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AUTHOR Jongsma, Eugene A.
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ABSTRACT

This report presents case studies of the three exemplary projects within the Special Emphasis Project, a federally funded national study of how intensive reading programs might change the patterns of elementary school students who read one or more grades below grade level. An introductory section provides information on the history, organization, and purpose of the Special Emphasis Project. The next three sections discuss the local projects in Louisiana, Tennessee, and Texas. Each of these project descriptions contains information on the background and setting of the local project, specific elements of the program (staffing, curriculum and materials, inservice training), and results of the program (impact on reading achievement, attitudes and behavior, and carryover effects). Section five of the report is a cross-project summary, discussing evaluation results and student, staff, program, and administrative characteristics across the three projects. (RL)

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What Kinds of Supplementary Intensive Reading Instruction Make a Difference?

REPORT OF THREE CASE STUDIES OF THE SPECIAL EMPHASIS PROJECT

Spring 1981

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Louisiana

Dr. Carl Singleton
Director Special Emphasis Program
St. Mary Parrish School Board
P.O. Drawer 580
Franklin, LA 70538

Tennessee

Ms. Harriet Crump
Director of Curriculum Development
Shelby County Schools
160 S. Hollywood St.
Memphis, TN 38112

Texas

Ms. Nora Forrester
Right To Read Special Emphasis Director
Northside Independent School District
5900 Evers Road
San Antonio, TX 78238

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The U.S. Department of Education has a long history of offering leadership to local educational agencies interested in improving their instructional programs. A chief commitment has been to develop more effective literacy programs, especially for children who are less fortunate or academically deficient. It is within this context that the Special Emphasis Project was initiated.

The Special Emphasis Project grew out of Title VII, the National Reading Improvement Program. Special Emphasis was essentially a national study to test the hypothesis that intensive programs of reading instruction, introduced at an early age, can change the patterns of student reading achievement in schools having large numbers of students reading one or more grades below level. Unlike many intervention programs, Special Emphasis was to focus on prevention, with emphasis on grades 1 and 2.

Seven independent projects were closely monitored for 3 years. Although the projects differed in organization and methods, they all shared the same basic goals. During the study, three of the seven projects were deemed exemplary. That is, these projects came closest to fully implementing the original provisions of the Special Emphasis Project. This report presents case studies of the three exemplary projects.

I hope that by sharing the experiences gained through Special Emphasis, teachers and administrators may acquire insights into how they might strengthen their own local reading programs.

Shirley Jackson
Director, Basic Skills
Improvement
The United States
Department of Education

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I. INTRODUCTION

History of the Special Emphasis Project

The Special Emphasis Project was a large undertaking directed at preventing and correcting reading difficulties among elementary school-age children. It required the combined efforts of hundreds of educators and the participation of over 10,000 children and their parents for a 3-year period.

Rationale and Intent

The Right to Read Special Emphasis Project was initiated in 1976 under the provisions of Public Law 94-380, Section 721, as amended by Public Law 94-194, Section 10. The underlying rationale was that intensive programs of reading instruction, introduced at an early age, can change the patterns of student reading achievement in schools having large numbers of students reading one or more grades below level.

Unlike many Federal intervention programs which are remedial in nature (e.g., Title I of the Elementary and Secondary Education Act), the Special Emphasis Project had a preventive focus. Schools were to take a diagnostic-prescriptive approach to reading instruction for all students in grades 1 and 2 and provide remedial attention to students in grades 3 through 6 who were reading below level.

Summary of Provisions

The major provisions called for in the Special-Emphasis Project were:

- Teaching of reading by reading specialists for all children in grades 1 and 2.
- Teaching of reading by reading specialists for children in grades 3 through 6, who have reading problems (i.e., are achieving 1 or more years below grade level).
- An intensive vacation reading program for children reading below grade level or experiencing problems in learning to read.

It should be noted that a "reading specialist" was defined as an individual who has a master's degree in reading and has successfully completed 3 years of teaching.

In addition to the major provisions listed above, the Special Emphasis Project called for 14 specific provisions. These included features such as diagnostic testing, broad-based planning, preservice and inservice training programs, parent participation, and district-wide efforts to promote an interest in reading. It was believed that these features, if followed, would enhance the effectiveness of the project.

In planning for the implementation and evaluation of the Special Emphasis Project, the U.S. Office of Education sought to use a controlled experiment approach. That is, each school which implemented a Special Emphasis program, or "treatment," would be matched with a "comparison" school in the same district. Ideally, the "project" and "comparison"

schools were to be similar with respect to student characteristics, size of enrollment, materials, and the regular instructional approaches used. If the matching were successful, evaluators would get a more accurate assessment of the effects of the Special Emphasis provisions.

Projects Funded

In response to request for proposals, 50 applications were received. Of these, eight were selected for funding. Each received between \$100,000 and \$200,000 per year. The project was scheduled to run for 3 consecutive school years -- 1976-77, 1977-78, and 1978-79.

Two of the original projects were dropped and a new one was added, resulting in seven projects that were closely monitored. These seven were located in California, Louisiana, Michigan, Ohio, Tennessee, Texas, and West Virginia.

Project Evaluation

Evaluation was an important part of the Special Emphasis Project. The U.S. Office of Education contracted with an outside evaluator to carefully monitor and assess the effectiveness of the programs. The evaluation design examined two types of evaluation--process evaluation and impact evaluation.

Process evaluation was directed at examining the process of implementing and delivering the Special Emphasis program. More specifically, process evaluation sought to answer the following questions:

- To what degree did project sites adhere to the Special Emphasis guidelines?
- How comparable were the Special Emphasis schools and students to the "comparison" schools and students?
- What were the characteristics of the Special Emphasis programs that were implemented?

These questions were answered from data and information collected from classroom observations, questionnaires, and interviews.

Unlike process evaluation, impact evaluation focused on the short and long term effects of Special Emphasis. It sought to answer the following questions:

- What impact did the Special Emphasis programs have on student reading achievement?
- What impact did the Special Emphasis programs have on reading-related attitudes and behaviors of staff, students, and parents?
- What carryover effects did the Special Emphasis programs have within each participating school district?

These questions were answered through standardized reading tests, as well as through questionnaires, interviews, and observation.

The results from the seven projects were used to create a total picture of the effects of the Special Emphasis concept as implemented in a variety of settings nationwide. As the evaluation results accumulated, two important findings became evident. First, there was wide variation among projects as to the degree to which they complied with the original U.S. Office of Education provisions mentioned earlier. Often, for reasons beyond their control--such as community, social or political factors--individual project officials were unable to adhere to all the provisions. Second, there was a strong relationship between program effectiveness and degree of compliance with the original provisions. That is, those projects that adhered to the guidelines generally had the greatest impact.

Based upon process data and observations collected by the evaluation team, it was found that three projects implemented programs that closely conformed to Special Emphasis regulations and guidelines--Louisiana, Tennessee, and Texas. These were called Group I sites. At the remaining four projects (California, Michigan, Ohio, and West Virginia), program implementation was in question and impact results suspect. These were labeled Group II sites.

Organization and Purpose

The purpose of this report is to provide illustrative case studies of the three Group I sites--Louisiana, Tennessee, and Texas--since these projects demonstrated the greatest potential for success. Each case study

will be organized into these subsections:

- Background and setting
- Description of the program
 - Staff
 - Organization-administration
 - Curriculum and materials
 - Summer program
 - Inservice training
- Results
 - Impact on reading achievement
 - Impact on attitudes and behavior
 - Carryover effects
- Summary

Following the case studies, a cross-project summary will pull together the common features of each project and look at overall evaluation results. Teachers and administrators who are interested in improving their local reading programs may find several useful suggestions in the knowledge gained from the Special Emphasis Project.

