32.3	25.3	35.8	31.7	34.4	30.5	35.7	32.4
30	50.0	46.8	46.7	45.3	52.0	49.6	50.0	49.4
					PART II			
1	89.4	84.2	81.1	69.1	92.1	85.8	88.9	86.7
2	66.8	57.0	59.0	58.3	66.3	59.6	54.8	62.8
3	44.3	32.9	39.6	30.9	45.3	46.8	41.3	41.9
4	29.0	15.2	50.9	23.7	30.7	31.2	14.3	29.5
5	40.2	39.2	45.3	29.5	43.9	51.8	47.6	42.2
6	64.7	55.7	63.7	49.6	65.1	79.9	62.7	63.8
7	63.6	62.7	60.8	53.2	62.6	64.5	61.1	62.0
8	45.5	48.7	42.5	47.5	43.6	48.2	57.1	46.2
9	28.8	29.7	29.2	18.7	27.5	27.7	25.4	30.7
10	21.6	28.5	24.1	20.9	30.5	24.1	21.4	22.4
11	65.6	46.8	57.1	51.1	53.1	59.6	62.7	58.0
12	44.8	41.1	46.2	37.4	43.4	44.0	46.8	43.8
13	55.5	39.9	55.7	33.1	43.2	48.9	65.1	49.5
14	54.3	44.3	48.1	49.6	52.4	44.7	57.9	51.3
15	77.3	55.1	68.9	60.4	67.0	72.3	65.0	69.2
16	45.5	42.4	41.5	37.4	41.3	54.6	44.4	43.7
17	68.9	53.2	58.0	50.4	69.5	66.0	69.0	63.5
18	19.7	25.3	22.6	25.2	24.0	20.6	36.5	23.3

TABLE XLVIII (CONT.)

Test Item	Berkeley	Grant	Hampshire	Hardy	COUNTY Mineral	Morgan	Pendleton	Region
19	69.4	64.6	41.2	51.8	56.8	63.1	74.6	61.0
20	57.6	49.4	48.6	38.8	54.5	58.9	54.8	53.5
21	43.0	25.9	28.8	23.0	31.4	25.5	35.7	33.5
22	54.1	52.5	49.5	37.4	49.4	46.8	54.7	50.4
23	35.1	25.3	28.3	32.0	32.1	42.6	36.5	33.1
24	53.0	40.5	48.1	40.3	46.9	50.4	44.4	48.0
25	36.6	47.5	43.9	33.1	41.6	41.1	46.8	40.5
26	58.0	48.7	59.4	43.9	66.1	73.0	63.5	59.8
27	42.1	44.3	41.3	41.0	47.1	46.8	50.0	44.3
28	72.2	62.7	68.4	54.0	72.1	73.0	69.8	69.3
29	78.0	67.1	71.8	56.1	76.7	77.3	69.0	73.6
30	42.0	37.3	45.3	45.3	47.3	51.1	56.3	45.3

TABLE XLIX

ITEM RESPONSES ANALYSIS SHOWING PER CENT CORRECT RESPONSES OF TOTAL RESPONSES PER TEST ITEM: SEQUENTIAL TEST OF EDUCATIONAL PROGRESS, SCIENCE, GRADE 11 1969-70 BY COUNTY AND REGION

Test Item	Berkley	Grant	Hampshire	COUNTY Hardy	Mineral	Morgan	Pendleton	Region
				PART I				
1	58.1	49.6	57.1	52.0	53.6	53.7	58.9	54.4
2	35.9	41.9	22.2	28.4	30.7	51.2	40.2	33.9
3	68.4	60.7	60.6	63.5	58.7	53.7	57.0	60.1
4	49.6	50.4	36.4	45.9	44.5	48.8	51.4	45.7
5	74.4	75.2	62.3	70.9	72.0	71.5	65.4	70.4
6	53.0	52.1	47.5	61.5	50.1	52.8	42.1	45.3
7	34.2	23.9	30.2	32.4	32.5	41.5	32.7	29.5
8	62.4	72.6	64.8	67.6	60.0	70.7	71.0	65.3
9	24.8	39.5	30.7	37.8	34.9	35.8	35.5	34.2
10	24.0	28.2	27.8	27.7	24.0	27.6	24.3	26.9
11	43.3	39.3	27.8	45.9	45.3	47.2	37.4	41.6
12	12.8	12.0	17.3	12.8	13.9	15.4	16.8	14.4
13	28.2	36.8	29.6	33.1	31.5	44.7	30.8	32.0
14	44.4	26.5	26.5	28.4	35.2	30.9	32.7	31.8
15	32.5	29.1	24.7	24.3	30.4	35.0	34.6	28.8
16	49.7	53.8	46.3	46.6	48.3	52.8	51.4	49.3
17	39.3	41.9	29.0	38.5	41.3	39.8	43.0	39.1
18	22.2	26.5	22.2	24.3	22.4	13.8	16.8	21.6
19	63.2	61.5	51.9	70.3	57.6	65.0	55.1	60.0
20	39.3	36.8	40.7	41.9	34.1	50.4	47.7	35.0
21	53.0	47.9	47.5	62.2	49.6	57.0	58.9	52.8
22	42.7	36.8	35.2	41.9	45.3	45.5	48.6	42.6
23	45.3	41.0	35.8	45.9	41.1	42.3	45.8	42.0
24	6.0	6.8	8.6	10.1	8.0	8.9	10.3	07.5

TABLE XLIX (CONT.)

t Item	Berkley	Grant	Hampshire	COUNTY Hardy	Mineral	Morgan	Pendleton	Region
25	70.1	61.5	51.9	70.9	63.7	71.5	69.2	64.7
26	29.9	34.2	29.6	34.5	29.9	30.9	24.3	29.4
27	32.5	45.3	35.2	47.3	40.0	43.1	38.3	40.2
28	16.2	15.4	14.8	18.2	14.7	12.2	18.7	15.5
29	25.6	35.4	27.2	25.7	25.3	17.9	19.6	18.4
30	24.8	34.2	27.2	25.0	24.5	31.7	34.6	26.7
				PART II				
1	27.4	33.3	34.6	39.2	36.8	44.7	38.3	35.0
2	56.4	64.1	59.3	73.0	59.7	58.5	61.7	61.5
3	44.4	43.6	34.0	45.9	47.2	44.7	42.1	43.8
4	59.0	65.0	57.4	56.1	61.1	69.1	78.5	62.8
5	29.1	43.6	29.0	22.3	30.9	42 3	36.4	29.1
6	24.8	31.6	21.6	18.9	23.5	22.8	43.9	25.4
7	74.4	73.5	74.1	81.1	80.3	81.3	87.9	79.0
8	51.3	57.3	46.9	60.1	49.1	59.3	70.1	54.3
9	72.6	57.3	54.3	66.2	61.1	52.8	63.5	60.9
10	61.5	45.3	48.1	53.4	52.5	55.3	50.5	52.3
11	54.7	56.4	53.7	54.7	42.7	54.5	60.7	51.7
12	42.7	45.3	35.2	41.2	37.6	42.3	47.7	40.5
13	44.4	54.7	50.0	62.8	55.2	57.7	59.8	55.0
14	67.5	58.1	57.4	70.3	59.2	66.7	73.8	63.3
15	47.9	45.3	42.0	48.6	39.7	40.7	50.5	43.7
16	49.6	34.2	35.2	30.4	42.4	26.8	40.2	37.9
17	12.0	11.1	13.0	7.4	12.8	8.1	8.4	11.3
18	48.7	59.0	54.9	43.9	49.9	55.3	60.7	52.2
19	32.5	34.2	26.5	33.8	53.1	27.6	31.8	38.1
20	49.6	49.6	43.2	49.3	52.3	52.8	51.4	50.0

TABLE XLIX (CONT.)

Test Item	COUNTY Berkley	Grant	Hampshire	Hardy	Mineral	Morgan	Pendleton	Region
21	25.6	25.6	32.7	29.7	34.7	36.6	29.9	31.7
22	31.6	37.6	26.5	40.5	30.9	42.3	43.0	34.6
23	42.7	50.4	37.0	49.3	45.1	51.2	36.4	47.6
24	59.0	53.0	47.5	50.7	56.0	61.8	57.0	53.5
25	56.4	46.2	45.1	59.5	58.7	55.3	59.8	50.6
26	42.7	41.0	40.1	45.3	37.9	47.2	45.8	41.7
27	29.1	20.5	34.6	29.7	26.9	34.1	24.3	28.4
28	22.2	23.1	16.0	24.3	19.7	22.8	28.0	21.8
29	34.2	34.2	37.7	35.1	32.8	40.7	36.4	32.4
30	35.9	43.6	46.9	50.7	43.2	51.2	44.0	44.9

TABLE L

ITEM RESPONSES ANALYSIS SHOWING PER CENT CORRECT RESPONSES OF TOTAL RESPONSES PER TEST ITEM: STANFORD ACHIEVEMENT TEST, LANGUAGE, GRADE 6 1969-70 BY COUNTY AND REGION

	County							Region
Test Item	Berkeley	Grant	Hampshire	Hardy	Mineral	Morgan	Pendleton	
1	92	93	91	86	93	94	93	92
2	92	94	84	89	89	86	89	90
3	83	83	79	76	84	76	83	81
4	80	78	70	74	76	78	78	77
5	77	62	56	53	66	67	55	66
6	81	68	68	67	71	75	69	74
7	82	85	79	83	81	79	74	81
8	79	70	69	65	71	71	68	73
9	89	86	80	77	81	84	78	84
10	85	90	83	83	86	86	87	85
11	75	71	66	63	61	75	63	69
12	78	75	74	76	71	74	76	75
13	73	70	69	70	72	68	69	71
14	79	88	72	79	77	80	74	78
15	70	69	61	64	59	62	63	65
16	68	70	59	55	67	55	68	65
17	66	48	64	54	62	63	47	61
18	65	69	62	64	57	61	67	63
19	55	47	52	40	50	47	50	50
20	52	57	43	58	55	59	50	53

TABLE L (CONT.)

Test Item	County							Region
	Berkeley	Grant	Hampshire	Hardy	Mineral	Morgan	Pendleton	
21	35	60	48	49	42	41	53	43
22	50	44	28	37	41	37	41	42
23	39	60	39	53	38	27	45	41
24	31	23	34	36	29	35	32	31
25	42	31	33	30	43	51	33	40
26	42	46	38	33	33	37	44	39
27	28	41	40	16	29	33	40	31
28	41	54	33	46	39	34	42	41
29	31	25	23	24	22	22	37	26
30	42	44	16	26	31	30	49	35
31	25	35	28	26	29	24	35	28
32	24	25	23	26	21	23	37	24
33	34	31	33	35	41	35	36	36
34	15	10	24	20	18	24	15	18
35	28	28	22	24	28	21	28	26
36	15	19	9	18	18	15	14	16
37	13	10	35	14	7	22	13	15
38	13	28	9	17	13	8	22	14
39	71	88	78	78	78	80	60	76
40	65	57	52	55	54	58	45	58
41	30	33	39	34	29	19	26	30
42	59	74	62	58	63	63	57	62

TABLE L (CONT.)

Test Item	County							Region
	Berkeley	Grant	Hampshire	Hardy	Mineral	Morgan	Pendleton	
43	70	60	77	71	65	82	67	70
44	61	64	51	57	56	62	60	59
45	85	85	79	85	76	83	69	81
46	75	67	78	82	71	74	60	73
47	58	56	62	58	52	63	50	57
48	57	48	57	56	54	58	44	55
49	50	62	71	52	58	72	57	58
50	54	55	51	55	52	56	39	53
51	52	50	61	58	45	48	49	51
52	66	78	60	68	71	72	67	68
53	78	80	77	80	78	82	74	78
54	49	55	47	50	51	43	37	48
55	68	77	63	64	68	72	65	68
56	42	44	44	42	44	43	33	42
57	52	51	61	72	49	59	64	55
58	49	47	59	68	58	56	64	56
59	97	96	93	90	94	92	93	94
60	65	59	75	63	67	54	64	65
61	67	65	79	67	70	63	70	69
62	95	92	90	85	90	89	87	89
63	93	91	87	79	89	86	85	89
64	89	85	92	89	83	92	79	87

TABLE L (CONT.)

Test Item	County							Region
	Berkeley	Grant	Hampshire	Hardy	Mineral	Morgan	Pendleton	
65	62	52	65	63	56	49	49	58
66	90	84	86	80	86	89	78	86
67	87	81	82	78	84	87	74	84
68	88	87	90	87	88	90	80	88
69	96	98	93	94	96	97	94	96
70	97	97	96	94	96	97	97	93
71	86	96	86	83	85	88	83	86
72	46	24	37	40	48	32	34	41
73	83	85	87	80	83	84	79	83
7	7	8	14	9	10	5	8	9
75	96	96	94	95	95	95	94	95
76	91	90	94	90	88	89	91	90
77	79	70	78	76	77	71	68	76
78	82	80	86	86	83	82	85	83
79	85	83	86	88	83	85	79	84
80	97	97	97	96	94	96	91	96
81	90	88	85	77	84	90	87	87
82	61	65	69	67	63	70	63	64
83	91	85	92	91	93	93	84	91
84	59	61	58	53	60	57	55	58
85	87	80	86	82	80	90	81	84
86	95	96	92	88	93	93	93	93

TABLE L (CONT.)

