DOCUMENT RESUME

ED 103 542 UD 014 915

TITLE	Evaluation of Title I ESEA Projects, 1973-1974: Technical Reports. Report No. 7523.
INSTITUTION	Philadelphia School District, Pa. Office of Research and Evaluation.
REPORT NO	R-7523
PUB DATE	Dec 74
NOTE	487p.
EDRS PRICE	MF-$ 0.92 HC-$24.75 PLUS POSTAGE
DESCRIPTORS	African American Studies; Bilingual Education; *Compensatory Education Programs; Counseling Services; English (Second Language); *Federal Programs; *Program Descriptions; *Program Evaluation; Reading Programs; Special Education; Summer Programs; Teacher Aides; Urban Education
IDENTIFIERS	Elementary Secondary Education Act Title I; ESEA Title I; Pennsylvania; *Philadelphia

ABSTRACT

This document is an annual report issued by the Department of Title I Evaluation Services, evaluating projects funded under Title I of the federal Elementary and Secondary Education Act of 1965. Assistance in evaluation design, instrument development, data analysis, and editorial matters was provided by members of the Division of Instructional Research and Development Services. Over the past nine years, comprehensive evaluations of Philadelphia's Title I program have been undertaken both systemwide and project by project. They reveal that, although relatively new, Title I projects have enabled administrators and teachers to create favorable learning environments, and to reverse some of the historic trends toward drastic pupil underachievement. Our evaluations indicate also that parental participation and positive community attitudes have increased dramatically. This volume contains the technical reports of individual Title I project evaluations. It contains extensive information about each project's rationale, expected outcomes, mode of operation, previous evaluative findings, current implementation, and attainment of its objectives. In addition, the reader will be able to gain insight into the extensive evaluation activities that are intimately linked to each project. (Author/JM)

Report #7523

EVALUATION OF TITLE I ESEA PROJECTS, 1973-1974:

Technical Reports

An annual report issued by the Department of Title I Evaluation Services, evaluating projects funded under Title I of the federal Elementary and Secondary Education Act.

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December 1974

Office of Research and Evaluation

THE SCHOOL DISTRICT OF PHILADELPHIA

Philadelphia, Pennsylvania 19103

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This report was prepared by the Department of Title I Evaluation Services. Assistance in evaluation design, instrument development, data analysis, and editorial matters was provided by members of the Division of Instructional Research and Development Services, Edward K. Brown, Director.

Projects included in this report were funded under Title I, ESEA, USOE Grants #48-1-26-51-500-1 (primary funding), #48-C-3498-51-500-01 (Classroom Aides, in part), and #48-3325-51-500-01 (Comprehensive Mathematics, Art Specialist Teachers, Kindergarten Aides, each in part), administered through the Office of Federal Programs, Thomas C. Rosica, Executive Director.

PREFACE

Over the past nine years, comprehensive evaluations of Philadelphia's Title I program have been undertaken both systemwide and project by project. They reveal that, although relatively new, Title I projects have enabled administrators and te hers to create favorable learning environments, and to reverse some of the h toric trends toward drastic pupil underachievement. Our evaluations indicate also that parental participation and positive community attitudes have increased dramatically.

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Evaluations required under Title I have given administrators an opportunity to discover and choose among alternative methods of improving instruction. The variety of projects developed and administered through compensatory education and the subsequent use of systematic instructional evaluation data will--it is hoped--lead to an era in which decision makers will apply new instructional strategies and practices in the deployment of available resources.

Stephen H. Davidoff

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*A separate technical report on each of the District Reading Projects is issued annually by the Office of Research and Evaluation's Department of Priority Operations Evaluation Services. Although these seven projects are not treated in the Title I Technical Reports, they are included in the briefer volume of Title I Abstracts (Report #7522).

Summer Components

Appendix

ACTION

The Action project provides secondary school students with cultural experiences and academic skills prerequisite to success in secondary and postsecondary education.

THE PROJECT

RATIONALE

Many target-area students are several grade levels below the national average in mathematics and English as indicated on achievement tests. They have limited concepts of numbers: some cannot perform simple addition and subtraction problems; very few understand fractions at all. Most students have serious reading problems. Many of their parents have no magazines or books at home. Because some of the schools lack complete sets of literature books, students often are not permitted to take the books home.

To meet these needs, the Action project was initiated in 1972. The School District concurred with testimony printed in Senate hearings describing target children as showing a lack of response to conventional classroom approaches. The School District agreed with Title I Guidelines outlining students' needs for improved skills in reading and mathematics, for experiential backgrounds that will motivate learning, and for teachers with understanding of their backgrounds and problems.

In the Action project teachers are trained to use games, puzzles, and highly interesting books in the classroom. If the techniques prove successful, they can be disseminated further through inclusion in the teacher-training programs serving all Title I schools.

The project works to "bridge the gap in communication that frequently exists between the home and school." By employing parents as aides, Action attends to a number of needs: aides can free teachers to concentrate on their professional work; the aides' backgrounds "may well provide a valuable adjunct to the work of the professional;" and employment of parents who need to supplement their family income helps to overcome deprivation in the target area.

EXPECTED OUTCOMES

It is expected that the project will raise the basic skill levels of secondary school students.

MODE OF OPERATION

Varying numbers of mathematics and English teachers at 16 schools elect to participate in the project. Consequently, their students become project participants. The mathematics teachers attend staff-development sessions where they are trained in using new techniques for teaching target students. The techniques include the use of games, puzzles, and other highly interesting materials to motivate students. In some schools, parents work as aides in small-group activities.

English teachers also attend staff-development sessions. In most cases, the teachers choose paperback books for their students to supplement the regular program. Students who read a certain number of books are given a book as an award.

A cultural component is woven into mathematics and English activities. Applications of mathematics are observed at Franklin Institute, Veterans Stadium, and Fairmount Park. Before attending operas or plays, students study the respective scripts in class.

PREVIOUS FINDINGS

During the project's initial year of operation, 1972-1973, the project was found to be progressing as intended. Although there were some purchasing problems, the basic skill components in most of the schools were operating. Students at 15 of the 16 schools attended cultural events.

THE 1973-1974 EVALUATION

The current evaluation of the Action project focused on the effect of last year's project implementation: the teachers' use of materials, the number of cultural events offered, and student progress in using new materials.

IMPLEMENTATION

Although the Action project's goals were the same at each site, schools used different approaches to attain them. The following paragraphs cite some of the techniques used in 13 of the 16 Action schools.

Barratt Junior High. The mathematics department set up a chess club and a mathematics laboratory. An aide helped teachers daily in the laboratory. The English component taught students skills in puppetry, in addition to the "Paperback Book Bonanza". Later in the year, Action students presented an assembly program of puppets and poetry.

FitzSimons Junior High. As part of the English component's Paperback Book Bonanza, students used materials from the Black Literature Series. The materials included related books, records, and posters. In addition to instructional aides

in the classroom, mathematics teachers used a tutoring room for small groups of students with similar problems.

Gillespie Junior High. In the English component, teachers encouraged students to read at home, and during advisory and free time. The teachers said students began to enjoy reading and bought books voluntarily. Mathematics teachers tutored students, and organized math and chess clubs.

Shoemaker Junior High. The mathematics component involved a chess club, tutoring, calculators, math minilabs, and staff development. The primary English project was the Paperback Book Bonanza. Students made cultural visits to the theater, movies, musical events, and a Passover seder.

Stoddart-Fleisher Junior High. Public speaking, debating, creative writing, a Paperback Book Bonanza, and a study of American comic books were some of the English projects. Mathematics-related activities included a newspaper, a clinic, a chess club, a game room, a career laboratory, and tutoring. Students attended 64 cultural events.

Sulzberger Junior High. The staff chose as English activities a sewing club, a choral club, paperback books, and drama for reluctant readers. At the end of the year, students participated in the Motivation/Action Expo. The exposition was described in the school's Action newspaper.

Vaux Junior High. The most successful mathematics activities were math contests, a chess club, and supplementary aids in the classroom. An awards assembly was held for students reading the most books in the Paperback Book Bonanza.

Wanamaker Junior High. The Paperback Book Bonanza and a reading laboratory were features of the English component. Mathematics teachers used concrete aids, chess and math clubs, a mathematics newspaper, a laboratory clinic, tutoring, and computer activities. Special emphasis was placed on cultural events--art, music, and drama.

Edison Senior High. The Edison English component was different from that of other schools. Three groups of students reading at or below the fourth-grade level were taught in specially rostered classes. In the mathematics component, an aide helped mathematics-laboratory teachers to instruct students. Appropriate classroom activities took place before and after attendance at cultural events.

Franklin Senior High. Mathematics teachers used high-interest curriculum materials, tutoring, and staff-development sessions to supplement their normal teaching program. English teachers worked with students in the Paperback Book Bonanza and a film-study project. Guest speakers supplemented activities in the cultural component.

Kensington Senior High. Mathematics teachers held tax-refund seminars to show students how to file federal tax returns. They also used special materials with students who had trouble reading conventional textbooks. Students attended 46 cultural events during the school year.

Penn Senior High. The mathematics component included staff development, a math newspaper, a math clinic, a chess club, and community classroom aides. Students attended 40 cultural events.

West Philadelphia Senior High. Teacher-written units of two mathematics topics, a math/chess club, and student use of nontraditional materials were among the mathematics activities at West Philadelphia. Reading skills were emphasized in the English component, with students using special materials and the Paperback Book Bonanza. Cultural emphasis was placed on films and plays.

ATTAINMENT OF OBJECTIVES

Objective 1: Students in Action classes will increase language and mathematics skills at a significantly higher rate than students in non-Action classes, as measured by mean posttest-only differences on the California Achievement Tests.

This objective was not applicable to the current year's evaluation because target groups were not identified at most schools. Interested teachers were encouraged to participate in the project. Consequently, some students had an Action English teacher and a non-Action mathematics teacher. In addition, some schools allowed all students to attend the Action cultural events. As a result, it was not possible to determine which students received the project's services during the year.

The project director has already planned to concentrate the project on smaller target groups in 1974-1975. Students for the new groups were tested in May 1974 to provide baseline data for future evaluations. Results are summarized in Tables 1 and 2. In Action schools, the average junior high student scored approximately at the national 20th percentile in reading and the 16th in mathematics; the average senior high student (not tested in mathematics) scored near the eighth percentile in reading.

Objective 2: Students will participate in cultural activities. Cultural activities will be offered at an average rate of five per month.

In order to achieve this objective, each school should have had at least 45 events during a nine-month period. The 16 Action schools, which should have offered a minimum of 720 events, actually provided 745 events. Thus cultural activities were offered at a slightly higher rate than the goal of five per month. Table 3 summarizes the cultural activities at each Action school.

Objective 3: Teachers in Action classes will use a greater variety of teaching techniques in the classroom than will non-Action teachers.

In all 42 Action classrooms observed by the evaluator, teachers were using materials provided by the project. These materials included games, puzzles, scripts from plays, high-interest books, manipulative devices to explain abstract mathematical concepts, and puppets.

Because any mathematics or English teacher could use the materials by choosing to become an Action teacher, no meaningful comparisons could be drawn between Action and non-Action teachers.

SUMMARY AND CONCLUSIONS

Achievement tests have indicated that many target-area students are several grade levels below the national average in mathematics and English. The students need experiences that will motivate learning, and teachers with an understanding of their backgrounds and problems.

Because target groups (Action students) were not sufficiently identified in each school, their progress in basic skills could not be determined. However, baseline data obtained this year for use in future evaluations showed that Action students were well below national medians. Cultural activities exceeded the desired rate of five per month. In all 42 Action classrooms observed, teachers were using materials provided by the project.

Early in the 1973-1974 year, the decision was made to concentrate the project on smaller target groups in 1974-1975. The smaller groups will make possible meaningful comparisons between target students in Action and a comparison group of students not receiving the project's services.

TABLE 1

NATIONAL PERCENTILE RANK OF CAT-70 SCORE OBTAINED
BY AVERAGE STUDENT IN EACH "ACTION"
JUNIOR HIGH SCHOOL

School	Grade 7		Grade 8		Grade 9*
	Reading	Mathematics	Reading	Mathematics	Reading
Audenried	9	9	11	10	11
Barratt	14	11	**	**	12
Bartlett	25	19	13	17	21
FitzSimons	21	19	33	25	20
Gillespie	32	11	38	15	26
Shoemaker	9	1	**	**	20
Stoddart-Fleisher	15	20	13	16	10
Sulzberger	22	16	38	20	36
Vaux	9	9	16	19	16
Wanamaker	12	13	11	10	21
All Junior Highs	19	16	22	16	19

*Mathematics subtest not given to Grade 9.
**Data not available.

TABLE 2

NATIONAL PERCENTILE RANK OF CAT-70 READING SCORE
OF AVERAGE STUDENT IN EACH "ACTION"
SENIOR HIGH SCHOOL

School	Grade 10	Grade 11	Grade 12
Edison	7	5	5
Franklin	7	1	7
Gratz	7	7	7
Kensington	6	7	9
Penn	9	8	11
West Philadelphia	13	11	13
All Senior Highs	9	6	9

TABLE 3

SUMMARY OF CULTURAL EVENTS SPONSORED BY ACTION

School	Events Offered	Total of Attendances	Average Number of Students Attending Each Event
Audenried	59	3,046	52
Barratt	54	2,838	53
Bartlett	23	1,120	49
FitzSimons	19	2,723	143
Gillespie	40	4,682	117
Shoemaker	23	854	37
Stoddart-Fleisher	64	5,343	83
Sulzberger	28	1,811	65
Vaux	34	2,409	71
Wanamaker	67	3,367	50
Junior High Total	411	28,193	69
Edison	41	1,642	40
Franklin	101	4,142	41
Gratz	72	3,510	49
Kensington	46	995	22
Penn	40	1,254	31
West Philadelphia	34	1,942	57
Senior High Total	334	13,485	40
Project Total	745	41,678	56

AFFECTIVE EDUCATION

The Affective Education project (AEP) is a staff-development program available on a K-12 basis to target-area School District personnel and parents. Affective education training is offered by a core of trainers who have had extensive preparation and experience in the use of affective teaching techniques. This project is designed to help teachers develop and utilize affective teaching techniques and process-oriented curricula in order to make classroom learning more experiential and to relate academic subject matter to student concerns.

THE PROJECT

RATIONALE

AEP attempts to meet the needs of teachers, students, and parents through the development of new curricula and teaching techniques, the creation of more humanistic classroom climates, and the provision of new support structures for school personnel.

The specific problems or needs which affect or otherwise pertain to teachers include (a) a relatively high turnover rate, (b) an expressed sense of isolation in their work, (c) an expressed sense of frustration, (d) an expressed sense of role insecurity, (e) a loss of personal autonomy, and (f) difficulty in developing curricula and teaching techniques which are effective in relating course content to the personal lives of students.

The specific problems or needs which affect or pertain to students include (a) a dislike for school, (b) low secondary school retention, (c) expressed feelings of a lack of identity and a lack of control over one's personal life and environment, (d) chronic absence and lateness, (e) negative acting-out behaviors, (f) poor achievement in school subjects, (g) low scores on standardized achievement tests, and (h) difficulty in relating course content to their personal lives.

The specific problems or needs which affect or pertain to parents include (a) expressed feelings of alienation toward "schooling", and (b) a belief that school does not serve the real needs of their children, especially in the upper grades.

EXPECTED OUTCOMES

AEP has developed new curricula, new support structures, new teaching techniques, and new vehicles for developing alternative classroom climates. These components serve as the content of the AEP staff-development program.

It is anticipated that students who receive most or all of their instruction from teachers who have participated in AEP staff development will maintain or improve their reading skills, receive higher teacher-assigned letter grades in language arts and social studies, evidence increased school attendance, acquire fewer disciplinary referrals, and improve their attitudes toward school and self.

Further anticipated activities of the project include provision of introductory staff-development workshops and training programs related to affective teaching techniques and process-oriented curricula, provision of supportive group sessions for teachers who have received affective training, and development and dissemination of process-oriented curricula.

MODE OF OPERATION

The project attemps to improve the personal and academic development of students through concentrated staff development for teachers in (a) techniques and curricula which convert passive lessons to active, experiential lessons, (b) development of curricula in which academic content and skills are taught on the basis of student interests and concerns, (c) development of strategies for increasing the students' verbal participation in their academic program, (d) use of peer and cross-age tutoring, and (e) development of new organizational patterns and teaching techniques which foster personalized learning.

Ongoing support groups and supplementary training for reading-program personnel are additional operational components of AEP. The provision of support for teachers who have received AEP training involves a variety of approaches such as after-school meetings, classroom observations by peers and affective trainers, outside meetings with consultants, maintenance of a materials resource center, and weekend leadership training conferences. Supplementary training sessions for reading-program personnel focus on assisting teachers in creating a classroom atmosphere which is conducive to dealing with student concerns through reading and peer tutoring.

PREVIOUS FINDINGS

During the project's initial years of operation (1968-1970), efforts were concentrated on the development of appropriate curricular materials and training procedures. In comparing project students with other students, results of formative, internal evaluations suggested that affective students understood themselves better, were able to generate more solutions to problems, and were able to use more explicit language in describing their feelings. Also, teachers indicated a greater awareness and knowledge of techniques of process education.

The 1970-1971 evaluation assessed the extent to which the affective and comparison classroom climates differed, and the degree to which positive attitudes toward learning, self, teachers, and peers had been developed in AEP students. The Climate-of-This-Class Survey distinguished significantly ($p < .005$) between affective and comparison students. Affective students reported more frequently than comparison students that their classes generated group feelings and cooperation among students and teachers, and that they were enjoyable and offered an appropriate amount of freedom.

A Semantic Differential Survey revealed that AEP students had more positive attitudes toward themselves, their teachers, and their classes than did students in the regular school program. Affective students were found to attend school more frequently than a comparison group of students.

In 1971-1972, questionnaire and survey instruments were administered to participating teachers and students. The teachers indicated that they felt they were dealing with disciplinary matters more constructively than before their participation. Students reported that they felt they had improved in academic achievement and had acquired more positive feelings about school.

In 1972-1973, when compared with non-AEP students, affective students in the middle school showed significantly ($p < .05$) greater improvement in reading achievement, and had only one-third as many latenesses and half as many absences.

Of the first-year participants in the high school affective program, 61% attained higher grades in English, and 51% did better in social studies than they had during the previous year. These students also evidenced higher attendance rates as first-year participants in AEP than in the previous school year.

THE 1973-1974 EVALUATION

During the first five years of its operations, the Affective Education project was evaluated primarily by the AEP staff. The 1973-1974 evaluation was conducted by the Office of Research and Evaluation.

The current year's evaluation focused on five major areas: students, teachers, affective education training programs, development and dissemination of affective curricula, and the development of a transgenerational school.

IMPLEMENTATION

AEP has been implemented through services to target schools, short-term training, parent training, district staff and leadership training, Saturday conferences, maintenance of a resource center, materials development and dissemination, provision

of college courses through the in-service course program, and development and implementation of a training program for day-care workers.

Evaluators' observations of 105 affective classrooms and nine short-term training sessions and workshops as well as the content of the AEP director's final report indicated that six target schools (Gratz High School, Rhoads Minischool, Walton Elementary, the School for Human Services, Tilden Middle School, and Longstreth Elementary School) received major attention from the AEP staff. At Gratz, 64 teachers received a total of 1,069 hours of in-service training. Fifty teachers in the English, social studies, and science departments received a minimum of 12 hours training.

At Rhoads, the AEP staff provided weekly support-group meetings where models for the development of helping-relationships among teachers and students were created and implemented.

At the Walton School a teacher-training residency program was established for teachers from Meade and Carver Schools. Each residency program lasted 3 weeks and afforded opportunities for Walton teachers and residency teacher participants to interact in workshops and utilize the classroom as a laboratory for the implementation of affective techniques.

At the School for Human Services (SHS) a new program designed to relate the job experience of the students to their job practicum was implemented jointly by AEP and SHS staffs.

At Longstreth School a group-counseling curriculum was developed and implemented by teachers and affective trainers.

Short-term training sessions were designed to reach a large number of personnel in Title I schools. Workshops and courses relating to affective techniques and curricula totaled 426 hours and were delivered to groups ranging in size from five to more than 100 persons. In addition to Title I personnel, parents of children attending Title I schools received affective training.

Two workshops, lasting between two and three hours, were conducted for instructional staffs in Districts 2 and 4. In addition, training programs were offered to 12 leader/trainers of alternative programs. Two all-day Saturday conferences were attended by 60 to 70 parents, teachers, and children.

A resource center made available books, educational games, equipment, and curricula pertaining to affective education. Resource-center records indicated that 300 teachers borrowed materials from the center during the 1973-1974 school year.

In addition to the resource center, dissemination of information was accomplished through the development and distribution of 1,000 copies of "The Sharing Book", which was designed to encourage communication between children and parents. Another method of disseminating information was the provision of three college-level courses through the in-service course program.

The AEP staff designed and implemented an 8-week training program for comprehensive day-care service workers. Forty-five day-care workers participated in this program, which focused on developing a competency-based certification program.

AEP has been implemented in accord with its intended mode of operation.

ATTAINMENT OF OBJECTIVES

Objective 1: Students in full-time affective classrooms will do as well or attain significantly ($p<.05$) higher reading achievement than a comparison group of students in nonaffective classrooms.

The California Achievement Tests (CAT) were administered to all students in full-time affective classrooms between March 25 and May 2, 1974, the period of districtwide testing. The scores in reading vocabulary and in reading comprehension for a sample of students in affective classrooms in Tilden Middle School, Rhoads Elementary School, and the Bartram School for Human Services were compared to the scores on the same subtests of a comparison group of students in nonaffective classrooms from Tilden, Rhoads, and Bartram. These schools served as parent or feeder schools.

The comparison groups were selected on the basis of comparable reading levels or, in the case of the high school populations, comparable previous language-arts grades. The sample-group size was based on the formula and table presented by Robert V. Krejcie and Daryle W. Morgan in their article, "Determining Sample Size for Research Activities", in Educational and Psychological Measurement, Autumn 1970. The same samples were used throughout the evaluation; however, sizes changed due to attrition, transfers, or absences at different times of the year. The sample sizes used for CAT-score comparisons are as follows: Tilden, 87 affective and 76 nonaffective; SHS/Bartram, 136 and 63; Rhoads, 22 and 23.

A two-tailed t test was used to assess significance. Affective and comparison students differed significantly in both reading-vocabulary and reading-comprehension scores at Tilden. The difference favored the affective students in reading vocabulary ($t = 2.32$, $df = 161$, $p<.05$) and in reading comprehension ($t = 3.51$, $df = 161$, $p<.05$).

There was a statistically significant difference between the affective students at SHS and the comparison students at Bartram on the reading-comprehension subtest

($t = 3.07$, $df = 197$, $p<.05$). The difference favored the affective students. There was no significant difference between the affective students and comparison students on the reading-vocabulary subtest ($t = 1.54$, $df = 197$, $p<.05$); i.e., the affective students did as well as the comparison students.

There was no statistically significant difference between the affective students and the comparison students at Rhoads School on either the reading-vocabulary ($t = 1.25$, $df = 43$, $p>.05$) or the reading-comprehension ($t = 1.47$, $df = 43$, $p>.05$) subtest Again the affective students did as well as the comparison students.

Thus, the objective of having students in full-time affective classrooms do as well or attain significantly ($p<.05$) higher reading achievement (vocabulary and comprehension) than a comparison group was attained.

Objective 2: Terminal grades for 50% of first-year students in full-time affective classrooms who received final marks of "3" or less will increase by one grade step in 1973-1974 over 1972-1973 in (a) language arts and in (b) social studies.

Teacher-assigned final marks in language arts and social studies (history) for June 1973 and June 1974 were collected from the students' cumulative records by the evaluator. All students attending affective classrooms for the first time in Tilden Middle School (N=59) and the School for Human Services (N=78) composed the samples. Students who received final marks of "4" (A) in 1973 were omitted.

The number and percentage of students gaining 0, 1, 2, or more letter grades between June 1973 and June 1974 were determined. Language-arts and social studies grades were compared for those students attending Tilden; it was necessary to compare language-arts and history grades for students attending SHS because history rather than social studies is offered at the high school level. While 46% of the Tilden students gained one or more letter grades in social studies, only 24% showed similar gains in English. Thus the objective of having 50% of the students gain in each subject was not attained in Tilden's affective classrooms.

At SHS, 63% of the students gained one or more letter grades in history and 59% gained one or more letter grades in English. Thus, the 50% objective was fully attained for both subjects at SHS.

Objective 3: Reading achievement levels of 90% of the students will increase one book level with 60% of the pupils gaining two or more book levels in a school year.

A group Informal Reading Inventory (IRI) was administered in September 1973 and in May 1974 to all students (N=75) in affective classes (Grades 2-5) at the Rhoads School.

The IRI is a locally developed diagnostic instrument which has been used in the School District for several years. The IRI diagnoses the reading level of each child and is applicable to most published reading series. It is administered by the student's regular classroom teacher under the supervision of the school reading teacher.

At Rhoads, 62 (83%) of the AEP students gained one or more book levels. Thus, the objective of having 90% of the students gain one book level was not attained.

Forty-six (61%) of the students gained two or more book levels. Thus the objective of having 60% of the students gain two book levels was attained.

Objective 4: The mean attendance of students in full-time classrooms will be significantly higher ($p<.05$) than the mean attendance of regular students in the parent school for the 1973-1974 school year.

The evaluator collected the monthly attendance from September 1973 through March 1974 from classroom roll books for a sample of students in full-time affective classrooms and a comparison group of nonaffective students in Rhoads Elementary School, Tilden Middle School, and the School for Human Services /Bartram. The groups consisted of the following numbers of students: Rhoads, 58 affective and 55 nonaffective; Tilden, 101 and 93; and SHS/Bartram, 95 and 106. The number of days attended was determined for each group in each school and was divided by the number of students in each group in order to calculate the means.

A t test of significance was applied. There was a statistically significant difference between the attendance rates of affective and comparison students in two of the three schools. The difference favored the affective students in Tilden School ($t = 2.20$, $df = 192$, $p<.05$) and also in the School for Human Services ($t = 3.59$, $df = 199$, $p<.05$). There was no significant difference between the affective and comparison students in the Rhoads School ($t = 1.12$, $df = 111$, $p>.05$).

Thus the objective of having affective students attend school significantly more often than non-AEP students was attained at Tilden and SHS but not at Rhoads.

Objective 5: The mean discipline rate of students in full-time affective classrooms will be significantly lower ($p<.05$) than the mean discipline rate of regular students in the parent school between January and June of the 1973-1974 school year.

Numbers of disciplinary referrals of affective students (N=360) and a comparison group (N=273) were collected from the school discipline records by the evaluator for the months of January through April 1974. These students were drawn from the same schools described under Objective 4.

