The purpose of this paper is to outline and explain the evaluation system used by the Rhode Island Department of Education to measure the effectiveness of compensatory education programs. An exposition of how relevant background, program and financial information is collected is presented. In addition, a delineation is made of the methods variables that distinguish successful from unsuccessful programs. All results are for fiscal year 1974-75 projects. (Author)
THE RHODE ISLAND COMPENSATORY EDUCATION EVALUATION SYSTEM

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A Paper Presented at the American Educational Research Association Annual Meeting
San Francisco, California
April 19-23, 1976
INTRODUCTION

The major purpose of this paper is to outline and explain the data collection and evaluation system used by the Rhode Island Department of Education to describe and measure the effectiveness of compensatory education (Title I, ESEA and State Section 4) projects and to point to future directions that should be attempted. Results of most analyses are not presented here since the volume of information would be inhibitive, although reading gains achieved through the program are mentioned.

BACKGROUND

There have been several attempts to determine the effectiveness of compensatory education programs at the national level. Studies on Head Start programs indicated that the positive effects disappeared by the end of first grade. Numerous national evaluations of Title I, ESEA reading programs have reported non-significant results. Some mentioned that program participants continued to decline, others mentioned that month for month gains were not achieved by participants and still others suggested no relation between the extent of participation in compensatory education and achievement. For the most part, large scale evaluations have shown discouraging results.

Those with greater faith in compensatory education rallied to its aid, citing the methodological and statistical shortcomings of the studies. The list was lengthy, all aspects of these studies were scrutinized and, in one instance, even the expertise of the evaluator
was questioned. The list of shortcomings can be reduced to these common problems:

1) reporting pre-test and post-test scores for different children,

2) mixing of test scores from different tests as a basis for obtaining overall average gains,

3) using or misusing grade equivalent scores to obtain average gains,

4) using tests without adequate floor properties,

5) collecting data from unrepresentative samples,

6) selecting students on a test score and including that score as a pretest (regression toward the mean),

7) clerical and scoring errors,

8) insufficient knowledge of the programs students are enrolled in,

9) poor test administration, and

10) lack of adequate control or comparison groups.

Annual state evaluation reports of Title I have typically shown more positive results than national evaluations, however, these documents also have been hindered by the problems listed above. The Rhode Island Department of Education has instituted a system of data collection and evaluation on a statewide basis that eliminates many of the problems that have plagued similar efforts.
THE INSTRUMENTS AND COLLECTION TIMES

1. Pre-program information form -- Early in September, local system
   Title I coordinators indicate the names of the reading teachers
   involved in each project and the approximate number of students
   served by each teacher. This information is used to develop
   packets of pre-test reporting instruments for each teacher.

2. Pre-test reporting instrument -- Packets for reading teachers are
   distributed at a statewide meeting for coordinators in September.
   Forms are completed for each student participating in compensatory
   education reading programs. In addition to raw scores on prescribed
   tests (see data preparation section), data on age, sex, ethnic group,
   prior Title I experience, type of school and grade retention are
   also collected for each child.

3. Post-test reporting instrument -- Post-test information forms are
   also distributed at a statewide Title I conference in May. Computer
   forms generated from pretest information are completed by teachers
   and, in addition to test scores, data on variables like absenteeism,
   activity the child participated in, number of weeks in program, etc.,
   are collected for each child who took a pretest.

4. Program Questionnaire for Teachers -- In April, teachers in Title I/
   Section 4 Reading programs are asked to complete a questionnaire
   dealing with program variables like minimum amount of time spent
   with any one child per week, size of group serviced, type of materials
   used, are checklists of reading progress used, etc.
5. Parent Involvement Instrument -- In May, a questionnaire is completed concerning the duties, activities, and functions of the parental advisory committee as well as about parental interaction with project operation.

6. Combined Project and Program Information, Form 74-75 -- In June, project directors complete this instrument outlining expenditures by activity, children served by grade and activity, time of operation, full-time equivalents for personnel, nature and number of inservice training programs, etc.

7. Individual project evaluations -- Each project is evaluated, either internally to the project or by an external agency, to provide information on the effectiveness of individual programs.

TESTING INSTRUMENTS

In an effort to circumvent the problems associated with combining test results from different reading instruments, a core group of local system administrators and teachers, evaluators and staff was developed for the purpose of selecting one standardized achievement test suitable to be used uniformly across the state for compensatory education evaluation of reading at the state level.