II. THE LOUISIANA PROJECT

Background and Setting

The Louisiana project was located in a rural area that was experiencing change. Because of employment opportunities, there was an influx of itinerant workers as well as some professionals. Still, the school population remained relatively stable, but poor.

Two project schools and two comparison schools were involved in the Special Emphasis project. One project school served grades 1 through 3, while the other school served grades 4 through 8. The two comparison schools were similarly divided. Slightly more than half the students were black and approximately 50 percent of all the students received free or reduced-price lunches. Although the students in the project and comparison schools were quite similar in demographic characteristics, the comparison group (N=700) was more than twice as large as the project group (N=300).

One Title I reading specialist and one aide were assigned to each school. Students who qualified received up to 45 minutes per day of extra reading instruction. In the project schools, this extra assistance was coordinated with the regular classroom program; however, this coordination did not take place in the comparison schools.

The Precision Teaching System was used for Title I in each school. This system is a machine-assisted approach to teaching and practicing

basic reading skills. The reading specialists worked with small groups or individuals, introducing skills and directing their learning experiences. Students practiced independently recording their work on scoring cards. These cards were machine scored and each student's skill attainment was recorded. Aides in the Title I labs supervised practice sessions with small groups, scored tests, and kept records. The Precision Teaching System was developed by the Special Emphasis project director.

Facilities and materials at project and comparison schools were well matched. The Houghton Mifflin basal reading series was used at all schools. Both treatment and comparison schools had adequate audiovisual equipment, such as tape recorders, overhead projectors, listening stations, teaching labs, and language masters. However, this equipment received only minimal use, except in the Title I and Special Emphasis labs where they received moderate use.

Description of the Program

There were two major objectives of the Special Emphasis Program: (1) to increase the percentage of students reading at grade level from 14 percent to 50 percent based on the results of the California Test of Basic Skills, and (2) to determine the factors contributing to poor reading achievement and develop teaching methods to overcome those factors.

Staff. The Special Emphasis Project was supervised by a project director who divided his time between administering and implementing Special Emphasis and Title I. Although he was not a full-time employee of the school district, he was recognized by the project staff for his educational leadership and for providing operational guidelines and materials for their instructional program.

Also assigned to the project were three reading specialists, all of whom had master's degrees and a minimum of 10 years' teaching experience. Each specialist served two grade levels--1 and 2, 3 and 4, or 5 and 6. One aide assisted each specialist with small group instruction and recordkeeping. Aides were trained and supervised by the reading specialists. A part-time secretary/clerk served on the project.

Organization-administration. According to local project policy, all students in grades 1 through 6 were served by the Special Emphasis Program. This exceeded the original USOE provisions which called for Special Emphasis instruction for 100 percent of the first- and second-graders but only those third- through sixth-graders who had reading problems.

Special Emphasis instruction took place in the reading specialist's lab-type classroom with the specialist, classroom teacher, and aide present. Classes, averaging 25 students, were brought to the reading room and divided into groups according to reading ability and skill needs. Each group then rotated through a series of activities. In general, the reading specialist conducted instruction, the teacher

provided followup and practice activities, and the aide supervised oral reading or independent work. The roles of the teacher aide shifted according to teacher preference. A listening station provided a fourth activity in the specialist's room.

There were important differences in the amount of instructional time (excluding Title I) between the schools. First-graders at the project school received a total of 120 minutes of reading instruction daily; 90 minutes of this was Special Emphasis. At the comparison school, first-graders received 90 minutes of reading instruction. Second- and third-graders at all schools received 90 minutes of daily instruction. At the project school, 60 minutes of this time was provided by Special Emphasis. Comparison school students, grades 4 through 6, had 15 minutes more instruction each day (75 versus 60 minutes) than their counterparts at the project school. Thus, except for first grade, the comparison schools offered an equal or greater amount of reading instruction than the treatment schools.

Diagnostic testing was conducted and used as a guide for grouping students for reading instruction. Achievement tests were administered periodically by the school district to measure student progress. Test results were made available for conferences with interested parents or guardians of individual students. However, no special activities to stimulate interest and improvement in reading were conducted.

Teachers, reading specialists, principals, and the project director were involved in planning the reading program at the project schools.

Specialists and classroom teachers indicated that they reviewed student progress and jointly planned their instructional activities on a weekly basis. Their dual teaching assignment offered them the opportunity to communicate daily. While the specialists clearly took the lead, there was an effort during the final project year to shift instructional responsibilities back to the classroom teachers.

Curriculum and materials. Throughout the project's first year, Special Emphasis utilized the materials of the Precision Teaching System. Diagnostic quizzes, teaching strategies and materials keyed to each of the 5,000 identified reading skills, and evaluation quizzes were the core of this system. Automatic scoring machines provided immediate feedback to student and teacher. This program, however, was also used for the school district's Title I program. For the second and third years of Special Emphasis, the Precision Teaching System was used exclusively in Title I labs. With the reading specialist responsible for the basic instructional program in 1977-78 and 1978-79, the basal reading series (Houghton Mifflin), along with published and teacher-developed skill activities, were the major teaching resources used in Special Emphasis. It should be noted, however, that these systems--the mastery recordkeeping system and the basal series---were not used exclusively in the Special Emphasis Program.

Summer program. In 1978, the Louisiana project conducted a 20-day summer program serving about 170 students, or about 50 percent of the project schools' total enrollment, grades 1 through 6. The summer

program objectives were to:

- counter the regression of reading skills during the no-school, summer months;
- foster language development; and
- provide remedial instruction for below grade-level readers.

The program was staffed by four reading specialists and four regular classroom teachers who served as aides. In addition, two high school students regularly volunteered their services and an average of six parents accompanied the students on weekly field trips. Reading specialists handled four classes each day, providing instruction in 50-minute time blocks. In addition to the 50-minute reading class, each student had 50-minute periods of library, arts, crafts, and films and a 10-minute recreation break. The program operated from 8:20 a.m. to 12:30 p.m.

Coordinating the summer and regular school-year programs was accomplished by using identical commercial materials. The Houghton Mifflin basal series and Precision Teaching System, which were the mainstays of the regular school-year program, were also used during the summer. Word and reading-related games were integrated into the summer instructional program. Unfortunately, no system for measuring student gains was built into the summer program.

The role of the school principal during the summer was twofold: supervise instruction and maintain discipline. The project director

supervised the program's overall operation and provided technical assistance as needed.

In 1979, the staffing configuration in the summer program was changed to include four reading specialists, three teachers, and two teacher-librarians. Four aides from the school-year program were assigned to the summer program; three assisted teachers and one worked with the librarians. Teachers who had served as aides the previous summer were responsible for conducting reading classes in 1979. No volunteers were involved. At the conclusion of the summer program, the Special Emphasis reading specialists assisted principals in setting up reading groups for the coming school year.

Inservice training. A practical site-specific series of inservice training programs was offered to classroom teachers, specialists, aides, and principals. In 1976-77, the first year of the project, the focus of the training was on analyzing the district-adopted basal reading series to determine its appropriateness for the student population. Where the basal materials were found inappropriate, alternative strategies and materials were devised. Sessions were led by the project director, and a local university recognized these sessions as an extension course and offered participants three semester hours of credit.