The numbers of students having 0, 1, 2, 3, and 4 or more disciplinary referrals were determined for the affective and comparison groups combined from the three schools. It was necessary to combine the samples from the three schools because of the small frequencies in the cells; thus school-specific chi-square analyses were precluded.

Chi square indicated a significant difference between affective and comparison students. The difference favored the affective students ($\chi^2 = 36.74$, $df = 3$, $p < .05$). Thus, the objective of having significantly fewer disciplinary referrals among affective students was attained.

Objective 6: Students in full-time affective classrooms will attain significantly higher scores ($p < .05$) than a comparison group of students in nonaffective classrooms in the parent school on the Piers-Harris Measure of Self-Concept.

The Piers-Harris Measure of Self-Concept was administered in April 1974 to a sample of students in full-time affective classrooms (N=213) and a comparison group (N=162) of students in nonaffective classrooms.

The Piers-Harris Measure of Self-Concept is an 80-item forced-choice rating scale developed by Ellen V. Piers and Dale B. Harris of Penn State University. The authors described this instrument in their article, "Age and Other Correlates of Self-Concept in Children", in The Journal of Educational Psychology, 1964.

The original instrument was administered to children in Grades 3, 6, and 10, in a large school system. Piers and Harris state that test-retest reliability coefficients after 4 months were in the low .70's. A factor analysis of the 80-item scale on 457 children in Grade 6 revealed six clearly interpretable factors: behavior, general and academic status, physical appearance and attributes, anxiety, popularity, and happiness and satisfaction.

The validity study of this scale was accomplished by administering it to a group of 88 adolescent retarded females in an institution. It was expected that the self-concept of those judged mentally retarded would fall below that of those judged normal. A mean of 57 and a standard deviation of 13.6 was obtained. This mean was significantly below any of the public school groups (t's = 6.51, 4.02, and 6.89). The authors stated that these results "reflect the hypothesized lower self-concept or at least the level of self-report".

A two-tailed t test was used to assess the significance of the difference between means of the affective and comparison students in Tilden, Rhoads, and SHS/Bartram on each of the six factors.

There was no statistically significant difference at the .01 level between the affective and comparison groups in these three schools on any of the six

subtests. This meant that the differences on the test as a whole were not significant at the .05 level. Thus, the objective of having full-time affective students attain significantly higher scores than comparison students on the Piers-Harris Measure of Self-Concept was not attained.

Objective 7: Students in full-time affective classrooms will attain significantly ($p<.05$) higher scores than a comparison group of students in nonaffective classrooms in the parent school on a semantic differential survey which measures attitude toward school.

A semantic differential survey was administered to a sample of students in full-time affective classrooms and comparison groups of students in the parent or feeder schools during April 1974. The sample sizes were as follows: Rhoads School, 50 affective and 39 nonaffective; Tilden School, 102 and 87; SHS/Bartram, 78 and 59.

The semantic differential survey, a method for measuring the meaning of concepts, has two applications: as a measure of the semantic property of words and as an attitude scale. The semantic differential scale administered to project and comparison groups consisted of three elements. The first element was the concept to be evaluated in terms of its attitudinal properties. Examples include "my school subjects" or "taking care of things in the classroom". The survey administered at Rhoads and Tilden consisted of 12 concepts and the survey administered at SHS/Bartram consisted of 16 concepts. The second element was nine polar adjective pairs (examples of these include "good-bad", "weak-strong", "sharp-dull". The third element was a series of undefined Likert rating scales. Scales of 1-5 were used at Rhoads and Tilden and scales of 1-7 were used at SHS/Bartram.

Factor analysis of this administration of the semantic differential scale indicated that four of the polar adjectives grouped into a single evaluative factor. Each student's ratings on these scales were converted to this single factor scale for each concept. Those scales which did not contribute to the evaluative factor were eliminated from subsequent scoring and analyses. Scores of the affective and comparison groups were compared using multivariate analysis of variance.

Data analysis indicated that there was no significant difference at the .05 level between the affective and comparison groups at Rhoads and Tilden (Wilks' Lambda = .8549 for Rhoads and .9513 for Tilden). Thus the objective of having affective students attain significantly higher scores than comparison groups regarding their attitude toward school was not attained at these two schools.

Multivariate analysis of variance indicated that there was a significant difference in score between affective students at SHS and comparison students at Bartram (Wilks' Lambda = .3761; $F = 12.4415$, $p<.001$). (The Lambda score was converted to the F-value using the formula developed by Maurice M. Tatsuoka in Multivariate

Analysis: Techniques for Educational and Psychological Research, 1971.) Thus the objective of having affective students attain significantly higher scores than nonaffective students regarding their attitude toward school was attained at the School for Human Services. Those concepts for which analysis of variance revealed a significant difference between the two groups were as follows: "Bartram/SHS", "family group/advisory", "learning at this school", "working in small groups", "how my teacher teaches", "other students at my school", "teachers in my school", "coming to school", "me as a learner", "rules at this school", "my teachers outside of class", "courses at this school". The difference in each instance favored the affective students at SHS.

Objective 8: Fifty percent of the teachers will use affective techniques to relate academic content to student concerns at least three times during five nonconsecutive class (45-60 minutes) observations performed between February 1 and June 1, 1974. These affective techniques include the following: magic circle, gaming, role playing, fantasy, physicalization, conflict resolution, and process questioning.

Five nonconsecutive observations were made in the classrooms of each full-time affective teacher between February 1 and June 1 by two evaluators. A locally developed project-specific observational checklist was used to record the number and type of observed affective techniques used by each teacher.

Twenty-one affective teachers, which represented the total of affectively-trained teachers in Rhoads, Tilden, and SHS, were observed. In all, 105 observations were conducted. The number of affective techniques used by each teacher and the number of teachers using affective techniques at least three times during the five observations were determined. These data are shown in Table 2.

The results of the observation revealed that 67% of the teachers used affective techniques at least three times during the five observations, to relate academic content to student concerns. Thus, the objective was attained.

Objective 9: Sixty percent of the teachers will use specified classroom grouping arrangements which facilitate student interdependence at least one time during five nonconsecutive class (45-60 minutes) observations performed between February 1 and June 1, 1974.

The frequency of the use of interdependence-grouping techniques and the percentage of teachers employing these techniques were determined by using the same observational checklist as that used for Objective 8. Twenty-one affective teachers were observed a total of 105 times. The total number and percentage of teachers using at least one interdependence-grouping technique during the five observations were determined. These data are shown in Table 3.

The results indicated that 95% of the full-time affective teachers in Rhoads, Tilden, and SHS used at least one interdependence-grouping arrangement during the five nonconsecutive observations. Thus, the objective of having 60% of the teachers use interdependence-grouping techniques at least once was surpassed.

Objective 10: Sixty percent of the teachers will show evidence of building positive relationships with students as indicated by the cumulative occurrence of at least five of the following behaviors over five nonconsecutive class observations: (a) I-message, (b) asking open questions, (c) active listening, (d) personal anecdotes, (e) teacher physically at child's level, (f) physical contact with child, (g) offers students leadership roles, or (h) asks for feedback.

The cumulative occurrence of positive-relationship-building techniques and the percentage of teachers employing these techniques were determined by using the same observational checklist. These data are shown in Table 4.

The results indicated that 86% of the full-time affective teachers in Rhoads, Tilden, and SHS evidenced a cumulative occurrence of at least five techniques designed to build positive relationships. Thus, the objective of having 60% of the teachers employ at least five positive-relationship-building skills was surpassed.

Objective 11: Sixty of 200 teachers at Gratz High School will have received introductory training in affective techniques as evidenced by their attendance at workshops totaling 10-12 hours.

Records were submitted by affective trainers of the number of teachers at Gratz who received introductory training in affective techniques.

These data were analyzed to determine the number of teachers who received 10-12 hours of affective training between September 1973 and June 1974.

The analysis indicated that 57 teachers received 10 or more hours and 7 teachers received less than 10 hours of affective training. Thus, the objective of having 60 teachers receive at least 10 hours of training was not attained.

Objective 12: By June 14, 1974, at least 15 Gratz teachers and 2 groups of elementary school teachers (at least 8 teachers each) will commit themselves to a second-year effort for in-depth affective training as indicated by (a) submission of a group plan requesting program services and (b) individual written commitments to continue affective education training.

AEP staff trainers submitted records of the number of teachers at the elementary and secondary levels who submitted (a) a group plan requesting affective education program services for second-year training and (b) written commitments for second-year affective training.

An analysis of the records by evaluators revealed that written commitments from nine Gratz teachers and a group plan requesting affective education program services were received. Written commitments were not received from any elementary teachers. Thus, the objective of having 15 Gratz teachers and two groups of eight elementary teachers commit themselves to second-year affective training was not attained.

Objective 13: The affective education short-term-service program will introduce at least 1,000 Philadelphia educators, including teachers, principals, counselors, social workers, class aides, and school-community coordinators, and a minimum of 100 parents, to affective educational philosophy and techniques through planned workshops.

The number of Philadelphia educators and parents attending introductory presentations or workshops between September 1973 and June 1974 was recorded by the AEP staff who conducted these sessions.

An analysis of the data indicated that a total of 1,541 Philadelphia educators attended introductory affective workshops or sessions, including 1,115 teachers; 376 paraprofessionals, and 50 administrators. In addition, 228 parents also attended affective parent workshops or meetings.

Thus, the objective of having at least 1,000 Philadelphia educators and 100 parents attend affective workshops or training sessions was surpassed.

Objective 14: Each target school and one nontarget school will develop at least one written product based on its developmental thrust. Examples of such written products include the following: (a) lesson plans for group counseling, (b) strategies for developing interdependence among young elementary children, (c) a series of group problem-solving tasks, (d) a collection of sequenced lessons.

Affective personnel at Rhoads School, Tilden Middle School, SHS, and Gratz High School developed and submitted a final written product based on the main developmental thrust of their respective schools.

Each written product was read by two evaluators and assessed on the basis of content and usefulness for other teachers.

The written products from Rhoads, Tilden, and SHS were judged to have usefulness as guides for curricula or teaching techniques. The written product submitted from Gratz High School, which consisted of anecdotal records describing uses of the magic circle and group-dynamics techniques at the secondary level, was judged to be appropriate for a school in its initial development of an affective education program.

Thus, the objective of having one final written product submitted from each of four schools was attained.

Objective 15: Planning for the transgenerational school will have progressed to the point where (a) at least one of the two districts will have agreed on a target area, (b) feeder schools will have been identified, (c) at least one major community organization will have committed time and resources to the development of the transgenerational school, (d) a project director will have been tentatively identified, (e) a fiscal and managerial PERT chart relative to the 1974-1975 school year will have been developed and presented to decision makers.

Data needed to assess the attainment of this objective were obtained through the evaluator's attendance at staff meetings and the receipt of a report and PERT chart from AEP staff.

Two districts have agreed on a target area and the feeder schools for these areas have been identified. Several community organizations have committed time and resources to the development of these schools. Two project coordinators have been tentatively identified and a fiscal and managerial PERT chart has been submitted to the evaluator.

Thus, this objective has been attained.

SUMMARY AND CONCLUSIONS

The Affective Education project was developed to address specific problems of teachers, students, and parents.

The needs of teachers, students, and parents are met by AEP through the development of new curricula, teacher training and support, development of new classroom organizational structures, and parent training.

Specific problems which pertain to teachers include (a) a relatively high turnover rate, (b) an expressed sense of isolation in their work, (c) an expressed sense of role insecurity, (d) an expressed sense of frustration, (e) a loss of personal autonomy, and (f) difficulty in developing curricula and teaching techniques which are effective in relating course content to the personal lives of students.

Specific problems which pertain to students include (a) a dislike for school, (b) low secondary school retention, (c) expressed feelings of a lack of identity and a lack of control over one's personal life and environment, (d) chronic absence and lateness, (e) negative acting-out behaviors, (f) poor achievement in school subjects, (g) low scores on standardized achievement tests, and (h) difficulty in relating course content to their personal lives.

Specific problems which pertain to parents include (a) expressed feelings of alienation toward "schooling", and (b) a belief that school does not serve the real needs of their children, especially in the upper grades.

The project was implemented according to the intended mode of operation and continued to exhibit the success which formative evaluations have shown since the project's inception in 1968-1969. The current year's evaluation consisted of (a) posttest-only control-group designs related to achievement, school attitude, self-concept, attendance, and discipline, (b) one-group pretest-posttest designs related to school grades and reading achievement, and (c) descriptive research related to teachers' use of affective techniques, introductory and short-term service training, curriculum development and dissemination, and planning for a transgenerational school.

Findings from this evaluation revealed that affective students did as well as or significantly better than nonaffective students in reading comprehension and vocabulary. At the high school level, affective students attained significantly higher scores than comparison students regarding their attitudes toward school. At the middle and elementary levels, no significant difference was found between the scores of affective students and a comparison group in the same school regarding their attitudes toward school. No significant difference was found between the self-concepts of affective and nonaffective students. Affective students attended school significantly more often than comparison students at the high school and middle school levels, but not at the elementary school level. Affective students had significantly fewer disciplinary referrals than comparison students. More than 50% of the affective students at the high school level gained one or more letter grades over their previous year's grades in history and English; however, less than 50% of the students gained one or more letter grades in these subjects at the middle school level. More than 60% of the students at the elementary level gained two or more reading-book levels; however, less than 90% of the students gained one or more reading-book levels during the school year.

During five observations, 67% of the affective teachers in all three schools utilized affective techniques to relate academic content to student concerns at least three times, 95% of the teachers used at least one interdependence-grouping technique, and 86% used a cumulative occurrence of at least five affective techniques designed to foster positive relationships. At the high school level 57 teachers received a minimum of 10 hours of training in affective techniques and nine teachers requested a second year of affective training; no elementary teachers made a written request for such services. Over 1,000 teachers and 200 parents participated in the AEP short-term-service program. Four target schools developed acceptable written products related to affective curriculum or teaching techniques. Initial planning for the transgenerational school was completed.

The project had limited success pertaining to long-term teacher training, student attitudes toward school, and students' reports of positive self-concept.

The AEP has been successful in meeting the needs of teachers, students, and parents through the development of new curricula, teacher training and support, new classroom organizational structures, and parent training. Specifically, the project was successful in improving student achievement, attendance, and school behavior, in providing short-term teacher training and support, in developing curriculum, in encouraging the frequent use of affective teaching techniques, and in planning for the trangenerational school.

The continued success of this project in meeting the needs of teachers, students, and parents suggests the appropriateness of continuing and/or expanding the services of the project.

TABLE 1

SUMMARY OF CHANGES IN FINAL MARKS
AMONG FIRST-YEAR AEP STUDENTS

School	Change from June 1973 until June 1974	English		Social Studies or History	
		No. of Students	%	No. of Students	%
Tilden	Increase one step or more	27	46%	14	24
	No change	27	46	26	45
	Decrease one step or more	5	8	18	31
	TOTAL	59	100%	58*	100%
SHS	Increase one step or more	46	59%	40	62%
	No change	23	29	7	11
	Decrease one step or more	9	12	17	27
	TOTAL	78	100%	64**	100%

*One student did not have a terminal grade in social studies.

**Fourteen students did not have terminal grades in history.

TABLE 2

INCIDENCE OF AEP TEACHERS' USE OF AFFECTIVE TECHNIQUES
DURING FIVE OBSERVATION VISITS

School and Teacher	Technique										Three or More Techniques Observed?
	Magic Circle	Games	Role Play	Fantasy	Physicalization	Resolve Conflicts	Process Questioning	Improvisation	Synectics	Problems, Plans, Sharing	
SHS:											
A			1								No
B	3	4	5		2		8	2		1	Yes
C	2		5	1			1	1			Yes
D	1						1	1		2	Yes
E	3		1		2		1			1	Yes
F	1	1					2	2	2	2	Yes
G											No
H	2		2				1			1	Yes
RHOADS:											
I	1	4		1	2			3		1	Yes
J		4			1		1				Yes
K								2		2	No
L		1				1					No
M						1	2				No
TILDEN:											
N	1			1			3			3	Yes
O	3	3	1					2	1		Yes
P	1	1								1	Yes
Q										1	No
R	1		2	3			1	1	1		Yes
S				1			1	1	1	1	Yes
T							1				No
U	3	2						2	1		Yes

TABLE 3

INCIDENCE OF AEP TEACHERS' USE OF
GROUPINGS FOR INTERDEPENDENCE
DURING FIVE OBSERVATION VISITS

SHS		Rhoads		Tilden	
Teacher	Frequency	Teacher	Frequency	Teacher	Frequency
A	4	I	10	N	3
B	4	J	8	O	3
C	1	K	5	P	1
D	2	L	2	Q	2
E	2	M	1	R	1
F	3			S	3
G	4			T	0
H	2			U	2

TABLE 4

INCIDENCE OF AEP TEACHERS' USE OF POSITIVE-RELATIONSHIP-BUILDING TECHNIQUES DURING FIVE OBSERVATIONS VISITS

School and Teacher	Technique								5 or More Techniques Observed?
	"I" Message	Open Questions	Active Listening	Personal Anecdotes	Physically at Child's Level	Physical Contact	Student Leadership Roles	Feedback	
SHS:									
A		2	2	1	5	1			Yes
B	5	18	10		6		1	5	Yes
C	1	8	5	1	3	1		1	Yes
D		6	2	4	3	1	1	2	Yes
E			2	1	5	2	2	5	Yes
F	2	6	4	2	4	1	1	3	Yes
G		2		1	5		3	1	Yes
H	1	3	3	1	5	1	1	3	Yes
RHOADS:									
I	17	2	2		7	9	1		Yes
J	18	1	2		7	4	2		Yes
K	7	2	1		6	9			Yes
L	1	1	2		5	1	2		Yes
M	13	2	1		7	6	1		Yes
TILDEN:									
N	4	5	3	2	3	5	3	1	Yes
O	2	1	1		3	1	3		Yes
P					3	3			No
Q	1				1	2			No
R			1	1	3	1			No
S	3	6	1	3	5	3		1	Yes
T	2	1		1	3		1	1	Yes
U	3	2			4	5	1	1	Yes

AFRO-AMERICAN STUDIES

The Afro-American Studies project provides teachers with reserves of instructional materials in centrally located Afro-American learning-resource centers. The materials include references, children's textbooks, periodicals, filmstrips, recordings, tapes, and special equipment. Workshops, conferences, seminars, and staff development are scheduled so teachers may increase their knowledge and instructional skills in Afro-American history.

THE PROJECT

RATIONALE

The project attempts to help teachers of Grades K-12 become more knowledgeable about Afro-American history and culture. Because Afro-American history has been a neglected area in the curriculum, teachers need information from a reliable source. The learning-resource centers provide teachers with the knowledge and skills they need to teach their students the place of Afro-Americans in American history.

EXPECTED OUTCOMES

It is expected that Philadelphia public school children of various ethnic backgrounds will have an opportunity to learn about Afro-American history and culture. Their need for knowledge in this area of the curriculum should be met at every grade level. Furthermore, children of different ethnic backgrounds may develop an appreciation of and respect for Afro-American history and culture.

When black history is omitted from the curriculum, black students are deprived of learning about their cultural heritage. Through the learning-resource centers, black children will receive this necessary information and, thereby, should develop an awareness, a self-image, and a sense of group pride.

It is anticipated that parents in the community will become acquainted with Afro-American history and culture by participating in joint meetings with Title I school staffs. It is hoped also that parents will be stimulated to do further reading based on a list of books and other materials that will be published and distributed by the centers.

MODE OF OPERATION

In addition to the sizable number of teachers who receive information about African and Afro-American history and culture, groups of teachers and administrators are selected and trained through the learning-resource centers to assume

a leadership role in these areas. Members of these groups are then able to serve in their respective schools as African and Afro-American resource persons.

The project model calls for seven learning-resource centers, one in each of the first seven districts, and operated by a center coordinator appointed by the district superintendent. Staff development is provided for teachers and administrators for the dissemination of information. Materials are distributed to teachers for use with children in Title I schools and for community use as well. The distribution and collection of materials is handled by the center coordinator. Liaison teachers are appointed for each Title I school and receive continuous training at the centers to prepare them to serve as resource persons in their respective schools.

The Division of African and Afro-American Studies is responsible for the direction of all the centers, with the curriculum specialist of the division serving as administrator. Other staff includes one full-time professional, five part-time teachers, one resource person, and two secretaries, all provided through local funding.

PREVIOUS FINDINGS

In the past, teachers trained in affective techniques and in history conducted short workshops in Afro-American history. At the end of last year, learning-resource centers were just being formed.

Previous evaluations have found only two of the seven centers fully operational, although the project is currently in its third year.

individuals included the facility administrator, a randomly chosen teacher, and the center coordinator. It was observed that five of the seven district centers were operated by School District professionals who had other prime responsibilities to the schools located within their respective districts: three were social studies

resource teachers/collaborators, one was a human relations collaborator, and the fifth was a library supervisor. One paraprofessional served full time as the coordinator for the combined center for Districts One and Four; she was the only coordinator available for six hours daily. One center was open on the average of one or two hours every two days while another was operated by appointment only. It was often difficult to reach the coordinators by telephone to arrange appointments because the administrator where the center was located had no jurisdiction over, and very little knowledge of, the Afro-American Studies Center.

Daily sign-in sheets were required at each center. Four centers failed to keep this record; one center occasionally asked visitors to sign in. Where sign-in sheets were used the purpose of a teacher's visit was not usually indicated.

Detailed information concerning most centers was lacking because five of the centers failed to keep a daily log. The two centers maintaining such logs at the beginning of the school year kept submitted monthly summaries of their activities during the latter half of the school year.

Interviews with teachers and principals revealed a lack of district-wide publicity concerning the centers' existence. In some cases, teachers within the schools where the learning-resource centers were located were unaware of their center. The fact that most of the sites were not centrally located within their respective districts may partly contribute to low usage by both children and teachers. Persons working with preschoool children requested that the center coordinator visit them instead of having teachers and children travel to the centers. Little or no community involvement was recorded as having taken place. No records to document the number of visits made by the director and his staff were available.

Sets of children's textbooks and audiovisual materials were observed at all the centers. However, one center had none of the necessary equipment for using the audiovisual materials. The center serving Districts One and Four had no reference books for teachers; the other centers had secured such books through funds other than Title I. One coordinator donated 30% of the materials including reference books. Because library cataloging was not completed in three centers, it was impossible for a visitor to know what the center contained or which of its contents were currently available.

Although pictures were on display, few exhibits were observed. This was attributed to the fact that artifacts must be borrowed and put away because of security problems in the centers. Audiovisual materials and equipment were kept under lock, and the overhead projector was kept at the district office rather than at the center.

All seven centers lacked adequate supplies, books, periodicals, pictures, and pamphlets for distribution to adults and children. Two centers had no reference books for teachers at all. One center already had reference books not purchased from Title I funds placed in the Afro-American Studies corner of a room used for other purposes.

Five centers with separate rooms lacked necessary furniture. Bookcases, tables, and chairs were secured from schools in which the center was located, another project's office, an old school, Kennedy Center, and a hospital.

Five sixths of the project's budget was spent for salary; the remainder, intended for staff development, was unused. No Title I funds were allocated for purchasing books and supplies for the centers. Materials were needed at all centers. Funds were also needed by center coordinators to provide successful meetings with community groups and organizations.

It appears that the program was not fully implemented. It was characterized by limited hours for operation, inadequate staffing, inadequate resources, insufficient materials, low attendance by teachers and children, inadequate record keeping, and an inadequate public relations program.

ATTAINMENT OF OBJECTIVES

Objective 1: Twenty-five percent of the teachers from Title I schools in each district will visit their district's Afro-American Center during the year.

No attempt was made to keep records of the centers' visitors' names and addresses. Therefore, the intended questionnaire could not be mailed to the teachers who had used the centers. However, it was ascertained from interviewing the personnel at the centers that very few teachers had visited the centers. Therefore, it was concluded that this objective was not attained.

Objective 2: To provide teachers from Title I schools with the services of an Afro-American specialist or with Afro-American material when requested.

The evaluation team examined monthly reports of the centers' coordinators listing the types of materials borrowed, the borrower, and the dates the materials were loaned and returned.

Most teachers who borrowed materials on a regular basis did so through Pony Express rather than visiting the centers. The center coordinator himself often delivered and collected materials and audiovisual equipment. As of December 1973, a resource specialist was hired to service Title I schools; five-sixths of the project's regular school-year budget was spent for her salary.

The material part of the objective was attained consistently; the specialist-services part was attained during the latter half of the year.

Objective 3: To train at least one teacher or administrator to be an Afro-American resource person in each Title I school served by the project.

Through interviews with center coordinators it was learned that, in most instances, the staff-development meetings held in the center for counselors, collaborators, and supervisors had no connection with the Afro-American Studies Center or the person in charge.

Liaison or contact teachers for each Title I school were appointed in several districts near the end of the school year. At the middle of the year, continuous workshops for the liaison teachers and administrators were not yet being provided, nor was any other observable effort being made to train these persons specifically. Workshops were announced and held in various districts for any interested persons. Most liaison teachers never visited their centers to acquaint themselves with the contents which they might use in fulfilling their responsibilities. Thus this objective was not attained.

SUMMARY AND CONCLUSIONS

Only one of the project's objectives was met: materials were distributed to teachers on a regular basis through the Pony Express, and an Afro-American specialist was hired in December to service the Title I schools.

The objective that required at least 25% of the teachers to visit the centers was not met because of such factors as lack of qualified full-time personnel to operate the centers, poor site locations, inability of teachers to use class time to visit the centers, inadequate scheduling, lack of materials and supplies, and inadequate record keeping.

The objective stipulating training for at least one teacher or administrator in every Title I school also was not achieved. Liaison teachers were appointed late in the school year, and no observed effort was made to train teachers or administrators.

Possible modifications for the future of this project might include the following:

1. Distribution of materials to schools upon request (successfully accomplished already) might be conducted from a single site rather than from seven. The Division of African and Afro-American Studies might also have its office at that location.

2. A full-time paraprofessional might be used in each of the seven centers to keep it open throughout the school day.

3. More systematic cataloging of materials for distribution and collection might be facilitated if a professional librarian were available to the project.

ALTERNATIVE PROGRAMS

The Alternative Programs project is a network of diversified educational programs designed to meet the needs of alienated and disruptive students. The programs model themselves after the open classroom, schools within schools, dropout centers, and minischools.

THE PROJECT

RATIONALE

Students participating in the Alternative Programs generally have not been successful in the traditional school setting. Their attendance has been poor, they have failed a large number of subjects, and they have had a high rate of discipline referrals.

In order for these students to make meaningful progress in their public education, alternative educational options are being created. It is felt that these students are in need of the following:

1. A learning environment which provides a psychological climate that differs from that found in a regular or traditional school setting;

2. A more student-centered instructional approach than is usually found in a regular classroom;

3. Attention to the individual problems which may be directly or indirectly interfering with their ability and desire to learn.

EXPECTED OUTCOMES

The primary goal of this project is to set up unique learning experiences and environments so that students identified as potential dropouts will remain in school to complete their education.