Test Item	County							Region
	Berkeley	Grant	Hampshire	Hardy	Mineral	Morgan	Pendleton	
87	90	93	87	85	88	91	84	89
88	77	77	83	81	76	74	74	77
89	89	94	84	81	88	86	91	88
90	93	93	94	87	95	92	93	93
91	75	72	87	82	76	86	79	78
92	57	56	46	45	56	58	48	54
93	81	81	82	82	77	79	72	80
94	65	69	66	71	62	61	60	65
95	61	66	67	58	60	58	49	61
96	32	27	30	39	31	23	36	31
97	51	56	50	46	48	44	46	49
98	32	34	34	20	27	30	21	29
99	51	60	49	55	52	49	40	51
100	39	40	43	40	44	44	40	41
101	51	64	51	52	50	48	46	51
102	52	58	46	38	46	43	46	48
103	69	70	64	63	65	63	55	66
104	38	40	43	41	43	44	31	40
105	40	36	36	38	33	34	34	37
106	40	29	33	36	40	36	36	37
107	67	64	64	68	66	64	61	66
108	57	58	59	61	52	65	53	57

TABLE L (CONT.)

Test Item	County							Region
	Berkeley	Grant	Hampshire	Hardy	Mineral	Morgan	Pendleton	
109	77	85	75	82	72	70	72	76
110	72	80	79	81	75	77	57	74
111	63	56	49	55	52	45	49	55
112	45	48	46	51	47	37	37	45
113	56	51	50	47	52	34	42	50
114	65	71	61	60	60	52	54	62
115	51	30	42	37	51	31	37	44
116	54	44	50	43	56	44	42	50
117	94	96	94	92	89	94	87	92
118	58	62	61	50	54	57	54	57
119	37	33	41	35	30	39	34	35
120	74	75	75	74	72	78	64	73
121	88	91	83	85	80	89	72	85
122	41	49	38	43	38	52	50	43
123	66	63	65	68	64	60	53	64
124	85	91	86	88	83	89	73	85
125	68	62	63	65	59	66	57	64
126	57	57	53	59	51	58	42	55
127	39	35	48	39	41	48	38	41
128	66	69	62	70	59	71	54	64
129	29	30	25	28	31	36	36	30
130	69	73	71	69	71	72	69	70

TABLE L (CONT.)

Test Item	County							Region
	Berkeley	Grant	Hampshire	Hardy	Mineral	Morgan	Pendleton	
131	55	61	62	60	57	69	55	59
132	72	73	73	70	67	78	66	71
133	59	59	62	53	49	63	55	57
134	50	51	46	37	46	48	49	47

TABLE LI

ITEM RESPONSES ANALYSIS SHOWING PER CENT CORRECT RESPONSES OF TOTAL RESPONSES PER TEST ITEM: STANFORD ACHIEVEMENT TEST, PARAGRAPH MEANING, GRADE 6
1969-70 BY COUNTY AND REGION

	County							Region
Test Item	Berkeley	Grant	Hampshire	Hardy	Mineral	Morgan	Pendleton	
1	76	80	74	70	69	77	90	75
2	87	86	76	77	80	79	79	82
3	63	78	65	63	67	69	60	65
4	91	94	81	90	88	88	86	89
5	86	81	74	79	82	77	80	81
6	69	67	64	69	70	63	69	68
7	75	80	60	76	75	74	71	74
8	58	57	53	57	61	54	52	57
9	78	76	75	72	73	71	73	74
10	86	89	81	82	83	83	79	84
11	79	81	75	77	78	81	73	78
12	43	44	46	53	49	52	36	46
13	88	90	86	88	81	84	85	86
14	75	76	68	68	66	75	72	72
15	62	65	55	52	60	54	63	59
16	63	67	62	65	60	64	60	63
17	69	66	67	64	64	66	63	66
18	77	80	68	71	74	76	79	75
19	38	33	34	31	33	34	31	35
20	72	71	66	71	69	73	66	70

TABLE LI (CONT.)

Test Item	County							Region
	Berkeley	Grant	Hampshire	Hardy	Mineral	Morgan	Pendleton	
21	37	37	35	30	38	31	36	36
22	54	53	50	52	57	57	48	54
23	56	58	58	54	52	55	59	55
24	66	54	63	59	65	66	65	64
25	68	70	67	73	70	72	62	69
26	64	68	59	57	61	58	52	61
27	48	55	43	49	48	57	44	49
28	51	49	47	47	54	54	49	51
29	69	51	53	67	59	78	70	64
30	36	21	29	27	35	26	31	32
31	61	61	60	59	64	69	58	62
32	57	59	52	59	58	63	53	57
33	46	56	45	49	41	55	47	47
34	51	43	43	48	51	47	41	48
35	50	51	40	40	42	31	36	44
36	69	75	64	74	70	67	61	69
37	63	54	59	59	65	56	52	60
38	39	42	42	42	44	44	39	41
39	51	51	49	59	52	49	48	51
40	43	45	39	42	43	38	42	42
41	50	54	55	59	52	57	54	53
42	57	55	47	49	52	47	53	53

Test Item	County							Region
	Berkeley	Grant	Hampshire	Hardy	Mineral	Morgan	Pendleton	
43	37	29	34	42	41	36	27	37
44	56	57	58	57	58	62	50	57
45	58	52	63	60	65	65	50	60
46	43	46	50	53	59	48	39	49
47	53	52	50	55	59	46	46	53
48	42	43	42	48	55	46	36	46
49	56	57	56	57	54	52	46	55
50	48	49	43	57	49	44	45	48
51	42	41	33	49	45	36	42	42
52	52	60	49	55	55	57	45	53
53	29	38	28	34	33	29	30	31
54	47	57	55	47	52	57	40	50
55	33	44	35	29	33	38	36	34
56	23	17	26	30	27	20	17	24
57	27	33	24	27	28	22	23	27
58	49	40	49	48	51	42	45	48
59	33	36	28	36	33	36	31	33
60	41	36	39	45	39	39	31	40
61	33	31	28	36	39	34	31	34
62	17	17	18	20	18	12	21	17
63	28	28	27	27	31	32	36	29
64	37	31	34	39	39	35	28	36

TABLE LII

ITEM RESPONSES ANALYSIS SHOWING PER CENT CORRECT RESPONSES OF TOTAL RESPONSES PER TEST ITEM: STANFORD ACHIEVEMENT TEST, SPELLING, GRADE 6 1969-70 BY COUNTY AND REGION

Test Item	County							Region
	Berkeley	Grant	Hampshire	Hardy	Mineral	Morgan	Pendleton	
1	68	66	69	61	71	68	57	67
2	95	98	87	92	92	91	88	93
3	88	88	85	89	87	84	82	87
4	91	88	91	86	92	88	83	90
5	92	90	93	86	88	90	84	90
6	81	84	83	75	80	76	74	80
7	85	31	83	82	84	82	74	83
8	84	86	86	80	80	85	79	83
9	86	86	88	86	84	83	76	85
10	58	56	62	70	62	61	56	60
11	79	75	71	71	74	71	74	75
12	73	82	90	62	81	85	75	78
13	79	65	73	74	68	67	72	73
14	76	85	82	79	75	76	75	77
15	80	83	81	73	81	75	70	79
16	79	80	78	80	72	76	74	77
17	78	70	74	75	73	66	66	74
18	80	73	70	68	75	78	71	75
19	79	77	71	74	69	70	67	74
20	61	71	63	72	72	64	54	65

Test Item	County							Region
	Berkeley	Grant	Hampshire	Hardy	Mineral	Morgan	Pendleton	
21	59	59	61	58	56	61	56	58
22	54	65	52	48	57	49	42	52
23	72	71	61	61	61	55	65	65
24	67	59	62	70	61	72	51	64
25	69	69	65	71	71	54	60	67
26	54	60	48	52	57	44	42	53
27	40	51	42	49	47	46	42	44
28	49	46	52	59	53	55	49	51
29	66	50	59	43	48	64	49	57
30	47	52	42	42	48	37	40	45
31	56	56	52	46	51	45	41	52
32	48	54	50	45	44	37	40	46
33	56	59	37	54	55	48	60	53
34	39	36	44	47	45	37	42	41
35	54	59	49	52	56	46	47	53
36	44	40	58	40	42	45	61	46
37	35	35	47	36	36	42	39	38
38	38	38	36	27	46	37	35	38
39	48	62	48	48	48	34	36	47
40	52	40	45	33	48	38	40	46
41	40	44	43	46	45	45	42	43
42	35	39	47	29	40	37	40	45

TABLE LII (CONT.)

Test Item	County							Region
	Berkeley	Grant	Hampshire	Hardy	Mineral	Morgan	Pendleton	
43	39	36	47	51	45	46	43	43
44	24	27	26	27	21	20	17	23
45	28	28	28	32	36	34	33	31
46	34	35	33	34	39	34	26	35
47	38	29	38	43	39	35	42	38
48	49	38	50	54	45	56	45	48
49	41	38	33	42	42	38	33	39
50	27	34	30	24	22	21	24	26
51	23	28	23	32	25	28	27	25
52	23	23	19	20	20	17	19	21
53	29	35	25	32	32	34	21	30
54	19	22	19	19	20	25	15	20
55	16	15	18	14	23	30	9	18
56	37	38	31	31	34	37	31	35

TABLE LIII

ITEM RESPONSES ANALYSIS SHOWING PER CENT CORRECT RESPONSES OF TOTAL RESPONSES
PER TEST ITEM: STANFORD ACHIEVEMENT TEST, WORD MEANING, GRADE 6
1969-70 BY COUNTY AND REGION

Test Item	County							Region
	Berkeley	Grant	Hampshire	Hardy	Mineral	Morgan	Pendleton	
1	85	87	79	83	80	84	93	84
2	92	88	84	79	86	84	86	87
3	84	82	76	82	84	82	78	87
4	91	92	88	84	88	85	82	88
5	69	80	64	63	78	77	56	71
6	84	91	82	86	83	83	83	84
7	68	77	68	66	71	69	60	69
8	61	65	75	74	70	65	74	67
9	76	75	87	80	85	54	85	85
10	86	77	82	77	85	86	84	84
11	68	63	59	46	63	58	55	62
12	62	65	62	57	62	63	61	62
13	57	54	49	60	57	54	50	55
14	55	54	45	52	52	46	61	52
15	47	48	45	53	56	61	55	51
16	54	57	55	58	52	53	54	54
17	52	47	55	39	49	43	39	48
18	56	56	50	55	58	49	45	54
19	46	47	36	47	44	42	35	44
20	42	31	21	36	37	25	22	34

TABLE LIII (CONT.)

Test Item	County							Region
	Berkeley	Grant	Hampshire	Hardy	Mineral	Morgan	Pendleton	
21	71	65	58	60	60	67	46	64
22	66	73	74	65	72	74	49	68
23	48	49	62	53	54	46	43	51
24	43	38	48	42	41	41	40	42
25	45	40	36	43	43	32	36	41
26	60	52	52	51	56	52	43	55
27	53	51	50	48	50	58	41	51
28	44	33	46	32	39	55	26	41
29	47	46	56	61	60	59	34	52
30	35	31	40	38	38	33	34	36
31	50	50	43	48	55	49	45	50
32	46	41	35	40	45	37	40	43
33	36	39	35	33	33	24	38	34
34	27	22	31	30	30	23	22	27
35	61	24	30	18	24	15	17	35
36	35	28	30	29	28	28	26	30
37	42	41	37	38	40	37	35	40
38	48	49	53	56	54	48	27	49
39	28	17	27	35	31	36	31	29
40	36	45	43	40	34	34	29	37
41	31	28	19	31	33	26	22	29
42	33	23	29	27	32	28	27	30

TABLE LIII (CONT.)

Test Item	County							Region
	Berkeley	Grant	Hampshire	Hardy	Mineral	Morgan	Pendleton	
43	18	18	16	19	22	16	14	18
44	25	22	22	23	27	25	26	25
45	16	23	15	19	28	18	17	20
46	20	19	18	13	26	18	10	20
47	10	11	12	15	13	10	9	11
48	10	11	7	14	15	10	12	11

TABLE LIV

ITEM RESPONSES ANALYSIS SHOWING PER CENT CORRECT RESPONSES OF TOTAL RESPONSES PER TEST ITEM: SEQUENTIAL TEST OF EDUCATIONAL PROGRESS, READING, GRADE 9 1969-70 BY COUNTY AND REGION

Test Item	Berkeley	Grant	Hampshire	Hardy	COUNTY Mineral	Morgan	Pendleton	Region
					PART I			
1	79.8	72.2	78.9	74.1	69.7	80.4	82.4	76.3
2	30.8	65.2	73.5	79.9	71.8	77.9	80.0	60.1
3	92.0	81.0	92.8	82.0	86.8	85.5	84.8	88.0
4	81.3	75.3	77.3	76.3	75.2	80.7	61.6	77.0
5	61.1	55.7	57.8	59.7	57.2	53.1	84.8	60.2
6	70.7	70.9	73.0	70.5	67.1	69.0	40.0	67.8
7	75.7	77.2	79.1	75.5	80.6	84.1	65.6	77.4
8	67.3	69.0	68.7	61.9	62.3	62.1	54.4	64.7
9	72.5	66.5	71.6	89.9	71.1	73.1	35.2	56.0
10	74.8	68.4	78.2	64.7	72.5	70.3	66.4	72.3
11	49.2	51.9	46.9	42.4	43.8	50.3	63.2	48.4
12	54.4	49.4	58.8	53.2	49.8	47.6	50.4	52.4
13	35.7	29.1	36.0	41.7	39.8	37.2	60.0	38.5
14	36.6	31.0	31.3	38.8	39.8	29.0	56.8	37.3
15	63.0	55.1	57.3	51.8	48.6	61.4	40.0	55.5
16	66.1	61.4	71.6	66.2	63.9	69.7	81.6	67.2
17	72.5	67.1	68.2	72.7	69.2	71.7	60.8	69.8
18	66.2	63.3	61.6	65.5	69.4	67.6	60.0	65.8
19	73.0	73.4	72.5	69.1	69.0	73.1	72.8	71.8
20	53.6	42.4	49.8	46.8	52.5	49.7	26.4	49.1
21	83.5	62.7	72.0	66.2	70.1	70.3	54.4	72.5
22	84.5	72.2	82.0	78.4	81.0	88.3	44.0	79.1
23	54.9	49.4	45.5	45.3	53.9	53.8	57.6	52.4

TABLE LIV (CONT.)