The following 2 years, 1977-78 and 1978-79, inservice training was conducted by the project director and a reading specialist. Participation was open to principals, teachers, specialists, and aides. The instructional focus of this training was on implementing a

diagnostic-prescriptive approach to reading instruction, selecting appropriate materials, and interpreting student assessment data. . Although academic credit was not offered during these 2 years, 52 percent (1978) and 64 percent (1979) of the classroom teachers attended the inservice training. Generally, the participants rated the sessions "very helpful," on a scale of "not helpful," "somewhat helpful," and "very helpful."

Results

A variety of questionnaires, checklists, and tests were used to evaluate the effects of all the Special Emphasis Projects. But the Stanford Diagnostic Reading Test (SDRT) was the major instrument used for assessing changes in student reading achievement. The SDRT was administered, by classroom teachers in both the project and comparison schools, every fall and spring of the project years.

The measure selected to assess achievement was the "comprehension total" score on the SDRT. The score was chosen because (1) it is common to all levels of the test; and (2) it came closer to representing a measure of achievement rather than a diagnosis of a skill.

Impact on reading achievement. The impact of Special Emphasis on reading achievement was examined in three ways: by comparing the SDRT scores for all project and comparison school students who took the pretests and posttests each year; by doing a similar comparison but only for students scoring below the mean, or average; and by charting a trend analysis of students reading 1 or more years below grade level.

When the total group of Special Emphasis students was compared to the total group of comparison students, the following results were found:

- Second and fifth grade Special Emphasis students scored significantly higher at the end of the school year than second and fifth grade comparison students. This finding occurred both in 1977-78 and in 1978-79.
- On the average, second and fifth grade Special Emphasis students made approximately 1 year's progress in terms of grade equivalent scores. Second and fifth grade comparison students averaged below .6 year's progress each year.
- No significant differences were found between Special Emphasis students and comparison students at any other grade levels.

The impact of Special Emphasis on achievement was also assessed by looking only at those students who scored below the mean for their grade in their particular schools. This approach had the advantage of focusing on those students for whom Special Emphasis was intended.

The same procedure used for the total comparison was used for the below mean comparisons. That is, the average posttest scores (SDRT) of the below mean Special Emphasis students were compared to those of the below mean comparison students, after equating the groups on pretest scores. The results were:

- In 1977-78, the below mean Special Emphasis students in grade 2 scored significantly higher than the below mean comparison students.
- These grade 2 Special Emphasis students averaged 1 year's progress while the comparison students averaged .5 year's progress for the academic year.
- In 1978-79, significant differences were found in favor of the below mean Special Emphasis students in grades 2, 4, 5, and 6.

A third approach to evaluating the impact on achievement was to examine trends in the percentage of students reading 1 or more years below grade level, from the spring of 1977 to the spring of 1979.

The results indicate that, in general, as students progressed in grade level, a larger percentage of them read 1 or more years below grade level. Overall, a greater number of students were reading 1 or more years below level by the end of the project year than at its beginning. This was true of both the Special Emphasis and comparison groups. However, when the trends for the two groups were compared, it was discovered that the Special Emphasis students did not lose ground as much as did the comparison students.

Impact on attitudes and behavior. In addition to evaluating the impact of Special Emphasis on reading achievement, changes in attitudes and/or behaviors of teachers, students, and parents were also examined. Questionnaires were administered to teachers, parents, and students in 1978 and 1979. The major findings were:

Teachers:

- Teachers at the Special Emphasis schools reported positive reading attitudinal and behavioral change in their students in 1978 and in 1979. Improvement in the attitudes of their colleagues and principal was also reported each year.
- At the comparison schools, a more positive change in student attitudes and behaviors and colleague and principal attitudes was reported in 1979 than in 1978.

- Teachers at the Special Emphasis schools reported no major problems as a result of participating in the project. Some concerns included: (1) the feeling that reading was emphasized at the expense of other programs; and (2) conflict between teachers and reading specialists.
- Although comparison school teachers expressed considerable resentment toward the project in 1978, this abated in 1979.

Students and parents

- In 1979, slight differences were observed in reading attitudes and behaviors in favor of Special Emphasis students, but only for grade 3.
- In 1978 and 1979, there were no significant differences in attitudes or reading behaviors between the Special Emphasis students and the comparison students in grades 4 through 6.
- In 1978 and 1979, no significant differences in attitudes were found between Special Emphasis and comparison parents.

Carryover effects. Continuing a program after Federal funding has ended may be regarded as one of the best indicators of program success. Teachers and administrators were interviewed at the project's end to determine what changes they had perceived and what programmatic features would remain.

School district officials had some problem distinguishing the benefits derived from Special Emphasis from those derived from their Title I program. They claimed that some of the lessons learned in Special Emphasis would be carried over to the Title I. Special Emphasis as a total approach, however, would not be continued because of the expense involved.

Principals noted that the Special Emphasis Program had enhanced their teachers' instructional capabilities. Responding to the growing teacher concern for diagnosing skills and grouping students, the school staff decided that all first-graders would continue to undergo diagnostic testing for placement. The school staff also felt that Special Emphasis had made a breakthrough in getting parents involved in signing completed worksheets.

Several project staff members pointed to the potential for further carryover through the appointment of one of the project reading specialists to the curriculum coordinator position for the school district.

Seventy-three percent of the teachers indicated that Special Emphasis had influenced their performance in individualizing approaches, in focusing on specific skill development, and in using materials and techniques.

Summary

The key features of the Louisiana program were the diagnostic-prescriptive approach, the use of small group instruction to meet development skill needs, and a close linkage between Special Emphasis and classroom reading instruction. Because of the limited experience and deprived backgrounds of many students in this district, school officials and staff supported programs designed to overcome those social handicaps. The existence of the Title I Precision Teaching System, however, represented a confounding influence on any assessment of impact.

The Louisiana project complied with the Special Emphasis guidelines, with two exceptions: (1) the project and comparison populations were not of equal size; and (2) the program lacked a reading motivation component.

In terms of the project's original objectives, scores did improve on the district's standardized test but not as much as was hoped. In 1979, 30 percent of the students were at grade level. This was up from 14 percent in 1976, but short of the goal of 50 percent.

The project's second goal was to determine factors contributing to reading problems. During the Special Emphasis project, reading specialists noted those skill areas particularly problematic for students in the project schools. They documented successful and unsuccessful instructional techniques and materials to serve as future resource guides for teachers working with low-achieving students.

From the perspective of local officials and the staff, the Louisiana project was considered a success.

III. THE TENNESSEE PROJECT

Background and Setting

The Tennessee project was located in the rural outskirts of a metropolitan area. Many of the area's original families had little contact with the urban environment and were culturally distant from the newer families moving into the area because of urban sprawl. The school district was experiencing rapid growth, and an ambitious building program and a staff recruitment effort were attempting to keep pace with the growth. Alarmed by the increasingly poor performance of its students on standardized reading tests, and disappointed in the results of Title I, the district applied for a Special Emphasis grant.

The Special Emphasis school was located in a well maintained older building. Its traditional structure housed a traditionally structured education program. Each self-contained classroom averaged about 29 students.

In contrast, the comparison school was housed in a new building featuring an open-space environment. Classes averaged 23 students, considerably fewer than in the experimental school.

Both schools served grades K through 8, but the project was limited to grades 1 through 6. Students in the two schools came from the same geographical area and would eventually attend the same high school. The project school was larger (N=300) than the comparison school (N=200).

There was also a higher percentage of black students (about 75 percent) at the project school than at the comparison school (about 50 percent). Both schools qualified for, and received, Title I services. About two-thirds to three-fourths of the students received free or reduced-price lunches.