MODE OF OPERATION

Although all Alternative Programs share the common goal of pupil retention, their modes of operation tend to vary. As a prerequisite to funding, each school submitted a proposal which included a documentation of the need for such a program at that school, a detailed set of objectives or expectations, and a plan for implementation. Consequently, the project includes a variety of programs which adhere in varying degrees to general criteria for alternative programs but function differently and independently.

Some or all of the following features are incorporated in each Alternative Program:

1. A flexible roster;

2. A location geographically distinct from the rest of the school, preferably in a community facility, a wing of the school, or at least a few designated classrooms in the school;

3. A clearly defined student population to be served;

4. The use of regular school facilities and resources for the Alternative students;

5. A strong program design evidencing a creative understanding of the processes of learning and instruction;

6. A personalized teacher-student relationship that will foster a sense of trust and positive attitudes toward self, others, and school;

7. A guidance component;

8. A career-development option.

PREVIOUS FINDINGS

Twenty-five Alternative Programs were begun in 1972. Of 20 programs for which information was available, 11 were reported at the end of the 1972-1973 school year to be implemented according to the standards of their proposals.

Comparisons of implemented programs with those classified as "not ready" seemed to indicate that the success of any implemented project was related in some way to the project's (a) being self-contained within a school, (b) being under the principal's direct supervision, (c) solving of specific problems, and (d) use of standard equipment and/or materials.

THE 1973-1974 EVALUATION

The current year's evaluation of the Alternative Programs project addressed five major areas: (a) student attendance, (b) student academic performance, (c) student behavior, (d) student retention (continuation in school), and (e) school-related attitudes of students, teachers, and parents. In addition, the classroom climate in each program was monitored to assess teaching methods and strategies, suitability of the physical plant, availability and suitability of instructional and multimedia materials, student-selection procedures, and the adequacy of the counseling program.

IMPLEMENTATION

Twenty-five secondary and two middle schools received Title I funding during the current school year for the implementation of alternative programs. Four schools in District 4 and two in District 2 combined their funds to create two alternative programs; one school in District 5 used its funds to create three programs. With those exceptions, each school receiving Title I funds developed a single alternative program for its students. The student enrollment in each program ranged from 4 to 157 (based on Student Record forms submitted by program personnel).

As a prerequisite to funding, each school submitted to the Alternative Programs Office a proposal which included documentation of the need for such a program at that school, a detailed set of objectives, and a plan for implementation. Consequently, the project included a variety of programs which adhered to the general criteria for Alternative Programs, but functioned differently and independently.

The twenty-five Title I Alternative Programs were visited by the evaluation team at least three times between October 1973 and June 1974. The following observations relate to the general criteria for Alternative Programs:

1. A flexible roster was observed in 80% of the programs. Schedules of daily activities were based on students' needs rather than the school's bell system.

2. The geographic location of 14 (56%) of the programs were separate and distinct from the main buildings. The other 11 programs were located within the main buildings.

3. The students served by Title I Alternative Programs tended to have disciplinary (88%) and attendance (48%) problems. According to project personnel, 96% of the students became participants in the project through assignments by the school administrative staff and/or referrals by the school faculty. Very few programs (12%) accepted students on a voluntary basis.

4. All 11 on-site programs used regular school facilities and resources, while four of the 14 off-site programs were also able to utilize them. In all of these programs, the regular school facilities used most were the physical education plant and vocational education shops.

5. It was difficult to assess the creativity of program designs. Most alternative teachers (96%) appeared to understand the specific goals and objectives for their respective programs, and 88% had designed activities to meet these objectives. Actual written plans were available during 64% of the observed time. The curriculum mainly consisted of conventional school subjects and basic skill subjects. Efforts to integrate the curriculum were observed during 34% of the visits and were claimed to exist by 20% of the teachers.

6. During classroom observations the majority of alternative students appeared to have developed good feelings toward their teachers, their peers, and themselves. Students were idle, inattentive, or disruptive in less than 4% of the observed time. Moreover, in 88% of the observations the observed time devoted to any form of discipline was judged to be negligible (less than 10%).

7. A guidance component existed for all the programs. In 76% of the visits the teachers reported that they assumed the primary role of counselor. An individual professional counselor was reported available during 16% of the visits, and a group professional in 8% of the visits.

8. A career-development option was observed or included in available plans during 28% of the visits.

Systematic observations of alternative program operation revealed the following general descriptors of classroom climate: (a) teachers devoted most of the time to structuring the day's activities, and serving as resource persons; (b) the primary teaching approach involved explanation and discussion; (c) teachers generally accepted only answers or suggestions closely related to the topic of discussion, occasionally encouraging students to guess or hypothesize about the unknown; (d) students were engaged mainly in written activities or open discussions; (e) materials for study were prescribed by the teacher for either the entire class or a subgroup of the class; and (f) students were generally responsive to teachers' directions or suggestions.

Additional observations revealed that parent involvement in the alternative programs was negligible or nonexistent, and that each program or class in the project took an average of two supervised trips per month.

The Title I Alternative Programs could be characterized as traditional, structured programs. However, many of the programs assumed certain characteristics of open classrooms, including student selection of learning activities, cooperative student-teacher planning, and learning centers.

ATTAINMENT OF OBJECTIVES

Objective 1: To retain youngsters who might otherwise relinquish an opportunity for formal education, as indicated by a retention rate equal to or in excess of 50% of the participating students, throughout the duration of their high school experience.

The Alternative Programs Student Record Form was developed to collect relevant information in five major areas: (a) attendance, (b) subjects failed, (c) discipline referrals, (d) retention, and (e) standardized test data (exclusive of the citywide testing program). Student Record Forms were distributed late in January to collect second-report-period information, and were returned by mid-March. The

forms were also distributed early in June to collect cumulative end-of-year information, and were returned later that month. Forms were processed for all 1,212 students who had participated in Title I Alternative Programs during the school year.

Table 1 shows that of the 1,212 alternative students, 747 (62%) remained in the project for the entire school year. Of the 465 students who left the project, 269 (58%) transferred to other Philadelphia schools, 161 (35%) returned to their respective home schools, and 31 (7%) left school completely.

Since the 31 students who dropped out of school constituted only 2.6% of Title I Alternative Programs students, the retention rate was 97.4%. Therefore, the objective of retaining at least 50% of the participating students was attained during the current school year.

Objective 2: To increase the achievement levels of the participating students 0.6 of a year (grade-equivalent scores) or to maintain the participating students' national percentile ranks as measured by the California Achievement Tests.

The California Achievement Tests were administered to a sample of Alternative Programs students in December 1973, and to all students in the project in April 1974. The purpose of the testing was to establish baseline data for annual comparisons of achievement-test scores. However, the availability of two sets of scores (December and April) for a sample of students provided a measure of growth during the current school year. Limitations were involved in comparing the results of tests administered within such a brief period of time. Therefore, the differences may be attributed to chance and not necessarily to the project's efforts.

Pretest and posttest scores were available for 348 students in reading and for 168 students in mathematics. In reading, 217 students (62%) maintained and/or improved their national percentile rank; in mathematics, the number was 56 (33%). However, no attempt was made to judge the significance of these findings.

Objective 3: To increase pupil satisfaction with school, as measured by the Alternative Programs Student Questionnaire.

A posttest-only control-group design was initially planned in connection with this objective. However, a suitable comparison group could not be identified. Consequently, responses to the individual items on the questionnaire were grouped and summarized. An overall score was obtained for each student, using a weighted score for each response option. These scores provided a relative measure of the degree of satisfaction of each student in regard to his experience in the project.

The Alternative Programs Student Questionnaire was a 20-item Likert-type (or summated) rating scale consisting of statements about school-related phenomena. Students agreed or disagreed with the statements, using a five-point, weighted response scale--"strongly disagree", "disagree", "don't know", "agree",

"strongly agree". The items were grouped according to the following classifications: (a) student attitudes toward curriculum and instruction, (b) student feelings about the general operation of the program, and (c) student perceptions of peer attitudes toward the program. The questionnaire's actual factor structure is yet to be identified through appropriate statistical procedures.

Five hundred eighty-five students completed the questionnaire. Their responses are summarized in Table 2.

Students gave more consistently positive responses to curriculum and instruction items than to items concerning other aspects of alternative programs. Between 60% and 73% of the students responded favorably to items dealing with subject matter (curriculum) and teachers' classroom performance (instruction).

A substantially lower percentage of students gave the desired responses when judging program operation (38% to 54%) and the attitudes of their peers toward the alternative program (36% to 53%).

The high percentage of desired responses to the curriculum and instruction items might seem to imply that alternative program students were most satisfied with these aspects of the program. However, the lower percentages of desired responses in the other two categories did not necessarily indicate a lesser degree of satisfaction. In responding to items related to curriculum and instruction, students were judging phenomena with which they had close daily contact. However, most alternative students had infrequent contact with nonclassroom decision-making bodies such as the school administration, and thus had few relevant bases for meaningfully evaluating these areas.

The low percentage of desired responses regarding attitudes of peers should not necessarily be interpreted as a lack of satisfaction, because (a) respondents were reflecting not on their own attitudes but on those they perceived in their peers, and (b) only one of the items specifically focused on student enjoyment with alternative programs. The other items dealt with possible changes in students that may or may not have come about as a result of participation in an alternative program.

Thus, it was concluded that the students had positive feelings toward their alternative programs and were satisfied with their school experience. The responses of 71% of the students tended to be on the more "desired" side of the rating scale's midpoint. This tendency was interpreted as indicating general satisfaction with alternative programs.

Objective 4: To foster positive attitudes of the participating students toward self, others, and learning, as indicated by (a) a 50% improvement in their attendance rates, (b) a decrease of 75% in the frequency of disciplinary referrals, and (c) a decrease of 50% in the number of subjects failed.

The Alternative Programs Student Record Form (described under Objective 1) provided data regarding the attainment of this objective. However, the teachers' strike during the 1972-1973 school year limited the usefulness of year-to-year comparisons.

A comparison of each alternative student's attendance last year and this year was impossible. The average daily attendance (ADA) of the total group of students enrolled in each alternative program this year was compared with the same students' composite ADA for last year, when they attended a regular school program. Table 3 shows the ADA statistics for each of the 25 Title I programs. In 16 (64%) of the programs the ADA was higher this year than last year, while in eight programs the ADA was lower. One program did not provide the requested data.

Table 4 shows changes from last year to this year in the frequency of discipline referrals of project students. Nine of the 24 programs had at least a 75% decrease in the number of disciplinary referrals. However, according to the program coordinators, in six of the nine programs discipline referrals were not distributed in the usual manner. Twenty programs had a decrease in the number of referrals, four programs had more referrals this year than last year, and one program did not provide the requested data.

Table 5 shows the number of subjects failed by program students this year and last year. In 16 of the 25 programs the total number of subjects failed this year was at least 50% less than the number for the previous school year. In all, 22 programs reduced the total number of subjects failed, one program had more subjects failed this year, one program had the same number of failures, and one program had no failures either year.

Although the teachers' strike interfered with specific comparisons, progress toward full attainment of this objective was evidenced by general improvements in attendance, decreases in discipline problems, and decreases in the number of subject failures.

Objective 5: To promote the general satisfaction of teachers and parents with the Alternative Programs as measured by the Alternative Programs Teacher Questionnaire and the Alternative Programs Parent Questionnaire.

The Alternative Programs Teacher Questionnaire was distributed to all Title I program teachers during May 1974. The completed forms were returned prior to the last day of school. The questionnaire consisted of 30 statements about Alternative Programs, each followed by four weighted response options: "agree", "partially agree", "partially disagree", and "disagree". The completed questionnaires were analyzed by collapsing the response categories and reporting the proportions of teachers who agreed or disagreed with each item.

Seventy-two completed questionnaires were returned. Since there were only 69 Title I teachers, the additional questionnaires were probably completed by paraprofessionals who played primary roles in many programs. Names were not required on the questionnaires.

Table 6 shows the individual questionnaire items and the proportions of teachers responding according to the collapsed ("agree" or "disagree") categories. A factor analysis of the teachers' responses identified six factors: (a) general satisfaction with curriculum and instruction, (b) perceptions of student-selection procedures and student attitudes, (c) feelings about the adequacy of services provided to the program, (d) perceptions of program location and the suitability of space, (e) relationships with other school personnel, (f) perceptions of the time and effort required to conduct a program, and (g) desire for sharing of common concerns with other alternative programs. The following paragraphs summarize the responses related to the six factors.

a. At least 75% of the project teachers expressed general satisfaction with the curriculum of their respective programs.

b. Eighty percent of the teachers felt that program students appreciated their help and guidance. However, 54% felt that school administrators were using the project as a "dumping ground" for all problem students, regardless of the proposal guidelines for student selection.

c. The factor dealing with services provided to the program revealed many serious concerns. Fifty-six percent of the project teachers felt that classroom supplies and equipment were inadequate; 51% felt that audiovisual and instructional aids were inadequate; 64% believed that the procedures for obtaining materials and services from the Alternative Programs Office were inefficient; 45% felt that clerical and support staff were insufficient; 41% believed that library facilities and other curriculum resources were inadequate; 43% believed that sufficient instructional materials for the many reading levels of the program students were not available.

d. Sixty-four percent of the project teachers felt that the physical location of their program was appropriate for its goals and objectives, and 60% believed the space provided at that location was adequate. However, 40% of the teachers felt that the space for their program was inadequate.

e. Some concerns were expressed regarding the relationship between the alternative program and the regular school program. Fifty-nine percent of the teachers indicated that it was difficult for the program to gain acceptance by other teachers in the school, and 62% felt that the other teachers did not understand their program. This could be related to the indication that 54% of the teachers felt that communication between alternative program and regular teachers was not maintained. However, 70% of the project teachers felt that the school principal made a real effort to keep in close contact with the alternative program.

f. With respect to the time and effort involved in working in an alternative program, 58% of the program teachers expressed concern about the number of forms distributed by central administration, and 49% expressed concern about details, "red tape", and reports required by the Alternative Programs Office. Although the teachers said they felt extra stress from working in the project, generally they did not consider unreasonable the demands on their time or the lack of compensation for extra work.

g. Seventy-seven percent of the teachers expressed a desire to share experiences and concerns with other alternative program personnel throughout the city.

Total scores for the responding teachers were attained by summing the weighted scores for the individual items. It was expected that 60% of the teachers would score above the middle of the rating scale. Fifty-five teachers (76%) actually did score above the middle of the scale, indicating general satisfaction with the programs. Therefore, although they expressed a number of concerns about specific aspects of program operation, teachers were generally well satisfied with their work in the project.

The Alternative Programs Parent Questionnaire was distributed by the Alternative Programs Office (APO) to all parents of Title I alternative students during April 1974. The questionnaires were to be completed by parents, returned to the students' program teachers, and forwarded to APO. The data were then summarized by APO and sent to the evaluation team for review and publication.

The Parent Questionnaire consisted of eight major questions requiring a "yes", "no", or "don't know" response. Examples or explanations were requested for some of the responses. Additional questions required open-ended responses. It was expected that 75% of the parents would express general satisfaction with the alternative programs.

Only 179 (15%) of the Parent Questinnaires from ten programs were completed and returned. The responses were grouped into three major categories: (a) parent satisfaction with curriculum and learning, (b) parents' perceptions of their children's satisfaction with school, and (c) communication between parents and programs.

Most parents were well satisfied with the reading and mathematics instruction in alternative programs (83% and 81%, respectively). Three fourths of the parents believed that their child was learning things which were personally important. Moreover, 65% of the parents thought that the alternative program was adequately preparing their son/daughter for almost any future career.

Most parents (83%) felt that their child enjoyed being in an alternative program because (a) the program offered a wider variety of subjects from which students could choose, (b) there was greater flexibility in class scheduling, (c) subjects were taught in a more interesting manner, and (d) most teachers treated each child as an individual.

Many parents (73%) acquired additional information about alternative programs through personal contacts with teachers, counselors, and administrators. One hundred parents (56%) said that they had been contacted by school representatives, while 70 parents (36%) stated that they themselves had initiated the contacts. Attendance, behavior, and grades were the three topics most often discussed during these communications.

Overall, more than 75% of the 179 responding parents expressed satisfaction with both the project's operation (curriculum and instruction) and their child's academic progress in an alternative program.

SUMMARY AND CONCLUSIONS

Twenty-five ESEA Title I Alternative Programs were administered during 1973-1974. In general, these programs were intended to help students find their educational experience attractive, successful, and relevant to their respective needs.

The current year's evaluation focused on five major areas, including student attendance, academic performance, behavior, and retention, and the school-related attitudes of students, teachers, and parents. In addition, each program was monitored to assess classroom climate, and to determine the degree to which the application guidelines for Alternative Programs were implemented.

The project included a variety of programs which adhered in varying degrees the Alternative Programs' general application guidelines but functioned differently and independently. All of the project's general application objectives were attained, including the retention of students in school (evidenced by a small proportion of dropouts), improvement of achievement (evidenced by standardized test scores), improvement of student satisfaction (evidenced by measurements of student attitudes toward school, improved attendance rates, fewer discipline referrals, and fewer subjects failed), and the promotion of general satisfaction with the alternative programs among program teachers and parents of program students (evidenced by respective questionnaire results). Nevertheless, some specific concerns were found to require attention.

Programs may suffer from the indiscriminate assignment of disruptive students by the school's administration. In many instances these assignments are in direct violation of the program's proposal, which specifies the type of students to be served and the method or procedures for selection. It would be more appropriate for alternative programs to adopt a liberal selection procedure, considering students who volunteer for the alternative programs.

Generally, programs are inadequately supplied with instructional materials and audiovisual equipment. Concern has been expressed regarding the lack of clerical and support staff. Improving requisition procedures used by the Alternative Programs Office, and specifying the exact services available, may solve these problems.

The number of questionnaires distributed to program personnel by the Alternative Programs Office and the Office of Research and Evaluation require a great deal of time and effort. It would be beneficial to limit the number of requests for information, especially where duplicated information is required.

It appears that alternative programs are not fully understood by regular school teachers. Concerted efforts to communicate the purpose and procedures of alternative programs to these teachers may gain their support, confidence, and understanding.

Although the existing data are not conclusive, they do indicate the importance of refining and defining the teacher-selection process for alternative programs. A well-organized in-service experience for all program personnel may be beneficial.

The Alternative Programs project has provided very few opportunities for communication between programs. Many alternative program staff members have expressed a desire to observe other programs, in order to share ideas and improve their own operations.

The actual meaning of the term "alternative program" has not yet been clearly defined. Alternative programs to date are traditional and structured, mirroring programs in the main schools. The key element in the definition of alternative education may be the project personnel's sensitivity to the students' personal needs and/or the size and location of each alternative "school".

The current school year was the first in which the Office of Research and Evaluation had the responsibility for evaluating the Alternative Programs. Three teams of evaluators employed the same evaluation design to assess the implementation of alternative programs funded under ESEA Title I, ESEA Title III, and the School District's General Operating Budget. The teams generally operated independently of one another and prepared separate final reports. Future evaluation of all alternative programs would be greatly enhanced by a more unified effort on the part of all persons involved.

TABLE 1

STUDENTS LEAVING TITLE I ALTERNATIVE PROGRAMS
SEPTEMBER 1973 - JUNE 1974

Alternative Programs Code	No. of Students Enrolled	Number of Students Departing by			
		Transfer to Another School	Return to Regular Program	Graduation	Dropping Out of School
District 1:					
120	10	7	1	0	0
121	35	0	1	0	11
122	61	0	1	0	0
123	40	1	2	0	0
124	37	2	23	4	0
125	21	0	0	0	1
District 2:					
220	38	0	6	0	0
221	79	0	0	1	16
222	64	28	35	0	0
223	37	26	10	0	0
District 3:					
320	26	3	2	0	0
321	31	6	0	0	0
322	22	1	0	0	0
323	38	4	4	0	1
324	157	50	32	0	1
325	58	3	13	0	1
District 4:					
420	121	59	0	0	0
421	26	0	26	0	0
District 5:					
520	40	**	**	**	**
521	44	**	**	**	**
522	22	21	1	0	0
523	82	51	0	0	0
524	58	4	4	0	0
525	4	**	**	**	**
District 6:					
620	61	2	0	0	0
Total	1,212 (100%)	268	161	5	31 (2.6%)

**Data not available.

TABLE 2

SUMMARY OF PARTICIPATING STUDENTS' PERCEPTIONS
OF TITLE I ALTERNATIVE PROGRAMS

Questionnaire Item	Desired Response	Percentage of Students Responding with Desired Response	Opposite Response	"?" or No Response
CURRICULUM AND INSTRUCTION				
Most teachers here are really concerned about the students' feelings.	Agree	65%	14%	21%
Most teachers in this school don't seem to have time to talk to students.	Disagree	63	13	24
Most teachers in this school treat students like they are worthwhile people.	Agree	60	22	18
The teachers here don't really seem to care whether students learn.	Disagree	6[illegible]	14	17
The things we do in class are interesting.	Agree	73	15	12
The teachers in this school make things interesting because of the way they teach.	Agree	66	20	14
There are so many things going on in this school that almost everyone can find something that interests him.	Agree	63	20	17
Students in this school learn a lot about jobs that will be useful to them after they leave school.	Agree	64	22	14
Students in this school are given extra help with reading and mathematics if they need it.	Agree	73	14	13

TABLE 2 (Continued)

SUMMARY OF PARTICIPATING STUDENTS' PERCEPTIONS
OF TITLE I ALTERNATIVE PROGRAMS

Questionnaire Item	Desired Response	Percentage of Students Responding with Desired Response	Opposite Response	"?" or No Response
OPERATION OF PROGRAM				
Students in this school don't really have choices about what they want to study.	Disagree	40	40	20
This school is not very well organized.	Disagree	54	30	16
In this school we don't really have enough furniture, classroom supplies, and other equipment for our needs.	Disagree	38	42	20
Students have a reasonable opportunity to influence change in this school.	Agree	48	20	32
Students have very little freedom to develop their own extracurricular activities.	Disagree	43	36	21
OTHER STUDENTS				
Most of the students in this school do a lot of work without much help from teachers.	Agree	43	34	23
Most of the students are not very happy about being in this school.	Disagree	46	31	23
Most of the students in this school will probably not try to finish high school.	Disagree	36	30	34
Most of the students are fearful to come to this school each day because of gang problems.	Disagree	53	28	19
Most of the students don't really care much about their work in school.	Disagree	42	33	25

TABLE 3

AVERAGE DAILY ATTENDANCE OF STUDENTS IN
TITLE I ALTERNATIVE PROGRAMS

Alternative Program Code	1973-1974 Enrollment	1973-1974 ADA	1972-1973 Same Students' ADA
District 1:			
120	10	53%	65%
121	35	78	64
122	61	86	83
123	40	78	63
124	37	71	56
125	21	76	62
District 2:			
220	38	80	63
221	79	64	63
222	64	79	74
223	37	65	74
District 3:			
320	26	77	74
321	31	55	48
322	22	49	45
323	38	73	77
324	157	56	66
325	58	77	82
District 4:			
420	121	67	65
421	26	80	79
District 5:			
520	40	83	68
521	44	**	68
522	22	94	89
523	82	56	55
524	58	81	83
525	4	63	86
District 6:			
620	61	82	73

**Data not available.

TABLE 4

DISCIPLINE REFERRALS OF STUDENTS IN
TITLE I ALTERNATIVE PROGRAMS

Alternative Program Code	1973-1974 Students Enrolled	1973-1974 Discipline Referrals	1972-1973 Referrals (Same Students)	Change from '72-'73 to '73-'74
District 1:				
120	10	279	352	- 21%
121	35	46	123	- 63%
122	61	65	19	+242%
123	40	175	127	+ 38%
124	37	53	86	- 38%
125	21	39	113	- 65%
District 2:				
220	38	47	297	- 84%
221	79	73	31	+135%
222	64	26	232	- 89%
223	37	79	183	- 57%
District 3:				
320	26	24	249	- 90%
321	31	41	51	- 20%
322	22	10	97	- 90%
323	38	129	297	- 57%
324	157	157	1,515	- 90%
325	58	54	86	- 37%
District 4:				
420	121	174	292	- 40%
421	26	35	15	+133%
District 5:				
520	40	21	149	- 86%
521	44	**	172	**
522	22	9	43	- 79%
523	82	65	826	- 92%
524	58	81	163	- 50%
525	4	3	53	- 94%
District 6:				
620	61	78	258	- 70%

**Data not available.

TABLE 5

MAJOR SUBJECTS FAILED BY STUDENTS IN
TITLE I ALTERNATIVE PROGRAMS

Alternative Program Code	June 1974		June 1973 Failures by Same Students	Change from 1973 to 1974
	Students Enrolled	Subjects Failed		
District 1:				
120	10	105	174	- 39%
121	35	15	95	- 84%
122	61	25	55	- 54%
123	40	39	109	- 64%
124	37	19	72	- 73%
125	21	14	55	- 74%
District 2:				
220	38	16	17	- 5%
221	79	46	89	- 48%
222	64	17	69	- 75%
223	37	15	42	- 64%
District 3:				
320	26	12	32	- 62%
321	31	44	53	- 16%
322	22	0	48	-100%
323	38	52	58	- 10%
324	157	0	220	-100%
325	58	19	83	- 77%
District 4:				
420	121	101	204	- 50%
421	26	43	17	+152%
District 5:				
520	40	10	41	- 75%
521	44	3	35	- 91%
522	22	0	0	--
523	82	128	128	0
524	58	31	51	- 39%
District 6:				
620	61	11	91	- 87%

TABLE 6

SUMMARY OF PARTICIPATING TEACHERS' PERCEPTIONS
OF TITLE I ALTERNATIVE PROGRAMS

Questionnaire Item	Desired Response	Percentage of Teachers Responding with Desired Response	Opposite Response	"?" or No Response
GENERAL SATISFACTION WITH CURRICULUM AND INSTRUCTION				
Teaching in the Alternative Program gives me a great deal of personal satisfaction.	Agree	90%	10%	0%
Our Alternative Program has a well balanced curriculum.	Agree	85	14	1
I really enjoy working with my alternative students.	Agree	96	4	0
The curriculum of our Alternative Program makes reasonable provision for individual student differences.	Agree	86	14	0
I don't feel very successful in my present position in this Alternative Program.	Disagree	73	26	1
Working in an Alternative Program allows me more flexibility in matters pertaining to curriculum and instruction.	Agree	90	8	2
PERCEPTIONS OF STUDENT SELECTION AND STUDENT ATTITUDES				
My students don't really appreciate the help and guidance I give them with their school work and personal problems.	Disagree	80	18	2
The Program is used as a "dumping ground" for all problem students regardless of the proposal guidelines for student selection.	Disagree	36	54	10

TABLE 6 (Continued)

SUMMARY OF PARTICIPATING TEACHERS' PERCEPTIONS
OF TITLE I ALTERNATIVE PROGRAMS

Questionnaire Item	Desired Response	Percentage of Teachers Responding with		
		Desired Response	Opposite Response	"?" or No Response
SATISFACTION WITH SERVICES PROVIDED TO THE PROGRAM				
The Alternative Program has been provided with adequate classroom supplies and equipment.	Agree	56	43	1
The APO coordinator makes a real effort to keep in close contact with the Alternative Program.	Agree	56	37	7
The procedures for obtaining materials and services from the Alternative Programs Office are not well defined and not efficient.	Disagree	22	64	14
The Alternative Program teachers are adequately supported with clerical and other support staff.	Agree	53	44	3
Library facilities and other curriculum resources are not adequate for our Alternative Program.	Disagree	58	40	2
The Alternative Program is not adequately supplied with audiovisual and other instructional aides.	Disagree	38	51	11
Sufficient instructional materials are available to consider the many different reading levels of my students.	Agree	47	43	10
The objectives of the Alternative Program cannot be achieved because of the present constraints imposed on the program.	Disagree	58	29	13
The staff development programs conducted by APO for Alternative Program personnel are very helpful.	Agree	58	28	14

TABLE 6 (Continued)

SUMMARY OF PARTICIPATING TEACHERS' PERCEPTIONS
OF TITLE I ALTERNATIVE PROGRAMS

Questionnaire Item	Desired Response	Percentage of Teachers Responding with Desired Response	Opposite Response	"?" or No Response
LOCATION AND SPACE				
Adequate space has been provided for our Alternative Program.	Agree	60	40	0
The physical location of our program is appropriate for our goals and objectives.	Agree	64	25	11
RELATIONSHIP WITH OTHER SCHOOL PERSONNEL				
The principal makes a real effort to keep in close contact with the Alternative Program.	Agree	70	29	1
It is difficult for our Alternative Program to gain acceptance by other teachers in the school.	Disagree	37	59	4
Other teachers in our school do not understand the Alternative Program.	Disagree	33	62	5
Communications between teachers in the Alternative Program & teachers in the regular school are not maintained.	Disagree	36	54	10
TIME AND EFFORT REQUIRED				
Details, "red tape", and reports required by the Alternative Programs Office absorb much of my time.	Disagree	51	49	0
The demands upon the teacher's time are unreasonable in this Alternative Program.	Disagree	81	19	0

TABLE 6 (Continued)

SUMMARY OF PARTICIPATING TEACHERS' PERCEPTIONS
OF TITLE I ALTERNATIVE PROGRAMS

Questionnaire Item	Desired Response	Percentage of Teachers Responding with		
		Desired Response	Opposite Response	"?" or No Response
TIME AND EFFORT REQUIRED (Continued)				
There is extra stress and strain as a result of teaching in an alternative program.	Disagree	30	70	0
Teachers in Alternative Programs are expected to fill in too many forms sent from central administration.	Disagree	41	58	1
The number of uncompensated hours an Alternative Program teacher must work are unreasonable.	Disagree	62	33	5
Teachers are expected to do an unreasonable amount of record keeping for the Alternative Programs Office.	Disagree	55	32	13
RELATIONSHIP WITH OTHER PROGRAMS				
Sharing common concerns and experiences with other Alternative programs throughout the city would not be beneficial to my work.	Disagree	77	12	11

ART SPECIALIST TEACHERS

The Art Specialist Teachers project provides instructors who teach art and art appreciation in target-area elementary schools.