Test Item	Berkeley	Grant	Hampshire	Hardy	COUNTY Mineral	Morgan	Pendleton	Region
24	33.6	34.2	38.9	30.2	31.3	29.7	31.7	33.0
25	53.6	50.6	55.0	58.3	53.9	52.4	45.2	51.9
26	54.0	40.5	53.1	40.3	47.9	47.6	50.8	49.3
27	61.8	51.3	67.3	54.0	56.3	56.5	62.7	59.2
28	52.8	46.8	46.4	48.9	46.5	48.3	56.3	49.6
29	40.0	31.0	33.6	33.1	35.9	41.4	31.0	33.2
30	52.8	46.8	46.0	53.2	57.4	51.0	50.8	52.3
31	30.4	29.7	31.3	32.4	33.6	29.7	29.4	31.3
32	61.4	52.5	58.3	55.4	66.1	57.9	57.1	60.3
33	55.1	61.4	55.5	58.3	54.2	54.5	64.3	52.3
34	35.0	28.5	28.4	32.4	34.5	29.6	34.1	30.1
35	25.9	31.0	28.0	27.3	50.6	32.4	23.0	34.2
					PART II			
1	60.0	50.0	58.3	61.2	52.1	47.6	63.5	56.3
2	72.1	67.1	64.9	77.0	69.2	66.2	72.2	70.0
3	73.0	62.7	64.0	77.7	67.1	74.5	72.2	70.0
4	45.3	39.9	35.5	43.2	41.4	47.6	45.2	42.7
5	54.5	51.9	45.5	52.5	52.5	46.2	56.3	52.0
6	71.8	69.0	73.9	73.4	68.3	68.3	76.2	71.1
7	76.4	65.8	75.4	79.1	72.7	70.3	83.3	74.6
8	48.7	43.7	44.1	42.4	50.5	55.2	54.0	48.6
9	63.8	53.8	61.6	66.2	63.9	60.7	58.7	62.2
10	76.7	69.6	76.8	80.6	75.0	70.3	70.6	75.0
11	55.8	51.9	55.5	54.0	54.6	60.7	50.8	55.0
12	69.1	65.2	67.3	68.3	66.9	69.0	71.4	68.1

TABLE LIV (CONT.)

Test Item	Berkeley	Grant	Hampshire	Hardy	COUNTY Mineral	Morgan	Pendleton	Region
13	32.3	32.3	37.0	40.3	31.0	24.1	36.5	32.8
14	29.1	30.4	25.1	31.7	52.4	36.6	31.0	35.4
15	60.0	46.8	53.6	56.1	46.1	55.2	51.6	53.4
16	55.2	50.0	54.2	62.6	51.2	48.3	60.3	54.0
17	66.6	57.0	59.2	68.3	57.2	61.4	71.4	62.6
18	49.7	39.3	39.8	51.1	44.9	46.9	46.0	46.1
19	61.3	55.1	54.0	56.8	69.2	49.7	31.1	58.4
20	51.9	44.9	47.4	38.1	47.9	54.5	57.9	48.6
21	76.6	64.0	76.8	83.5	73.1	71.0	77.8	74.8
22	80.3	67.1	68.7	74.8	41.3	76.6	74.6	67.1
23	40.1	44.9	36.5	40.3	41.4	47.6	41.3	41.1
24	57.0	46.8	55.9	53.3	54.2	51.7	57.9	54.6
25	58.1	58.9	55.0	66.9	54.9	57.2	54.3	57.4
26	86.8	77.2	31.0	77.0	80.8	84.8	85.7	76.9
27	67.8	62.0	61.6	62.6	45.5	67.6	65.1	60.5
28	82.9	76.6	78.7	79.9	77.1	78.6	85.7	79.9
29	40.1	39.9	40.8	34.5	44.9	29.0	42.1	40.1
30	48.7	45.6	45.0	40.3	49.3	36.6	49.2	45.7
31	35.7	38.0	35.1	45.3	41.0	48.3	47.6	40.4
32	73.0	67.7	78.7	68.3	65.0	69.7	65.9	70.1
33	50.3	42.4	48.3	54.0	55.1	48.3	50.8	50.7
34	58.6	53.2	55.0	51.8	57.2	63.4	54.8	56.9
35	67.3	65.2	66.4	69.8	63.7	60.0	66.7	65.7

TABLE LV

ITEM RESPONSES ANALYSIS SHOWING PER CENT CORRECT RESPONSES OF TOTAL RESPONSES PER TEST ITEM: SEQUENTIAL TEST OF EDUCATIONAL PROGRESS, WRITING, GRADE 9
1969-70 BY COUNTY AND REGION

Test Item	Berkeley	Grant	Hampshire	Hardy	COUNTY Mineral	Morgan	Pendleton	Region
1	78.0	72.2	76.3	83.2	78.7	75.4	82.4	78.0
2	78.3	73.4	77.3	77.9	67.5	78.2	80.0	75.2
3	92.5	88.0	87.9	93.9	86.1	85.9	84.8	89.0
4	60.4	51.3	54.6	58.0	54.8	62.0	61.6	57.6
5	81.5	72.8	80.7	77.0	74.0	80.3	84.8	78.6
6	35.3	35.4	38.2	31.3	22.5	38.7	40.0	32.8
7	64.8	55.7	57.0	58.0	61.9	57.7	65.6	61.3
8	53.6	48.9	44.4	56.5	55.7	55.6	54.4	53.0
9	32.3	34.2	29.0	32.1	32.3	35.2	35.2	32.5
10	59.5	60.1	63.8	67.2	59.6	60.6	66.4	61.3
11	58.4	50.6	48.3	56.5	51.5	45.8	63.2	54.0
12	54.4	55.1	51.7	56.5	50.6	50.0	50.4	52.7
13	46.7	49.4	48.8	49.6	49.9	49.3	60.0	49.4
14	57.7	51.2	55.6	47.3	49.4	50.0	56.8	53.3
15	45.3	35.4	43.5	40.5	49.9	39.4	40.0	44.1
16	78.7	74.7	75.8	80.9	75.2	78.9	81.6	77.5
17	65.5	60.1	68.1	71.8	61.0	64.8	60.8	64.3
18	61.6	55.7	61.4	67.9	60.8	70.4	60.0	61.9
19	69.1	70.9	75.8	71.0	69.8	70.4	72.8	70.7
20	36.6	36.7	32.4	34.4	36.7	31.0	26.4	34.8
21	52.4	47.5	52.7	47.3	51.7	54.9	54.4	51.8
22	61.1	44.9	63.8	56.5	54.1	57.0	44.0	56.4

Test Item	Berkeley	Grant	Hampshire	Hardy	COUNTY Mineral	Morgan	Pendleton	Region
23	57.0	46.2	62.3	53.4	53.1	56.3	57.6	55.4
24	52.8	46.8	44.0	53.4	47.1	48.6	48.0	49.2
25	50.3	53.8	41.4	50.4	51.0	51.4	56.8	50.3
26	50.4	43.7	52.7	52.7	47.3	45.1	48.8	49.0
27	49.7	38.0	44.9	43.5	42.9	46.5	51.2	45.8
28	70.3	65.2	65.7	71.0	64.0	67.0	72.0	67.7
29	48.1	48.1	48.3	49.6	45.7	50.7	52.0	48.1
30	34.1	28.1	31.4	39.7	36.7	31.7	34.4	26.9
					PART II			
1	70.3	65.2	71.5	67.9	68.4	72.5	73.6	69.7
2	39.2	39.2	36.2	41.2	44.1	39.4	39.2	40.2
3	35.2	37.3	42.0	44.3	32.7	40.1	44.8	37.4
4	60.0	38.6	49.8	61.1	59.6	62.0	53.6	56.6
5	41.6	27.8	32.4	35.1	35.7	46.5	44.0	37.9
6	72.1	63.9	70.5	73.3	71.7	78.2	78.4	72.1
7	49.6	48.7	43.5	44.3	46.2	59.2	58.4	48.9
8	58.4	59.5	58.5	66.4	55.0	62.7	64.8	59.1
9	52.2	45.6	40.6	48.9	44.8	48.6	53.6	48.0
10	38.0	39.2	41.5	39.7	40.4	41.5	42.4	39.8
11	54.0	48.1	53.1	52.7	56.4	59.2	60.0	54.0
12	33.2	30.4	35.7	35.9	34.1	35.9	27.2	33.6
13	27.5	19.6	28.0	34.4	26.0	23.2	25.6	26.6
14	36.0	32.3	40.1	42.7	33.4	38.7	42.4	36.7

TABLE LV (CONT.)

Test Item	Berkeley	Grant	Hampshire	Hardy	COUNTY Mineral	Morgan	Pendleton	Region
15	20.0	7.0	8.2	8.4	7.9	8.5	8.0	11.8
16	54.5	41.8	46.9	48.9	47.8	56.3	60.0	50.9
17	30.7	31.0	30.9	33.6	33.2	32.5	36.0	32.1
18	43.9	33.5	45.4	18.3	36.2	56.3	35.2	39.6
19	71.4	62.0	59.9	77.9	69.1	74.6	70.4	69.3
20	50.8	54.4	39.6	43.5	47.6	54.2	52.0	48.8
21	71.2	69.0	66.7	64.1	68.7	74.6	66.4	69.2
22	60.2	50.6	54.1	53.4	57.3	57.7	64.0	58.6
23	75.3	71.5	74.4	71.0	72.9	81.0	80.8	74.8
24	50.6	50.0	45.9	48.1	45.5	47.9	47.2	48.1
25	73.7	69.6	64.7	64.1	74.5	73.2	72.0	71.5
26	31.3	34.8	30.4	26.7	30.6	31.0	27.2	30.7
27	46.7	47.5	48.8	46.6	48.3	45.8	55.2	47.9
28	35.0	36.7	37.7	38.2	33.6	30.3	33.6	34.9
29	33.9	25.3	24.2	21.4	30.2	33.1	21.6	29.2
30	40.5	40.5	45.4	38.9	40.1	33.1	38.4	40.1

TABLE LVI

ITEM RESPONSES ANALYSIS SHOWING PER CENT CORRECT RESPONSES OF TOTAL RESPONSES PER TEST ITEM: SEQUENTIAL TEST OF EDUCATIONAL PROGRESS, LISTENING, GRADE 9
1969-70 BY COUNTY AND REGION

Test Item	Berkeley	Grant	Hampshire	Hardy	COUNTY Mineral	Morgan	Pendleton	Region
					PART I			
1	70.9	63.3	73.9	72.6	67.5	64.8	76.2	69.8
2	88.0	82.9	82.3	89.5	86.0	88.0	84.1	86.2
3	37.7	39.9	28.1	33.9	36.2	35.2	27.8	35.2
4	44.8	48.1	46.3	42.7	42.5	33.1	53.2	44.2
5	29.9	31.0	24.6	33.9	30.6	25.4	30.2	29.5
6	52.1	53.8	53.7	54.8	54.7	50.0	49.2	48.9
7	64.4	53.8	60.1	64.5	63.8	59.9	65.1	62.5
8	83.5	87.3	84.2	78.2	80.8	82.4	91.3	83.3
9	69.8	77.8	63.5	69.4	68.7	71.1	75.4	70.0
10	70.9	65.2	65.5	72.6	70.1	64.8	67.5	69.0
11	43.0	50.0	36.0	37.9	49.9	43.0	43.7	44.1
12	89.7	88.0	88.7	84.7	87.9	81.7	89.7	88.0
13	68.0	57.6	59.4	74.2	60.3	66.2	61.9	64.1
14	87.0	84.2	79.3	75.8	76.2	85.2	81.0	81.8
15	89.0	91.8	79.3	87.9	83.6	86.6	90.5	86.6
16	81.5	81.6	74.4	84.7	83.0	68.3	81.7	80.2
17	64.8	79.7	60.6	73.4	69.6	54.2	82.5	67.9
18	81.5	77.8	73.9	77.4	76.4	83.1	77.8	78.5
19	84.7	81.0	83.3	85.5	84.8	71.1	88.9	83.5
20	66.0	60.8	60.1	65.3	59.3	59.2	52.7	62.4
21	69.4	65.2	64.0	71.8	64.0	68.3	66.7	67.0
22	84.5	91.1	84.7	88.7	82.0	88.0	84.1	85.1

TABLE LVI (CONT.)