The project school's staff was slightly larger than the comparison school's. Project school teachers had twice as much teaching experience as comparison school teachers, who were apparently younger and more recently trained. The percentage of teachers holding graduate degrees, however, was almost identical.

Excluding the Special Emphasis staff, the project school had three reading specialists--one position was funded by Title I and the other two positions funded by the Emergency School Assistance Act. The comparison school had two reading specialists. Both schools had the services of a librarian, nurse, speech teacher, physical education teacher, psychologist, and social worker. Both schools had classroom aides assisting with reading instruction; and there were five aides in the project school and two aides in the comparison school.

There were notable differences in the regular reading programs used at the two schools. During the 1977-78 school year, the project school used DISTAR as its primary instructional program. This program monitors student progress through skill levels and frequently regroups students based upon outcome measures. A basal text was used as a supplementary resource. During the following year, 1978-79, DISTAR and the basal were

installed as co-equal. On the other hand, the primary instructional strategy at the comparison school was the basal reading series through 1977-78. In 1978-79, DISTAR was introduced in the comparison school and used in conjunction with the basal.

Neither school had a wealth of materials or equipment for use in reading instruction. Teachers generally had the district-adopted basal, DISTAR materials, and some audiovisual equipment at their disposal. They sometimes improvised or created their own teaching materials.

Description of the Program

The overall objectives of the Tennessee project were to:

- operate an intensive reading project that will facilitate pupil growth and lend itself to evaluation;
- operate a project which demonstrates a balanced, flexible approach to teaching reading in the diagnostic-prescriptive mode;
- provide inservice training to instructional staff and aides;
- encourage parent/community involvement by providing structured activities, information, and opportunities for participation; and
- operate a project which will provide residual benefits once funding ends.

Staff. In addition to the project director, three reading specialists were assigned to the Special Emphasis Project. All specialists had master's degrees and a minimum of 8 years of teaching experience. One specialist served grades 1 and 2. The other two served grades 3 through 6.

Three aides, one per specialist, were also assigned to the project. The aides were supervised by the reading specialist and the principal. Formal training for the aides was provided through the Special Emphasis inservice program and individually by each specialist. Aides' duties included preparation of instructional materials and small group remedial and followup instruction. In addition, a clerical aide provided recordkeeping and support services for the project.

Organization-administration. Involved in planning the overall reading program at the Special Emphasis school were the project director, principal, reading specialists, and several teachers. On the individual class level, reading instruction and student grouping were determined by the classroom teacher and the respective reading specialist.

At the beginning of the Tennessee project, reading specialists provided intensive reading instruction independently of the classroom teachers. Midway through the first year, however, the program was restructured to have project personnel teach cooperatively with the classroom teachers. This originally caused some confusion and delay in project services, but once the change was completed, the project operated smoothly.

Reading specialists and aides worked in pairs. Throughout the morning, they moved from classroom to classroom to work with each class during its regularly scheduled reading period. During the afternoon, small groups of students reported to the specialists' classrooms where they received corrective instruction in specific skills. As implemented then, Special Emphasis was serving nearly 100 percent of the project

school students.

In grades 1, 2, and 3, a total of 90 minutes was devoted daily to reading instruction. Of this time, half was spent in the classroom with the teacher, reading specialist, and aide present. The rest of the time was spent with the specialist and aide in the reading lab. Grades 4, 5, and 6 received 105 minutes of language arts instruction each day during which the classroom teacher, specialist, and aide jointly provided a 45-minute reading instruction period. Students requiring remedial work went to the lab for an additional 45 minutes of instruction each afternoon. The remaining language arts time was devoted to spelling, grammar, and related areas.

Staff schedules provided daily planning periods for all teachers and specialists. While these periods were not exclusively used for planning reading instruction, reading specialists met at least weekly with teachers to discuss progress and/or jointly develop instructional plans. For grades 1 through 4, assessment and information exchange occurred daily on an informal basis. Coordination between specialists and classroom teachers, as reported by both, was high.

Curriculum and materials. As prescribed by the Special Emphasis guidelines, mastery of reading skills was tracked for each student through two recordkeeping systems. Overall progress was assessed by Individual Criterion Reference Tests (Educational Development Corporation). A multipage printout reflecting skill mastery and deficiency was available for each student. These skills were correlated to the school's reading materials (DISTAR and Houghton Mifflin) to assist teachers in keying instruction to meet student needs. Houghton Mifflin

criterion-referenced tests were regularly administered and student skill mastery charted. This information was used to establish progress and determine instructional needs.

The major change introduced to the project school's reading program during the Special Emphasis program was the use of DISTAR, a reading instruction management system. Students in grades 1 through 6 were exposed to both DISTAR's programmed materials and the basal reading series (Houghton Mifflin). In some classrooms, the teacher used the basal instructional program while the reading specialist or aide used DISTAR; in others it was reversed.

There was agreement among teachers across all grade levels that the materials available for reading instruction were adequate to serve student needs. In cases where there were not enough items to permit each teacher to have his/her own, they were willingly shared.

Summer program. A 4-week summer program was conducted as part of the Tennessee project. The program consisted of a 4-day work week of intensive learning, from 8:45 a.m. to 12 p.m., and a 30-minute reading period in the afternoon. Fridays were activity days usually reserved for field trips. Events on activity days were incorporated into the language experience part of classroom instruction. The program served 225 students, about two-thirds of the total project school enrollment.

The summer program objectives were to:

- retain and expand previously learned language and reading skills;
- promote skill development in areas of student deficiency;
- broaden student interest by providing enrichment activities and experiences; and
- provide teachers with an opportunity to experiment with innovative teaching methods/approaches.

Along with commercially prepared basic reading kits, teachers used locally developed instructional materials selected from workshops held during the school year. Much of the material focused on developing and/or strengthening comprehension and decoding skills. In many ways, the summer program was an extension of the regular school program. Progress was determined by comparing students' spring Metropolitan Reading Test scores with those obtained in the fall.

The summer program staff included three reading specialists who coordinated and provided support to classroom teachers; 13 teachers who instructed groups of 8 to 24 children; and 3 aides who were associated with the regular school-year program. Each day, one to three volunteers provided assistance in the arts and crafts classes.

The project school principal and the project director supervised the program. The principal was responsible for administration, building management, supplies, and class and bus scheduling. The project director served as a trouble shooter and spent much time with the project staff during the planning phase, and attended to central office administrative issues.

Outstanding features of the summer program were its highly organized structure, active parent participation, the program's outreach efforts to involve the nonactive parents, and the reward of a paperback book each week for participating students.

Inservice training. During the project's first year (1976-77), all teachers involved with Special Emphasis participated in inservice training. These staff development sessions focused on: (1) mastery of reading program objectives; (2) implementation of a diagnostic-prescriptive approach to teaching reading, (3) interpretation of assessment and evaluation data; and (4) preparation of support materials.

The project director, reading specialists, and principal collaborated on preparing and conducting inservice training. In addition, a weekly course, taught by an outside consultant, was provided.

The inservice programs during the second and third years, 1977-78 and 1978-79, were an extension of the one held during the first year. Again, all teachers participated. Teachers reported that the inservice program was "somewhat helpful" in enhancing their classroom reading instruction. The teacher inservice component of Special Emphasis was one of the major factors which motivated school officials to apply for Special Emphasis funds.

Results

Impact on reading achievement. As with the other Special Emphasis projects, the Stanford Diagnostic Reading Test was administered each fall and spring to monitor changes in reading achievement. The pre- and post-scores for all Special Emphasis students were compared to the scores of all comparison students at each grade level.