THE PROJECT

RATIONALE

AST provides art instruction for elementary school children living in areas where there has been little opportunity for cultural development. The project aims to allow children to enjoy art activities, to develop their artistic abilities, and to develop their appreciation for art.

EXPECTED OUTCOMES

The children should learn to use the materials and techniques employed in drawing, painting, ceramics, crafts, and sculpting. It is expected that they will use these newly acquired art skills as outlets in their leisure time, and that they will develop an appreciation for theater arts and art history as a result of the art-appreciation instruction.

This project allows target-area children to develop their creativity and to express themselves in a nonthreatening environment. Each child should be able to experience success with a minimum of threat because no grades are given for the art work. This project should have a significant effect on children who usually do not receive positive reinforcement from other scholastic experiences.

It is also expected that the art activities will help to motivate, to stimulate, and to reinforce the child's feelings of self-worth, and ultimately will develop the child's sense of being in the mainstream of education.

MODE OF OPERATION

There are 53 ASTs assigned to 95 public and 25 nonpublic elementary schools in the target area. On the average, one AST is assigned to two public elementary schools and works with target children in Grades 4, 5, and 6; there are 21 ASTs who service the 25 nonpublic schools at least one day per week.

Each class receives AST art instruction for 45 minutes per week in addition to that provided by the classroom teacher for 30 minutes per week. Each AST is furnished with the materials necessary for an interdisciplinary art-appreciation course: a set of 40 slides with an accompanying text for each of the three grades (a total of three sets for each teacher). The materials enable the AST to present

one artist per week (approximately 40 artists per year) to each fourth-, fifth-, and sixth-grade class. The text, provided by the Division of Art Education, enables the AST to reinforce and enrich the target pupils' total educational program.

The project also provides contact between professional artists and the children through the Artists At Work program. This program is an ancillary program, complementary to the AST project. Through it children are made aware of the presence and importance of outstanding, creative artists living in their immediate community. The program also gives the pupils opportunities to witness and to participate in the techniques and processes used by the artists.

The Artists At Work program involves 100 outstanding professional artists, each of whom makes at least one half-day visitation to target-area schools. Once a year, at a 45-minute assembly, project children observe an artist who creates works of art by painting or sculpting. After the demonstration, the artist visits individual classes.

PREVIOUS FINDINGS

When compared with children not receiving AST instruction, fourth- and fifth-grade children receiving AST instruction have been found to be significantly more creative in their art work, to enjoy art activities more, to be more disappointed if their art class was canceled, to like art more than they did the previous year, to make more paintings at home, and to be more likely to paint in their leisure time. Also, the children's nonverbal functioning was found to be significantly improved as a result of the AST instruction. Third- and fifth-grade children with AST instruction were rated significantly higher than pupils without AST instruction in creative and imaginative expression, use of art materials, and knowledge and organization of line. First-grade pupils with AST instruction scored higher than those without AST in the use of art materials, and in knowledge and organization of line, color, form, and texture.

THE 1973-1974 EVALUATION

Because previous years' evaluations raised some questions about the project's implementation, the current evaluation of the Art Specialist Teachers project was focused on (a) whether the AST devoted a minimum of 45 minutes per week to instructing only Grades 4-6, (b) whether the classroom teacher provided 30 minutes of additional art instruction per week, and (c) whether basic art-appreciation materials were supplied to the AST for an interdisciplinary art-appreciation course.

IMPLEMENTATION

The evaluation team completed a total of 79 interviews and observations. Twenty-five principals, 29 ASTs, and 25 classroom teachers were interviewed and 13 classrooms in 13 schools were observed.

Table 1 summarizes the observations made in visits to art classes conducted by an AST.

In all of the classes, the children appeared to enjoy the art instruction and were using art materials at some point during the art class. During 11 of the observation visits, pupils' attitudes were found to be adequate with respect to cooperation, rapport with the AST, and receptivity to the AST's leadership. Pupils' interest, involvement, and attentiveness to the task at hand also were judged to be adequate in 11 of the 13 visits

All the interviewed ASTs indicated that their lessons were designed to have the students master (a) the ability to express art in a creative and imaginative manner, (b) the ability to use materials in executing work, and (c) the knowledge of line, color, form, and texture. The average AST taught five periods per day; each period lasted between 45 and 60 minutes, varying from school to school. While one third of the ASTs felt they were fully implementing the art course, another third expressed the feeling that they were only partially successful in implementing it.

All the 25 interviewed principals expressed the feeling that the AST project should be expanded to encompass all grades. Twenty-three of the 29 interviewed ASTs felt that Title I funds for this project should not be withdrawn.

The Artist At Work program, intended to bring professional artists into direct contact with children, was found to be fully implemented. The 100 professional artists did visit the assigned schools on a regular basis.

Funds from this project were also used to implement the Artist To Artist program. This program, in cooperation with the Philadelphia Art Alliance, made it possible for 50 talented art students from Title I high schools to meet in seminars with distinguished American painters and sculptors on 15 Friday afternoons from 1:30 until 3:30. This component of the project was reported by the project director to have been satisfactorily implemented.

ATTAINMENT OF OBJECTIVES

Objective 1: To provide fourth-, fifth-, and sixth-grade children with 45 minutes of art instruction per week, in addition to their 30 minutes of regular art instruction.

In each of the 29 schools visited by the evaluation team, the pupils in the target grades received instruction from the AST for a minimum of 45 minutes per week. Nearly one third of the principals and ASTs who were interviewed admitted that the AST taught other classes in addition to Grades 4, 5, and 6, thus partly violating Objective 1. Furthermore, half the interviewed classroom teachers reported that they relied primarily upon the AST for art instruction and therefore rarely provided the expected additional 30 minutes per week of regular art instruction. Because the classroom teacher was rarely present for the art lesson, follow-up could hardly be meaningful unless the AST consulted with the classroom teacher. The ASTs reported that because of the demands of their schedule they rarely consulted with the teachers.

While the project provided the 45 minutes per week of art instruction as specified in the objective, this instruction tended to supplant rather than to supplement the 30-minute regular art classes, and tended not to be limited to the target grades. Thus the project's first objective was only partially attained.

Objective 2: Art specialist teachers (ASTs) will be provided with the necessary materials for an interdisciplinary art-appreciation course.

Fifteen of the 29 ASTs who were interviewed reported that they had been provided with the necessary materials for an interdisciplinary art-appreciation course. The evaluation team observed actual art-appreciation instruction taking place in only two of the 13 schools visited. Thus, the teaching about "40 artists" (one each week) as part of the overall art-appreciation curriculum was not being implemented by the typical AST. Although this objective of providing materials was partially achieved, its intended outcome of using the materials was not.

SUMMARY AND CONCLUSIONS

Although the AST project provides a valuable service to target-area children, it appears to have been only partially implemented in relation to its two major objectives. If a minimum of 75 minutes per week of art instruction is required (45 minutes by the AST and 30 minutes by the regular classroom teacher), then the school has failed to see to it that the 30-minute segment was being provided by its teachers. If the supplying of basic art-appreciation materials to the AST is for the purpose of implementing a basic, formal course in art-appreciation, then that purpose was not being fulfilled.

Principals reported that they fully supported this project and wished to see it expanded to encompass all grades. Many of them did not limit the AST to serving only the specified Grades 4, 5, and 6. Thus it appeared that certain stipulated conditions of the project were violated.

Two other components funded from this project (the Artist At Work and Artist To Artist programs) were reported to have been fully carried out.

Currently the School District is phasing out the Title I support for AST. The project is scheduled to become part of the General Fund's operating budget in September 1974.

TABLE 1

SUMMARY OF OBSERVATIONS MADE IN 13 VISITS TO AST PROJECT
NOVEMBER 1973 - MAY 1974

Desired Condition	Number of Observation Visits	
	Condition Present	Condition Lacking
Students were involved with art activity.	13	0
Classroom teacher was present.	1	12
Pupils appeared to comprehend the task.	12	1
Lesson was in art room.	10	3
Room facilities were adequate.	10	3
Equipment and supplies were adequate.	13	0
Student art work was on display.	13	0
Pupils were permitted to critique art products.	4	9
Attention was given to art appreciation.	2	11
Sample of technique taught was on display.	7	6
AST prepared materials for class.	13	0

BILINGUAL EDUCATION

The Bilingual Education project is designed to correct the basic academic skill deficiencies of Spanish-speaking children in the nonpublic schools.

THE PROJECT

RATIONALE

It is the primary assumption of this project that basic skill deficiencies of the Spanish-speaking children in the target-area schools are generally attributable to inadequate development of language skills, especially English.

Other assumptions are (a) that the poor performance of the target-area Spanish-speaking children on standardized achievement tests is attributable to their difficulties with English language skills, (b) that Spanish-speaking children's academic abilities are equal to those of their English-speaking peers, (c) that Spanish-speaking children recently arrived from Puerto Rico require a period of adjustment and orientation to their new environment, and (d) that development of the Spanish-speaking child's competency in Spanish language skills can facilitate development of his English language skills.

The Bilingual Education project provides services to meet the needs of Spanish-speaking children by developing their English and Spanish language skills, by developing basic academic skills, and by enhancing the pupils' self-concepts.

EXPECTED OUTCOMES

It is expected that through the efforts of the Bilingual Education project, Spanish-speaking pupils will develop more positive self-concepts, and will demonstrate increased achievement in basic skill areas.

MODE OF OPERATION

The Bilingual Education project provides bilingual auxiliary teachers who work with Spanish-speaking children in participating schools, and operates the Carino Center to which pupils are bussed for instruction in various curricular areas.

Auxiliary teachers are assigned to each of the participating target schools to work with the Spanish-speaking pupils. They provide small-group or individual tutorial sessions for instruction in English and Spanish language skills, mathematics, and/or reading. The auxiliary teachers work with classroom teachers in diagnosing the needs of individual Spanish-speaking children and in developing programs to meet their needs.

The Carino Center has a staff of four teachers, four aides, and a part-time consultant. Pupils are bussed daily from participating schools and spend the entire school day at the center, where they receive individualized instruction in mathematics, social studies, English reading, English as a second language, and Spanish. The primary instructional language is Spanish.

Pupils are recommended to the Carino Center by the staff of participating schools. An auxiliary teacher screens prospective participants. The major selection criterion is low academic achievement resulting from the pupil's inability to understand or communicate in English. Pupils who are newly arrived from Puerto Rico are given first priority for participation. Pupils remain at the Carino Center until the center's staff feels they can function in the regular school with only the support of an auxiliary teacher.

The Carino Center helps Spanish-speaking pupils adapt to their new environment by providing them with consultative services and by enlisting the aid and support of their parents and of all available community resources. The center also provides staff development for the project's bilingual teachers and for the regular classroom teachers of participating schools. This in-service training familiarizes the regular classroom teachers with the distinctive needs of Spanish-speaking children, provides Spanish language instruction, and provides and maintains resource materials at the center which the teachers may use in developing programs.

PREVIOUS FINDINGS

The 1972-1973 evaluation of the project's initial year of operation was formative and focused on implementation and attainment of the project objectives. Some difficulties with organization and definition of responsibilities were experienced. Results of the Inter-American Series Tests of Reading, administered to the children attending the Carino Center, indicated that the pupils were deficient in both English and Spanish language skills.

THE 1973-1974 EVALUATION

The current year's evaluation of the Bilingual Education project focused on assessment of pupil progress in the areas of reading, Spanish, and mathematics, as indicated by the pupils' cumulative records. Baseline data for longitudinal assessment of pupil growth in academic areas were provided by use of standardized tests suitable for Spanish-speaking children. An attitude survey was used to assess pupils' self-concepts and school-related attitudes. The previous year's examination of the project's implementation was continued.

IMPLEMENTATION

There were two main components to the Bilingual Education project: the Carino Center which provided an all-day program for pupils with minimal facility in

English, and the bilingual auxiliary teachers who instructed Spanish-speaking pupils in the participating schools.

Carino Center. The Carino Center had a staff of four teachers (a fifth teacher was added in January), six aides, and a part-time sister consultant. The center also housed the project manager and her staff. Bussed from the participating schools, 107 pupils (Grades 2-8) attended the center daily from 9:30 until 2:30. The pupils received instruction in mathematics, English conversation, social studies, English reading, English as a second language, and Spanish. The primary instructional language was Spanish. The pupils were grouped into four achievement levels and then assigned to smaller groups within each subject in order to further individualiz instruction.

Pupils were recommended for attendance at the Center by the staff of each school. The recommended pupils were then screened by a Bilingual Education auxiliary teacher. The selection criterion was low academic achievement resulting from inability to understand or communicate in English. In most cases, those pupils who most recently arrived from Puerto Rico were given priority. Pupils were expected to remain at the Carino Center until, according to the judgment of the center's staff, they could function in the home school with support from the auxiliary teacher. No pupils returned to their home school during this year.

Bilingual Education auxiliary teachers. Bilingual Education auxiliary teachers were assigned to six participating schools to work with the Spanish-speaking pupils in those subject areas which needed strengthening. (A seventh teacher left the project at midyear and was not replaced.)

The schedule, length of instructional period, and number of pupils taught varied among the schools. Most of each teacher's time was utilized in providing instruction in language skills to groups of eight to 39 pupils. The remainder of the teachers' time was used for tutoring individual pupils with specific skill needs in mathematics, reading, or English. The number of pupils instructed weekly ranged from 39 to 200. Most of the auxiliary teachers provided group instruction in language to pupils in Grades 1-6 and tutored pupils in all grades (1-8). The instructional language was English for English skills and Spanish for Spanish skills.

In five of the six schools, language-skill development was primarily in Spanish at the beginning of the school year and progressed toward emphasis on the development of English language skill by the end of the year.

The implementation of the project had progressed since its initial year of operation. The Carino Center opened on time this year, there was one in-service session for the staffs of the participating schools, and a set of procedures was established for admitting pupils to the center. However, the project was still in the formative stage and some procedures were yet unresolved. The role of the bilingual auxiliary

teacher was still unclear with regard to the degree of emphasis she should place on the instructional areas of Spanish and English, and with regard to which pupils should receive the project's services. A counseling component of the project was not implemented. There were problems in establishing methods for maintaining those pupil records necessary for the assessment of pupil progress. Even though screening procedures for admission to the Carino Center were established, they were not entirely clear. Definite criteria for returning pupils from the center to the feeder schools were not yet determined. (Thirty students were returned to their schools in June 1973 with no clear indication as to why they left the center; no students were returned to the feeder schools during the 1973-1974 school year.) There was an in-service session for the teachers in the participating schools; however, several other proposed in-service sessions were not implemented.

Although the implementation of the project was improved, some major aspects of the project were still in need of corrective action.

ATTAINMENT OF OBJECTIVES

Objective 1: To develop more positive self-concepts and school-related attitudes on the part of Spanish-speaking students in the target-area schools and in the Carino Center, as indicated by the results of the Bilingual Education Project Student Survey.

In March the Bilingual Education Project Student Survey was administered to fourth-, fifth-, and sixth-grade project pupils in the Carino Center and in the participating schools. The instrument consisted of two subtests: eight questions assessed school-related attitudes and 24 assessed self-related attitudes. Pupils were asked to rate each item on a scale from one (disagree strongly) to five (agree strongly).

The mean scores for project participants were 3.4 on the self-concept subscale and 3.3 on the school-attitude subscale, indicating that the pupils' attitudes toward self and school, as measured by this instrument, were neutral.

For 30 Carino Center pupils, scores were available from a March 1973 administration of this same attitude scale. Comparison of the 1973 mean score (3.3) with the 1974 mean score (3.3) indicated that there were no changes in those aspects of self-concept and school-related attitudes which were measured by the Bilingual Student Survey.

Objective 2: To improve the project pupils' achievement in basic skills so that (a) 60% of the students attending the Carino Center master at least two levels of skills on the Cumulative Records of Mathematics and Reading of the Archdiocese of Philadelphia and on the Spanish Skills List of the Bilingual Education

Project, and (b) 90% of the students receiving the services of auxiliary teachers in the target-area schools will master the specific skills for which they were referred, as indicated by the records of the Bilingual Education auxiliary teachers.

(a) For each pupil attending the Carino Center, individual cumulative records in reading and mathematics, as well as the Spanish Skills List, were maintained by the project staff. Whenever a pupil mastered a skill, the teacher checked it and noted the date.

It had been determined by the project staff that a pupil had to master 80% of the skills within a level in order to receive credit for having attained that level of the subject. The number of pupils attaining mastery, based upon examination of the pupil records, is shown in Table 1. Sixty-one percent of the pupils mastered two or more levels in mathematics, 46% mastered two or more levels in reading, and 45% mastered two or more levels in Spanish.

Further analysis of the records indicated that for Grades 2 and 3, 21% of the pupils mastered two or more skill levels in mathematics, 14% mastered two or more skill levels in reading, and no pupil mastered two or more skill levels in Spanish. However, in Grades 4-8, 76% of the pupils mastered two or more skill levels in mathematics, 60% mastered two or more skill levels in reading, and 61% mastered two or more skill levels in Spanish. These results indicated that while the project was not totally successful in meeting its objective of having 60% of the pupils gaining two levels in each of the subjects, the 60% criterion was met in all subjects by the pupils in Grades 4-8.

(b) The Bilingual Education auxiliary teachers in the six schools maintained individual records for each participating pupil. These records indicated the nature of the child's skill needs and the extent of remediation.

The number of pupils mastering the specific skills for which they were referred to the auxiliary is shown in Table 2. With little variation from grade to grade, 179 (80%) of the 225 pupils referred attained such mastery. This represented progress toward, but not attainment of, the stated objective of 90%.

Additional data were collected to provide a baseline for future assessments of pupils' progress. The Inter-American Series Tests of Reading in Spanish and English (Level 1 in Grades 2 and 3, Level 2 in Grades 4 and 5, and Level 3 in Grades 6 and 7), Prueba de Destrezas Basicas en Aritmetica (Intermediate Level in Grades 4-8), and the Primary Level of the Test of Basic Skills in English (Grades 2 and 3 in the schools, and all pupils at Carino Center) were administered in March 1974.

While the major purpose for administering these tests was to develop local norms, mean scores for each test level were compared with norms provided by the test publishers, when such norms were available For all of the tests, the publisher's normative groups were pupils living in Puerto Rico. Mean scores and available percentile ranks are summarized in Tables 3-5.

On the Inter-American Series Tests of Reading, which present identical material in their English and Spanish forms, the pupils, in all but two grades, did at least as well in English reading as in Spanish reading. On the Test of Basic Skills in English (Primary Level) the mean scores of the pupils in Grades 2 and 3 (the only grades for which norms were available) were at the 99th and 90th percentiles, respectively.

SUMMARY AND CONCLUSIONS

In order to provide normative information for future assessment of pupils' academic progress, a group of standardized tests in English reading, Spanish reading, English skills, and mathematics was administered to all Spanish-surnamed pupils in the participating schools and to all pupils in the Carino Cente. . The results generally indicated that the pupils could read at least as well in English as in Spanish.

Despite difficulties with maintenance of the center's pupil records which occurred early in the school year, it was still possible to assess pupil progress in reading, mathematics, and Spanish.

The project's cognitive objective (60% of the center's pupils to advance two skill levels, and 90% of the auxiliary teachers' pupils to attain mastery) was not fully attained. However, examination of the center's records indicated that the stated criterion was met in the case of pupils in Grades 4-8 at the Carino Center. In the participating schools, 80% of the pupils referred to the Bilingual Education auxiliary teacher mastered the skills for which they were referred. This represented progress toward, but not attainment of, the state objective of 90%.

Comparison of 1973 and 1974 scores from the Bilingual Education Project Student Survey indicated no differences in the self-concepts or school-related attitudes on the part of the pupils as measured by this instrument. Pupils' attitudes appeared to be neutral in both years.

Although the project was in its formative stage and some aspects of its implementation needed corrective action, the project's objectives were partially attained.

TABLE 1

MASTERY OF SUBJECTS BY BILINGUAL EDUCATION
PROJECT PUPILS AT CARINO CENTER

Grade	Pupils Attending Center	Pupils Mastering Two or More Levels		
		Mathematics	Reading	Spanish
2	6	2	0	0
3	22	4	5	0
4	30	19	16	8
5	19	14	7	18
6	12	12	7	10
7	11	9	10	8
8	3	3	2	2
Total	103 (100%)	63 (61%)	47 (46%)	46 (45%)

TABLE 2

BILINGUAL EDUCATION PROJECT PUPILS ATTAINING MASTERY
IN SKILLS FOR WHICH THEY WERE REFERRED
TO BILINGUAL AUXILIARY TEACHER

Grade	Pupils Referred	Pupils Attaining Mastery
1	40	35
2	49	36
3	41	29
4	45	38
5	23	20
6	15	11
7	6	4
8	6	6
Total	225 (100%)	179 (80%)

TABLE 3

MEAN SCORES OF BILINGUAL EDUCATION PROJECT PUPILS
ON INTER-AMERICAN SERIES TESTS OF READING*

Grade	No. of Pupils	Test Level	Mean English Total Score	Mean Spanish Total Score
2	10	1	26.6	28.4
3	123	1	60.8	57.2
4	149	2	67.1 (33)	59.7 (19)
5	154	2	74.2	64.9
6	127	3	44.6 (35)	23.1 (5)
7	14	3	27.4	45.6

*Puerto Rico percentiles, if available, are shown in parentheses.

TABLE 4

MEAN SCORES OF BILINGUAL EDUCATION PROJECT PUPILS
ON TEST OF BASIC SKILLS IN ENGLISH (PRIMARY)*

Grade	No. of Pupils	Oral Vocabulary	Reading	Writing	Total Score
2	126	40.4 (99)	34.2 (99)	41.6 (99)	103.1 (99)
3	143	40.4 (92)	36.1 (75)	46.2 (85)	121.4 (90)
4	25	39.3	35.2	41.3	115.0
5	21	40.3	36.2	45.0	116.7
6	16	40.8	37.3	53.3	131.4
7	12	40.3	37.6	53.4	131.3

*Puerto Rico percentiles, if available, are shown in parentheses.

TABLE 5

MEAN SCORES OF BILINGUAL EDUCATION PROJECT PUPILS
ON PRUEBA DE DESTREZAS BASICAS
EN ARITMETICA (INTERMEDIATE)

Grade	No. of Pupils	Mean Number of Correct Responses (85 Possible)
4	28	31.6
5	36	36.3
6	32	45.0
7	14	54.6

CLASSROOM AIDES

The project increases the adult/pupil ratio, thereby providing teachers with greater opportunities to individualize instruction and to develop better teacher/pupil rapport.

THE PROJECT

RATIONALE

In Philadelphia, target-area pupils tend to score substantially below national norms on standardized tests. Many of the Title I schools are at peak enrollment or are overcrowded. The Classroom Aides project was developed to enhance the quality of education in these schools. Target-area schools need more individualization of instruction than other schools because of their higher proportion of pupils with learning disabilities.

Teachers whose classes are at peak enrollment or are overcrowded need supportive assistance if they are to give more attention to individuals and to small groups of pupils. The aides provide this supportive assistance, by relieving teachers of most of their routine clerical and housekeeping duties and by assisting them with small-group and individual instruction.

EXPECTED OUTCOMES

With aides helping their teachers, children are expected to have more beneficial learning experiences, more personal supervision, more adult reinforcement, and more rapid feedback. The aides can be available to guide, stimulate, and encourage the pupils spontaneously or upon request. Because small-group learning and a wider range of activities are more feasible in classrooms with aides than in classrooms where the teacher is working alone, the teacher/aide teams can develop a learning environment that is suited to the pupils' varying needs.