Test Item	Berkeley	Grant	Hampshire	Hardy	COUNTY Mineral	Morgan	Pendleton	Region
23	50.5	51.9	46.8	49.2	47.0	56.3	50.0	49.7
24	70.3	67.1	64.5	80.6	62.4	64.8	59.5	67.0
25	74.5	82.9	70.0	87.9	77.1	71.1	77.0	76.3
26	76.0	77.8	67.5	65.3	68.7	67.6	69.8	71.4
27	52.5	57.6	56.7	52.4	50.9	52.8	57.1	53.4
28	84.7	79.7	78.8	80.6	81.8	80.3	78.6	81.7
29	35.2	45.6	32.5	49.2	43.0	49.3	38.9	40.2
30	76.0	76.6	72.3	73.4	71.0	69.7	72.2	73.4
31	33.8	35.4	37.4	34.7	37.1	41.5	41.3	36.4
32	71.1	65.2	71.9	58.9	64.5	66.2	69.8	67.6
33	63.5	87.3	70.4	83.1	70.6	75.4	81.7	72.0
34	22.8	29.1	15.8	28.2	28.3	28.2	23.8	24.8
35	59.1	55.1	62.1	62.9	63.8	69.7	67.5	62.0
36	68.2	79.1	88.2	86.3	80.8	87.3	83.3	78.6
					PART II			
1	74.9	72.8	63.1	67.7	64.3	73.2	59.5	68.9
2	71.1	68.4	73.4	73.4	63.6	76.1	72.2	70.0
3	63.3	65.8	72.9	66.1	58.9	70.4	65.9	64.6
4	86.4	88.6	87.2	88.7	84.6	81.0	88.1	86.1
5	36.9	35.4	34.5	39.5	34.6	35.9	38.9	36.2
6	70.3	77.8	68.0	71.0	68.0	62.0	64.3	69.1
7	42.6	43.0	55.2	53.2	47.2	52.8	49.2	47.4
8	64.4	65.8	60.6	15.3	59.8	69.7	69.8	59.9
9	55.0	63.9	54.2	70.2	62.9	52.1	61.1	59.0
10	62.9	53.2	59.6	62.1	58.4	52.1	77.8	60.7
11	55.0	57.6	56.7	61.3	60.0	67.6	65.9	58.9

TABLE LVI (CONT.)

Test Item	Berkeley	Grant	Hampshire	Hardy	COUNTY Mineral	Morgan	Pendleton	Region
12	64.2	53.2	51.7	50.8	57.5	59.2	55.6	58.0
13	52.5	50.6	46.3	50.8	50.9	54.2	57.1	51.5
14	72.9	77.8	70.9	72.6	77.6	78.2	74.6	74.8
15	72.7	63.9	71.4	71.0	72.0	74.6	72.2	71.6
16	56.2	50.0	56.7	54.0	57.5	62.7	50.8	56.0
17	77.6	73.4	72.4	75.0	76.2	79.6	80.2	76.4
18	83.7	82.3	82.3	80.6	80.4	85.2	88.1	82.8
19	89.0	86.4	81.8	81.5	82.5	90.1	88.9	85.8
20	77.6	72.8	71.4	77.4	70.8	76.1	80.2	74.8
21	71.1	72.2	64.5	74.2	72.0	73.9	75.4	71.4
22	62.3	63.3	60.6	78.2	68.0	64.1	73.8	65.8
23	45.8	49.4	49.8	52.4	50.2	42.3	50.8	48.3
24	38.3	34.8	30.0	40.3	41.1	35.2	37.3	37.5
25	57.6	51.3	64.0	61.3	59.1	58.5	57.1	58.5
26	70.9	77.2	70.9	71.8	75.5	71.1	77.0	73.1
27	25.9	32.9	31.5	21.0	28.3	24.6	23.0	27.1
28	54.0	60.1	48.3	46.8	53.0	55.6	49.2	52.9
29	58.2	51.3	64.0	39.5	50.7	52.1	43.7	53.5
30	32.0	25.9	27.6	30.6	33.9	29.6	22.2	30.4
31	27.7	41.8	30.5	46.0	36.4	29.6	37.3	33.7
32	58.7	53.2	57.1	61.3	57.0	52.8	61.1	51.1
33	32.8	24.1	30.5	29.0	32.5	28.9	32.5	28.2
34	33.6	36.7	40.4	29.8	34.1	31.0	34.9	35.2
35	15.3	16.5	23.2	16.9	20.6	16.9	19.8	18.2
36	43.6	45.6	52.2	37.1	46.3	42.3	42.1	44.7

TABLE LVII

ITEM RESPONSES ANALYSIS SHOWING PER CENT CORRECT RESPONSES OF TOTAL RESPONSES PER TEST ITEM: SEQUENTIAL TEST OF EDUCATIONAL PROGRESS, READING, GRADE 11 1969-70 BY COUNTY AND REGION

Test Item	COUNTY Berkley	Grant	Hampshire	Hardy	Mineral	Morgan	Pendleton	Region
				PART I				
1	49.6	44.4	39.0	51.0	53.0	42.0	50.0	48.1
2	70.1	76.9	70.9	73.5	67.5	73.1	76.4	71.4
3	65.8	64.1	57.9	68.2	70.2	62.2	63.2	65.6
4	64.1	66.7	59.8	68.9	61.5	65.5	68.9	64.1
5	57.3	55.5	62.2	65.6	68.1	69.8	57.5	63.8
6	71.0	52.1	55.5	71.5	65.4	61.3	61.3	63.2
7	88.0	85.5	77.4	84.8	84.7	84.9	86.8	84.3
8	60.7	59.0	60.4	62.3	61.2	67.2	58.5	61.3
9	74.4	56.4	13.4	70.9	62.3	58.8	59.8	56.5
10	64.1	60.7	61.6	66.9	64.9	65.5	64.2	64.2
11	77.8	70.9	67.1	71.5	74.7	73.1	69.8	72.5
12	76.1	68.4	69.5	78.8	77.3	77.3	74.5	75.1
13	72.6	59.8	64.0	64.9	68.1	72.3	73.6	67.7
14	51.3	57.3	41.5	31.1	43.8	58.8	37.7	45.0
15	81.2	65.8	72.6	71.5	72.0	79.0	81.1	73.9
16	83.8	80.3	77.4	81.5	79.2	78.2	83.0	80.1
17	65.0	65.8	55.5	65.6	64.9	71.4	68.2	64.8
18	63.2	65.0	62.8	62.9	57.0	66.4	69.8	62.2
19	70.1	68.3	59.1	68.2	67.0	77.3	67.9	69.1
20	30.8	37.6	29.3	41.7	35.1	40.3	44.3	36.4
21	52.1	53.0	57.9	65.6	59.6	61.3	64.2	59.3
22	48.7	52.1	42.7	51.7	49.9	38.8	42.5	47.4
23	45.3	59.0	61.6	58.9	55.4	47.9	37.5	53.6
24	66.7	52.1	54.9	65.6	61.5	55.5	67.9	60.6

TABLE LVII (CONT.)

Test Item	Berkley	Grant	Hampshire	COUNTY Hardy	Mineral	Morgan	Pendleton	Region
25	31.6	39.3	34.8	37.1	50.1	44.5	37.7	41.5
26	73.5	64.1	70.1	66.2	70.9	72.3	71.7	70.0
27	65.8	59.0	63.4	68.2	69.3	70.6	58.5	66.1
28	58.1	48.7	56.7	55.6	56.7	55.5	56.6	55.8
29	47.0	59.8	57.0	55.0	55.1	61.3	55.1	55.4
30	43.6	45.3	36.6	48.3	45.6	52.9	45.3	45.2
31	72.6	66.7	69.5	70.2	72.8	71.4	73.6	71.2
32	44.4	41.0	39.0	43.0	41.2	42.0	30.2	40.5
33	51.3	44.4	45.1	48.3	48.5	52.8	38.7	47.4
34	53.0	48.7	45.7	55.6	55.4	57.1	50.9	52.7
35	47.9	48.4	43.3	47.7	48.3	50.4	50.0	47.9
				PART II				
1	85.5	87.2	92.7	93.4	88.7	89.1	93.4	89.9
2	90.6	73.5	82.3	86.8	87.6	87.4	88.7	85.7
3	80.3	76.9	79.9	88.7	81.0	79.8	86.8	81.8
4	42.7	39.3	34.1	40.4	43.0	40.3	44.3	40.8
5	45.3	45.3	34.8	47.0	43.5	43.7	44.3	43.2
6	75.2	66.6	61.6	78.8	69.4	63.9	80.2	70.2
7	48.7	53.0	54.3	51.7	50.1	51.3	55.7	51.7
8	45.3	44.4	40.2	39.1	40.1	43.7	42.5	41.6
9	71.8	65.0	70.1	72.8	68.9	62.2	75.5	69.4
10	53.8	62.4	50.0	56.3	58.0	65.5	50.0	56.7
11	53.2	65.0	67.7	67.5	67.0	60.5	78.3	66.9
12	59.0	47.9	46.3	58.3	53.0	49.5	51.9	52.4
13	65.0	71.0	66.5	70.2	70.0	73.9	66.0	69.2
14	46.2	49.6	43.9	50.3	44.9	42.0	41.5	45.4
15	43.6	43.6	43.3	42.4	37.5	47.9	35.8	41.1

TABLE LVII (CONT.)

Test Item	Berkley	Grant	Hampshire	COUNTY Hardy	Mineral	Morgan	Pendleton	Region
16	71.8	71.8	80.5	72.8	71.0	67.2	82.1	73.4
17	81.2	71.8	77.4	78.1	76.8	81.5	82.1	78.0
18	49.6	41.9	48.2	41.1	51.2	48.7	42.5	47.3
19	86.3	79.5	81.1	84.8	86.5	79.8	84.0	83.8
20	30.8	29.9	26.8	25.8	23.0	31.9	36.8	27.6
21	53.0	45.3	55.5	53.0	54.9	47.9	47.2	52.1
22	43.6	52.1	48.2	47.7	50.4	50.4	56.6	49.8
23	34.2	26.5	37.8	39.1	30.9	40.3	43.4	35.0
24	61.5	40.2	44.5	47.7	48.6	47.1	52.8	48.6
25	26.5	29.1	32.9	37.1	27.7	53.6	33.0	32.9
26	47.0	50.4	53.0	58.9	49.1	58.8	62.6	53.1
27	74.4	77.9	71.3	80.8	74.9	73.9	83.0	76.1
28	77.0	73.5	75.6	84.8	77.0	77.3	80.2	77.8
29	46.2	48.7	45.1	43.7	44.3	54.6	38.7	45.5
30	29.9	28.2	22.0	24.5	26.4	35.3	31.1	27.4
31	88.9	74.4	76.8	82.1	79.9	76.5	86.8	80.4
32	57.3	65.8	59.1	65.6	62.0	50.4	67.0	61.2
33	53.0	29.9	40.2	49.0	42.5	46.2	48.6	44.2
34	35.9	41.0	35.4	35.1	39.1	43.7	45.3	39.0
35	32.5	28.2	29.3	33.8	31.4	36.1	20.8	30.7

TABLE LVIII

ITEM RESPONSES ANALYSIS SHOWING PER CENT CORRECT RESPONSES OF TOTAL RESPONSES PER TEST ITEM: SEQUENTIAL TEST OF EDUCATIONAL PROGRESS, WRITING, GRADE 11 1969-70 BY COUNTY AND REGION

Test Item	Berkley	Grant	Hampshire	Hardy	Mineral	Morgan	Pendleton	Region
				COUNTY				
				PART I				
1	75.4	70.9	63.6	76.5	72.8	76.2	71.7	72.3
2	20.9	21.4	20.4	22.8	28.3	29.5	32.1	25.5
3	53.9	52.1	59.9	58.4	57.9	61.5	56.6	57.5
4	72.2	61.5	77.2	73.2	67.5	72.1	84.0	71.5
5	79.1	67.6	73.5	74.5	59.9	62.3	77.4	68.3
6	67.8	57.3	63.6	58.4	63.2	63.1	61.3	62.3
7	44.3	35.0	44.4	44.3	49.9	40.2	51.9	45.5
8	46.1	47.9	46.3	52.3	45.6	53.3	50.9	48.2
9	33.0	28.2	34.0	32.9	29.3	32.0	40.6	32.0
10	56.5	54.7	39.9	57.7	56.0	52.5	66.0	54.4
11	67.0	53.8	56.2	56.4	63.7	63.9	67.9	62.3
12	50.4	38.5	45.7	40.9	46.9	36.9	43.4	44.1
13	70.4	51.3	68.5	67.8	61.9	64.8	49.8	62.6
14	53.0	52.1	54.9	65.1	53.1	54.1	51.9	54.8
15	64.3	62.4	63.6	73.8	68.8	68.0	62.3	66.9
16	43.5	42.7	45.1	41.6	41.6	41.0	44.3	42.6
17	44.3	46.2	50.0	53.0	45.6	48.4	48.1	47.6
18	61.7	51.3	64.2	65.8	58.4	61.5	61.3	60.4
19	37.4	31.6	45.7	44.3	38.4	39.3	49.1	40.5
20	50.4	53.0	56.8	53.0	49.3	52.5	49.1	51.6
21	64.3	56.4	70.4	73.8	65.6	63.1	81.1	67.4
22	54.8	47.9	61.7	53.7	52.0	58.2	56.6	54.5
23	66.1	72.6	72.8	77.2	78.1	73.0	74.5	76.6
24	67.0	60.7	74.1	69.8	72.5	59.0	66.0	68.6

TABLE LVIII (CONT.)