There were no significant differences in reading achievement between students who had received Special Emphasis instruction and comparison students who had received the regular reading program. No differences were found at any of the grade levels or for any project year.

Similar results were found when only the scores of the below average students were used. There were no significant differences in achievement between below average students who had received Special Emphasis instruction and below average students who were in the regular program. This finding was consistent for all grade levels and every project year.

A trend analysis was also conducted of students reading 1 or more years below grade level. Both the Special Emphasis school and the comparison school had a drop from 1977 to 1979 in the percentage of students reading 1 or more years below grade level. For the Special Emphasis school, the drop was from 45 percent to 20 percent; for the comparison school, from 34 percent to 20 percent. Later analysis revealed that much of the apparent drop was due to the exiting of low-achieving students, e.g., sixth-graders. Overall, it did not appear

that the Special Emphasis Program was any more effective than the regular program in reducing the percentage of students reading 1 or more years below grade level.

Impact on attitudes and behavior. Extensive data were collected, through questionnaires and surveys, in 1978 and 1979 from teachers, students (grades 3 through 6), and parents regarding reading attitudes and behaviors. The findings:

Teachers.

- Teachers at the Special Emphasis school reported an improvement in student reading attitudes and behaviors and an improvement in their fellow teachers' and principal's attitudes in both 1978 and 1979.
- Teachers at the comparison school reported seeing an improvement in student reading attitudes and behaviors and an improvement in their fellow teachers' attitudes in both 1978 and 1979.
- At the comparison school, following the assignment of a new principal in 1978, teachers reported an improvement in the principal's attitude toward reading.
- At the Special Emphasis school, teachers felt that reading was being emphasized at the expense of other program areas in 1978 and 1979.
- At the comparison school, in 1978, teachers expressed resentment over the extra work the project imposed, but in 1979, no objections were expressed.

Students and Parents

- There were no apparent differences in reading attitudes and behaviors between grade 3 Special Emphasis students and comparison students in either 1978 or 1979.

- There were no apparent differences in reading attitudes and behaviors between Special Emphasis students and comparison students in grades 4 through 6 in either 1978 or 1979.
- There were no apparent differences in attitudes between the parents of Special Emphasis students and the parents of comparison students in either 1978 or 1979.

Carryover effects. No Special Emphasis project experienced more carryover effects than the Tennessee project. Not only had teachers and administrators seen scores improve on district-administered reading achievement tests, but everyone involved in the project felt that their approach to Special Emphasis worked. That is, the strategies devised for Special Emphasis were a better way of teaching than those they had used in the past.

According to the assistant superintendent for instruction, the district would be looking for ways to apply the project features--either with district funds or with outside funding. Even without further initiatives, he felt that there were carryover effects: Teachers had been trained in reading instruction, and they would apply their skills for years to come; and students and parents had been motivated to develop a keen interest in reading that would likely influence other siblings.

In the reading supervisor's view, Special Emphasis was implemented in a situation in which Title I and ESAA had not made any impact on achievement levels. By putting the reading specialist into the classroom with teachers, both children and teachers learned new skills. On matters such as student grouping, choosing appropriate materials, and space arrangement, teachers assimilated new approaches from the interchange with reading specialists. As a result, school officials.

now feel that classroom teachers are in a better position to make decisions on what students need. The reading supervisor believes that putting reading specialists into classrooms with teachers has had the greatest impact on students and teachers. Thus, the district sees that it may go a lot further than it has in the past in utilizing specialists.

In the past, the school district had been hesitant about attempting change "from the top down." Through the Special Emphasis experience, they have learned that classroom teachers are looking for support. They now recognize that, by providing resources and models, they can initiate change.

From the project school principal's perspective, both the students and the teachers had gained from Special Emphasis. Through staff development, the teachers had learned to use assessment in program planning and implementation. Parent involvement was also greater than expected. For example, as a spinoff effect, 16 parents participated in a General Education Development (GED) class taught by a reading specialist. After Special Emphasis funding expired, the principal designated the two reading specialists in his school as resource persons and reading materials coordinators so that teachers could continue to use these resources.

Teachers themselves reported a better understanding and greater use of student grouping, diagnostic assessment, matching materials with students, and handling several groups with the classroom. Although only

45 percent of the teachers predicted carryover effects, 91 percent were able to cite specific, tangible benefits from Special Emphasis.

Summary

The strengths of the Tennessee project were the strong organizational management provided by the principal, the close planning and coordination between specialists and the project school staff, and provisions for staff development. Its weaknesses were the differences between the project and comparison schools in instructional setting, class size, instructional materials, and student demographics. This was the only area in which the Tennessee project did not comply with the established guidelines.

The Tennessee project attracted more parent support than any other Special Emphasis project, and more than the project school had known before. Parents were regularly informed and updated through a school newsletter about the reading program and activities. The project director, principal, and reading specialists used PTA meetings to inform and report to parents on the program. In addition, the school open house and parent conferences provided opportunities to focus on the project and student progress. The summer vacation reading program was a vehicle for parent participation.

At the project's end, it was the consensus of project personnel and experimental school classroom teachers that the original project objectives had been achieved. According to the staff, the most notable

evidence was improvement in reading achievement on the locally administered Metropolitan Achievement Test. Teachers also reported that, by the project's end, they were aware of and were using a greater variety of teaching methods and materials to meet student needs.

IV. THE TEXAS PROJECT

Background and Setting

The Texas project was located on the outskirts of a large urban area. Once rural, this community had experienced rapid growth in the last 15 years, with the student population increasing almost sevenfold during this period. Although there is little industry in the area to provide tax support to the district, growth had been stimulated by the presence of a large university, a medical center, and three military bases.

The physical facilities of the project and comparison schools were similar. Both school buildings were large, modern structures with self-contained classrooms housing kindergarten through fifth grades.

A substantial number of students, between 39 percent and 50 percent, at the two schools was Hispanic. This was the only Special Emphasis project requiring bilingual materials and resources. Of the remaining student population, about 50 percent were white. Less than 10 percent were black. Some 40 percent to 60 percent of the students received free or reduced-price lunches.

The comparison school had more students (about 624) than the project school (about 539). Consequently, there were more teachers at the comparison school. The experience level of the two facilities was almost

identical; however, a greater percentage of teachers at the treatment school had graduate degrees. The student-teacher ratio at both schools was almost identical.

A full complement of specialists was assigned to both schools, including learning disabilities and reading specialists; speech, music, and physical education teachers; counselors; and a part-time nurse. Aides at each school, three at the project school and two at the comparison school, provided general assistance to kindergarten and special education teachers.

Both schools received Title I services. An oral language program operated at the schools and was funded through Title I. Students experiencing oral communication problems were pulled out of their regular classrooms and offered this service. The school district had assigned a reading specialist to each school. At the project school, the specialist worked in conjunction with the Special Emphasis staff, and at the comparison school, the specialist was responsible for screening and testing students, providing remedial, small group instruction, and acting as a consultant to teachers.

Each school used the Houghton Mifflin basal reading series as their regular program. To supplement this series, teachers used commercial kits, games, trade books, programmed materials, workbooks, and audio materials. Both schools had well supplied resource rooms.

At the Special Emphasis school, the regular reading program was conducted within each teacher's classroom. Daily instructional time amounted to 80 minutes for grades 1 through 5. At the comparison school, a modified Joplin Plan utilizing specialty area teachers in math, science, and language arts was followed. As part of this plan, students during their reading period were assigned to classes according to ability. Grades 1 and 2 spent 90 minutes in reading instruction daily; grade 3, 75 minutes; and grades 4 and 5, 60 minutes.