Use of aides who live in the school neighborhood is expected to encourage communicaton between adults and pupils that is neither threatening nor misunderstood. The aides can help the children to adjust to their school situation and can interpret some aspects of their classroom behavior to their teachers. Because aides have overcome some of the difficulties and frustrations the children now face, they may serve as models of success for the children to emulate.

MODE OF OPERATION

Because school size and needs vary, allocations vary from one to six aides per school. Through faculty meetings, workshops, and individual observations and

evaluations, each principal seeks to develop an organization which encourages greater involvement of the teaching team.

The aides help small groups of children improve basic reading and mathematics skills by (a) supervising instructional games in specific skill areas, (b) conversing with children about their learning experiences at the various classroom interest centers to increase the children's oral communication, and (c) aiding children in selecting and borrowing books from the classroom library.

The aides follow teacher directions in assisting with audiovisual instruction, making bulletin-board displays, securing instructional materials, maintaining and preparing records and forms, and assisting with outdoor activities.

One recent change in the overall program was the introduction of the Career Opportunity Project (COP), wherein 31% of the aides attend daytime college classes two days per week.

PREVIOUS FINDINGS

In previous years, classes with aides were found to have greater gains in ITBS scores than classes without aides. The larger proportion of time the aide spent with one class, the greater the aide's effect on pupil progress. Individualization of instruction was facilitated when aides performed instructional tasks, but not when they performed primarily noninstructional tasks. By reducing the number of noninstructional tasks the teachers performed, aides increased the amount of time the teacher could devote to instruction.

In 1972-1973, approximately one fifth of the schools had a ratio of one aide to less than two teachers, and one fourth of the schools had a ratio of one aide to four or more teachers. In the past three years, no viable adjustments were made to obviate such weaknesses in the project as inconsistent use of the aides from school to school and the lack of a designated project director.

THE 1973-1974 EVALUATION

The current evaluation of the Classroom Aides project focused on the correction of deficiencies noted in the previous three years and the extent to which aides' performance of clerical duties actually led to increased use of individual and small-group instruction. Interviews with aides, principals, and teachers provided a description of the role and function of classroom aides in the various Title I schools.

IMPLEMENTATION

The evaluation team completed 111 interviews in 50 schools. Interviews were conducted with 26 principals, 50 aides, and 35 classroom teachers. The structured

interviews included questions related to the role and function of the classroom aide and the importance of the aide's performance of instructional and noninstructional tasks in the classroom.

Responses to the interview questions about the aide's instructional tasks are summarized in Table 1. The majority of respondents agreed that the aide was "helpful" or "very helpful" in instructional tasks in assisting the teacher in working with children individually and in small groups. Many felt that it was not the aide's role or function to supervise whole-group instruction or to assist children in selecting learning materials. Although one third of the teachers felt that it was not the aide's role to read stories aloud to the children, most of the principals and aides felt that the aide was helpful in this area.

Responses to questions about the aide's noninstructional tasks are summarized in Table 2. The respondents were nearly unanimous in their feelings that the aide was "helpful" or "very helpful" in classroom management and in clerical tasks. One third or more of the respondents felt that assisting in playground supervision, operating audiovisual equipment, and maintaining records and forms were not part of the role of the aide.

In response to the question, "If aides were eliminated, how would it affect the program?" most respondents said that small-group instruction would be made more difficult. Some felt that the teachers would be at a loss without aides because they have become so dependent upon them. Teachers using the Sullivan Reading Program felt that the program would be a disaster without aides.

Principals and teachers recommended that an aide be assigned full time to every teacher or, if that were not possible, that the aide be limited to working with no more than three teachers. Many aides and teachers recommended that an in-service training program for aides was greatly needed. Other teachers recommended that the aide should not be withdrawn from instructional tasks to act as a substitute teacher. (Such a practice would be a direct violation of School District guidelines.) Several teachers felt they needed time to meet with their aides to properly orient them to working with the children.

Thirteen principals said they assumed total responsibility of the scheduling of aide service to teachers; eight said they delegated this responsibility to their reading teachers; four said they delegated it to their administrative assistants.

Twenty-five of the 35 interviewed teachers (71%) indicated that they received all of the aide service assigned to them. This differed somewhat from the principals' contention (23 of 26) that the teachers were getting such aide service.

Seven of the principals reported that they had assigned the aide to the primary grades; four, that they assigned the aide to Grades 1-4; and seven, to Grades 1-6.

As noted in the past two years' evaluations, this project still had no project coordinator who could be held directly responsible for its organization, long- and short-range planning, and day-to-day administration and supervision. This was a serious weakness in the implementation of this project. It permitted participants to violate guidelines as to the purpose of the aides without providing for responsible person(s) to redirect and to demand complete and immediate compliance with the project's directions.

The number of aides allocated to each school varied from one to six, depending on the size and needs of the school. Great variation was found in the manner in which the aide was being utilized in each of the schools visited. Aide assignment ranged from one aide working full time with one teacher to one aide working an average of one-half hour per week with each of 15 teachers. Some aides were assigned to one teacher for 45 minutes per day for one week per month. In some schools, the aide was assigned to such duties as substitute teaching, hall duty, office clerical duties, assisting in the breakfast/lunch program, and recess duty. In some instances, the time spent in these and other irregular assignments exceeded the amount of time spent as a classroom aide.

Since the introduction of the Career Opportunity Program (COP), 31% of these classroom aides have attended college two days per week. Thus, the actual amount of time provided to some schools was further reduced and the project was thus severely compromised.

ATTAINMENT OF OBJECTIVES

The evaluation team completed a total of 89 classroom observations in 33 schools. In observed primary grades, 24 classes had aides and 16 did not; in observed intermediate grades, 13 classes had aides and 36 did not. All observed classes were selected on a random basis.

Observations of how the teacher and the aide functioned were recorded on an Observational Checklist. The checklist was developed by the evaluation team and listed 24 classroom activities performed by the teacher alone, the aide alone, or both together. It covered such activities as clerical duties, whole-group instruction, housekeeping tasks, and tutoring of individual pupils. The instrument was field-tested in September 1973 and was revised and adjusted to enhance its validity.

Each observation period lasted 45 minutes. Minutes per observation period spent by the teachers and by aides in performing the various activities were recorded and later averaged.

Objective 1: To enable teachers to better implement an individualized and small-group instructional program.

Better implementation was defined as carrying out individualized and small-group instruction to a greater extent as a result of the presence of an aide. Classes with aides were compared with classes without any aide service. Primary and intermediate grades were considered separately.

In Grades 1-3 there were significant differences in the amount of time spent on whole-group instruction by teachers in CA and in non-CA classes. Eleven of the 24 CA teachers spent no time in whole-group instruction during the observation periods; for the 13 CA teachers who were observed using it, the average time spent in whole-group instruction was 15 of the 45 minutes. Three of the 16 non-CA teachers did not use whole-group instruction when observed; for the 13 non-CA teachers who were observed using it, the average time spent in whole-group instruction was 19 minutes. In Grades 4-6, whole-group instruction was observed in four of the 12 CA classes (33%) for an average of 14 minutes, and in 32 of the 36 non-CA classes (89%) for an average of 24 minutes. Thus, in the primary and intermediate grades, the aide's presence has reduced the time allotted to whole-group instruction.

In primary and intermediate grades, there were significant differences between CA and non-CA classes in the frequency and in the duration of tutoring of individual children. In Grades 1-3, six of the 24 CA aides (25%) spent an average of 31 minutes in individualized instruction; three other CA teachers (12%) spent an average of 27 minutes in similar activity during the 45-minute observation period. The evaluators observed no individualized instruction taking place in the non-CA classes of Grades 1-3.

In Grades 4-6, five of the 13 CA aides (40%) were observed giving individualized instruction for an average of 18 minutes; three other CA teachers (23%) spent an average of 21 minutes in tutoring individual children. In the 36 observed non-CA classes, only five teachers were observed giving individualized instruction, for an average of eight minutes. Thus, the aide program has afforded children in the primary and intermediate grades the opportunity to receive more individual instruction.

The greatest impact of this project appears to be in the area of small-group instruction. In Grades 1-3, 11 of the 24 CA teachers (45%) spent an average of 36 minutes in small-group instruction while their aides were similarly engaged for an average of 31 minutes. Nine of the 16 non-CA teachers (55%) spent an average of 23 minutes in small-group instruction. In Grades 4-6, six of the 13 teachers with aides (46%) spent an average of 36 minutes in small-group instruction while their aides spent an average of 34 minutes, as compared with 10 of the 36 non-CA teachers (28%) who spent an average of 16 minutes. Thus, the aide's presence has fulfilled its purpose of enabling the teacher "to better implement an individualized and small-group instructional program". This objective was, therefore, fully attained.

Interviews with aides, teachers, and principals supported the same conclusion, namely that more small-group instruction was taking place throughout the school year because of the aide. Responses to the pertinent interview question are summarized in Table 3.

One third of the aides (18 of 50) and 17% of the teachers (5 of 30) felt that the presence of the aide allowed teachers to devote more time to whole-group instruction, since it was possible for the aide to discipline or remove a disruptive child without disrupting whole-class instruction. Thus, the aide's presence afforded the teacher the opportunity to be more effective in class instruction.

Responses indicated overwhelmingly that the teacher spent more time in small-group instruction than would have been possible without the aide.

Estimates of the percentage of the aide's time that was devoted to instructional tasks are summarized in Table 4. From 60% to 80% of the respondents (40 of 50 aides, 19 of 35 teachers, and 15 of 26 principals) felt that the aide spent at least 50% of her time assisting the teacher in instructional tasks. When engaged in such tasks, the aide usually worked with individual children and small groups of children. Thus, teachers were using aides to "better implement an individualized and small-group instructional program."

The instructional tasks that were observed being performed in the classroom by the aides were compatible with the objectives of this project. In order to implement an individualized and small-group instructional program, teachers utilized their aides in a variety of ways, e.g., acting as a sole resource person while children were doing independent work, tutoring individual children, doing small-group instruction while the teacher acted as resource person or worked with the rest of the class, or conducting whole-group instruction while the teacher worked with an individual child.

Objective 2: To provide the services of an additional person to assist in classroom management and clerical tasks so that more teacher time can be spent with the children.

For this objective, classroom management was defined as including class control within and outside of the classroom (discipline and general behavior control) and performing housekeeping tasks (cleaning up or preparing the room for children's activities).

CA and non-CA classes were observed and compared in regard to various classroom-management and clerical tasks. In the primary and intermediate grades, housekeeping tasks were observed in only a few cases and thus was not an essential activity.

In Grades 1-3, 21 of 24 aides (88%) did no housekeeping tasks; the other three (12%) did housekeeping tasks for an average of 24 of the 45 minutes. Thirteen of 16 non-CA teachers did none; three of the 16 non-CA teachers (19%) did it for an average of three minutes. In the intermediate grades, the evaluation team observed very few instances of housekeeping chores being done. In CA classes, only one

teacher and one aide were observed doing housekeeping tasks. In non-CA classes 33 of 36 did no housekeeping chores; and three teachers (8%) were observed doing housekeeping chores for an average of only three minutes. Therefore, providing an aide for housekeeping tasks did not relieve the teacher for any substantial time that could be used with children.

The aide was extremely useful assisting the teacher in classroom management by dealing with obstreperous and disruptive children. In 60% of non-CA classes (32 of 52), teachers were observed disciplining their children for an average of five minutes per observation period. This disrupted the lesson so that the teacher had to recapture the children's attention in order to continue with the lesson. Disciplining of children was observed in eight of the 37 observed CA classes (22%) for an average of six minutes. No teacher was observed disciplining the children; usually the aide carried out the discipline in such a manner that the teacher's lesson remained uninterrupted. Thus, the addition of another person has helped the teacher in terms of reducing the number of discipline incidents and of saving at least five minutes of class time, thus providing instructional continuity during the class period. Teachers with aides were utilizing their aides in doing management/control tasks for which the teachers in non-CA classes had to expend valuable class time and psychic energy in doing themselves.

In Grades 1-3 nearly half the aides (11 of 24) were observed doing clerical duties for an average of 11 minutes per 45-minute observational period. In Grades 1-3 six of 16 teachers were observed doing clerical duties for an average of six minutes, while the children did independent work. Such clerical activity consisted primarily of duplicating materials. In Grades 4-6, more than half of the non-CA teachers (16 of 35) were observed doing such clerical tasks for an average of seven minutes.

Because the aide performed such clerical tasks that took the non-CA teacher at least six minutes and management-control tasks that required five minutes, the teacher with an aide was enabled to spend an average of 11 additional minutes per 45-minute class in implementing an individualized and small-group instructional program.

This objective was fully attained in terms of frequency of occurrence in daily class programming and in the amount of time in which the teacher could implement an individual and small-group instructional program.

SUMMARY AND CONCLUSIONS

The Classroom Aides (CA) project was developed to increase the adult/pupil ratio, thereby giving teachers greater opportunities to individualize instruction and to develop better teacher/pupil rapport.

Great variation was found in the number of aides assigned to a school, in the manner in which aides were utilized, in the amount of time per week than an aide spent with a teacher, in the type of non-instructional duties assigned to aides, and in the amount of time the aides spent on noninstructional tasks.

Since the introduction of the Career Opportunity Program (COP), 31% of the classroom aides have attended college two days per week, thus reducing the actual amount of services provided to schools.

As was reported in the past two years' evaluations, the CA project still has no project coordinator who could be held directly responsible for its organization, long- and short-range planning, and day-to-day administration.

Classes with and without aides were observed in order to determine the types and the effectiveness of aide utilization by teachers. Whole-group instruction was observed taking place less often and for briefer periods in CA classes than in non-CA classes. The CA teacher devoted the extra time to individual and small-group instruction.

Tutoring of individual children, though not extensive, was observed occurring more often and for greater periods of time in all CA classes than in non-CA classes.

The greatest impact of this project appeared to be in the area of small-group instruction. Observations and interviews with school staff supported the conclusion that more small-group instruction was taking place throughout the school year because of the aide's presence.

Thus, the availability and utilization of the aide have fulfilled the project's objective of enabling the teacher "to better implement an individualized and small-group instructional program".

Because of the aide's presence, CA teachers were observed having less frequent discipline incidents in the classroom than non-CA teachers. While the average non-CA teacher had to halt class instruction to handle disruptive children personally, the evaluation team observed aides dealing with such children while the CA teacher continued uninterruptedly with class instruction. Thus, the aide was of invaluable assistance to the teacher in the area of management/control tasks. Aides also relieved CA teachers of clerical duties that were done by non-CA teachers.

Thus, the objective of providing an aide "to assist in classroom management and clerical tasks so that more teacher time can be spent with the children" was fully attained.

This project has been successful in carrying out both of its stated objectives. In many schools, the intended mode of operation has been fully implemented. To overcome some problems which have been noted also in previous years' evaluations

(e.g., inconsistent use of the aides from school to school and the lack of a designated project director) the following alternatives might be considered:

1. Aides could be assigned on a yearly basis to no more than three classroom teachers each.

2. COP Aides could give five full days of aide service per week and attend college during the evenings (like those in the Follow Through project).

3. Aides could be expected to spend a minimum of 65% of their time supervising and/or tutoring children individually or in small groups, no more than 15% in clerical tasks, and no more than 20% in housekeeping activities, class trips, operation of A-V equipment and other activities.

4. A set of guidelines on appropriate utilization of aides, incorporating recommendations made by the State Department of Education, could be distributed to principals and to aides.

5. A coordinator could be assigned on a full-time basis to monitor and visit schools and correct infractions of such guidelines wherever found.

6. A regular ongoing staff-development program for aides could be developed.

TABLE 1

OPINIONS OF THREE GROUPS REGARDING THE IMPORTANCE OF INSTRUCTIONAL TASKS PERFORMED BY CLASSROOM AIDES

Task Performed by Aide	50 Aides Responded			35 Teachers Responded			26 Principals Responded		
	Very Helpful	Helpful	Not Aide's Role	Very Helpful	Helpful	Not Aide's Role	Very Helpful	Helpful	Not Aide's Role
Supervising activities of small groups	42	7	1	30	4	1	24	1	1
Supervising individual children	38	10	2	28	6	1	18	7	1
Supervising whole-class activities	8	17	25	4	5	25	3	9	14
Tutoring individual pupils	39	7	4	28	6	1	18	7	1
Tutoring small groups	42	7	1	29	5	1	22	3	1
Reading story or talking about pictures in books	21	25	4	9	14	12	12	13	1
Helping children select learning materials	15	20	15	9	13	13	7	14	5
Playing or supervising games	13	31	6	9	15	11	12	11	3

TABLE 2

OPINIONS OF THREE GROUPS REGARDING THE IMPORTANCE OF CLASSROOM-MANAGEMENT AND CLERICAL TASKS PERFORMED BY CLASSROOM AIDES

Task Performed by Aide	50 Aides Responded			35 Teachers Responded			26 Principals Responded		
	Very Helpful	Helpful	Not Aide's Role	Very Helpful	Helpful	Not Aide's Role	Very Helpful	Helpful	Not Aide's Role
General help in classroom management	25	23	2	18	17	0	12	13	0
Supervising children on lines, stairs, breakfast	20	22	8	11	10	14	12	9	5
Playground supervision	14	18	18	10	10	15	10	8	8
Helping on neighborhood walks, bus trips	23	17	10	12	10	13	16	7	3
Operating A-V equipment	13	22	15	8	13	14	10	13	3
Helping in emergency situations	32	16	2	22	12	1	17	8	1
Clerical tasks	15	30	5	12	16	7	10	15	1
Maintaining records and forms	12	26	12	14	12	9	8	13	5
Duplicating materials	30	20	0	24	8	3	17	8	1

TABLE 3

OPINIONS OF THREE GROUPS REGARDING TIME SPENT BY TEACHER IN WHOLE-GROUP AND IN SMALL-GROUP INSTRUCTION BECAUSE OF CLASSROOM AIDE

Question	50 Aides Responded		35 Teachers Responded		26 Principals Responded	
	Yes	No	Yes	No	Yes	No
As a result of the presence of an aide, does the teacher spend more time than before						
(a) In whole-group instruction?	18	32	5	30	4	22
(b) In small-group instruction?	43	7	30	5	25	1

TABLE 4

ESTIMATES BY THREE GROUPS REGARDING THE PERCENTAGE OF TIME THE CLASSROOM AIDE DEVOTED TO INSTRUCTIONAL TASKS

Percentage of Time	50 Aides Responded	35 Teachers Responded	26 Principals Responded
1 - 25%	2	4	1
26 - 50%	8	12	10
51 - 75%	15	8	8
76% or more	25	11	7

COLLEGE PLACEMENT

The College Placement project is designed to help students who become interested in college late in their high school careers, or who lack outstanding high school records, to gain admission to colleges or universities and, when necessary, to obtain financial aid.

THE PROJECT

RATIONALE

Because of the large number of secondary school students who are interested in attending college and who need financial assistance to attend, in relation to the limited number of guidance counselors, there is a need for additional agencies to supplement the information and guidance available through the limited number of school guidance counselors.

EXPECTED OUTCOMES

It is expected that the project will provide (a) college placement for those students who have not achieved above-average grades, and (b) financial assistance for students who need it.

MODE OF OPERATION

Project personnel disseminate information to students which can facilitate their admission to colleges or universities. They interview prospective college students and direct them to colleges and universities that are most likely to meet their individual needs. They assist students in gathering the data required for the college-entrance application form, and in applying for financial aid. They also help parents complete the necessary financial aid forms. The main types of suggested financial aid are Pennsylvania Higher Education Assistance Agency grants and loans, college work-study loans, independent scholarships, Basic Education Opportunity grants, and Supplemental Education Opportunity grants.

PREVIOUS FINDINGS

In May 1972, 63% of the project's 1971-1972 participants had been accepted for college admission. Of those accepted, 34% received financial aid.

In June 1973, 138 (33%) of 412 applicants were accepted for college admission. As of the same date, they had received $142,000 in financial aid. Actions since

that date enabled the project to meet its 1973 objectives of placing at least 50% of all applicants in colleges or universities, and obtaining financial aid for at least 45% of all accepted applicants requesting such assistance.

THE 1973-1974 EVALUATION

Final data regarding the success of the 1974 College Placement project were not available when this report was written. (Application delays by students and summer acceptances by the colleges and universities make December a more realistic date for final reports.) Consequently, the project's progress toward meeting its objectives for 1973-1974 was judged in relation to trends reported in past evaluations.

IMPLEMENTATION

Project personnel reported that they provided counseling and guidance services that directed students to colleges and universities meeting their individual needs, assisted students in gathering and providing the data required for college application, and assisted students and parents in completing various financial aid applications.

ATTAINMENT OF OBJECTIVES

Objective 1: To place at least 50% of all applicants in colleges and universities by June 1974.

Review of project files revealed that of 354 students who were interviewed, 143 (40%) were accepted to a college or university as of June 7, 1974. Since it is anticipated that additional students will be accepted during the summer, the project director will conduct a follow-up survey in December 1974.

Objective 2: To obtain sources of financial aid for at least 45% of all applicants requesting financial assistance by June 1974.

The project files showed that $29,060 in financial aid was received by 72 applicants (50% of those who had been accepted by a college or university). A final survey of financial aid will be made in December 1974.

The types of financial aid included Pennsylvania Higher Education Assistance Agency grants and loans, Basic Educational Opportunity grants, National Direct Student loans, Supplemental Education Opportunity grants, College Work-Study grants, and independent scholarships.

SUMMARY AND CONCLUSIONS

Although the project has not met the objective of placing at least 50% of all applicants in colleges or universities by June 1974, it is anticipated that if the present trend continues the percentage of applicants accepted will be substantially higher by December due to late acceptances by the colleges and universities during the summer.

The objective of obtaining sources of financial aid for at least 45% of all applicants requesting financial assistance by June 1974 has been met in that 50% of those students accepted to a college or university had received financial aid totaling $29,060.

Thus the financial-aid objective was fully attained, while the college-admission process will continue through the summer.

The project is fulfilling its role of supplementing the "information and guidance available through the limited number of school guidance counselors."

COMMUNICATIONS EXPERIENCES

This project provides teachers with classroom support, curricular materials, film-loan services, and media workshops.

THE PROJECT

RATIONALE

The conventional classroom approach with the teacher "front and center" has been less than successful with many children. Its ineffectiveness is apparent not only in the children's poor reading skills but also in their difficulty in expressing themselves, sharing ideas, and working together.

Target-area pupils need experiences in working cooperatively with peers to complete specific tasks or projects. They need to learn effective methods of dealing with various experiences and situations. Communication skills are necessary to facilitate their acquisition of other basic skills and to provide remediation in areas of weakness. The children also need experiences which integrate learned material into viable processes and products.

The effectiveness of the children's classroom experience is directly related to the teachers' instructional skills. There is an ongoing need for teachers to shift from a teacher-centered approach to an activity- and pupil-centered approach, to develop proficiency with media tools and techniques, and to develop skill in utilizing various grouping patterns for educational purposes.

EXPECTED OUTCOMES

It is expected that participating teachers and pupils will try new approaches to meet specific needs or goals they set for their classes. New patterns of classroom organization and structure are expected to emerge as the group works toward its goal.

As pupils continue participation in the project, exposure to various modes of learning and perception will help them to improve their basic communication skills. Through media techniques, pupils will learn ways to evaluate feedback from individuals and groups, and to explore personal and group problems, issues, and questions. These experiences are expected to enable pupils to develop new behavior patterns that enable them to accept new ideas, solve problems, and work cooperatively to complete a project.

It is expected that teachers also will benefit from this project as they learn new modes of sharing and processing information, creatively using media equipment, and assuming more of a partnership with their pupils in the learning process.

MODE OF OPERATION

The project is implemented through four disparate operations: in-class support, monthly workshops, loans of equipment and materials, and dissemination of information.

In-class support. Teachers are assisted by a CEP staff person to identify specific areas of concern in their classrooms. The teacher and CEP staff person plan media projects using appropriate media tools to deal with the identified problems or with specific topics. Both the classroom teachers and the CEP staff evaluate the ongoing process and make necessary adjustments. The teacher and a CEP specialist cooperatively set up a schedule for the specialist's visits to the classroom with materials and equipment. The length of each visit varies according to the specific purpose of the visit.

Monthly workshops. Teachers and community supportive personnel are invited to attend monthly workshops where they are trained to be sensitive to methods of communication, and to conduct media classes and projects with or without direct CEP staff support. These workshops are held for a full day when the majority of the staff is available to assist.

Loans of equipment and materials. Cameras, lights, projectors, professional and student films, and other media equipment are lent to participating schools. All loans are consistent with requirements of supply and demand. Provision of film processing, materials, and consultation is dependent on the availability of equipment and staff time.

Dissemination of information. Useful information for participating teachers is shared through (a) the Media Log, an in-house newsletter sent to interested teachers, (b) local and national publications, (c) community outlets and workshops, notably the Middle Atlantic Film Board, (d) professional and mass-communication outlets, and (e) screening and film festivals.

PREVIOUS FINDINGS

Past evaluations revealed that the major services provided by CEP were the classroom efforts of the CEP specialists and the distribution of films from CEP's unique film library.

In the 1971-1972 evaluation, teachers and principals indicated satisfaction with the learning experiences provided by CEP. Overall, teachers' perceptions of CEP services were positive. Approximately 25% of the respondents indicated that they needed additional help in the media area.

On questionnaires in the 1972-1973 evaluation, six of the 16 principals who responded were quite favorable toward the project and indicated that they thought teachers had improved their attitudes toward one another and toward pupils.

THE 1973-1974 EVALUATION

The current evaluation of the Communications Experiences project focused on the classroom activities of the CEP specialists. The evaluation team made classroom observations, kept anecdotal records, and surveyed pupils, teachers, and principals with questionnaires at the end of the school year.

IMPLEMENTATION

Five Communications Experiences workers and two media specialists worked under the management of the assistant director in running workshops and in providing in-class support to interested teachers. The film-lending service was conducted from their central office by the administrative assistant.

In 40 visits to 15 schools, the evaluators observed that the project staff actively assisted in the classrooms of 64 teachers who had requested service. The teachers were asked by their CEP specialists to identify specific problem areas in their own classrooms. The most frequently cited areas were motivation, discipline, lack of cooperation in group activities, and deficiency in basic communication skills. The CEP specialist then worked with the teacher to design a specific media project using appropriate media tools to overcome the identified problem. CEP specialists met with teachers during lunch, preparation time, after school or evenings, and on weekends. Meeting times varied according to the individual teacher's needs, schedule, and commitments.

Initially, the pupils were introduced to the media equipment necessary for the implementation of their respective projects. Equipment available for classroom use included cassette and audiotape recorders, videotape recorders, 35mm. and Instamatic cameras for still photography; Super 8 cameras for movies and animated films, record players, and slide and film projectors. Equipment parts and functions were explained; often equipment was left in a classroom for one week's period of exploration. The evaluators observed that cameras, film-making equipment, and the videotape recorders were most often used in the lending process.