Test Item	COUNTY Berkley	Grant	Hampshire	Hardy	Mineral	Morgan	Pendleton	Region
25	21.7	23.9	21.6	16.8	28.3	74.0	20.8	28.9
26	36.5	38.5	56.2	43.0	52.3	47.5	39.6	47.0
27	47.0	46.2	51.2	42.3	43.7	45.1	49.1	45.8
28	40.0	38.5	48.8	36.2	43.5	46.7	66.0	44.9
29	44.3	54.7	63.0	56.4	55.7	43.4	49.1	53.6
30	65.2	60.7	68.0	61.1	61.9	63.1	54.7	61.6
				PART II				
1	40.0	37.6	42.0	41.6	38.1	41.8	30.2	38.9
2	27.0	29.1	25.9	30.2	29.1	34.4	56.6	31.7
3	45.2	39.3	45.1	38.9	44.3	43.4	41.5	42.9
4	18.9	17.1	21.6	14.1	16.3	15.6	22.6	16.6
5	25.2	27.4	25.3	26.8	29.3	26.2	37.7	28.3
6	49.6	39.3	57.4	54.4	49.9	50.0	64.2	51.8
7	15.7	25.6	13.0	20.1	24.8	17.2	19.8	20.4
8	28.7	28.2	24.7	24.8	27.2	28.7	26.4	26.9
9	41.7	35.0	46.9	40.3	42.1	39.3	40.6	40.4
10	17.4	12.8	24.1	20.1	16.5	32.0	17.0	20.7
11	39.1	37.6	43.2	44.3	39.7	27.0	43.4	39.5
12	40.0	29.9	32.7	41.6	27.7	34.4	35.8	33.1
13	54.8	39.3	52.5	51.0	64.3	58.2	65.1	56.8
14	38.3	39.3	40.1	43.0	43.2	45.1	37.7	41.2
15	37.4	41.0	35.2	35.6	37.1	36.1	36.8	37.0
16	14.8	57.3	59.9	57.7	60.5	63.1	55.7	54.1
17	58.3	48.7	56.8	58.4	56.8	56.6	62.3	56.8
18	54.0	47.0	58.9	63.8	59	53.3	59.4	57.9
19	40.0	29.1	22.8	30.2	28.3	30.3	40.6	30.4
20	35.7	49.4	39.5	47.7	35.7	34.4	44.3	40.4

TABLE LVIII (CONT.)

Test Item	COUNTY Berkley	Grant	Hampshire	Hardy	Mineral	Morgan	Pendleton	Region
21	65.2	55.6	60.5	67.1	66.4	67.2	71.7	63.0
22	36.5	43.1	46.3	38.9	41.6	45.9	47.2	42.5
23	60.0	63.2	72.2	77.2	71.2	72.1	76.4	70.7
24	36.5	29.1	37.0	41.6	41.7	39.3	42.5	39.0
25	53.0	48.7	53.7	51.7	48.5	44.3	53.8	50.2
26	54.8	48.7	52.5	61.1	47.7	50.8	58.5	52.3
27	29.6	26.5	29.6	28.2	31.7	37.7	27.4	30.4
28	57.4	50.4	59.3	59.1	60.0	37.4	50.0	55.2
29	41.7	43.6	45.7	49.7	45.9	54.9	39.6	46.1
30	51.3	44.4	50.0	52.3	54.1	56.6	48.1	51.7

TABLE LIX

ITEM RESPONSES ANALYSIS SHOWING PER CENT CORRECT RESPONSES OF TOTAL RESPONSES PER TEST ITEM: SEQUENTIAL TEST OF EDUCATIONAL PROGRESS, LISTENING, GRADE 11 1969-70 BY COUNTY AND REGION

Test Item	COUNTY Berkley	Grant	Hampshire	Hardy	Mineral	Morgan	Pendleton	Region
				PART I				
1	72.6	74.4	62.6	66.4	66.7	73.3	74.8	68.9
2	75.3	72.6	82.8	79.9	75.8	88.3	67.3	77.5
3	32.9	44.4	41.7	42.3	50.5	44.2	26.2	42.9
4	35.6	60.7	59.5	66.4	55.9	65.8	72.9	58.8
5	64.4	67.5	48.5	52.3	58.6	59.2	53.3	57.4
6	61.6	68.4	60.7	63.1	68.5	63.3	57.0	64.3
7	60.3	74.4	63.2	76.5	72.8	69.2	64.5	69.7
8	69.9	60.9	76.7	73.8	72.8	75.0	82.2	73.1
9	53.4	70.9	60.9	72.5	67.2	62.5	71.0	65.8
10	82.2	96.6	90.8	95.3	87.6	90.8	94.4	90.4
11	35.6	35.0	18.4	33.6	29.3	30.8	27.1	29.5
12	53.4	61.5	54.0	51.7	53.5	61.7	30.8	52.9
13	65.8	61.5	57.7	73.8	73.1	72.5	75.7	69.3
14	65.8	51.3	57.7	62.4	58.9	66.7	57.9	59.8
15	57.5	56.4	52.1	57.7	54.6	55.8	37.4	53.7
16	47.9	59.0	55.2	57.0	56.5	54.2	52.3	55.1
17	9.6	9.4	7.8	22.1	22.8	20.8	15.9	17.0
18	46.6	62.4	52.8	49.7	60.5	60.8	60.7	56.8
19	28.8	41.9	43.6	45.0	45.2	46.7	39.3	42.6
20	72.6	70.1	80.4	77.9	77.7	79.2	73.8	76.6
21	52.1	59.8	49.7	57.7	54.6	55.0	63.6	55.5
22	24.7	23.9	11.7	18.1	25.3	20.8	23.4	21.6
23	74.0	70.1	60.1	69.8	61.6	58.3	67.3	64.8
24	27.4	14.5	26.4	27.5	24.2	20.8	29.0	24.4

TABLE LIX (CONT.)

Test Item	Berkley	Grant	Hampshire	COUNTY Hardy	Mineral	Morgan	Pendleton	Region
25	57.5	47.0	54.0	43.6	51.1	50.0	40.2	49.6
26	68.3	63.2	50.3	62.4	58.6	63.3	53.3	59.4
27	64.4	54.9	49.7	59.7	57.8	54.2	56.1	56.7
28	53.4	52.1	36.2	47.0	40.6	35.8	41.1	42.8
29	36.5	43.6	45.4	55.7	50.8	53.3	56.1	49.2
30	33.9	43.6	47.2	58.4	49.2	52.5	50.5	48.5
31	72.6	67.5	63.8	69.1	62.9	60.0	67.3	65.4
32	53.4	42.7	52.8	55.0	52.2	45.8	51.4	51.1
33	86.3	84.6	68.1	81.2	74.2	74.2	85.0	76.5
34	87.7	86.3	81.6	71.8	84.4	86.7	84.1	83.1
35	56.2	48.7	40.5	61.7	51.1	46.7	55.1	51.2
36	32.9	30.8	32.5	43.0	36.8	28.3	24.3	33.9
				PART II				
1	72.6	84.6	72.4	83.9	79.3	65.0	86.0	77.9
2	65.8	80.3	72.4	78.5	71.0	64.2	84.1	73.1
3	49.3	46.2	28.2	34.2	35.2	29.2	25.2	35.1
4	82.2	79.5	65.6	87.9	80.1	73.3	81.3	78.6
5	80.8	84.6	82.2	81.2	83.1	83.3	86.0	82.9
6	40.0	57.3	54.0	60.4	56.7	53.3	67.3	55.8
7	45.2	33.8	55.8	68.5	56.2	47.5	63.6	54.1
8	72.6	82.1	67.5	81.9	74.5	80.0	93.5	77.4
9	50.7	12.0	42.3	57.0	61.0	47.5	59.8	50.1
10	54.8	59.0	54.0	46.3	50.5	51.7	44.9	51.4
11	34.2	43.6	28.8	36.9	39.2	39.2	44.9	38.8
12	79.5	74.4	75.5	75.8	76.6	52.5	82.2	74.4
13	27.4	34.2	30.7	33.6	31.2	33.3	19.6	30.5
14	27.4	29.9	19.6	32.2	31.5	19.2	28.0	29.1

TABLE LIX (CONT.)

Test Item	Berkley	Grant	Hampshire	COUNTY Hardy	Mineral	Morgan	Pendleton	Region
15	32.9	52.1	42.9	44.3	46.5	41.7	45.8	44.3
16	54.8	45.3	32.5	36.2	36.3	34.2	28.0	37.6
17	57.5	59.0	69.3	69.1	66.4	70.0	68.2	56.3
18	82.2	62.4	46.0	55.7	60.8	67.5	61.7	61.2
19	4.1	89.7	79.1	91.9	84.9	81.7	88.8	77.3
20	69.9	12.0	9.2	8.7	9.1	14.2	11.2	70.3
21	61.6	82.9	63.8	81.2	79.8	75.0	75.7	75.3
22	60.3	71.8	69.3	73.2	74.2	63.3	71.0	70.3
23	54.8	62.4	54.0	62.4	61.6	56.7	65.4	59.9
24	32.9	64.1	61.3	61.7	61.0	61.7	72.9	59.8
25	35.6	36.8	36.2	37.6	42.5	29.2	36.4	37.7
26	74.0	40.2	34.4	39.6	40.6	41.7	43.0	43.3
27	32.9	68.4	70.6	65.8	68.3	55.8	80.4	64.5
28	84.9	31.6	39.3	36.9	38.2	44.2	38.3	42.9
29	82.2	85.5	55.2	74.5	81.5	70.0	79.4	75.9
30	68.5	68.4	55.2	73.2	70.4	66.7	66.4	67.4
31	76.7	82.9	69.9	77.9	69.1	58.2	68.2	68.9
32	19.2	66.7	44.8	62.4	65.6	55.8	72.0	57.1
33	49.3	35.0	25.8	28.2	26.9	26.7	28.0	22.0
34	49.3	50.4	34.4	42.3	51.9	32.5	63.6	48.1
35	68.5	69.2	55.2	63.1	68.3	56.6	72.9	65.1
36	63.0	80.3	62.0	63.8	67.1	90.0	66.4	69.2

APPENDIX B

Summary of the Associations Existing Between the CEP-EMO's and the State-County Testing Program

TABLE LX

A SUMMARY OF THE ASSOCIATIONS EXISTING BETWEEN CEP-EMO'S AND THE STANFORD ACHIEVEMENT TEST ITEMS: GRADES 3 AND 6, ARITHMETIC

Expected Measurable Outcomes	Test Items: Grade 3 Arith.Comp.	Grade 3 Arith.Conc.	Grade 6 Arith.Comp.	Grade 6 Arith Conc.	Grade 6 Arith Appl.
1. Makes statements, gives examples and states definitions in mathematical terminology.	1-60	None	None	None	None
2. Recalls and uses facts, terms, and symbols related to a process.	None	1,5-8,11-38,41-46	1-39	2-32	1-11,14-16, 18-36,38,39
3. States an idea in mathematical terminology.	None	None	None	2	None
4. Distinguishes between the properties of numbers, sets, and geometric ideas and forms	None	4	None	4	None
5. Identifies and clarifies a concept to make logical implications.	None	None	None	1	None
6. Applies known facts to a new problem situation.	None	1,15-17	None	19,20, 29,30	2
7. Discovers generalizations by extending a concept.	None	22,24	None	13	None
8. Justifies a generalization by stating logical reasons for each step of justification.	None	None	None	None	None
9. Identifies the basic terms and basic assumptions of the system.	None	None	None	None	None
10. States definitions of basic terms in his own vocabulary.	None	None	None	None	None
11. Lists the basic requirements of a mathematical system.	None	None	None	None	None
12. Utilizes the basic assumptions and definitions to justify proofs.	None	None	None	None	None
13. Constructs mathematical systems based on a set of elements and binary operations.	None	None	None	None	None
14. Utilizes manipulative materials and models.	None	None	None	None	None
15. Records memorized facts to find solutions.	42,44,46, 48,50,52-60	None	13,15,18-23,30,34	None	None

TABLE LX (Cont.)

Expected Measurable Outcomes	Test Items: Grade 3 Arith.Comp.	Grade 3 Arith.Conc.	Grade 6 Arith.Comp.	Grade 6 Arith.Conc.	Grade 6 Arith.Appl.
16. Uses a known fact related to the problem.	1-60	1,3,10,25-38,41-43,45,46	1-39	1-9,11,12,14-20,22,24,30	1-3,5-11,16,20-29,33-36,38,39
17. Employs meaningful shortcut.	None	None	None	None	None
18. Illustrates the process by using a model or manipulative devices.	None	None	None	None	None
19. Estimates the result to aid finding the solution.	None	None	None	4,31	None
20. Justifies each step of the computation by identifying the properties used.	None	None	None	None	None
21. Relates the algorithm to properties of the operation.	None	None	None	None	None
22. Writes a justification of the algorithm.	None	None	None	None	None
23. Uses an operation to establish a mathematics structure.	None	None	None	None	None
24. Invents a new operation and investigates its properties.	None	None	None	None	None
25. Identifies the question to be answered in the context of the problem situation.	None	25-46	None	1,2,9,18,19	1-3,9,18,20,24,25,27-29,33,38,39
26. Selects relevant information needed to solve the problem	None	2,25,32,36,38-42,45,46	None	None	12-15,17,14,22,26,30-32,34,37
27. Relates the problem to a similar situation which supplies insight to the solution.	None	None	None	None	None
28. Constructs a diagram of the relationships and processes involved.	None	None	None	None	None
29. Generalizes the solution for similar situations.	None	None	None	None	None
30. Uses concepts of measurement to construct a model of the situation.	None	9	None	None	None
31. States a generalization about the data and constructs a table of the data.	None	None	None	None	None
32. Builds a vocabulary of necessary mathematical terms and symbols.	None	None	None	None	None

TABLE LX (Cont.)