Description of the Program

The Texas project goals were to:

- provide intensive reading instruction to all first and second grade students by a reading specialist, classroom teacher, and aide;
- provide instructional help by a reading specialist to all third through sixth grade students experiencing difficulty in learning to read or reading below grade level; and
- increase teacher proficiency in diagnosing and prescribing student reading needs.

Staff. The Texas project was directed by a school district reading supervisor who also had numerous other responsibilities. Despite the limited time she devoted to project activities, her administrative and programmatic leadership was evident. Day-to-day coordination of project activities was provided by the lead reading specialist. The project team consisted of six reading specialists, five aides, and one clerk. All reading specialists had graduate degrees.

Organization-administration. Project reading specialists played a major role in the regular classroom reading program. In conjunction with the first and second grade classroom teachers, they planned the basic instructional approach, grouped students, and conducted daily instructional activities. They selected and supplied materials and equipment to enhance each classroom program. A specialist, with an aide, worked alongside the classroom teacher during the regular reading period. In addition, they returned to the classroom in the afternoon to work with individuals or a small student group to reinforce learning. This arrangement necessitated a high degree of cooperation and coordination between reading specialists and primary grade teachers.

For grades 3 through 5, reading specialists worked with small student groups in a lab-type classroom. Instruction was aimed at correcting skill deficiencies. The regular classroom reading program was conducted independently by the classroom teacher. Little evidence of coordination and/or planning between teachers and specialists was found in these grades. However, specialists attempted to keep teachers informed of the progress of students they served.

In addition to materials preparation, teacher aides worked with small student groups in grades 1 and 2. Students in grades 3 through 5 who needed remedial help received individualized attention from project aides.

All of the first- and second-graders at the project school received Special Emphasis instruction during the 1977-78 and 1978 school years.

About 50 percent of the students in grades 3 through 6 received Special Emphasis services for the project's duration.

Curriculum and materials. The basal reading series (Houghton Mifflin) was the major resource used by specialists working in grades 1 and 2. Teacher-developed and commercial skill activities, along with trade books, were the primary resources for specialists serving the higher grades.

Audiovisual equipment used most frequently to supplement basal and special reading materials included tapes and listening stations. Other equipment, less routinely used, included movies, overhead projectors, language masters, and tachistoscopes.

The Texas project used a district-developed skill mastery checklist to track student progress. Following testing at the beginning of the school year, worksheets for each student were filled out reflecting skill attainment. These worksheets were updated as the student progressed. Reading specialists maintained a duplicate worksheet for students receiving Special Emphasis instruction in grades 3 through 5.

Summer program. The 1978 summer program objectives were to:

- upgrade the reading level of children functioning below grade level; and
- promote a positive attitude toward reading.

The summer program lasted 4 weeks and enrolled slightly more than 100 students, or about 20 percent of the eligible project school enrollment. Children attended for 3 1/2 hours daily, and the time was divided into 30-minute periods. Each period, students participated in one of the following seven activities: (1) directed teaching of reading skills; (2) language experience; (3) listening skills; (4) independent reading; (5) skill reinforcement; (6) library or arts and crafts; and (7) physical education. Special activities, such as field trips and special entertainment programs, were held on Fridays.

The teaching staff consisted of six reading specialists and six aides from the regular school year. All aides had at least 1 year of college. In addition, 20 student interns from a nearby university provided support for the program. These interns--juniors and seniors majoring either in education or reading--provided 2 hours of assistance each day.

The staff developed some materials but relied heavily on commercial materials from Houghton Mifflin and other publishers. A number of audiovisual aids supplemented these instructional tools. A skills test, devised by the school district, was administered to a child whenever a teacher felt that he/she had mastered a skill.

In 1979, the summer program continued the same format and schedule as the previous year. One additional objective was added to those above: to provide students with additional instruction in comprehension and vocabulary. Student interns did not participate in the 1979 program.

Inservice training. A comprehensive inservice training program was conducted as part of the Texas project. The training program was directed at four different audiences--aides, teachers, reading specialists, and parents.

Training for aides focused on diagnostic-prescriptive activities, design of motivational activities, development of instructional materials, and specific skill development in small group settings. Each aide also received training in various kinds of remedial reinforcement activities. Aides appeared to be very effective in performing the tasks for which they had been trained.

All project school teachers participated in the inservice training. The inservice program was designed to answer specific program needs and emphasized these areas: (1) implementation of a diagnostic-prescriptive approach to teaching; (2) preparation of support materials; (3) evaluation of student progress; and (4) interpersonal relations. Sessions were conducted by an outside consultant from a nearby university, the project director, and several Special Emphasis reading specialists. During the project's final year, attention was given to highlighting approaches and practices which the reading specialists had modeled in the regular classrooms, and getting classroom teachers to assume greater responsibility for student grouping and management of the reading program. The majority of the teachers received 12 semester hours of graduate credit, and many went on to complete their master's degrees.

All reading specialists received supervisory training from the project director which better enabled them to work with classroom teachers.

The project director also conducted a training program for interested parents on ways they could become involved in the school reading program and help their children. As a result, seven parents volunteered to assist at school. They helped design motivational activities, developed materials, tutored students in other content areas, and provided small group instruction in specific skill areas.

Results

Impact on reading achievement. As with the other two projects, the "total comprehension" score from the Stanford Diagnostic Reading Test was used to assess the impact Special Emphasis had on reading achievement.

Some significant differences were found when the posttest scores of all Special Emphasis students were compared with the posttest scores of all comparison students. In 1977-78, the second-graders who had received Special Emphasis instruction scored significantly higher than their counterparts in the comparison school. The Special Emphasis students made, on the average, .7 years of progress, while the comparison students averaged .5 years of progress. The following year, 1978-79, significant differences were found for second- and fifth-graders, favoring Special Emphasis. At the fifth grade, the average observed change in grade equivalent was 1.7 years for the Special Emphasis group and .6 for the comparison group.

Similar results were found when the comparisons were limited to below average students. In both 1977-78 and 1978-79, below average second-graders who received Special Emphasis instruction made significantly more progress than below average students in the comparison school. No significant differences were found at any other grade level.

A trend analysis revealed that there was almost no change in the percentage of students reading 1 or more years below grade level for either school during the project. Furthermore, the rate at which students fell a year or more below level was about the same for both Special Emphasis and comparison schools. For each group, the percentage of students reading 1 or more years below grade level increased about 10 percent each year.

Impact on attitudes and behaviors. Results of the teacher, student, and parent surveys that were administered are summarized:

Teachers

- From 1978 to 1979, teachers at the Special Emphasis school reported positive changes in (1) student attitudes and behaviors; (2) fellow teachers' attitudes toward reading; and (3) the principal's attitude toward reading.
- From 1978 to 1979, teachers at the comparison school reported positive changes in student attitudes and behaviors. However, the change in 1979 was not as great as in 1978.
- From 1978 to 1979, fewer teachers thought their colleagues' and principal's attitudes toward reading showed improvement.
- From 1978 to 1979, teacher concerns or problems resulting from project participation diminished at the Special Emphasis school.

- From 1978 to 1979, teacher concerns resulting from project participation decreased at the comparison school; however, the majority of teachers remained dissatisfied with their role.