As the teachers worked with their pupils in a small-group framework and with the CEP specialist, they were trained to diagnose learning problems with increasing sensitivity and to apply media tools and strategies to motivate the pupils and to solve the learning problems. The focus of the project was on how people learn and how they interact in group situations. Although exploration of content and basic skills were often observable as important foundations of a project, the major emphasis was

to provide teachers and pupils with tools and methods for keener perception and communication. Of the 41 teachers surveyed, a majority (30) reported that a "great or substantial degree of support and assistance" was received from the CEP specialist.

In a few cases, teachers viewed CEP as a supplier of services and did not actively participate with their pupils in the project development. In one classroom observed the teacher used the CEP specialist as a relief for her preparation time. As a result, these few teachers did not fully experience the benefits provided by extended communications projects.

Generally, the loan of equipment and materials took place while a CEP specialist was directly involved with a classroom project. It was a goal of CEP to continue to provide media equipment to teachers who had already obtained the necessary skills and wished to continue communications projects independently. However, during interviews several teachers expressed their dismay at not being able to complete projects because needed equipment had not been made available to them. An inventory determined that there was a very limited amount of equipment on hand. During the 1972-1973 school year, none of the equipment included in the budget and requisitioned was delivered. During the 1973-1974 school year, approximately one-fourth of the budget for films, film stock, videotape, lab costs, editing, and darkroom supplies was disbursed, and only one-sixth of the general equipment approved on the 1973-1974 budget (i.e., videotape recorders, cameras, projectors and tape recorders) was received by the project staff. The project implementation was blunted due to the lack of availability of pieces of hardware frequently used and in demand.

Seven all-day workshops (Introductory Media Experiences, Filmmaking I and II, Videotape, Improvisational Theatre for the Classroom, Photography, and Theatre Games) were provided by the CEP staff. These workshops were attended by 131 teachers and 70 pupils from 31 schools and groups from 14 city agencies. These workshops included explanations, discussions, and hands-on experiences.

A film-library service provided 80 short films and features not commonly offered for classroom use. The film-lending service was used by 62 schools. The 80 highly acclaimed films offered were in constant circulation. A list of all available films was sent to each school as part of the "Media-log", a publication of CEP that was devoted to listing available services and workshops, sample projects, essays on media studies, and special event notices. Films were reserved by phone, picked up, and delivered by the interested teacher. This face-to-face contact encouraged the teacher to consult with the CEP staff about the possible uses of specific films. Films were suggested to meet specific needs of the teacher borrowing them. Follow-up activities and suggestions were also offered.

Films were loaned from several days to a week, according to each teacher's specific needs and the current demand for the film. An evaluation form enclosed with each film asked the teacher to describe his use of the film and his feelings about it. This format encouraged teachers to do some follow-up activity.

ATTAINMENT OF OBJECTIVES

Objective 1: Seventy-five percent of the first year participating teachers will master the use of at least two types of media equipment and demonstrate their proficiency by guiding their pupils to develop a meaningful media project.

A questionnaire was given to 64 teachers who received in-class support from CEP specialists. Forty-one teachers returned the questionnaire. Twenty-one (75%) of the 28 first-year participating teachers indicated having worked with at least two (in some cases as many as six) types of media equipment. These teachers also reported that pupils made as many as six final media products. Therefore the objective was attained.

Objective 2: Fifty percent of the second year participating teachers will master the use of media equipment and curricula and demonstrate their proficiency by conducting media projects without the assistance of CEP specialists.

Twelve of 13 second-year participating teachers listed from one to four independent media projects completed during the 1973-1974 school year. Therefore, this objective was attained.

Objective 3: Seventy-five percent of the participating teachers will report their intentions to continue to use media projects as a regular part of their classroom assignments in subsequent years.

On the questionnaire, 39 of the 41 participating teachers responded that they would continue to use media projects in their classrooms. Thus, this objective was attained.

Objective 4: At least 80% of the pupils will complete two media projects (individually or as a group or class project).

A pupil questionnaire was designed for use with pupils participating in CEP. The prototype device was used in a pilot sample and was redesigned in order to improve its validity and reliability. Stratified samples of participating classes were selected and the revised questionnaire was administered by members of the evaluation team.

When asked how many different media projects they completed, 50% of the 194 pupils responding to the questionnaire indicated that they completed two or more projects, some reporting as many as 10; 36% reported one project; 6% reported that

they did not complete any projects; 8% did not respond to this question. These responses point to a varied interpretation of the word "project." For example, in one group the pupils made slides and wrote and tape-recorded a story to accompany the slides. Appropriate music was selected, recorded, and spliced to match the slide story. The final product of this one long-term project required many skills and subproducts. This example was observed to be the rule rather than the exception, and was considered to be in full harmony with the spirit of this objective.

Objective 5: At least 80% of the pupils will express positive attitudes about their media work as established through a survey.

The pupil survey included 13 statements specifically designed to determine pupil attitudes toward their communications experiences. Results of the survey are shown in Table 1. The responses revealed positive attitudes from 76% of the pupils. Although the 80% criterion was not met, the intensity and frequency of positive comments which the pupils voluntarily wrote on the survey forms reflected a satisfactory attainment of this objective.

Objective 6: Fifty percent of the principals of schools having two or more participating teachers when given a choice will report a preference for using staff development or materials and monies to create educational media rather than for other resources having the same costs.

A survey was designed and administered to 14 of the 16 principals having two or more participating teachers. When asked, "Would you continue the media program if you had to allocate some money from your school budget to keep it going?" 11 of the 12 principals who returned the survey said "Yes". Thus, this objective was attained.

SUMMARY AND CONCLUSIONS

The Communications Experiences project was developed and implemented to provide teachers and pupils with those tools, techniques, and processes which would enable them to explore and expand their skills in "communications". The project was designed to meet the pupil's need to interact and cooperate with others, to find satisfaction and success in their school efforts, to be motivated to explore new cognitive and affective domains, and to learn basic communication skills. The project provided four key services: in-class support for teachers by CEP specialists, media workshops, film loans and consultations, and equipment and media loans.

To serve the pupils' and teachers' needs and to supplement the pupils' cognitive skills in language, mathematics, reading, or writing, CEP staff members worked with teachers and pupils in their classrooms to develop projects in which a variety of media equipment would be used (e.g., videotape recorders, movie cameras, cassette recorders, still cameras, darkroom equipment, and several different projectors).

Participants were given the opportunity to use, understand, and become comfortable with various media equipment so that they could independently apply their new skills to answer future learning tasks and needs. Within a small-group framework, pupil motivation and social competence was developed.

Participating teachers were assisted by CEP specialists in the development of classroom organizations that would meet the differential and individual needs of the pupils through in-class assistance, consultations, and workshops.

The film-lending library made available a selection of 80 highly acclaimed short films and features not commonly offered for classroom use. Teachers borrowing films were offered suggestions for selection, use, and follow-up activities by CEP specialists.

Seven whole-day workshops provided opportunities for teachers and others to see how movies are planned and how to use them in instruction, to learn to use various media hardware, and to participate in hands-on activities that simulated classroom lessons which they could provide.

The evaluation design called for visitations and observation of activities throughout the project year. Visits were made to special events and continuing classroom projects. Checklists and anecdotal records were kept to document the nature of the activities and the extent to which services were provided. Informal interviews were conducted with teachers to gain an ongoing sense of the teachers' concepts of their involvement. Results of surveys developed for an end-of-year evaluation of stated objectives for the participating pupils, teachers, and principals showed that all the project objectives were attained. However, the shortage of necessary media equipment prevented teachers from continuing media projects independently. This short supply of equipment on hand was found to be the result of ordering and delivery problems.

In view of the support from participating pupils, teachers, and principals, and the many requests for project services and equipment, the delivery of budgeted items should be expedited so that Communications Experiences can continue to successfully meet its objectives.

TABLE 1

RESPONSES TO SURVEY OF 194 PUPILS' ATTITUDES TOWARD THEIR COMMUNICATIONS EXPERIENCES

Item	Desired Response	Pupils Giving Desired Response	
		Number	Percentage
I liked working on the media project.	yes	177	91
I am proud of the work we did.	yes	175	90
I was disappointed with the work we did.	no	164	85
The project was boring.	no	162	84
I want to show our media project to other classes.	yes	159	82
I had too much to do.	no	159	82
I can work some of the media equipment myself.	yes	157	81
The media project was so good that I told my friends about it.	yes	149	77
The media project wasted too much time.	no	150	77
I want to work with the same group of kids on my next project.	yes	139	72
I prefer to work by myself.	no	136	70
We needed more help to do it right.	no	110	57
I had very little to do.	no	89	46
All 13 items	--	1,926	76%

COMPREHENSIVE MATHEMATICS

The Comprehensive Mathematics project is designed to improve computational skills of students having low achievement in mathematics. Component "A" serves low-achieving students of Grades 1-6. Component "B" serves secondary school students having fundamental mathematical difficulties. Component "C" provides staff development to teachers of educable mentally retarded students.

THE PROJECT

RATIONALE

Students for whom the Comprehensive Mathematics project was designed have repeatedly exhibited a deficiency in mathematics indicated by teacher assessment and their scores on standardized tests (Iowa Tests of Basic Skills and California Achievement Tests). Several general needs and problems were identified as possible causative factors:

1. Lack of emphasis in schools for teaching basic mathematical skills;

2. Diversity of eclectic approaches to the teaching of mathematical concepts;

3. Lack of uniformity in evaluating student progress within the classroom; and

4. Students' negative attitudes toward mathematics.

Using various procedures, the three components of the Comprehensive Mathematics project stress the importance of teaching mathematical skills, define methods of teaching mathematics, delineate what should be taught and in what sequence, and provide instruments for assessing student progress.

EXPECTED OUTCOMES

Through the implementation of the project, a significant decrease in the number of students who score below the 16th percentile in mathematics on the California Achievement Tests is expected at all grade levels. Additionally, an improvement in functional mathematical skills should be evident for regularly attending students. With the increased proficiency of mathematics skills, a positive attitude is expected to develop toward mathematics in general.

MODE OF OPERATION

Component "A" in Grades 1-6. One hundred sixteen elementary mathematics resource teachers guide the mathematics curriculum for their respective schools.

The variety of teaching situations requires the resource teacher to modify and refine approaches to the instruction of mathematics within the parameters of the program to effect optimal results in his school. The desired execution of this position suggests multifaceted proficiencies in cognitive and affective concerns of classroom teachers and students to successfully convey the intent of the program. To fulfill this role, the resource teacher develops with the classroom teacher techniques to improve learning, introduces new materials and visual aids to enrich learning situations, evaluates the successes of each class and the school according to projected progress rates, monitors classroom interactions, stimulates interest in mathematics through staff development, and supplements teacher efforts via small-group and individual instruction.

The ongoing emphasis of this component is the individualization of instruction, student and school evaluations, and the continuity of the recommended approach for 64,970 students, Grades 1 to 6, in Title I schools.

Component "B" in Grades 9-10. Ninth- and tenth-grade Title I students from Bartram and West Philadelphia High Schools scoring below the 16th percentile on the California tests are included in this component of the project. Remediation in mathematics skills is stressed. Paraprofessionals trained for small-group instruction and tutorial teaching procedures provide individualized instruction and monitor student progress on an ongoing basis.

The ILA provides a series of tests to diagnose the initial placement of the pupil in a specific skill booklet at his level of achievement in each of five mathematical areas: numeration/place value, addition/subtraction, multiplication/division, geometry and measurement, and applications. Each booklet has a title written in behavioral terms with an accompanying posttest taken at the completion of that booklet. The student's proficiency in a skill area determines whether he is assigned the entire booklet or parts of the booklet. A total of 85% correct on the posttest indicates mastery of that skill and the pupil proceeds to the next booklet. Less than 85% correct indicates the need for remedial activities that reinforce that skill. Table 1 summarizes the number of specific skills in each unit.

The degree of difficulty of these booklets forms a hierarchical sequence beginning with the development of number-system concepts and terminating with the application of concepts.

Component "C" for educable retarded children. Twenty-four regular teachers of educable mentally retarded children receive intensive training in the techniques of integrating hands-on activities and materials as a means of teaching mathematics. A successful approach with average children, the hands-on technique provides instructional individualization and concrete activities designed to foster conceptual understanding and to improve concept and skill development. The training includes the presentation of innovative methods for individualizing instruction and utilizing laboratories and activity corners in instruction, exposure to a variety of curriculum

resources, the use and interpretation of instruments for monitoring pupil progress, and guidelines for obtaining relevant supplies for the teaching situation.

The project supervisor monitors the program and plans summer staff-development sessions. Additional staff-development sessions are conducted during the regular school session to clarify problems encountered by teachers during the actual practice of the program and to offer continuous motivation. During his visits to the classroom, the supervisor demonstrates innovative techniques appropriate to the lesson he observes.

PREVIOUS FINDINGS

During the project's initial year (1972-1973), each of the participating schools had a mathematics specialist who assisted teachers in the development of more effective mathematics lessons. The evaluation indicated the need for (a) increased individualization of the instruction and (b) more specific guidelines for monitoring the program.

As a result of those needs, the following modifications were made in the 1973-1974 school year: (a) classes for secondary students were reduced from 28 to 25 students per class, and (b) increased emphasis was placed on updating pupil records to permit their use in continual diagnosis as well as for evaluation.

THE 1973-1974 EVALUATION

The current year's evaluation of the Comprehensive Mathematics project was primarily an effort to document the project's progress toward attaining its stated objectives and to document the general efficiency of the mathematics specialists who constitute the principal thrust for the success of the program. It focused on the following key questions:

1. To what extent did pupils' computational skills, problem-solving skills, and arithmetic comprehension improve?

2. Did the pupils attain the levels of achievement stated in the project's objectives (Component "A": an average gain of three instructional levels in a year as indicated by the Philadelphia mathematics curriculum; Component "B": increased rate of achievement in basic mathematics skills as compared with their average rate for the preceding three years)?

3. Was there an indication of overall commitment of the mathematics specialists to the goals and philosophies of the project in actual practice?

4. Were positive attitudes being fostered by the project's three components?

Certain critical areas of the evaluation had been implemented prior to the employment of the present evaluator. This report represents the concerted efforts of both mathematics education and research personnel as described under the individual project components.

IMPLEMENTATION

Component "A". The instructional level for each pupil in participating schools was determined. These levels provided the baseline data for the program. Growth from level to level has been monitored continuously, with official checkpoints in January and June 1974. Bar graphs were used by resource teachers to depict the growth for each school. The director of the Elementary Mathematics Resource Teacher (EMRT) program inspected these graphs and produced district graphs for comparison.

The quality of performance of the elementary resource teacher was assessed by the director in more than 15 areas, including his roles as developer, implementer, evaluator, monitor, and material requisitioner. A summary of the results of the assessment of 91 resource teachers is presented in Table 2.

These factors should be noted in the interpretation of the data. The monitoring data were not complete in 11 schools because of recent changes in resource teachers in regard to the scheduling of monitoring time; however, four new teachers performed exceptionally well in some areas according to the estimation of the mathematics director. Only these data were recorded for those schools.

Component "B". Initial placement tests were given to all students in the program in both schools. The Individualized Learning for Adults (ILA) test was used at West Philadelphia High School and the School District's Fundamentals of Arithmetic Test was used at Bartram High School to assess the appropriate instructional levels of the students and to evaluate student progress.

Component "C". The Key Math Diagnostic Arithmetic Test was administered to all children in participating classes. Information from this test enabled each teacher to make a comprehensive assessment of each child's arithmetic skills and to present appropriate activities and materials for concept and skill development.

The YAT Opinion Survey and Program Opinion questionnaire were administered to the 24 teachers in the program to determine affective effects of staff-development sessions and the practical implementation experiences of the teachers.

The Mathematics Workshop Coordinator for Teachers of Retarded Educables monitored the program noting strengths or obvious weaknesses of the teaching situations. In the 19 observations reported, eight of the project teachers utilized laboratory and activity corners so well that they warranted special notation; 17 of the teachers practiced individualized instruction; 17 of the teachers showed evi-

dence of using the curriculum resource materials; 16 adequately monitored pupil progress; and 16 maintained adequate supplies for implementing the curriculum. There were 24 schools in the program.

In-class demonstrations were given by the Mathematics Workshop Coordinator for Teachers of Retarded Educables on every visit, except during testing periods, to supplement staff-development sessions.

ATTAINMENT OF OBJECTIVES

Component "A"

The Elementary Mathematics Resource Teacher (EMRT) program was examined with the Philadelphia Mathematics Evaluation Tests, also referred to as the Levels Test. Each of the 18 levels consisted of six parts: (a) systems of numeration, (b) rational number system, (c) fractions, (d) measurement, (e) organizing and interpreting data, and (f) geometry.

The levels represent a hierarchical sequence of difficulty. Suggestions for the classroom teacher are presented in the manual to assist the teacher in diagnosing pupil problems before advancing students to a more difficult level.

Pretests were administered to diagnose appropriate levels for beginning instruction. Posttests were administered to evaluate the progress students made during participation in the program. In seven Philadelphia school districts, 116 resource teachers served 116 schools. Students in these schools in Grades 1-6 constituted the focus of the program. The progress of 59,834 students was evaluated.

Data from each school were examined by the EMRT director to determine the number of levels of growth made by students in the program. Results are summarized in Table 3. Ninety-one percent of the participating students gained at least one level. The median growth in the seven districts was two levels.

Objective 1: To enable each child to achieve greater proficiency in computational skills so that children on the average will achieve the equivalent of one year's growth in the period of one year.

There is strong evidence that this objective was attained. Preliminary informal studies involving comparisons of mathematics skills of various levels of the California Achievement Test (CAT) and the 18 levels of the Philadelphia Mathematics Evaluation Test indicate that a gain of two levels would approximate a year's growth as measured by the CAT. (These findings were not available when the abstract was written.) A more intensive study has been planned to permit a more definitive statement for the next report.

The median level of growth per year was two levels across the seven districts involved in the EMRT program, as indicated in Table 3.

Objective 2: To enable each child to achieve an average gain of three instructional levels in a year in the School District of Philadelphia's mathematics curriculum.

This objective was not achieved. The median level of growth across the seven districts was two instructional levels. Twenty-three percent of the student population achieved three or more levels of growth.

The achievement of three levels of growth on the Philadelphia Mathematics Evaluation Test (the Levels Test) represents the ideal which would allow a student beginning the program in first grade to complete 18 levels of the program by the end of the sixth grade. Preliminary informal studies and professional opinion of achievement correlations between the California Achievement Test (CAT) and the Levels Test indicate that two levels of growth per year would expose the student to mathematical skills necessary to score at the 50th percentile on the CAT in the sixth grade. While these findings are not final, the inference is made that a median gain of two levels of growth for Title I student populations may be satisfactory. Therefore, three levels of growth may be overenthusiastic. Further study of this issue is indicated.

Component "B"

Objective 3 (West Philadelphia High School): To enable pupils in the project to make progress in learning mathematics skills normally considered part of an elementary mathematics program.

This objective was attained.

Two instruments were used to assess student progress in mathematical skills: (a) the Individualized Learning for Adults (ILA) program booklets published by Research for Better Schools, Inc., and (b) the Philadelphia Fundamentals of Arithmetic Test. Parameters of expected progress in ILA booklets are not specified, nor can the differences in difficulty between booklets be assumed to be equal. The additional individualized aspect of student selection of areas of skill development results in data that are descriptive of student progress but not statistically manipulable for the evaluation of the program. Table 4 summarizes the results of the ILA booklets from September 1973 to June 1974 for 38 students who remained in the program for this period.

The Philadelphia Fundamentals of Arithmetic Test, Form E, for Grades 9-12 was administered in September 1973 and June 1974. Scores on the pre- and post-tests were compared using the nine levels of relative score discriminations ranging from a low score of 1 to a high score of 5+ with 3+ as the middle score on the scale.

From nine subtest scores, a median relative score for each student was computed for the pretests and the posttests to indicate gains in fundamental skills. The results of the pretest and the posttest, as reported by the head of the West Philadelphia High School mathematics department, indicated a median relative score of 1 for the pretest and 2+ for the posttest--a gain of two levels for the 32 students taking both tests.

Raw scores were analyzed using the t test for correlated samples. The pretest composite mean score was 18.4; the posttest composite mean score was 26.7. The difference between means was significant at the .005 level (df=31, t=2.7). The alpha level for the nine subtests was raised to account for multiple tests of significance on correlated data. Thus, the .01 level was used in the nine subtest comparisons to insure an overall significance level of less than .10. Of the nine subtests examined, six indicated statistically significant results:

1. Division of whole numbers;
2. Addition of U.S. money, decimals, and fractions;
3. Subtraction of U.S. money, decimals, and fractions;
4. Multiplication of U.S. money, decimals, and fractions;
5. Division of U.S. money, decimals, and fractions;
6. Multiplication of U.S. money, decimals, and fractions--word problems.

Objective 4 (Bartram High School): To show an increase in pupils' rate of achievement in basic mathematics skills as compared to their average rate for the preceding three years.

The available data were not adequate to determine the attainment or nonattainment of this objective.

The Bartram High School program has two subcomponents: the Freshman Center Annex and a program at the main building. The subcomponents were evaluated separately on the basis of the stated objective by the mathematics coordinator at the Bartram Annex and the mathematics department head at the main building.

The Comprehensive Test of Basic Skills (CTBS), Form Q, Level 4, was given to the students at the Bartram Freshman Center in October 1973 and May 1974 by the mathematics coordinator, to measure the improvement in the students' mathematical abilities. The results of the pretest as reported by the coordinator of the program indicated that these students were deficient in mathematical abilities by an average of more than two years as compared with the national norm. Data indicating the average rate of achievement for these students for the preceding three years were not available. It was not possible, therefore, to determine the attainment of this objective.

Data for students who took both pretest and posttest were analyzed by the program coordinator to compare mathematical abilities before and after exposure

to this special curriculum. He reported that the mean grade equivalent of these students in October 1973 was 5.7, and the mean grade equivalent of the same students in May 1974 was 6.7.

The coordinator of the program also reported that 64% of the students tested in October 1973 and May 1974 improved at least one half grade level. (The corresponding figure for 1972-1973 was 63%.) Of this 64%, 55% of the students improved at least one grade level compared to 29% who achieved this level of improvement during the 1972-1973 school year. Two thirds of the students were reported to have improved "a significant amount" as indicated by scores on the CTBS. The number of students tested was not reported.

For the Bartram High School program at the main building, assessment of the attainment of the objective was not possible from the report submitted. This subcomponent of the Bartram Secondary Comprehensive Mathematics Program used the Philadelphia Basic Skills Test (PBST) to measure basic mathematic skill improvement. This test was given to all students at their initial entrance into the program by the department head. The students selected for these special classes were characterized as poor achievers based on the PBST or based on school records showing poor achievement and excessive absenteeism. Student mobility resulted in varying times of administration for the pretest. Excessive absenteeism during the last week of school in June when the posttest was administered reduced the number of posttest scores available for comparison. No data were submitted which indicated the average rate of achievement of these students during the preceding three years.

The current year's pretest and posttest scores as reported by the mathematics department head indicated a median growth of one level. Of the 127 students who took both pretest and posttest, 42 gained no levels, 33 gained one level, 40 gained two levels, and 12 gained three levels.

Component "C"

Objective 5: To help children develop an understanding of our system of numeration, concepts of quantity and quantitative relationships, skill in computation, and ability to think in quantitative situations and to solve the problems of present and future everyday living in terms of their own potentials, interests, and needs.

The cognitive aspects of this objective were attained; the affective aspects were not measurable.

The Key Math Diagnostic Arithmetic Test was administered in September and June to assess the students' level of performance in computational skills. For each student there were a total score for the examination and subscores in the areas of content (numeration, fractions, geometry, and symbols), operations (addition, sub-

traction, multiplication, division, mental computation, numerical reasoning), and applications (word problems, missing elements, money, measurement, time).

The Key Math Diagnostic Arithmetic Test is an examination published by the American Guidance Service, Inc. The standardization process is fully documented in the test's technical manual.

For each student, raw scores and grade-equivalent scores were computed according to the number of questions a student answered correctly before making three successive mistakes. This test was administered individually to permit additional notations of student test behavior and test performance with instructional recommendations. The raw scores on all subtests were graphed to present a pictorial Key Math Diagnostic Profile for each student individually.

Comparative pretest and posttest scores were available for only those students who remained in the program. The data in this report do not consider the effects of the restoration of students to regular classes and to high school classes. Those students would have been the high scorers of this population. Other factors of mobility also were not considered.

The scores of 231 retarded educable students in 22 schools were reported. Pretest and posttest scores were compared by means of a t test for correlated samples. The total test scores and scores on three subtests were examined. Table 5 summarizes the results of pretests and posttests for the group.

The alpha level was raised to account for multiple tests of significance on correlated data. The t test for correlated samples indicated that significant positive differences existed in all four areas of concern beyond the .02 level. (The .005 level reported in the abstract was computed without the adjustment for correlated data.)

SUMMARY AND CONCLUSIONS

The Comprehensive Mathematics project encompasses three components emphasizing the improvement of mathematics skills to defined populations of students. All students participating in the project had demonstrated a deficiency in mathematical skills according to the expected level of performance of their specific group. In each program, the collection of data and monitoring were a function of the director of that program. All components of the Comprehensive Mathematics project administered some form of pretest to diagnose student needs and determine appropriate levels of instruction, and a posttest at the end of the school year to indicate improvement in skills.

The data indicated that the project had been generally successful in the attainment of the overall objective of the improvement of mathematical skills. Discrepancies

between cited goals and test results may be attributed to setting unrealistic goals for the population of students included in the project. In the Elementary Mathematics Resource Teacher program (Component "A") Title I students achieved two levels of growth instead of the three levels stated in the objectives. Prior achievement records of these students indicated that two levels of growth was a reversal of their downward trend in mathematical achievement. The prospect of promoting an average gain of three levels of growth for a population of students selected because of mathematical skill deficiences was overenthusiastic.

The manner of implen ntation of the components varied. The EMRT program sought to improve mathematical skills by providing a resource teacher in each participating school to monitor the project, develop relevant curricula, motivate other teachers, emphasize the importance of mathematics, and perform other duties inherent in generating an effective program.

The Secondary Mathematics program (Component "B") approached mathematics improvement via motivational techniques, remedial instruction, and programmed learning for mathematically deficient students in ninth and tenth grades.

The Activity-Centered Mathematics program (Component "C") based its curriculum on manipulatory instructional techniques for the improvement of mathematical skills of educable mentally retarded students. These innovative techniques required emphasis on staff development for participating teachers to reinforce and develop techniques for classroom use consistent with the basic philosophy of the program.

All components of the Comprehensive Mathematics project provided methods for individualizing instruction, diagnosing student needs, and prescribing remedial instruction.