Expected Measurable Outcomes	Test Items: Grade 3 Arith.Comp.	Grade 3 Arith.Conc.	Grade 6 Arith.Comp.	Grade 6 Arith.Conc.	Grade 6 Arith.Appl.
33. Is precise when participating in class discussions.	None	None	None	None	None
34. Reads mathematics material and communicates information in his own vocabulary.	None	None	None	None	None
35. Writes precise definitions of mathematics terms.	None	None	None	None	None
36. Writes an organized solution to a problem.	None	None	None	None	None
37. Identifies conditions in a problem situation.	None	None	None	None	None
38. Completes assignments promptly and correctly.	None	None	None	None	None
39. Researches outside sources for information not in basal textbook.	None	None	None	None	None
40. Plans time, materials, and place of study.	None	None	None	None	None
41. Asks questions of himself and others when difficulties cannot be resolved independently.	None	None	None	None	None
42. Continues to pursue the study of mathematics or a related field at an advanced level.	None	None	None	None	None
43. Participates in the learning process with the class.	None	None	None	None	None
44. Shows confidence in and respect for mathematics courses, the teachers, and current class activities.	None	None	None	None	None
45. Completes optional assignments outside class time.	None	None	None	None	None
46. Participates in activities and discussions outside the classroom.	None	None	None	None	None
47. Explores mathematical ideas independently.	None	None	None	None	None

TABLE LXI

A SUMMARY OF THE ASSOCIATIONS EXISTING BETWEEN CEP-EMO'S AND THE SEQUENTIAL TEST OF EDUCATIONAL PROGRESS ITEMS: GRADE 9&11, ARITHMETIC

Expected Measurable Outcomes	Test Items			
	Grade 9		Grade 11	
	Part I	Part II	Part I	Part II
1. Makes statements, gives examples and states definitions in mathematical terminology.	None	None	None	None
2. Recalls and uses facts, terms, and symbols related to a process.	1-7,9,13-15,22,23	4,6,7,9-12,17,21,22,25	1,2,4,6,8,9,11-15,17,18,21,22,25	2,4-7,9,10,14-19,23-25
3. States an idea in mathematical terminology	17-19	23	25	2,25
4. Distinguishes between the properties of numbers, sets, and geometric ideas and forms.	10,21,24,25	8	19	None
5. Identifies and clarifies a concept to make logical implications.	None	None	1,4,5	18
6. Applies known facts to a new problem situation.	1-5,8,9,11,12,16,20	5,13,15	10	None
7. Discovers generalizations by extending a concept.	None	None	None	None
8. Justifies a generalization by stating logical reasons for each step of justification.	None	None	None	22
9. Identifies the basic terms and basic assumptions of the system.	None	None	None	None
10. States definitions of basic terms in his own vocabulary.	None	None	None	None
11. Lists the basic requirements of a mathematical system.	None	None	None	None
12. Utilizes the basic assumptions and definitions to justify proofs.	None	None	None	None
13. Constructs mathematical systems based on a set of elements and binary operations.	None	None	None	None
14. Utilizes manipulative materials and models	None	None	None	None
15. Records memorized facts to find solutions.	None	None	None	None

TABLE LXI(Cont.)

Expected Measurable Outcomes	Test Items			
	Grade 9		Grade 11	
	Part I	Part II	Part I	Part II
16. Uses a known fact related to the problem.	1-5,9,11-16,20,22-24	None	1,4,6,8,10,11,14,17,18,21,22	1,4-6,8,9,11-13,23-25
17. Employs meaningful shortcut.	None	None	None	None
18. Illustrates the process by using a model or manipulative devices.	None	None	None	None
19. Estimates the result to aid finding the solution.	6,7	19	None	None
20. Justifies each step of the computation by identifying the properties used.	None	None	None	None
21. Relates the algorithm to properties of the operation.	None	None	None	None
22. Writes a justification of the algorithm.	None	None	None	None
23. Uses an operation to establish a mathematics structure.	None	None	None	None
24. Invents a new operation and investigates its properties.	None	None	None	None
25. Identifies the question to be answered in the context of the problem situation.	1-12,16,20,22,24,25	1-7,9-16,18,21,22,24,25	1-4,6-15,17-25	1,3-11,14-19,24,25
26. Selects relevant information needed to solve the problem.	1,5-8,11,20,23,25	1-7,9-14,16,18,21,22,24,25	1-3,5-9,12-16,19-24	3,4,6,7,10-15,20,21,23,24
27. Relates the problem to a similar situation which supplies insight to the solution.	None	None	None	None
28. Constructs a diagram of the relationships and processes involved.	None	None	None	None
29. Generalizes the solution for similar situations.	4	None	None	None
30. Uses concepts of measurement to construct a model of the situation.	None	None	None	None
31. States a generalization about the data and constructs a table of the data.	None	None	None	None

TABLE LXI (Cont.)

Expected Measurable Outcomes	Test Items: Grade 9 Part I	Grade 9 Part II	Grade 11 Part I	Grade 11 Part II
32. Builds a vocabulary of necessary mathematical terms and symbols.	None	None	None	None
33. Is precise when participating in class discussions.	None	None	None	None
34. Reads mathematics material and communicates information in his own vocabulary.	None	None	None	None
35. Writes precise definitions of mathematics terms.	None	None	None	None
36. Writes an organized solution to a problem.	None	None	None	None
37. Identifies conditions in a problem situation.	None	None	None	None
38. Completes assignments promptly and correctly.	None	None	None	None
39. Researches outside sources for information not in basal textbook.	None	None	None	None
40. Plans time, materials, and place of study.	None	None	None	None
41. Asks questions of himself and others when difficulties cannot be resolved independently.	None	None	None	None
42. Continues to pursue the study of mathematics or a related field at an advanced level.	None	None	None	None
43. Participates in the learning process with the class.	None	None	None	None
44. Shows confidence in and respect for mathematics courses, the teachers, and current class activities.	None	None	None	None
45. Completes optional assignments outside class time.	None	None	None	None
46. Participates in activities and discussions outside the classroom.	None	None	None	None
47. Explores mathematical ideas independently.	None	None	None	None

TABLE LXII

A SUMMARY OF THE ASSOCIATIONS EXISTING BETWEEN CEP-EMO'S AND THE STANFORD ACHIEVEMENT TEST ITEMS: GRADE 3, LANGUAGE ARTS

Expected Measurable Outcomes	Word Meaning	Paragraph Meaning	Spelling	Word Study Skills Part A	Word Study Skills Part B	Language Usage Part A	Language Usage Part B
1. The learner is formulating a philosophy of the importance of language in the solution of national and international problems, and can state with confidence and with consideration his feelings, opinions and ideas in writing and in speaking during individual conferences, during group discussion and during large groups instructional sessions.	None	None	None	None	None	None	None
2. The learner recognizes the significance of differences in dialects (personal speech patterns, i.e., vernacular, lingo, jargon, slang, regional language, social language) as the learner relates to persons or populations and can identify at least three dialects and detect the likenesses and the differences.	None	None	None	1-30	None	None	None
3. The learner makes appropriate choices of dialects and each choice is demonstrated by his ability to communicate effectively in writing and in speaking to the class, to small groups within the class and to designated group of individual audiences.	None	None	None	None	None	None	None
4. The learner translates dialects to function for his economically, socially and culturally as demonstrated by his successful communication with those of different dialects.	None	None	None	None	None	None	None
5. The learner contrasts and studies the trends and influences which have caused the language to evolve and demonstrates his knowledge by writing an assigned paper on "The History of The English Language".	None	None	None	None	None	None	None
6. The learner analyzes the variability of language design and transforms sentences and paragraphs to convey ideas.	None	None	None	None	None	1-40	41-75
7. The learner encodes orally the ideas from a drama or a poem with such a degree of feeling that listeners can decode the ideas in like form.	None	None	None	None	None	None	None
8. The learner reads historical and modern literature of varied cultures appropriate to his ability, needs and desires as determined by an investory or profile.	None	None	None	None	None	None	None
9. The learner locates and notes pertinent literature to clarify, support, and/or disprove his ideas.	1-36	1-60	None	1-30	31-64	None	41-75

TABLE LXII (Cont.)

Expected Measurable Outcomes	Word Meaning	Paragraph Meaning	Spelling	Word Study Skills Part A	Word Study Skills Part B	Language Usage Part A	Language Usage Part B
10. The learner continuously records his own writings, retains them and evaluates growth by comparing them to his former writings, writings of his comparable performance and other authors.	None	None	None	None	None	None	None
11. The learner discriminates types of information in mass media (television, radio, newspaper, magazine,books, motion pictures, plays and advertising) as to whether the information is fact, opinion or fiction.	1-36	1-60	None	1-30	31-64	None	41-75
12. The learner selects and compares values found in historical literature with modern literature and reacts to the events of the time.	None	None	None	None	None	None	None
13. The learner's attitudes toward others are in part a reflection of his ability to select and synthesize concepts evolving from literature.	1-36	1-60	None	1-30	31-64	None	41-75
14. The learner presents selections from all forms of literature demonstrating the range of emotions.	None	None	None	None	None	None	None
15. The learner writes his ideas, views and opinions in a form and style acceptable to him and his readers.	None	None	1-30	None	None	None	None
16. The learner writes ideas, views and opinions about situations, events or persons and can identify the most effective and appropriate form (narrative, descriptive, expository or argumentative) being used.	None	None	None	None	None	None	None
17. The learner shows his ability to empathize with a writer by being able to emulate the writer's style and field.	None	None	None	None	None	None	None
18. The learner exhibits a desire to write by composing on paper without topic direction both during assigned periods of time and without assignment.	None	None	None	None	None	None	None
19. The learner shows objectivity in writing by discarding his preferred form and selecting the form that most expresses the demands of a situation.	None	None	None	None	None	None	None
20. The learner recognizes writing as a tool of communication he can use to express the ideas, views and opinions of others even through they may be in conflict with his own.	None	None	None	None	None	None	None
21. The learner originates spontaneous oral composition from the dialogue of small groups and writes that composition in a form legible to himself and others.	None	None	None	None	None	None	None

TABLE LXIII

A SUMMARY OF THE ASSOCIATIONS EXISTING BETWEEN CEP-EMO'S AND THE STANFORD ACHIEVEMENT TEST ITEMS: GRADE 6, LANGUAGE ARTS

Expected Measurable Outcomes	Stanford Achievement Test							
	Word Meaning	Paragraph Meaning	Spelling	Language Part A	Part B	Part C	Part D	Part E
1. The learner is formulating a philosophy of the importance of language in the solution of national and international problems, and can state with confidence and with consideration his feelings, opinions and ideas in writing and in speaking during individual conferences, during group discussion and during large groups instructional sessions.	None	None	None	None	None	None	None	None
2. The learner recognizes the significance of differences in dialects (personal speech patterns, i.e., vernacular, lingo, jargon, slang, regional language, social language) as the learner relates to persons or populations and can identify at least three dialects and detect the likenesses and the differences.	None	None	None	None	None	None	None	None
3. The learner makes appropriate choices of dialects and each choice is demonstrated by his ability to communicate effectively in writing and in speaking to the class, to small groups within the class and to designated group of individual audiences.	None	None	None	None	None	None	None	None
4. The learner translates dialects to function for his economically, socially and culturally as demonstrated by his successful communication with those of different dialects.	None	None	None	None	None	None	None	None
5. The learner contrasts and studies the trends and influences which have caused the language to evolve and demonstrates his knowledge by writing an assigned paper on "The History of the English Language."	None	None	None	None	None	None	None	None
6. The learner analyzes the variability of language design and transforms sentences and paragraphs to convey ideas.	None	None	None	1-38	39-56	57-74	None	117-134
7. The learner encodes orally the ideas from a drama or a poem with such a degree of feeling that listeners can decode the ideas in like form.	None	None	None	None	None	None	None	None
8. The learner reads historical and modern literature of varied cultures appropriate to his ability, needs and desires as determined by an inventory or profile.	None	None	None	None	None	None	None	None
9. The learner locates and notes pertinent literature to clarify support, and/or disprove his ideas.	1-48	1-64	None	None	[illegible]	None	93-116	None