Students and Parents

- In 1978, no apparent differences were found between the Special Emphasis and comparison schools in the self-reported reading attitudes and behaviors of grade 3 students.
- In 1979, significantly more Special Emphasis third-graders reported that reading was fun than did comparison students.
- Throughout the project, no differences were found between the Special Emphasis and comparison schools in the self-reported reading attitudes and behaviors of fourth through fifth grade students.
- In 1978 and 1979, comparison school parents reported a higher incidence of school-arranged, parent-teacher conferences.

Carryover effects. District officials felt that all objectives of

Special Emphasis had been met. As a result of the Special Emphasis

experience, the district will demand more reading preparation for its new

teachers and will set guidelines for reading programs in the primary

grades. The skill mastery recordkeeping system installed at the project

school will be retained and replicated in other district schools.

Special Emphasis was, to some extent, responsible for the district's

decision to increase its reading budget over the past 3 years. School

administrators and the staff said that they feel that they have a better

understanding of the role of reading in the curriculum. The key elements

of Special Emphasis have been incorporated into the ongoing Title I

program.

The project also gave the district a broader understanding of the role of the reading specialist. As a result, teachers appear to be inclined to seek advice and assistance from reading specialists in teaching reading within their classrooms. This situation stands in contrast to the situation found at the comparison school where the reading specialist appears to be viewed as an adjunct to the school reading program and is not regularly sought out by teachers for assistance. The district's reading supervisor no longer sees the need for "pull out" programs in the primary grades, since the use of reading specialists within the classroom has been so successful.

Sixty-seven percent of the teachers in the Special Emphasis school predicted residual effects in teacher practices, chiefly in using materials, skills assessment, and in adopting learning stations and instructional grouping within the classroom.

Parent volunteers were incorporated into the school environment and became aides in the instructional program. School and district personnel expect parent involvement to be extended in future years.

Summary

The major thrust of the Texas project was found in grades 1 and 2 where personnel and material resources were concentrated. Reading specialists and aides worked within the structure of regular classroom units with classroom teachers.

After its initial adjustment period, this project reflected a high level of teamwork between the Special Emphasis staff members and classroom teachers. The close collaboration fostered two results: Reading specialists provided instructional support to classroom teachers, and specialists served as models for reading attitudes and practices for teachers and students.

Strong administrative support, both from the district and the project school principal, was evident. Keen interest in the Special Emphasis program and reading in general was evident. Both the experimental and comparison schools had exceptionally well stocked and well organized materials centers; materials appeared to be circulated and used by teachers in their reading programs.

The Texas project met two of its three objectives stated at the beginning of the project. By the second project year, all first- and second-graders and those in grades 3 through 5 needing special help were being served. With respect to increasing teacher proficiency in diagnosing and prescribing student reading needs (the third objective), there are no definitive data. However, 70 percent of the teachers saw improvement in their colleagues' attitudes toward reading.

V. CROSS-PROJECT SUMMARY

Although each of the three projects had its unique characteristics, they shared many common features. They all complied rather closely to the Special Emphasis guidelines established by the U.S. Office of Education. Additional knowledge may be gained by noting the features that were common across all three projects. This summary has been organized into five subsections: (1) student characteristics; (2) staff characteristics; (3) program characteristics; (4) administrative characteristics; and (5) evaluation results.

Student Characteristics

Racial/ethnic minorities were strongly represented in the Special Emphasis projects although the composition varied with each project. The Louisiana population was 58 percent black, 41 percent white, and 1 percent other minorities. In Tennessee, 75 percent of the students were black and 25 percent were white. The Texas population consisted of 50 percent Hispanic, 42 percent white, 5 percent black, and 3 percent other minorities.

The students involved in Special Emphasis were almost equally split between boys and girls, with males outnumbering females about 52 percent to 48 percent.

Socioeconomic level was estimated through the number of students receiving free or reduced-price lunches. Because voluntary enrollment is

permitted in subsidized food programs, this is not a completely reliable index of SES level, but it does provide a rough estimate. The proportion of low SES Special Emphasis students ranged from 44 percent (Texas) to 81 percent (Tennessee). It would be safe to say that during the 3-year project, over 50 percent of the Special Emphasis students came from low SES or poor homes.

In reviewing all seven Special Emphasis projects, evaluators noted two other important characteristics of this population--mobility and absenteeism. In some projects, as many as 11 percent of the students were missing 25 percent or more of the school year. The combined factors of absenteeism and student transfers, no doubt, contribute to lower achievement and sample attrition. In the three exemplary projects, however, the number of students missing 25 percent or more of the school year was limited to 1 percent or 2 percent. This may well be one of the reasons why these three projects had a greater degree of success.

Staff Characteristics

School size varied from project to project; therefore, the number of teachers involved in Special Emphasis also varied. In Louisiana and Tennessee, about 12 teachers were employed at each Special Emphasis school. The Texas faculty had 21 classroom teachers.

Most classroom teachers had over 6 years of teaching experience. Texas was lowest, with an average of 6 to 7 years' experience; Tennessee was highest with 15 years' average experience. Overall, teachers at the

Special Emphasis schools had more experience than teachers at the comparison schools. It should also be pointed out that the more experienced teachers were also less recently trained and, therefore, may have had less exposure to recently developed techniques for teaching reading.

The percentage of teachers who held graduate degrees ranged from 17 percent (Louisiana) to 36 percent (Tennessee). This was somewhat lower than the 39 percent average for all Special Emphasis projects.

Teachers were surveyed to determine their general orientation to teaching practices. The survey sought to determine whether they were inclined to be "diagnostic-prescriptive" in their approach to teaching, or whether they were inclined to take a "whole-class" approach. Similarly, the survey attempted to find out whether teaching methods tended to be "structured" or "flexible."

In most instances, the general orientation of teachers in the Special Emphasis and comparison schools was similar. Few teachers used a whole-class approach and few teachers could be classified as flexible. In 1979, near the end of the project, exceptions to this pattern emerged in Louisiana and Texas where none of the Special Emphasis teachers followed a whole-class approach versus 27 percent and 18 percent of the teachers in the respective comparison schools.

For the most part, persons hired as reading specialists for the project were veteran teachers and had limited experience as reading

specialists. Special Emphasis, together with increasingly stringent State requirements for reading instruction, may have been responsible for many of these teachers being employed as reading specialists.

Program Characteristics

Teaching materials used across projects and within projects were generally similar. The basal reading series was the mainstay of every program. Interestingly, all three projects employed the same basal series--Houghton Mifflin. In conjunction with the basal text, skill activities--both published and teacher-developed--were major resources. Teachers and school administrators credited Special Emphasis with having increased the variety and amount of hardware and software available for instruction. Utilization of these items varied from project to project, and in Louisiana, Tennessee, and Texas, they received moderate use.

Although the settings and groupings in which reading specialists worked varied, instructional materials used by them tended to follow a general pattern. Specialists conducting the basic reading instruction relied on a basal reading series, as did the regular classroom teachers. Specialists providing remedial instruction relied upon teacher-developed as well as commercial skill activities. Instructional kits, for example, were used at most projects.

All Special Emphasis projects established skill mastery recordkeeping systems for tracking student progress in reading skills and charting the diagnostic-prescriptive approach. Louisiana used the Precision Teaching

System, a locally developed management system, in combination with the Houghton Mifflin management system. Tennessee used the Houghton Mifflin system in combination with the DISTAR management system. Texas used a locally developed management system. In several instances, the management systems were in place prior to Special Emphasis and were used in other programs such as Title I.