In the evaluator's opinion, there exists a crucial need for a thorough review of required mathematics skills at each level of the Levels curriculum to provide an empirical basis for pacing and equating achievement expressed in levels with achievement expressed in terms of national norms.

TABLE 1

ILA SKILLS TAUGHT IN COMPREHENSIVE MATHEMATICS PROJECT

Area	Level							
	A	B	C	D	E	F	G	H
Numeration, Place Value	12	10	6	10	9	8	4	4
Addition, Subtraction	3	9	8	14	16	8	5	2
Multiplication, Division	0	0	11	11	10	13	4	2
Geometry, Measurement	0	5	7	12	10	12	7	6
Applications	0	2	4	7	7	7	6	11

TABLE 2

PERCENTAGE OF 91 COMPREHENSIVE-MATHEMATICS-PROJECT TEACHERS JUDGED BY DIRECTOR OF COMPONENT "A" AS PERFORMING TASKS ADEQUATELY

Task	Percentage
Has supplies of materials:	
Curriculum guides	70%
Textbooks and workbooks	74
Instructional aids	79
Levels tests (all levels)	60
Maintains these records:	
Form E6A - Mathematics Cumulative Record	78
Form E6B - Class Mathematics Progress Record	68
School charts	59
Class charts	58
Weekly schedule	78
Performs these services for classroom teachers:	
Demonstrations	86
Group instruction	80
Individual instruction	79
Technique improvement	81
Individual pupil evaluation	79

TABLE 3

SUMMARY OF NUMBER OF LEVELS OF MATHEMATICS GROWTH
BETWEEN SEPTEMBER AND JUNE BY 59,834 STUDENTS
IN COMPREHENSIVE MATHEMATICS COMPONENT "A"

District	Percentage of Students Showing Growth				
	No Change of Level	One Level	Two Levels	Three Levels	Four or More Levels
1	9%	36%	30%	18%	7%
2	10%	35%	32%	18%	5%
3	3%	28%	40%	22%	7%
4	14%	31%	34%	15%	6%
5	5%	32%	38%	18%	7%
6	10%	33%	36%	17%	4%
7	5%	39%	31%	17%	8%
Seven Districts	9%	34%	34%	17%	6%

TABLE 4

PROGRESS IN ILA MATHEMATICS SKILLS FROM SEPTEMBER UNTIL JUNE BY 38 STUDENTS IN COMPREHENSIVE MATHEMATICS COMPONENT "B"

Area	Total Books Completed	Average Books Completed per Student
Numeration, Place Value	1,102	29
Addition, Subtraction	612	16
Multiplication, Division	655	17
Geometry, Measurement	637	17
Applications	240	6
All Areas	3,246	85

TABLE 5

COMPARISON OF SEPTEMBER AND MAY RESULTS ON KEY MATH DIAGNOSTIC ARITHMETIC TEST FOR 231 STUDENTS IN COMPREHENSIVE MATHEMATICS COMPONENT "C"

Subtest	Given as	Mean Score	Standard Deviation	t
Total	Pretest	72.179	35.32	
	Posttest	87.965	37.50	15.435*
Content	Pretest	24.048	7.75	
	Posttest	28.135	8.97	9.637*
Operations	Pretest	23.331	12.69	
	Posttest	28.436	14.37	9.825*
Applications	Pretest	27.227	15.11	
	Posttest	33.475	16.03	11.203*

*Statistically significant at the .02 level.

COMPREHENSIVE READING PROJECT

The Comprehensive Reading Project has several components, which are reported consecutively in the following order:

District 1 Reading*
District 2 Reading*
District 3 Reading*
District 4 Reading*
District 5 Reading*
District 6 Reading*
District 7 Reading*
Improvement of Reading Skills "A" and "B"
Improvement of Reading Skills "C"
Individualized Education Center
Instructional Materials Centers
Language Arts Reading Camps
Operation Individual
Primary Reading Skills Centers
Reading Improvement through Teacher Education
Summer Adventures in Learning
Summer Reading Readiness
Teaching Basic Reading Skills--A Systems Approach.

*A separate technical report on each of the District Reading Projects is issued annually by the Office of Research and Evaluation's Department of Priority Operations Evaluation Services. Although these seven projects are not treated in the Title I Technical Reports, they are included in the briefer volume of Title I Abstracts.

IMPROVEMENT OF READING SKILLS "A" AND "B"
(A Component of the COMPREHENSIVE READING PROJECT)

Individualized instruction for seriously deficient readers is provided through the use of selected reading materials and audiovisual aids, ("A") in a Reading Skills Center, or ("B") using a teacher shared by a public school and a nonpublic school.

THE PROJECT

RATIONALE

Citywide testing over the past few years has indicated that of all groups, the children in Grades 4-6 have the most dramatic needs in reading comprehension and vocabulary skills. Diagnosis and correction of these children's serious reading deficiencies prior to their entry into secondary schools are critical to the future cognitive attainment of these children. Since these children have had low success in classrooms, specialized assistance is required.

EXPECTED OUTCOMES

It is expected that pupils' scores on informal reading inventories and phonics inventories will show marked improvement of reading, decoding, vocabulary, and comprehension skills.

MODE OF OPERATION

Underachievers in Grades 4-8 are identified by classroom teachers and through the use of tests. When they are selected to enter the project, pupils are given an informal reading inventory and the Botel Phonics Inventory to facilitate diagnosis and placement.

Pupils leave their classrooms and go to the reading specialist in the Skills Center. Daily instructional time varies from less than 45 minutes to more than an hour. The pupils work individually or in small groups on individually prescribed assignments. Multimedia equipment and multilevel materials are utilized to accommodate the various needs, interests, and skill levels.

Each full-time Reading Skills Center is supplied with many reading books, kits, and workbooks. Listening carrels are equipped with earphones and outlets, small phonographs, and cassette recorders. Pupils are cycled from one experience to another as needed. Full-time aides are assigned to assist the reading teacher in the preparation for instruction, in the follow-up of each pupil's progress, in record keeping, and in reviewing work with pupils.

The Reading Skills Center teachers provide ongoing consultation with teachers and periodic staff-development sessions where topics include individualized instruction techniques and materials to correct pupils' reading problems. Centers are also used as models for visiting teachers.

Program "B" differs from Program "A" in several ways. The shared-time reading specialists work in both public and nonpublic schools, and do not have the services of aides. They use available facilities in their schools rather than a specially equipped site, and provide only informal consultation with teachers.

PREVIOUS FINDINGS

Since the project's initiation in 1966, pupils have shown improvement in comprehension, word-attack, and phonics skills. In 1970-1971, standardized tests indicated that project pupils' low scores in vocabulary were reversed after two years, and low scores in comprehension were reversed after one year. During the following years pupils continued to improve their basic reading skills.

THE 1973-1974 EVALUATION

The current evaluation of Improvement of Reading Skills "A" and "B" involved a continuation of past procedures: observations, interviews, and analysis of test results.

IMPLEMENTATION

Although these two reading programs were developed to overcome severe reading deficiencies of children in Grades 4-6, pupils in Grades 3-8 were accepted. Trained reading teachers were in charge of the instructional program at each site.

Reading Skills Centers ("A"). The Reading Skills Centers were established in schools where large percentages of the children had reading problems. Eleven centers were currently operational. Each center was supervised by a full-time reading teacher assisted by two aides. In some centers parent volunteers also assisted the children.

Most Skills Centers were classrooms equipped with booklets, kits, tapes, records, and books. The evaluators observed the children using tape recorders, record players, and other audiovisual devices. Reading aides, supervised by the reading teacher, assisted pupils who worked individually or in groups at their prescribed tasks. The Skills Center teachers assessed pupils' progress through a sequence of planned skills and wrote prescriptions. Aides assisted the pupils, checked their work, and gave them drills.

Approximately 1,400 pupils were enrolled in Program "A". Centers varied widely in the number of children served: four served less than 100 pupils, five served 104-127 pupils, and two served more than 200. The number of pupils served by each center was influenced by the frequency of instructional sessions. Groups and classes of children were scheduled into any one Skills Center for as many as four periods per week or as few as one. Several teachers provided instruction for pupils with poor reading skills from neighboring nonpublic schools.

Each child was administered a phonics test, an Informal Reading Inventory, and other tests. The Reading Center teacher analyzed the test results and prescribed materials and techniques to meet each individual child's needs.

Pupils attended their regular classes until their scheduled time for the Skills Center. They came to the center themselves or were escorted by aides. Most instructional sessions lasted 45 to 60 minutes. Teacher and aides were prepared for the pupils. As children entered, they were seated at specific stations and were given drills, instruction, or reinforcement of skills individually or in groups. Ongoing individual records of skill attainment were kept. Pupils concentrated on their tasks and were very well-behaved as they moved from one skill area to another.

Shared-Time Reading Teachers ("B"). Program "B", in which shared-time reading teachers divided their time between public and nonpublic schools, was designed to meet the needs of children with reading problems in Grades 4-6. Each teacher was assigned to two schools; in most cases, there was little distance between schools.

Program "B" tended to be remedial in nature and used multilevel materials with individuals or small groups. Teachers worked without aides and with fewer resources than Skills Center teachers. In spite of this, Program "B" was listed as an innovative and exemplary elementary school program in the Directory of the North Catholic Educational Association.

This program served approximately 425 public and 300 nonpublic school pupils. Eight teachers served 16 schools. Pupils were scheduled to come to the reading room for as many as four periods per week or as few as one.

Information was gathered from more than 20 site visitations and observations. Fifteen interviews were held with the reading teachers, and other information was collected from the individual pupils' reading-monitoring forms. These forms recorded the scores on achievement tests, phonics tests, and Informal Reading Inventories given twice each year. Longitudinal data over a three-year period were available for many of the sixth-grade pupils in the program.

Since the implementation of the "Right to Read" program in the city, each school was assigned a reading teacher. In most of the schools visited, the evaluators observed that the reading teachers were given responsibility for coordinating the

school reading program and staff development. At the district level, district staff provided training and staff development. Each district was reported to have held one district meeting of reading teachers in a center during the year. In spite of heavy pupil case loads, the reading teachers in both programs were able to provide consultation to concerned classroom teachers, training for aides, and instructional sessions for teachers in their schools.

ATTAINMENT OF OBJECTIVES

Objective 1: In one year, at least 60% of the participants will improve their reading achievement by at least two instructional book levels and 90% will gain one book level or more.

This objective was not uniformly attained. The degree of change related to instructional book levels was measured by analysis of pretest and posttest scores on the Informal Reading Inventories administered to all children. These data were recorded on the Longitudinal Inventory for Student Achievement (LISA) form. When the recorded data were analyzed, only pupils with both pretest and posttest scores were included.

For the current year 1,446 pairs of scores were analyzed according to the amount of each pupil's project participation (one, two, or three years). Results are shown in Table 1.

One group almost achieved the 90% objective, and two groups achieved the 60% objective. Third-year participating pupils came very close to achieving the objective of 90% gaining one book level or more. First- and third-year participants did attain the objective of 60% gaining two book levels or more. When the data for all groups were combined for 1973-1974, 79% of the pupils gained one book level or more, and 62% gained two book levels or more.

When these fourth-, fifth-, and sixth-grade pupils entered the project, 88% were at a Book 2 level or lower. When the IRI scores of pupils in the project for three years were reviewed, 69% were at a Book 3 level or higher.

Objective 2a: Sixty percent of the three-year participants will achieve mastery (80% correct) in phonics.

This objective was attained. Of pupils enrolled in the project for three years, 72% achieved mastery (80% of the 64 items correct) in the phonics test administered by teachers in June 1974. Analysis of data for 236 third-year participants for whom information was available showed the project's effectiveness in teaching children to hear and identify the sounds of consonants, blends, and vowels.

Objective 2b: Within one year the number who achieve mastery will increase 20% from pretests to posttests.

Results of phonics pretests and posttests for pupils having one, two, and three years of project participation are summarized in Table 2. In each group, the percentage of pupils attaining mastery increased by more than the criterion amount of 20 percentage points between pretest and posttest.

SUMMARY AND CONCLUSIONS

This project was planned and developed to meet the need of large numbers of pupils in Grades 4-6 to improve their reading skills. Citywide test scores indicated that reading scores for these grades had decreased over a period of years. Reading Skills Centers ("A") were established in schools known to have pupils with reading problems. Centers were basically classrooms equipped with tables and desks, kits, booklets, texts, and other materials. Audiovisual equipment that could be used for individuals and groups was also made available.

Public and nonpublic schools with sizable groups of pupils with reading problems were served by Shared-Time Reading Teachers ("B"), in which eight teachers served pairs of public and nonpublic schools.

Pupils identified by their test scores or by their teachers as having reading deficiencies were enrolled into the project. Each pupil was administered tests to diagnose needs and to measure progress. Longitudinal records were kept for each pupil. A special mark-sensitive form was designed to record progress over a three-year period. Data reduced from these forms were the basis of the evaluation of pupil progress.

The project was evaluated by reduction and analysis of the individual pupil scores reported by their teachers, by site observations, and by interviews with teachers and project staff. Longitudinal data were available for pupils who participated in the project for one, two, or three years.

Individual pupils' reading development was assessed by professionals using Informal Reading Inventories. More than half the pupils in the project gained at least two book levels during the year; 60% of the third-year participants and two thirds of the first-year participants showed such gains. Thus two of the three groups had the expected 60% of their members gaining at least two book levels. More than 75% of the pupils gained in reading skills by one book level or more in the year, but only the third-year participants, with 88% showing such a gain, came close to the 90% criterion.

When decoding skills of the pupils were assessed by phonics inventories, more than 70% of the project's three-year participants displayed mastery. Almost 25% of each of the three groups (one-, two-, and three-year participants) were able to display phonics mastery for the first time during the year.

Pupils enrolled in this project were selected as those having the lowest reading ability. The test results indicated that more than 50% of them gained two book levels during the year. This attainment is noteworthy because it is equivalent to normal progress for an average reader.

TABLE 1

SUMMARY OF PUPIL PROGRESS IN
READING "A" AND "B" PROJECT
FROM PRETEST TO POSTTEST

Change in IRI Score	Percentage of Participating Pupils			
	1st-year Pupils (763)	2nd-year Pupils (443)	3rd-year Pupils (240)	Stated Objective
Loss or no change	22.5%	23.5%	12.0%	
Gain of one book or more	77.5%	76.5%	88.0%	90%
Gain of two books or more	67.6%	51.9%	60.0%	60%

TABLE 2

PERCENTAGE OF PUPILS DISPLAYING 80% MASTERY
ON PHONICS TESTS DURING 1973-1974 IN
READING "A" AND "B" PROJECT

Participation in Project	Pretest	Posttest	Percentage-Point Change
1 Year	18.3%	42.1%	+ 24.8
2 Years	32.0%	58.2%	+ 26.2
3 Years	49.4%	72.0%	+ 22.6

IMPROVEMENT OF READING SKILLS "C"
(A Component of the COMPREHENSIVE READING PROJECT)

Part "C" of the Improvement of Reading Skills project provides reading teachers who give part-time remedial instruction to pupils with reading difficulties.

THE PROJECT

RATIONALE

The participating target-area pupils have failed to master the basic reading skills, and are reading below grade level. The project is based upon the assumption that supplementary services can ameliorate low achievement levels resulting from reading difficulties. Services are provided to improve the reading comprehension and word-attack skills of the participating pupils.

EXPECTED OUTCOMES

Through participation in the project, the pupils should improve their reading comprehension and their word-attack skills.

MODE OF OPERATION

Pupils in Grades 3-8 who have failed to master basic reading skills are admitted to the project on the basis of recommendation by their classroom teachers and screening by the reading teacher.

Each remedial reading lesson lasts approximately 45 to 60 minutes. The pupils engage in at least three activities which emphasize individual skill development.

Widely varied multilevel, multimodal materials are utilized for optimal development of specific skills. The pupils work in small groups; the reading teacher serves as a resource person. The schedules of the reading teachers are arranged to fit the programs of their respective schools. Each day, a reading teacher meets with three or four instructional groups, each consisting of 9 to 12 pupils. Two and one-half hours of the reading teacher's weekly schedule are devoted to intensive work with selected pupils.

PREVIOUS FINDINGS

The project has been successful in helping many children who had reading difficulties to make gains in comprehension and word-attack skills.

In the 1972-1973 evaluation, the difference between pretest and posttest scores on the Informal Reading Inventory indicated that 66% of the 1,600 pupils participating in the project progressed at or above the rate specified in the objectives--a gain of two book levels per school year. In addition, statistically significant gains in average scores on a phonics inventory (17.8 points in Grade 3; 14.8 in Grade 4; 12.6 in Grade 5; 9.5 in Grade 6) indicated that the project was successful in imparting specific decoding skills to children at most grade levels.

THE 1973-1974 EVALUATION

This year's evaluation of Improvement of Reading Skills "C" focused on (a) the degree to which the participating pupils demonstrated increased reading-achievement levels, as indicated by differences between pretest and posttest scores on a group Informal Reading Inventory, and (b) the degree to which the pupils improved their decoding skills, as indicated by scores on a project-specific phonics inventory.

IMPLEMENTATION

Observation visits to 11 project classes and interviews with teachers indicated that there was no substantial change in project operation from previous years.

In all schools, pupils received supplemental reading instruction three to four hours per week. The teachers grouped their classes by reading level rather than by grade level. Although each reading teacher's schedule was organized to fit the program of her school, most teachers met with three or four instructional groups per day. The groups ranged in size from seven to nine pupils. The instructional periods ranged in length from 45 minutes to an hour. In most cases the pupils worked in small groups with the reading teacher acting as a resource person. Pupils with severe reading difficulties were given special individual attention in addition to the scheduled instruction.

During the course of a lesson, pupils engaged in at least three different activities. Multilevel, multimodal materials in wide variety were utilized for specific skill development.

ATTAINMENT OF OBJECTIVES

Objective 1: To increase project pupils' reading-achievement levels to the extent that 90% of the pupils gain one book level, with 60% gaining two or more book levels in a school year, as measured by pretest and posttest scores on a group Informal Reading Inventory.

The Informal Reading Inventory (IRI) was administered in September and again in May to the project pupils. The median pretest and posttest book levels are reported in Table 1. The number of pupils making the specified gains between the pretest and the posttest are shown in Table 2. Eighty-eight percent of the pupils gained at least one book level; 63% gained at least two levels. Thus one part of the objective was attained.

Objective 2: To increase project pupils' decoding skills to the extent that there is an increase of 20 points in the percentage of pupils attaining an 80% mastery score on a project-specific phonics inventory.

In September and again in May the 85-item project-specific phonics inventory was administered to the project pupils. Results are shown in Table 3.

The increase of 42 points in the percentage of pupils attaining mastery on the phonics inventory indicated that the project had met its objective of increasing pupils' decoding skills.

SUMMARY AND CONCLUSIONS

The project, which provided part-time remedial reading instruction, was found to be fully implemented as designed. It appeared to be well organized and to be making efficient use of its resources.

Although only 88% (not the expected 90%) of the pupils gained at least one book level, 63% (more than the expected 60%) gained at least two book levels in a year's time. The criterion for phonics mastery (a 20-point gain in the percentage of pupils attaining mastery) was exceeded by a margin of 22 points.

The project has been successful in helping a large number of children with reading difficulties.

TABLE 1

IMPROVEMENT OF READING SKILLS "C":
IRI BOOK-LEVEL SCORES

Grade	No. of Pupils	Pretest Median	Posttest Median	Book Levels Gained
3	162	Book 1	Book 2^2	2
4	383	Book 2^2	Book 3^1	1
5	243	Book 3^1	Book 3^2	1
6	189	Book 3^1	Book 4^1	2
7	98	Book 4^1	Book 6^1	4

TABLE 2

IMPROVEMENT OF READING SKILLS "C":
SUMMARY OF GAINS ON IRI
SEPTEMBER TO MAY

Grade	No. of Pupils	Pupils Making No Gain		Pupils Gaining One Level		Pupils Gaining Two or More Levels	
		N	%	N	%	N	%
3	162	16	10	34	21	112	69
4	383	29	9	98	26	256	65
5	243	27	11	77	32	139	57
6	189	38	20	49	26	102	54
7	98	21	22	11	11	66	67
Total	1,075	131	12	269	25	675	63

TABLE 3

IMPROVEMENT OF READING SKILLS "C":
PERCENTAGE OF PUPILS ATTAINING MASTERY
ON PHONICS INVENTORY

Grade	No. of Pupils	September Pretest	May Posttest	Increase in Percentage
3	159	1%	44%	43
4	377	11	58	47
5	243	26	71	45
6	187	46	80	34
7	96	61	92	31
Total	1,062	24%	66%	42

INDIVIDUALIZED EDUCATION CENTER
(A Component of the COMPREHENSIVE READING PROJECT)

The Individualized Education Center provides a compensatory program for pupils in St. Mary's Interparochial School, focusing on diagnosis and remediation of their weaknesses in language arts and mathematics.

THE PROJECT

RATIONALE

Pupils attending the Individualized Education Center have varied ethnic and social-class backgrounds: there are affluent whites from the St. Mary's parish, poverty-stricken blacks from the Our Lady of the Blessed Sacrament parish, and pupils from Spanish-speaking families. The result is an experiment in voluntary integration of children bussed from different neighborhoods within the city.

The complex makeup of the pupil population requires the project's staff members to commit themselves to a philosophy and program of education which encourages the development of each pupil's self-esteem and appreciation of the worth of others. The staff attempts to develop each child's sense of social justice and responsibility by promoting self-directed learning experiences through specific remedial activities intended to correct the individual pupil's diagnosed weaknesses.

EXPECTED OUTCOMES

Through individualization of instructional practices, IEC aims for the improvement of pupil performance in basic skills, and the development of positive attitudes toward self and toward school.

MODE OF OPERATION

The center is organized to provide an optimal degree of individualized instruction in language arts and mathematics, using a wide variety of multimedia and multilevel instructional materials. Integral parts of the instructional plan are diagnosis of each pupil's learning weaknesses and prescription of specific activities designed to remediate them. The measurement of pupil progress is individualized by setting attainable goals for each pupil, by avoiding peer comparisons, and by using the Continuous Progress Program provided by the Archdiocese of Philadelphia. The end-of-year report is a detailed narrative which describes each pupil's strengths and weaknesses.

PREVIOUS FINDINGS

During its initial years (1968-1970) the project was evaluated by the coordinator of nonpublic school Title I projects. The evaluations were formative and revealed that the enabling objectives had been attained.

Beginning with the 1970-1971 school year, the evaluation focused on the degree of individualization of instructional practices. Attempts to individualize instruction through innovative class structure and teaching methods were observed. During subsequent years (1971-1972, 1972-1973), continued attempts to individualize instruction were hindered by a number of factors: (a) high staff turnover rate, (b) a change of principals, (c) fluctuation in pupil enrollment, (d) some scheduling difficulties, and (e) a limited budget for instructional materials. During these years, instructional differentiation was maintained through use of multiple-group settings.

From 1970 through June 1973, the development of basic academic skills was evaluated by use of the Iowa Tests of Basic Skills. The average IEC pupil improved sufficiently from year to year to maintain his/her standing in relation to national norms. (The national norms required an annual gain of approximately seven months.)

THE 1973-1974 EVALUATION

As in recent years, the IEC evaluation during the current year focused upon the level of instructional differentiation and the development of the pupils' basic academic skills. In addition, it examined the attitudes of IEC pupils toward themselves and toward school.

IMPLEMENTATION

Grades 1-4 functioned primarily as self-contained classes, while Grades 5-8 were departmentalized classes. Attempts to individualize instruction in language arts and mathematics according to the intended mode of operation of the project were observed in both settings. Instructional materials and multimedia equipment available in each classroom were sufficient to provide appropriate learning experiences for all pupils according to their actual instructional levels. In addition, the IEC received the services of a full-time reading teacher and indirect benefits from certain other Title I projects (Parent School Aides, Multimedia Center, Education in World Affairs, Counseling Services, Cultural Experiences).

The IEC received two additional paraprofessional aides as an immediate outcome of the 1972-1973 evaluation. In 1973-1974 all eight IEC teachers received a minimum of two hours of aide assistance daily during reading and language-arts classes. Some teachers received as much as five hours of aide assistance each day. According to the IEC staff, the additional aides were extremely beneficial in the individualization of instruction.

An extensive tutoring program, involving students from a local college as well as competent upper-level IEC pupils, was observed. Teachers completed detailed records of pupil progress; these anecdotal narratives replaced standard report cards for parents and were useful to the pupils' teachers at the beginning of the next school year.

The IEC staff attended two in-service programs during the school year, designed to assist teachers in the implementation of individualized instructional systems. The initial program, conducted by an independent consulting firm in October 1973, discussed the philosophy and procedures to be used in individualizing instruction. Attendance at this program resulted from a recommendation in the 1972-1973 evaluation report, which stressed the importance of in-service activities for new staff members early in the school year. The eight teachers who attended the program expressed positive feelings about the experience.

At the second in-service program, the staff was introduced to the Fountain Valley Teacher Support System, consisting of self-scoring tests, audio cassettes, behavioral objectives, teaching alternatives, and continuous pupil-progress profiles. The system, purchased by the Archdiocese of Philadelphia for all parochial schools' use during the 1974-1975 school year, was designed to give immediate results, meaningful diagnostic patterns, prescriptive suggestions, and valid and reliable indices of individual pupil progress. The system should complement the efforts of IEC teachers to individualize instruction.

ATTAINMENT OF OBJECTIVES

Objective 1: To maintain and/or improve the national percentile ranks of the project's students in language arts, as evidenced by annual scores on the Vocabulary and Reading subtests of the Iowa Tests of Basic Skills.

The Iowa Tests of Basic Skills (ITBS) were administered to all IEC pupils during June 1973 and March 1974. For both test administrations, the average scores on the Vocabulary and Reading subtests for each class (grade level) were computed. The individual national percentile ranks corresponding to the average scores of the grade-level groups were derived from ITBS conversion tables. Each group's 1973 and 1974 percentile ranks were compared.

Table 1 shows the national percentile ranks for each grade level, associated with the end-of-year ITBS Vocabulary and Reading subtest scores for the 1973 and 1974 testings. The average scores on the Vocabulary subtest for current Grades 4, 5, and 8 were equivalent to higher percentile ranks in 1974 than in 1973. Current Grades 6 and 7, although evidencing gains in grade-equivalent (GE) score, did not maintain or exceed their 1973 national percentile ranks on the Vocabulary subtest.

The average end-of-year scores on the Reading subtest were not sufficient to improve the standing of any grade group in relation to national norms, even though all grades evidenced gains in GE score.

Thus the project was successful in maintaining and/or improving the national percentile ranks for current Grades 4, 5, and 8 in Vocabulary, but was not successful for Grades 6 and 7 in Vocabulary or for any of the five grades in Reading.