Expected Measurable Outcomes	Stanford Achievement Test							
	Word Meaning	Paragraph Meaning	Spelling	Language Part A	Part B	Part C	Part D	Pa
10. The learner continuously records his own writings, retains them and evaluates growth by comparing them to his former writings, writings of his comparable performance and other authors.	None	None	None	None	None	None	None	No
11. The learner discriminates types of information in mass media (television, radio, newspaper, magazine, books, motion pictures, plays and advertising) as to whether the information is fact, opinion or fiction.	1-48	1-64	None	1-38	None	None	93-116	11
12. The learner selects and compares values found in historical literature with modern literature and reacts to the events of the time.	None	None	None	None	None	None	None	No
13. The learner's attitudes toward others are in part a reflection of his ability to select and synthesize concepts evolving from literature.	1-48	1-64	None	1-38	None	None	93-116	11
14. The learner presents selections from all forms of literature demonstrating the range of emotions.	None	None	None	None	None	None	None	No
15. The learner writes his ideas, views and opinions in a form and style acceptable to him and his readers.	None	None	1-56	None	None	None	None	No
16. The learner writes ideas, views and opinions about situations, events or persons and can identify the most effective and appropriate form (narrative, descriptive, expository or argumentative) being used.	None	None	None	None	None	None	None	No
17. The learner shows his ability to empathize with a writer by being able to emulate the writer's style and field.	None	None	None	None	None	None	None	No
18. The learner exhibits a desire to write by composing on paper without topic direction both during assigned periods of time and without assignment.	None	None	None	None	None	None	None	No
19. The learner shows objectivity in writing by discarding his preferred form and selecting the form that most expresses the demands of a situation.	None	None	None	None	None	None	None	No
20. The learner recognizes writing as a tool of communication he can use to express the ideas, views and opinions of others even though they may be in conflict with his own.	None	None	None	None	None	None	None	No
21. The learner originates spontaneous oral composition from the dialogue of small groups and writes that composition in a form legible to himself and others.	None	None	None	None	None	None	None	No

TABLE LXIV

A SUMMARY OF THE ASSOCIATIONS EXISTING BETWEEN CEP-EMO'S AND THE SEQUENTIAL TEST OF EDUCATIONAL PROGRESS ITEMS: GRADE 9, LANGUAGE ARTS

Expected Measurable Outcome	Sequential Test of Educational Progress: Reading Part I	Reading Part II	Writing Part I	Writing Part II
1. The learner is formulating a philosophy of the importance of language in the solution of national and international problems, and can state with confidence and with consideration his feelings, opinions and ideas in writing and in speaking during individual conferences, during group discussion and during large groups instructional sessions.	None	None	None	None
2. The learner recognizes the significance of differences in dialects (personal speech patterns, i.e., vernacular, lingo, jargon, slang, regional language, social language) as the learner relates to persons or populations and can identify at least three dialects and detect the likeness and the differences.	None	None	None	None
3. The learner makes appropriate choices of dialects and each choice is demonstrated by his ability to communicate effectively in writing and in speaking to the class, to small groups within the class and to designated group or individual audiences.	None	None	None	None
4. The learner translates dialects to function for him economically, socially and culturally as demonstrated by his successful communication with those of different dialects.	None	None	None	None
5. The learner contrasts and studies the trends and influences which have caused the language to evolve and demonstrates his knowledge by writing an assigned paper on "The History of the English Language".	None	None	None	None
6. The learner analyzes the variability of language design and transforms sentences and paragraphs to convey ideas.	None	None	None	None
7. The learner encodes orally the ideas from a drama or a poem with such a degree of feeling that listeners can decode the ideas in like form.	None	None	None	None
8. The learner reads historical and modern literature of varied cultures appropriate to his ability, needs and desires as determined by an inventory or profile.	None	None	None	None

TABLE LXIV (CONT.)

Expected Measurable Outcomes	Sequential Test of Educational Progress: Reading Part I	Reading Part II	Writing Part I	Writing Part II
9. The learner locates and notes pertinent literature to clarify, support, and/or disprove his ideas.	1,6,11,12, 17,22,30, 31	2,6,7,16, 21,26,31	4-6,12-14,16-18, 21,23,24, 26-29	2-5,7,9,10, 15,20,22, 24,25,29,30
10. The learner continuously records his own writings, retains them and evaluates growth by comparing them to his former writings, writings of his comparable performance peers and other authors.	None	None	None	None
11. The learner discriminates types of information in mass media (television, radio, newspaper, magazine, books, motion pictures, plays and advertising) as to whether the information is fact, opinion or fiction.	1,6,7,11, 12,14,15, 17,19,21, 22,23,30, 31,33,35	2,6,7,11, 14,16,18, 21,24,25, 26,31	4-6,12-14,16-18, 21,23,24, 26-29	2-5,7,9,10, 15,20,22, 24,25,29,30
12. The learner selects and compares values found in historical literature with modern literature and reacts to the events of the time.	3,4,10,13, 20,25,26	15,20,23, 30,32	None	None
13. The learner's attitudes toward others are in part a reflection of his ability to select and synthesize concepts evolving from literature.	2-10,13-16, 18-21,23-29,32-35	1,3-5,8-15,17-20, 22-25,27-30,32-35	1,2,4-11, 13-15,17-23,25-28, 30	1,3-6,8-24, 26-30
14. The learner presents selections from all forms of literature demonstrating the range of emotions.	None	None	None	None
15. The learner writes his ideas, views and opinions in a form and style acceptable to him and his readers.	None	None	1-3,7,8, 11,12,19, 20,25,29, 30	6,8,11-14, 16-19,21, 23,27,28
16. The learner writes ideas, views and opinions about situations, events or persons and can identify the most effective and appropriate form (narrative, descriptive, expository or argumentative) being used.	None	None	2,4,6,7,9, 10,13,14, 15,17-23,25-28,30	1,3,4,5,8-13,15-20, 22,24,26-30
17. The learner shows his ability to empathize with a writer by being able to emulate the writer's style and field.	None	None	None	None
18. The learner exhibits a desire to write by composing on paper without topic direction both during assigned periods of time and without assignment.	None	None	None	None
19. The learner shows objectivity in writing by discarding his preferred form and selecting the form that most expresses the demands of a situation.	None	None	None	None

TABLE LXIV (CONT.)

Expected Measurable Outcomes	Sequential Test of Educational Progress			
	Reading		Writing	
	Part I	Part II	Part I	Part II
20. The learner recognizes writing as a tool of communication he can use to express the ideas, views and opinions of others even though they may be in conflict with his own.	None	None	None	None
21. The learner originates spontaneous oral composition from the dialogue of small groups and writes the composition in a form legible to himself and others.	None	None	None	None

TABLE LXV

A SUMMARY OF THE ASSOCIATIONS EXISTING BETWEEN CEP-EMO'S AND THE SEQUENTIAL TEST OF EDUCATIONAL PROGRESS ITEMS: GRADE 11, LANGUAGE ARTS

Expected Measurable Outcomes	Sequential Test of Educational Progress: Reading Part I	Reading Part II	Writing Part I	Writing Part II
1. The learner is formulating a philosophy of the importance of language in the solution of national and international problems, and can state with confidence and with consideration his feelings, opinions and ideas in writing and in speaking during individual conferences, during group discussion and during large groups instructional sessions.	None	None	None	None
2. The learner recognizes the significance of differences in dialects (personal speech patterns, i.e., vernacular, lingo, jargon, slang, regional language, social language) as the learner relates to persons or populations and can identify at least three dialects and detect the likeness and the differences.	None	None	None	None
3. The learner makes appropriate choices of dialects and each choice is demonstrated by his ability to communicate effectively in writing and in speaking to the class, to small groups within the class and to designated group or individual audiences.	None	None	None	None
4. The learner translates dialects to function for him economically, socially and culturally as demonstrated by his successful communication with those of different dialects.	None	None	None	None
5. The learner contrasts and studies the trends and influences which have caused the language to evolve and demonstrates his knowledge by writing an assigned paper on "The History of the English Language".	None	None	None	None
6. The learner analyzes the variability of language design and transforms sentences and paragraphs to convey ideas.	None	None	None	None
7. The learner encodes orally the ideas from a drama or a poem with such a degree of feeling that listeners can decode the ideas in like form.	None	None	None	None
8. The learner reads historical and modern literature of varied cultures appropriate to his ability, needs and desires as determined by an inventory or profile.	None	None	None	None

TABLE LXV (Cont.)

Expected Measurable Outcomes	Sequential Test of Educational Progress: Reading Part I	Reading Part II	Writing Part I	Writing Part II
9. The learner locates and notes pertinent literature to clarify, support, and/or disprove his ideas.	2,6,14,16, 17,21,26, 31	9,11,13,16, 22,26,27,31	1,2,4,6,7, 9-11,13, 16-19,21, 25,26	1,3,4,6,9, 11-14,17, 18,23-26,30
10. The learner continuously records his own writings, retains them and evaluates growth by comparing them to his former writings, writings of his comparable performance peers and other authors.	None	None	None	None
11. The learner discriminates types of information in mass media (television, radio, newspaper, magazine, books, motion pictures, plays and advertising) as to whether the information is fact, opinion or fiction.	2,4-6,12, 14,16,17, 21,22,24, 26,27,31, 35	2,6,7,9,11-13,16,22, 25-28,31,34	1,2,4,6,7, 9-11,13, 16-19,21, 25,26	1,3,4,9,11-14,17,18, 23-26,30
12. The learner selects and compares values found in historical literature with modern literature and reacts to the events of the time.	7,9,11,19, 30,34	5,10,15,17, 18,20,23,32, 33	None	None
13. The learner's attitudes toward others are in part a reflection of his ability to select and synthesize concepts evolving from literature.	1,3-5,7-13, 15-20,22-25,27-30, 32-35	1-8,10-12, 14,15,17-21, 23-25,28-30, 32-35	1-3,5-8, 10-12,14-30	2-5,7-16,19-22,24-29
14. The learner presents selections from all forms of literature demonstrating the range of emotions.	None	None	None	None
15. The learner writes his ideas, views and opinions in a form and style acceptable to him and his readers.	None	None	3,8,12,14, 15,22,23, 27	5,7,10,27, 30
16. The learner writes ideas, views and opinions about situations, events or persons and can identify the most effective and appropriate form (narrative, descriptive, expository or argumentative) being used.	None	None	1,2,5-7, 15,20,21, 24-26,28-30	2-5,7-14, 16,19-22, 28,29
17. The learner shows his ability to empathize with a writer by being able to emulate the writer's style and field.	None	None	None	None
18. The learner exhibits a desire to write by composing on paper without topic direction both during assigned periods of time and without assignment.	None	None	None	None
19. The learner shows objectivity in writing by discarding his preferred form and selecting the form that most expresses the demands of a situation.	None	None	None	None

TABLE LXV (CONT.)

Expected Measurable Outcomes	Sequential Test of Educational Progress: Reading Part I	Reading Part II	Writing Part I	Writing Part II
20. The learner recognizes writing as a tool of communication he can use to express the ideas, views and opinions of others even though they may be in conflict with his own.	None	None	None	None
21. The learner originates spontaneous oral composition from the dialogue of small groups and writes the composition in a form legible to himself and others.	None	None	None	None

TABLE LXVI

A SUMMARY OF THE ASSOCIATIONS EXISTING BETWEEN CEP-EMO'S AND THE STANFORD ACHIEVEMENT TEST ITEMS: GRADE 3, SCIENCE

Expected Measurable Outcome Elementary Level*	Test Items
1. Demonstrates his ability to interpret information presented in graphs, charts, diagrams and formulas.	None
2. Lists in detail observable characteristics of a given phenomenon.	None
3. Makes a reasonable conclusion or recognizes trends in a set of data.	1-38
4. Identifies the factor most likely to have caused a given change in a system.	None
5. Recognizes the tentative nature of scientific theories and conclusions.	None
6. Listens to or reads evidence supporting ideas contrary to his own personal opinions.	31
7. Exhibits a reluctancy to base conclusions on a few observations.	None
8. Accepts the value that there is a universal basis for cause and effect.	None
9. Accepts the idea that man is capable of eventually understanding most of his environment.	None
10. Manifests a willingness to consider new evidence to change opinions or conclusions and retains objectiveness when there is an element of personal pride, bias, prejudice, or ambition.	None
11. Recognizes the difference between an observation and an inference.	None
29. Understands the broad conceptual schemes of human physiology and its relation to health, nutrition and reproductions.	None
30. Understands the conceptual model of the universe.	None

Expected Measurable Outcomes Elementary Level*	Test Items
31. Understands the relationship between an organism and its environment.	None
32. Understands the broad conceptual schemes pertaining to conservation laws	None
33. Explains scientific phenomena at an appropriate level of sophistication.	None
34. Gives specific illustrations or examples of generalization.	None
35. Relates new materials to previous knowledge.	None
36. Describes an event or experiment using appropriate terms and language.	None
37. Devises an experiment to test a hypothesis about a familiar situation.	
38. Judges the relevancy of data to the immediate problem.	None
50. Gives examples of some of the applications of science to life comfort and discomfort.	None
51. Explains the necessity to conserve and develop natural resources.	None
52. Makes suggestions as of ways to conserve and develop natural resources.	None
53. Distinguishes between science and its applications.	None
61. Gives attention to science-related issues.	None
62. Seeks knowledge about eminent scientists and their discoveries.	None
63. Seeks further knowledge of science.	None
64. Exhibits a desire to know and to discover.	None
65. Exhibits a degree of curiosity about nature and the universe.	None

*EMO's 12-28, 39-49 and 54-60 are Secondary Level EMO's and are not related to grade 6 Stanford Achievement Test

TABLE LXVII

A SUMMARY OF THE ASSOCIATIONS EXISTING BETWEEN CEP-EMO'S AND THE STANFORD ACHIEVEMENT TEST ITEMS: GRADE 6, SCIENCE

Expected Measurable Objective Elementary Level*	Test Items
1. Demonstrates his ability to interpret information presented in graphs, charts, diagrams and formulas.	None
2. Lists in detail observable characteristics of a given phenomenon.	None
3. Makes a reasonable conclusion or recognizes trends in a set of data.	1-58
4. Identifies the factor most likely to have caused a given change in a system.	None
5. Recognizes the tentative nature of scientific theories and conclusions.	None
6. Listens to or reads evidence supporting ideas contrary to his own personal opinions.	None
7. Exhibits a reluctancy to base conclusions on a few observations.	None
8. Accepts the value that there is a universal basis for cause and effect.	None
9. Accepts the idea that man is capable of eventually understanding most of his environment.	None
10. Manifests a willingness to consider new evidence to change opinions or conclusions and retains objectiveness when there is an element of personal pride, bias, prejudice or ambition.	None
11. Recognizes the difference between an observation and an inference.	None
29. Understands the broad conceptual schemes of human physiology and its relation to health, nutrition and reproductions.	None
30. Understands the conceptual model of the universe.	30

TABLE LXVII (Cont.)