Reading specialists were deployed in different ways across projects and within projects. In Louisiana, all Special Emphasis instruction occurred in the specialist's lab-type classroom. In the morning, entire primary classes visited the lab on a rotating basis, and the classroom teachers remained to offer assistance. In the afternoon, the same process was repeated for upper level students. In the Tennessee project, the reading specialist and aide worked as a pair, moving from classroom to classroom to offer basic instruction to each class during its regularly scheduled reading period. During the afternoon, small student groups reported to the specialist's classroom to receive corrective or remedial instruction. In Texas, the specialist and aide offered basic reading instruction in the regular classroom for first and second grades. Third- through fifth-graders visited the specialist's lab individually or in small groups, during the afternoon, for remedial instruction.

Although there are differences in the way the reading specialists were used, two important patterns seem to emerge from the projects. First, there seems to be a trend away from "pull out" programs, that is, programs that remove students from the regular classroom. (This was at least true for basic reading instruction.) Instead, specialists are

going to the students. Second, the regular classroom teacher remains during the specialist's visits and assists with instruction. This arrangement offers two advantages: It allows the specialist to function as a model for grouping and instructional practices; and it also enhances the coordination between specialist and classroom teacher.

All projects offered summer programs which provided intensive reading instruction along with complementary multiactivity experiences. Attendance at the summer programs varied, as Louisiana attracted about 50 percent of the eligible students; Tennessee enrolled 67 percent; and the Texas program served 20 percent of the Special Emphasis students.

Some of the more interesting and engaging activities provided by the summer programs were:

- Field trips to airports, bakeries, zoos, and a variety of business-industry-recreation settings which provided children with experiences which were used in language experience exercises related to reading instruction.
- An inexpensive book distribution on an unspecified day each week which was designed to stimulate attendance and increase student interest in reading.
- Gym and library activities which were integrated into the reading curriculum by presenting learning activities dealing with eye-hand coordination, following directions, worlds of fantasy and creativity, and the relationships among music, dance, song, and literature.

Preservice training for aides and inservice training for classroom teachers were held at all the projects. Although participation was voluntary in Louisiana, it was mandatory in Tennessee and Texas. For the most part, programs were designed and conducted by the project staff,

usually the project director and reading specialists. Tennessee and Texas utilized the services of an outside consultant. Louisiana offered graduate credit for participation. All projects had sessions which focused on diagnostic-prescriptive approaches to teaching reading and involved developing materials for teaching reading.

Administrative Characteristics

Project administration involved different personnel combinations at each location, including local administrators, the project director, the project school principal, and one or more of the reading specialists. Although the project directors represented a diverse group, all of them had many years of experience in education and were in recognized leadership positions.

All three project directors were located offsite in their district's administrative offices. In general, these directors provided less supervision of project personnel and less guidance in program implementation than directors of other projects who were located at the project schools. These project directors typically assigned responsibility for ongoing project activities to an individual located at the project school, such as the principal or lead reading specialist. The primary functions of these directors were to set guidelines for conducting the program, to provide inservice training, and to supply materials and staff.

Project directors were responsible for establishing positive, cooperative relationships with the school involved in the study. This proved to be a particularly sensitive issue for the comparison schools which received none of the programmatic benefits of Special Emphasis yet were burdened by the semiannual testing and data gathering. However, positive relationships existed at the three exemplary projects. The comparison school's staff at these projects had a basic understanding of Special Emphasis and the role of the comparison school. They received sufficient advance notification of the evaluation team's visits, proposed activities, and data requirements. This high degree of cooperation was not always evident at other projects.

One other characteristic common across all three projects was unflagging administrative support with respect to space allocation, staffing, logistical and material support, timely decisions, and responsiveness to evaluation requirements. This was untrue of all the other projects. Even though each district had voluntarily sought Special Emphasis funds, once funded, some districts did not give Special Emphasis the priority and local support it needed. However, the three exemplary projects gave evidence of strong local administrative support.

Evaluation Results

As mentioned earlier, impact evaluation focused on the effects of Special Emphasis. More specifically, it assessed the impact of Special Emphasis on three areas: (1) student reading achievement; (2) reading-related attitudes and behaviors of staff, students, and

parents; and (3) carryover effects. Each project was evaluated independently, but the same tests, questionnaires, and surveys were used. No statistical analyses were conducted across projects due to differences in participants, programs, and other factors.

When the SDRT posttest scores of all Special Emphasis students were compared to the posttest scores of all comparison students, only limited differences were found. Louisiana and Texas both had a pattern of significant differences, favoring Special Emphasis, for grades 2 and 5. No significant differences were found between Special Emphasis and the regular program for any other grades. At neither of these locations was there any evidence that the Special Emphasis program for grade 2 or grade 5 was different than that offered at other grade levels. In the Tennessee project, no significant differences were found between the Special Emphasis and comparison groups at any grade level.

A separate analysis used only those students who scored below the mean for their grade level in their particular school. This focused on those students for whom the Special Emphasis project was intended. When the posttest scores of below average Special Emphasis students were compared to the posttest scores of below average comparison students, slightly different results were found. In the Louisiana project, significant differences, favoring Special Emphasis, were found for grades 2, 4, 5, and 6. In Texas, only grade 2 differences were significantly better for Special Emphasis. Again, no significant differences were found at any grade level for the Tennessee project.

The trend analysis results indicate that, in most of the projects, the total percentage of students reading 1 or more years below grade level either decreased or held steady from 1977 to 1979. Only in Louisiana did the Special Emphasis group not fall below level as much as did the comparison group. In general, the Special Emphasis projects did little to reverse the tide of students scoring below grade level. Overall, about one-fifth to one-third of these students continued to achieve 1 or more years below grade level.

The overall effects of Special Emphasis on reading achievement were not as great as was originally hoped. However, some cautionary points should be kept in mind. As the project progressed, evaluators began to question the appropriateness of the SDRT for this project because of the ceiling effects many students encountered. Also, Tennessee, which showed no significant differences between groups when using the SDRT, did find Special Emphasis students scoring higher on the locally administered achievement test, the Metropolitan Achievement Test. Finally, standardized tests sample only limited behaviors; it may be that the test used was not tapping some of the benefits derived from Special Emphasis.

Based on the results of questionnaires administered to teachers, most felt that their students' reading-related attitudes and behaviors had improved during the study. Many teachers at the three exemplary projects also reported positive changes in their colleagues' and principal's attitudes regarding reading.

Students in grades 3 through 6 completed annual surveys regarding their attitudes toward reading. Few, if any, differences in attitude were found between Special Emphasis students and comparison students.

Parents also completed an annual questionnaire regarding changes that they had seen in their child's reading behavior and their own personal involvement in the school's program. No meaningful differences were found between parents of Special Emphasis children and parents of comparison children.

Carryover effects varied from project to project but were significant for the three projects. When the individual projects are viewed collectively, the following factors seem to be key determinants in creating carryover:

- A district official provided leadership, supervision, and continuity.
- The project had a character of uniqueness which kept it from appearing like more of the same.
- Symbols of success were periodically evident throughout the project.
- Teachers had a feeling of ownership in the project.

VI. SUMMARY

The Special Emphasis Project was a large scale project directed at preventing and correcting reading difficulties among elementary school-age children. Funded under the Title VII National Reading Improvement Act, the project lasted for 3 years, from 1976 to 1979.

The underlying rationale was that intensive programs of reading instruction, introduced at an early age, can change the patterns of student reading achievement in schools having large numbers of students reading 1 or more years below grade level.

Seven districts, located in different parts of the country, were funded to implement Special Emphasis programs. Subsequent evaluation revealed that the three projects--Louisiana, Tennessee, and Texas--which complied most closely with the established guidelines, also had the greatest success.