The groups chose the following instruments and forms:
<table>
<thead>
<tr>
<th>GRADE LEVEL</th>
<th>INSTRUMENT</th>
<th>TEST LEVEL</th>
<th>FORM</th>
<th>PRE</th>
<th>POST</th>
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</thead>
<tbody>
<tr>
<td>K</td>
<td>California Tests of Basic Skills A</td>
<td>S</td>
<td>S</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>California Tests of Basic Skills B</td>
<td>S</td>
<td>S</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>California Achievement Tests 1</td>
<td>A</td>
<td>B</td>
<td></td>
<td></td>
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<td>3-4</td>
<td>California Achievement Tests 2</td>
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<td>B</td>
<td></td>
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<tr>
<td>5-6</td>
<td>California Achievement Tests 3</td>
<td>A</td>
<td>B</td>
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<tr>
<td>7-9</td>
<td>California Achievement Tests 4</td>
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<tr>
<td>10-12</td>
<td>California Achievement Tests 5</td>
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<td>B</td>
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</table>

In this way scores can be aggregated across the state for various grades.

**DATA PREPARATION PROCEDURES**

All questionnaires and instruments that are completed are thoroughly checked by a data clerk prior to keypunching. The data clerk scrutinizes the returns for a) any blanks that have occurred, and b) any glaring errors in responses like failure to right-justify, etc. Any delinquent return or inaccurate data is followed up.

After careful checking, the data is sent to keypunchers and then delivered to computer analysts.

**ANALYSIS**

Raw scores for every child in the program are submitted to the state agency. Raw scores are converted to Achievement Development Scale Scores (ADSS) which are equal unit measures. The analysis is conducted using ADSS scores and then mean ADSS scores for groups are converted to raw scores and then to percentiles. In this way, more meaningful percentiles are reported and the use of grade equivalent scores for evaluation purposes is eliminated.

At present, the rest of the information available (financial, project...
variables, parental involvement information, etc.,) is treated descriptively or in simple crosstabulation form. Future directions will be to relate relevant variables collected to the achievement gains demonstrated.

FUTURE DIRECTIONS

Since the system is relatively young it has been impossible to design certain highly important elements into it. It is reasonably clear that an efficient, responsive and comprehensive system has been developed and that a series of next steps can be attempted.

Future efforts will include the following:

1. Using the variables available in the system, we can begin to delineate successful as well as unsuccessful elements of compensatory education reading programs.

2. Analysis in future years will include the area of mathematics achievement as a basic skill.

3. An attempt will be made to incorporate one or more of the evaluation models for Title I recently developed by RMC Research Corporation in an effort to strengthen statements made about the cognitive progress of students in the programs.

4. An effort will be made to delineate the number, nature and types of activities that impinge on each child. It is possible that effects on achievement will be different depending on number and types of supplemental activities the student is engaged in.
5. Information in the future will be gathered on the duties, functions, etc., of individual building parent advisory groups and not only on district-wide PAC groups.

It is hoped that with further development of this data collection and evaluation system we will be better able to answer questions like, "What works in compensatory education programs?"
TABLE 1

Percentile gains of kindergarten students enrolled in Title I reading or reading-related programs.

<table>
<thead>
<tr>
<th>Pretest Percentiles</th>
<th>Posttest Percentiles</th>
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<tbody>
<tr>
<td>50</td>
<td>50</td>
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</tbody>
</table>

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"normal" performance of average students

actual performance of Title I participants

expected performance without compensatory program
TABLE 2

Percentile gains of grade one students enrolled in Title I reading program.

<table>
<thead>
<tr>
<th>Pretest Percentiles</th>
<th>Posttest Percentiles</th>
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</thead>
<tbody>
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</table>

"normal" performance of average students

actual performance of Title I participants

expected performance without compensatory program
TABLE 3

Percentile gains of grade two students enrolled in Title I reading program.

<table>
<thead>
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<th>Pretest Percentiles</th>
<th>Posttest Percentiles</th>
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</thead>
<tbody>
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<td>45</td>
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</table>

"normal" performance of average students

actual performance of Title I participants

expected performance without compensatory program
TABLE 4

Percentile gains in vocabulary, comprehension and total reading for grades two to eight.

<table>
<thead>
<tr>
<th>Grade</th>
<th>Vocabulary</th>
<th>Comprehension</th>
<th>Total Reading</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pre  Post</td>
<td>Pre  Post</td>
<td>Pre  Post</td>
</tr>
<tr>
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<td>25  48</td>
<td>10  37</td>
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<tr>
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<td>17  33</td>
<td>9   32</td>
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<tr>
<td>4</td>
<td>21  34</td>
<td>12  35</td>
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</tr>
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<td>5</td>
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<td>13  31</td>
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<td>7</td>
<td>16  26</td>
<td>15  26</td>
<td>14  26</td>
</tr>
<tr>
<td>8</td>
<td>16  28</td>
<td>13  26</td>
<td>14  25</td>
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