Expected Measurable Objective Elementary Level*	Test Items
31. Understands the relationship between an organism and its environment.	3,18,24,41
32. Understands the broad conceptual schemes pertaining to conservation laws.	11
33. Explains scientific phenomena at an appropriate level of sophistication.	None
34. Gives specific illustrations or examples of generalizations.	None
35. Relates new materials to previous knowledge.	None
36. Describes an event or experiment using appropriate terms and language.	None
37. Devises an experiment to test a hypothesis about a familiar situation.	None
38. Judges the relevancy of data to the immediate problem.	None
50. Gives examples of some of the applications of science to life comfort and discomfort.	None
51. Explains the necessity to conserve and develop natural resources.	None
52. Makes suggestions as of ways to conserve and develop natural resources.	None
53. Distinguishes between science and its applications.	None
61. Gives attention to science-related issues.	None
62. Seeks knowledge about eminent scientists and their discoveries.	None
63. Seeks further knowledge of science.	None
64. Exhibits a desire to know and to discover	None
65. Exhibits a degree of curiosity about nature and the universe.	None

*EMO's 12-28, 39-49 and 54-60 are Secondary Level EMO's and are not related to grade 6 Stanford Achievement Test

TABLE LXVIII

A SUMMARY OF THE ASSOCIATIONS EXISTING BETWEEN CEP-EMO'S AND THE SEQUENTIAL TEST OF EDUCATIONAL PROGRESS ITEMS: GRADE 9-11, SCIENCE

Expected Measurable Outcomes Secondary Level*--Science	Test Items			
	Grade 9		Grade 11	
	Part I	Part II	Part I	Part II
12. Organizes data into meaningful form and determines the data most useful in attempting to solve a given problem and is able to translate data into graphs, tables or charts.	None	None	None	None
13. Recognizes the appropriateness and limitations of measuring devices in a given situation.	None	None	None	None
14. Identifies the necessary safeguards in an experimental or practical situation.	None	None	None	14
15. Uses appropriate experimental procedures suitable to the solution of the problem and devises an experiment appropriate to the solution of the problem.	None	None	7	None
16. Devises experiments designed to test hypothesis (causes, variables and generalizations) on the basis of qualitative and quantitative data, interprets data, modifies the approach and repeats a sufficient number of times to improve reliability.	None	None	None	None
17. Demonstrates skills in manipulating laboratory equipment in solving problems, in selecting appropriate equipment and safety practices.	None	None	None	None
18. Uses pertinent information, reasoning and principles to justify a prediction or course of action.	None	None	None	None
19. Identifies uncontrolled variables.	None	None	None	None
20. Draws a generalization and a conclusion based on data and suggested mathematics formulas or verbal generalization to summarize the relationships shown in the data.	1,2,3,4,5, 7,9,10,12, 13,14,21, 23,27,28	3,4,8,19, 22,28,29	6,11,12,13, 15,16,17, 18,19,22, 27	1,2,9,21, 23,24,25, 26,28,29
21. Devises an experiment to test a hypothesis about an unfamiliar situation.	None	None	None	27
22. Recognizes that sufficient data is or is not available to support a conclusion.	26	None	None	12,17

TABLE LXVIII (Cont.)

Expected Measurable Outcomes Secondary Level*--Science	Test Items Grade 9 Part I	Grade 9 Part II	Grade 11 Part I	Grade 11 Part II
23. Judges the precision of a suggested answer in light of the precision of data.	None	None	None	None
24. Judges whether a wuantitative answer lies outside the limits of experimental errors.	None	None	None	None
25. Evaluates the relevancy of a hypothesis to a given set of data.	None	None	None	None
26. Identifies procedural or logical errors in a given situation.	None	None	None	None
27. Maintains an alert skepticism toward statements of authority in scientific discourse.	None	None	4	None
28. Seeks evidence from a variety of dependable sources.	None	None	None	None
39. Understands broad concepts of the particle nature of matter and the interaction of units.	None	None	None	None
40. Has a broad conceptual understanding of the kinetic-molecular theory.	None	None	None	None
41. Understands the concept of electromagnetic radiation and wave phenomena.	None	None	None	None
42. Understands the revolutionary character of geological changes and biological development.	None	None	None	None
43. Understands the equilibrium systems and the concepts of minimal energy content and random energy distribution.	None	None	None	None
44. Applies knowledge gained in performing numerical operations.	None	None	None	None
45. Applies relevant principles to familiar or unfamiliar situations.	None	None	None	None
46. Predicts the effect of a specific change in a closed system.	None	None	None	None
47. Identifies unstated assumptions involved in a conclusion or course of action in analyzing scientific materials.	None	None	None	None
48. Selects a learned theory or principle that is consistent with given facts, observations, or data.	1,2,16,19, 25,30	13,21,26	20,21	20,22

Expected Measurable Outcomes Secondary Level*--Science	Test Items Grade 9 Part I	Grade 9 Part II	Grade 11 Part I	Grade 11 Part II
49. Evaluates a situation by judging the appropriateness of a given prediction, conclusion or course of action.	None	None	None	None
54. Gives examples of possible applications of scientific knowledge to the solution of important social problems such as overpopulation and preservation of our natural resources.	None	None	None	None
55. Gives examples of application of science through medical research.	None	None	None	None
56. Gives examples of changes brought about by technology and some of the problems that have resulted.	None	None	None	None
57. Gives suggestions as to how scientific knowledge might help to raise universal standards of living.	None	None	None	None
58. Describes the essential difference between pure and applied science.	None	None	None	None
59. Identifies instances in which scientific discoveries have raised new questions.	None	None	None	None
60. Gives instances in which there was a time lag between the establishment of scientific knowledge and its general acceptance by social groups.	None	None	None	None
66. Knows some of the scientific projects being supported with public funds.	None	None	None	None
67. Gains knowledge of contemporary scientific ideas.	None	None	None	None
68. Reads scientific sections of newspapers and magazines.	None	None	None	None
69. Recognizes the vocational and leisure implications of technology.	None	None	None	None
70. Seeks various sources of information concerning scientific careers.	None	None	None	None
71. Gives critical thought to claims of radio, television, magazines and other forms of popular scientific or pseudo scientific advertising and seeking of valid evidence.	None	None	None	None

Expected Measurable Outcomes Secondary Level*--Science	Test Items			
	Grade 9		Grade 11	
	Part I	Part II	Part I	Part II
72. Displays a deep understanding of a value system by choosing a scientific or technical career if he finds he has the talents.	None	None	None	None
73. Undertakes scientific reading, experimentation or other activities on his own initiative for his own pleasure.	None	None	None	None
74. Develops opinion concerning the social and moral responsibility of scientists.	None	None	None	None
75. Uses the forces and materials in his environment in a manner he considers intelligent.	None	None	None	None
76. Undertakes an educational program leading to an advanced degree involving original research in a scientific discipline.	None	None	None	None
77. Pursues a scientific or technical career if he is capable and interested.	None	None	None	None
78. Understands that science is basically an intellectual activity.	None	None	None	None
79. Understands that when there is a conflict between a scientific theory and well confirmed observable facts, the great majority of scientists will reject the theory and hope (or strive) for a new theory, or a modification, in better agreement with the facts.	None	None	None	None
80. Understands that no standard methods or procedures for successful scientific discovery can be identified.	None	None	None	None
81. Understands that science, as a human enterprise, has self-checking methods of refining and extending its understanding of the universe, but claims no method for identifying absolute truth.	None	None	None	None
82. Understands that the criteria for success in scientific achievement are basically different from those in art, religion, literature, history, or other intellectual activity.	None	None	None	None
83. Understands that the methods of scientific inquiry cannot now and may never be able to settle questions in non-scientific fields such as religion and art.	None	None	None	None

TABLE LXVIII (Cont.)

Expected Measurable Outcomes Secondary Level*--Science	Test Items			
	Grade 9		Grade 11	
	Part I	Part II	Part I	Part II
84. Knows certain important historical and philosophical developments in science.	None	None	None	None
85. Has an appreciation that while the intellectual activity of scientists involves much disciplined rational thought, the creative side is largely irrational and unexplained.	None	None	None	None
86. Has an appreciation that scientific activity is similar to both art and philosophy in its search for order and structure.	None	None	None	None
87. Recognizes that the history of science is the record of the growth of ideas about the natural environment.	None	None	None	None
88. Develops the philosophy that scientists represent a typically diverse group of education people, rather than supermen or absent-minded professors.	None	None	None	None

*Emo's 1-11, 29-38, 50-53, 61-65 are elementary level Emo's.

TABLE LXIX

A SUMMARY OF THE ASSOCIATIONS EXISTING BETWEEN CEP-EMO'S AND THE STANFORD ACHIEVEMENT TEST ITEMS: GRADE 3, SOCIAL STUDIES

Expected Measurable Outcomes Primary Level--Social Studies	Test Items
1. The student categorizes data in various ways, utilizing different systems of classification.	None
2. The student lists those behaviors which are considered acceptable by his group or considered unacceptable by his age group.	None
3. The student works effectively within groups and works independently without interferring with the goals of other individuals or the group.	None
4. The student defines maps and globes as a representation of the earth or part of the earth.	None
5. The student views his environment in place and time and demonstrates this view by identifying place, location and participates in planning his daily schedule.	None
6. Given photographs of city street scenes, families engaged in recreation, suburban and rural homes of modern United States society, the student describes how values and beliefs are reflected in decisions families make.	None
7. Given pictures of houses of two cultures, the student identifies similarities and differences in materials used, furnishings and construction.	None

TABLE LXX

A SUMMARY OF THE ASSOCIATIONS EXISTING BETWEEN CEP-EMO'S AND THE STANFORD ACHIEVEMENT TEST ITEMS: GRADE 6, SOCIAL STUDIES

Expected Measurable Outcomes Intermediate Level--Social Studies	Test Items
8. Given photographs of city street scenes, families engaged in recreation, suburban and rural homes of modern United States society, the student: (1) identifies three or more sub-cultures or ethnic groups, (2) identifies three or more types of communities (urban, suburban, rural), and (3) identifies rules which he feels are in conflict with each other.	None
9. Given an illustration focusing on meeting family food needs by moderns and primitives, the student states in his own words the self-sufficiency of food supply in primitive societies and the interdependence in contemporary societies.	None
10. After observing a dramatization dealing with role conflict and listening to two divergent reports of the incident, the student distinguishes between an accurate and an inaccurate description of a sequence involving role conflict.	None
11. Given illustrations and sentences which demonstrate precise examples of a geographic center, latitude, longitude, earth rotation and its effect on time, time zones, systems of land survey, urban street grids, southeast, southwest, northwest, azimuth and degrees of latitude and longitude, the student identifies each and states an example of each.	46-74
12. Given a social conflict, the student identifies the probable causes, creates alternative hypotheses for its resolution, and conducts an experiment to test the project's solution to the hypotheses.	None
13. The student constructs a plan of documented social action in which he has a leadership role, and actively enlists the support of others.	None
14. The student revises opinions and modifies behavior in light of new evidence.	None

TABLE LXXI

A SUMMARY OF THE ASSOCIATIONS EXISTING BETWEEN CEP-EMO'S AND THE SEQUENTIAL TEST OF EDUCATIONAL PROGRESS ITEMS: GRADE 9, SOCIAL STUDIES

Expected Measurable Outcome Junior High Level--Social Studies	Test Items
15. The student listens to a value laden statement contradictory to his own position, and is able to paraphrase the statement to the satisfaction of the person expressing the opposing view.	None
16. The student demonstrates his understanding that American democracy is a changing concept by explaining in his own words the pivotal points in the development of the present day democracy.	None
17. The student demonstrates in his daily life in school and out, the basic methodologies and problem solving techniques of the seven major social science disciplines.	None

TABLE LXXII

A SUMMARY OF THE ASSOCIATIONS EXISTING BETWEEN CEP-EMO'S AND THE SEQUENTIAL TEST OF EDUCATIONAL PROGRESS ITEMS: GRADE 11, SOCIAL STUDIES

Expected Measurable Outcomes	Test Items
18. The student at every grade level, demonstrates his understanding and application of basic fallacious statements made by other persons.	None
19. Given several geographical regions from which to choose, the society within those regions, the student classifies the cultural characteristics of that society using the economy, religious expressions, or any social function acceptable for classification.	None
20. The student analyzes his concept of democracy by comparing in his own words the general view of the controversial group and the current anarchist on the American scene and their interpretation whether or not we are a "republic".	None
21. The student places an apisode or problem in larger contests including a space-time field, a movement or trend, and a conceptual frame of reference.	None