The evaluator has noted an interesting phenomenon occurring when pretests and posttests are given in June 1973 and March 1974 rather than during the same school year (e.g., September 1973 and March 1974). The national norms for the ITBS infer that cognitive growth occurs during the summer months even though school is not in session then. This inference is contrary to the evaluator's experience. In the past when scores for September and June administrations of the ITBS were compared, IEC pupils in most cases exhibited sufficient growth to maintain or improve their national percentile ranks. Thus, a change in the evaluation design from that of previous years appears to have limited the successful attainment of the objective with respect to the ITBS subtests. For this reason, the failure of the IEC to attain the objective of maintaining or improving the national percentile ranks of its pupils on ITBS subtests is questionable for the current school year.

Objective 2: To maintain and/or improve the national percentile ranks of the project's students in mathematics, as evidenced by annual scores on the Concepts and Problems sections of the Arithmetic Skills subtest of the Iowa Tests of Basic Skills.

Table 2 shows each grade group's national percentile rank associated with the mean end-of-year ITBS Arithmetic Concepts and Arithmetic Problems subtest scores for the previous and current school years. The average scores on the Concepts section for current Grades 4 and 5 were sufficient to improve the national percentile rank over 1973 test results. Grades 6, 7, and 8, although evidencing gains in GE score, did not maintain or exceed their 1973 national percentile ranks.

The average end-of-year scores on the Problems section enabled Grade 5 to maintain its 1973 standing in 1974 in relation to corresponding national percentile rank. Grades 4, 6, 7, and 8, although evidencing gains in GE scores, did not maintain or improve their national percentile ranks.

Thus, the project was successful in maintaining and/or improving the national percentile ranks for Grades 4 and 5 in Arithmetic Concepts and for Grade 5 in Arithmetic Problems, but was not successful for Grades 6, 7, and 8 in Arithmetic Concepts or for Grades 4, 6, 7, and 8 in Arithmetic Problems.

The evaluator's comment regarding Objective 1 applies to Objective 2 also.

Objective 3: To create positive attitudes toward school and self as measured by an attitude rating scale, the Pupil Opinionnaire.

The Pupil Opinionnaire was administered to all IEC pupils in May for two purposes: (a) to collect baseline data for subsequent comparisons, and (b) to provide a relative indicator of pupil attitude toward school and self for the current school year.

Form A of the Pupil Opinionnaire is a 71-item, summated rating scale consisting of three interpretable factors or subscales for pupils in Grades 4-8. The first factor is a 39-item measure of pupils' attractions toward ego-risk and independence and serves as an indicator of creativity. (The items were derived from the questionnaire, Pennsylvania Assessment of Creative Tendency, by T. J. Rookey, Pennsylvania Department of Education, 1971.)

The second factor, consisting of 24 items, assesses pupils' self-concepts. It was derived from a matrix of three levels and four factors. The three levels are the three vantage points of self-perception: (a) the self as viewed by the self, (b) the self as the self believes others perceive the self, and (c) the self as it compares to others. The four factors are the sources for appraisal: (a) the physical being, (b) the intellectual being, (c) the emotional being, and (d) the social being.

The third factor is an eight-item measure of pupils' attitudes toward their school. It is a self-report of perceived attraction of peers, teachers, and school-related activities.

The response format consists of 5 options ranging from "strongly disagree" to "strongly agree". A weighted score assigned to each response option allows the scores for each of the separate subscales to be summed and averaged to yield an individual's subscale score.

Form B of the opinionnaire is an abbreviated version of Form A, for pupils in Grades 1-3. The response format is reduced to three options ("Yes", "?", "No") and the subscales are reduced in length.

The split-half reliability coefficients of the subscales for Form A and Form B are displayed in Table 3.

Each subscale score was compared with a criterion score based on the midpoint among the subscale's response options, in order to determine in a general sense the positive or negative attitudes toward school and self as expressed by the IEC pupils.

Table 4 shows the mean scores for the three subscales of Form B of the opinionnaire. In each primary grade the mean score for each subscale exceeded the respective criterion score. Table 5 shows the number of pupils in each grade whose numerical scores exceeded the criterion scores for the respective subscales. In each primary grade at least 56% of the pupils exceeded the criterion score for each subscale.

Table 6 shows the mean scores for the three subscales of Form A of the opinionnaire. In each grade (4-8) the mean score for each subscale exceeded the respective criterion score. Table 7 shows the number of pupils in each grade whose numerical scores exceeded the criterion scores for the respective subscales. In each of the middle and upper elementary grades at least 53% of the pupils exceeded the criterion score for each subscale.

The data seem to indicate attainment of IEC's objective to create positive pupil attitudes toward school and self.

Objectives 4 and 5: To develop and/or implement an individualized instructional system in the language arts which focuses upon the diagnosis and remediation of individual learning difficulties, and to develop and/or implement an individualized instructional system in mathematics which focuses upon the diagnosis and remediation of individual learning difficulties.

The descriptive method of evaluation was employed to describe systematically the facts and characteristics of the instructional system employed in the IEC. An observational instrument, the Learning Environment Checklist, was developed to provide an accurate description of the instructional system being employed in any classroom at any given time. Six major characteristics were included in the checklist: (a) classroom organization, (b) level of instructional differentiation, (c) role of the teacher, (d) paraprofessional activities, (e) pupil activities, and (f) pupil attitudes. The observation time was divided into eight consecutive five-minute intervals for a total of 40 minutes. During each five-minute interval judgments for each of the six characteristics were recorded. A composite of the eight sets of records was used to describe the instructional system for that single 40-minute period. A summary of all observations in language-arts and mathematics classes was then used to describe the general instructional system in each of these areas for the current school year. Observations were conducted over two consecutive days, three times during the school year (October, March, and May).

Twenty-five 40-minute observations were conducted. The findings for the five relevant characteristics are summarized in Tables 8-12. The following statements summarize these findings with respect to language-arts and mathematics classes: (a) class organization tended to be more individualized in IEC mathematics classes than in language-arts classes; (b) a greater degree of instructional differentiation (i.e., more groups or indivduals working on different assignments) existed in mathematics classes than in language-arts classes; (c) while teachers in mathematics classes devoted more time to presenting information to the class or to groups in the class, the teachers in language-arts classes devoted more time to guiding or assisting groups or individuals; (d) paraprofessionals in both language-arts and mathematics classes devoted most of their time to supervising or assisting small groups of pupils; (e) pupils in mathematics classes were engaged in individual activities to a greater extent than were pupils in language-arts classes.

Although language-arts and mathematics classes differed with respect to the observable characteristics of an individualized instructional system, the following conclusion was considered valid: all of the observed classes in the IEC attempted to provide individualized instruction through effective grouping procedures, teacher-directed and pupil-selected individual activities, and the judicious use of a wide variety of available multimedia equipment and instructional materials. Thus the objectives of developing and/or implementing an individualized instructional system in the language arts and mathematics were attained.

SUMMARY AND CONCLUSIONS

The Individualized Education Center provides a compensatory program for pupils in the St. Mary's Interparochial School. The project attempts to develop in each child a sense of social justice and responsibility as a by-product of specific, self-directed remedial activities intended to correct the individual pupil's diagnosed academic weaknesses. The uniqueness of the project is its apparent success in voluntary integration of children bussed from different neighborhoods within the city.

The current year's evaluation employed extensive classroom observations to describe the individualized instructional system implemented in language-arts and mathematics classes. In addition, a standardized achievement test and a measure of pupil attitude were administered.

The 1972-1973 evaluation report indicated that the project appeared to experience a rebirth each year primarily because of the significant turnover in staff. However, such a rebirth seemed not to occur at the beginning of the current school year. A relatively small turnover in staff and appropriate in-service experiences early in the school year may have influenced the project's apparent early success in individualizing instruction. Moreover, the extensive classroom observations revealed successful efforts to individualize instruction throughout the school year.

The results of a standardized achievement test (Iowa Tests of Basic Skills) revealed average gains in grade-equivalent score ranging from 0.1 (one month) to 1.5 (15 months) between June 1973 and March 1974 for the Arithmetic Skills, Reading Comprehension, and Vocabulary subtests. Excluding the three-month summer recess, this period included roughly six instructional months. However, the norms provided by the publisher of the test for these testing periods (and based on the questionable inference of cognitive growth during the summer recess) indicated that the actual gains failed to maintain the pupils' relative standing with the norming population in 14 of 20 instances.

The IEC pupils generally reported positive attitudes toward their school experiences and a positive self-concept.

The Individualized Education Center continues to exhibit the numerous successes which it has enjoyed since its inception in 1968. It serves as a model of successful integration by bussing children from various parts of the city and by providing them with a compensatory program which diagnoses and remediates their academic weaknesses.

TABLE 1

1973 AND 1974 PERCENTILE RANKS AND GE GAINS
BASED ON MEAN SCORES OF SAME IEC PUPILS
ON ITBS LANGUAGE SUBTESTS

1974 Grade Level	Reading			Vocabulary		
	Percentile Rank		GE Gain	Percentile Rank		GE Gain
	1973	1974		1973	1974	
4	10	4	0.4	8	9	0.7
5	18	13	0.7	17	18	0.9
6	21	10	0.4	18	13	0.6
7	24	9	0.1	22	15	0.6
8	24	23	0.8	27	33	1.1

TABLE 2

1973 AND 1974 PERCENTILE RANKS AND GE GAINS
BASED ON MEAN SCORES OF SAME IEC PUPILS
ON ITBS ARITHMETIC SUBTESTS

1974 Grade Level	Concepts			Problems		
	Percentile Rank		GE Gain	Percentile Rank		GE Gain
	1973	1974		1973	1974	
4	10	41	1.5	44	11	0.3
5	12	14	0.9	17	17	0.9
6	11	8	0.7	10	9	0.8
7	22	6	0.1	24	8	0.2
8	18	14	0.6	23	14	0.4

TABLE 3

SPLIT-HALF RELIABILITY COEFFICIENTS FOR PUPIL OPINIONNAIRE COMPLETED BY IEC PUPILS

Form and Subscale	Pupils in Sample	Alpha Coefficient
Form A (Grades 4-8):		
Creative Tendency	773	0.45
Attitude toward School	773	0.80
Self-Concept	773	0.69
Form B (Grades 1-3):		
Creative Tendency	2,048	0.78
Attitude toward School	2,048	0.77
Self-Concept	2,048	0.83

TABLE 4

MEAN SCORES OF IEC PUPILS ON SUBSCALES OF PUPIL OPINIONNAIRE, FORM B

Grade	Creative Tendency (Criterion: 32)	Self-Concept (Criterion: 32)	Attitude toward School (Criterion: 16)
1	34.3	35.9	16.4
2	37.7	39.9	19.5
3	35.4	35.1	16.2

TABLE 5

NUMBER OF IEC PUPILS SCORING ABOVE CRITERION
ON PUPIL OPINIONNAIRE SUBSCALES, FORM B

Grade and Number Tested	Creative Tendency	Self-Concept	Attitude toward School
1 (16)	12 (75%)	12 (75%)	10 (63%)
2 (23)	19 (82%)	21 (91%)	20 (87%)
3 (23)	17 (74%)	16 (70%)	13 (57%)

TABLE 6

MEAN SCORES OF IEC PUPILS ON SUBSCALES
OF PUPIL OPINIONNAIRE, FORM A

Grade	Creative Tendency (Criterion: 117)	Self-Concept (Criterion: 72)	Attitude toward School (Criterion: 24)
4	147.4	88.4	26.7
5	142.7	73.0	29.2
6	142.5	83.1	29.5
7	141.4	78.7	28.5
8	144.5	82.8	28.8

TABLE 7

NUMBER OF IEC PUPILS SCORING ABOVE CRITERION ON PUPIL OPINIONNAIRE SUBSCALES, FORM A

Grade and Number Tested	Creative Tendency	Self-Concept	Attitude toward School
4 (15)	15 (100%)	15 (100%)	9 (60%)
5 (17)	17 (100%)	9 (53%)	14 (82%)
6 (21)	20 (95%)	18 (86%)	18 (86%)
7 (23)	21 (91%)	19 (83%)	18 (78%)
8 (21)	21 (100%)	16 (76%)	17 (81%)

TABLE 8

CLASSROOM ORGANIZATIONS OBSERVED IN INDIVIDUALIZED EDUCATION CENTER

Organization	Percentage of Observed Time	
	Language Arts Classes	Mathematics Classes
Whole Class	17%	4%
Two Groups	8	4
More than Two Groups	30	14
Group(s) and Individuals	45	68
Individuals	0	10
Undetermined	0	0

TABLE 9

DIFFERENTIATION OF INSTRUCTION OBSERVED IN INDIVIDUALIZED EDUCATION CENTER

Level of Differentiation	Percentage of Observed Time	
	Language Arts Classes	Mathematics Classes
Whole Class with Same Task	17%	4%
Two or More Groups with Different Tasks	38	32
One or More Groups plus Individuals, All with Different Tasks	41	54
Individuals: At Least Four on Different Pages of Same Book	4	10
Individuals: At Least Four On Different Tasks	0	0

TABLE 10

TEACHER ROLES OBSERVED IN IEC CLASSES

Role	Percentage of Observed Time	
	Language Arts Classes	Mathematics Classes
Passive: Available for Guidance	6%	2%
Actively Guiding/Assisting Groups or Individuals	50	36
Presenting Information to Groups or Individuals	41	56
Directing/Lecturing Whole Class	3	4
Performing Administrative Tasks	0	2
Not Available	0	0

TABLE 11

ACTIVITIES OF PARAPROFESSIONALS OBSERVED IN IEC CLASSES

Activity	Percentage of Observed Time	
	Language Arts Classes	Mathematics Classes
Supervising/Assisting Groups of More than 10 Pupils	0%	0%
Supervising/Assisting Groups of 2-10 Pupils	68	50
Supervising/Assisting Individuals	22	34
Performing Clerical/Administrative Tasks	5	6
Unstructured Time	2	2
Not Available	3	8

TABLE 12

ACTIVITIES OF PUPILS OBSERVED IN IEC CLASSES

Activity	Percentage of Observed Time	
	Language Arts Classes	Mathematics Classes
Inappropriate Activity	0%	1%
Waiting	2	4
Getting Materials	6	8
Group Activity	71	55
Individual Activity	21	32

INSTRUCTIONAL MATERIALS CENTERS
(A Component of the COMPREHENSIVE READING PROJECT)

The Instructional Materials Centers project provides library aides to service instructional materials centers in target schools, most of which have no assigned librarians.

THE PROJECT

RATIONALE

Instructional materials centers in schools are resource areas for books, audiovisual equipment, tapes, records, and films. Library aides organize the materials, keep records, and assist teachers and children who use the center. The reading program is supported and enhanced when the potential resources of the IMC are thus made available to the students and staff. Without the services of these aides, more than 120 facilities equipped with resource materials would be operated by volunteers or users, or would be closed.

EXPECTED OUTCOMES

It is expected that the library aides provided by this project will permit continued orderly and systematic use of the IMCs by pupils and teachers, that appropriate materials can continue to be made available and utilized for classroom, homework, or project use, and that circulation of books, equipment, and films will continue to be possible.

MODE OF OPERATION

The IMC is open during school hours, and in most cases library aides provide services before and after school. Books, audiovisual equipment, tapes, records, and films are provided for teachers and their classes. The room is kept interesting and attractive through the use of various displays and decor. Library aides attempt to increase communication with teachers and, especially, with the reading teacher. Supervisors provide the library aides with consultations, on-the-job training, and other assistance.

PREVIOUS FINDINGS

In 1970-1971, only 44% of the IMCs observed had full-time librarians. In the next two years, most of the facilities observed were found attractive and well equipped; only rarely were community volunteers found staffing the IMCs.

THE 1973-1974 EVALUATION

The current evaluation of the Instructional Materials Centers involved systematic monitoring, observations, and informal interviews with library aides and other school personnel. It focused on the utilization of the project's services.

IMPLEMENTATION

During the year many Instructional Materials Centers (IMCs) were visited; 15 observations were recorded. In most instances the facilities were being utilized by individual pupils, classes, or staff. Books and visual aids were used, distributed, and collected. Most facilities had interesting displays or exhibits and were generally well decorated.

Most IMCs were run by library aides, paraprofessionals who kept the racks in order, stored and distributed equipment, and provided books and materials to pupils and teachers. Most IMCs were open to pupils before, during, and after school.

Interviews with aides and reports from supervisors indicated that supervisors visited the aides, responded to questions or problems, and provided staff-development sessions for groups of aides. Staff-development topics ranged from involvement in the school reading program to methods of preparing attractive displays and exhibits.

Interviews with principals and aides indicated that the aides were aware of the reading program being implemented in their school, and were involved in the process. Aides stated that books and materials were collected and sent to classrooms when requested by teachers.

The duties of the aides were explicitly described as clerical and mechanical. Clerical tasks included typing, unpacking, circulating, and filing. Mechanical tasks involved shelving, labeling, scheduling, and maintaining orderliness.

ATTAINMENT OF OBJECTIVES

Objective: To provide teachers and pupils with materials and services which support the Comprehensive Reading Program.

The attainment of this objective was assessed by means of eight key questions:

1. Were the IMCs utilized by pupils? In 11 of 15 observations, classes of pupils and/or individual pupils were noted receiving instruction, reading, selecting books, or working on reports.

2. Did teachers play an active role when they took classes to the IMC? In five of seven observations in which teachers were with classes, teachers were found to take an active part in the lesson or activity. Because the aide was a paraprofessional the key responsibility for instruction belonged to the teacher.

3. Were books and other materials being collected and dispensed? In six of 15 observations, books and equipment were being checked in or dispensed. This frequency was considered more than acceptable in light of the diversity of activities occurring in the IMC.

4. Were content-area resources provided to teachers? In 14 of 15 interviews it was indicated that the aides prepared materials for teachers who requested this service.

5. Were facilities open to pupils before and after school? Two facilities were observed open before school. Nine facilities were reported to be open before and after school; six were reported not open.

6. If the aide were absent, would the IMC be kept closed? Seven IMCs were reported closed while eight were reported operational during the aide's absences. (This question provided insight into what would likely occur if this project lost its funding.)

7. Did the aides feel they had the support of their school staffs? In 13 of 15 cases the answer was affirmative.

8. Did the aides have adequate assistance from their supervisors? Fourteen of 15 aides said they did.

Findings were obtained through visitations to the sites, observations in the IMCs, and interviews with principals and library aides. The evaluation design was developed to assess the implementation of the project and the utilization of resources made available. Sites for visitations were selected randomly.

The Observational Checklist was adapted to meet the requirements of evaluating this project after consultation and agreement with the project administrator. Systematic observations and structured interviews were recorded separately on the checklist.

SUMMARY AND CONCLUSIONS

This project was initiated to provide educational materials and supportive services to pupils and teachers who use the Instructional Materials Centers. Since funds were not available to place a librarian in each center and volunteers did not provide

an adequate solution, paraprofessionals with a high school education were hired to keep these facilities operative. Library supervisors trained and assisted the aides in their functions.

The objective of this program was to provide teachers and pupils with materials and services which support the School District's Comprehensive Reading Program The current year's evaluation was planned to determine how and by whom the IMC was utilized. A series of key questions formed the basis of observations and interviews.

The current findings closely paralleled those of previous years. The materials and aides in the IMCs provided valuable resources to pupils and staff. It was apparent that if the services of library aides were reduced, many facilities would be unable to function adequately, if at all.

This project was implemented as planned. Its library aides performed the services required of them according to the guidelines established, providing teachers and pupils with materials and resources supporting the Comprehensive Reading Program. These facts indicate the satisfactory attainment of the project's objective.

LANGUAGE ARTS READING CAMPS
(A Component of the COMPREHENSIVE READING PROJECT)

Language Arts Reading Camps (LARC) is an innovative language, reading, and communications-skills summer project designed to improve and supplement disadvantaged pupils' competencies in language arts. The camps, operated by settlement houses, housing developments, and neighborhood groups, received the language-arts component from the School District. In informal settings at scattered playground sites, LARC provided stimulating experiences to motivate active participation in oral expression, creative writing, and leisure reading.

THE PROJECT

RATIONALE

LARC participants live in inner-city housing projects, and are economically and educationally disadvantaged. These pupils' reading and language-arts skills are deficient, and their regular school language-arts programs can only partially remediate these deficiencies.

Target-area pupils need increased facility with language in all areas of communication. Some are bilingual, and some are less communicative than their peers because they lack versatile language experiences at home. Basically, the pupils need to talk and listen to someone. Pupils in Grades 7-12 especially need an increased facility with language, to achieve the more complex and sophisticated communication necessary for adult educational and vocational activities.

In order to learn to use language with confidence and enjoyment, LARC pupils need encouragement and reinforcement. Pupils also need to maintain language skills acquired during the previous school year, which can be partially lost during the summer months.

EXPECTED OUTCOMES

LARC attempts to improve and supplement target-area children's language-arts skills including oral expression, creative writing, and leisure reading. The informal day-camp setting provides the motivation to increase language abilities for pupils, parents, community leaders, and teenage youth counselors.

MODE OF OPERATION

During six weeks in July and August, three hours of language-arts activities are provided each morning. The afternoon hours are spent on group and/or individual language-arts-related recreational activities.

LARC teachers assigned to each site supervise and maintain the language-arts program. Teachers spend an average of 15 hours a week working directly with the children, assisting camp counselors and parents, and holding daily and weekly meetings with their staff. At these meetings, teachers and staff discuss the characteristics and needs of the children and the use of language-arts activities and materials.

Most camps encourage the production of newspapers. The children prepare and produce camp newspapers with assistance from the staff. Cameras and tape recorders are used to develop oral and written communication skills. Other LARC activities include writing self-portrait stories, and playing LARC bingo, bean-bag games designed to teach vowels and consonants, ring-toss games to teach prefixes and suffixes, and post office games for developing written communication skills. LARC teachers use their creative, innovative ideas in developing activities to motivate children to improve their language-arts skills. Parents, youth counselors, and community leaders use some of these ideas in their homes and in the community. Temple University interns and Veterans in Public Service (VIPS) are taught techniques and ideas to use in language-arts instruction.

PREVIOUS FINDINGS

The 1972 evaluation reported that teachers planned formal and informal language-arts activities for the children. In 1973, increased interest in reading books and using the library was reported. LARC children actively participated in group discussions, and showed improvement in pronunciation, word-attack, and written composition skills. Additionally, they showed improved leadership qualities, increased ability to follow directions, and a tendency to do additional work at home.

THE 1973-1974 EVALUATION

To assess the attainment of the project's stated objectives, the current-year evaluation included on-site observations, LARC teacher surveys and questionnaires, interviews with LARC teachers, and conferences with the project director.

IMPLEMENTATION

The LARC staff consisted of 17 language-arts teachers, 60 parents, 300 youth-corps counselors, 41 Temple University interns, and 38 Veterans in Public Service (VIPS). The staff aided in tutoring, supervision, planning, and photography. The project serviced more than 1,000 primary-grade children.

Thirty systematic observations, averaging 90 minutes each, were made during the six-week LARC session. Data were collected with a 12-category Observational Checklist, developed by the evaluators for use in observing informal activity-centered learning approaches.

In 27 observations, the physical atmosphere of LARC was judged comfortable and stimulating. The quality and quantity of materials available to children were exceptionally high. Camp emotional atmosphere was considered positive during 27 observations, as evidenced by the teachers', counselors', and children's happy and satisfied physical appearance.

In 27 observations, LARC teachers prescribed a specific task (or number of tasks) for all pupils to accomplish. The main LARC teaching approach was game-like, rather than lecture/discussion or drill, and in 21 observations LARC teachers organized structured games with a clear, cognitive focus. Language-arts games, either commercial or teacher-made, encouraged pupils to retrieve and synthesize their existing knowledge. However, in 29 of the 30 observations teacher idea development was considered convergent, since LARC teachers tended to accept only one answer as correct.

Teacher responses to unexpected camp events were considered very flexible. In 27 observations, LARC teachers easily changed the assignment, topic, and/or teaching approach in response to pupils' problems or other changes in the camp situation. Teachers were quick to spot pupils' difficulties in understanding, and readjusted the tasks to the pupils' achievement level.

In 26 observations, all pupils were working at the same activity. In 23 of 30 observations, pupils' verbal output was high in quantity and quality. Classifications, generalizations, inferences, definitions, and other forms of inductive verbal behavior were displayed.

Pupil self-concepts were considered very positive. In 25 observations, most pupils exhibited high self-concepts, appearing physically happy, active, and well-groomed. They mostly made positive statements about their own personalities, looks, and physical and intellectual abilities. They also verbally and nonverbally accepted the feelings and thoughts of other pupils and interacted with them in a positive, self-confident way. Pupils often complimented, agreed with, or added to each other's work, ideas, and opinions. They also freely accepted new projects, and risked failure, which was considered by the evaluators as indicative of high self-images.

Pupil self-discipline was also considered very high. In 25 observations, most pupils were sufficiently self-disciplined to work cooperatively with their peers. Verbal and nonverbal teacher threats and punishments were infrequent. Most pupils appeared to perceive the teacher as a resource person instead of a disciplinarian. Pupils seemed to follow internalized rules and regulations that inhibited antisocial behavior.

Pupil independence (the ability to make decisions and value judgments from personal internal data) and purposefulness (the ability to single-mindedly carry a task to completion) was considered high in 24 of the 30 observations. In most cases (80-100%), pupils engaged in task-oriented activities, seldom requesting aid

from the teacher by asking for directions, factual answers, ideas, or opinions. When faced with a problem situation, the pupil's first reaction was to continue to resolve it independently, rather than to seek teacher assistance. Purposefulness (or goal striving) of pupils was so high that 80-100% of the pupils concentrated on their work despite distractions, thus enabling them to carry chosen projects to completion.

The evaluator conducted interviews with LARC teachers, in addition to making on-site observations. The teachers indicated that although the project in general was successfully implemented, some areas of the project should be improved. Suggested improvements are summarized in the following paragraphs.

Temple interns and VIPS provided valuable instructional services by working with groups of pupils in some of the camps This service should be extended throughout all camps.

In some camps, tape recorders and cameras were not available to pupils for use in the development of their oral and written communication skills. Efforts should be made to provide each camp with a camera and tape recorder.

Some LARC teachers expressed a desire to have a central location for weekly camp-newspaper duplication. Many teachers spent valuable time trying to locate a place to print the paper. A central location for newspaper duplication would increase the efficiency of each camp.

A two-day staff-development workshop was held at Temple University. Language-arts techniques and concepts were presented to LARC teachers and camp directors. Most LARC teachers were regular language-arts teachers with many years of experience and questioned the need for this kind of staff development. LARC teachers suggested that camp-staff orientation and development should be conducted by them at the campsite prior to the attendance of the camp participants.

LARC teachers found it difficult to coordinate daily language-arts activities without meeting every day with counselors and interns for planning the activities. Preparation time should be allotted so LARC teachers and staff can organize the activities of each day.

LARC teachers said they would like to know before the end of the school year whether they would be employed by LARC during the summer. Then the teachers could plan in advance, and use some language-arts materials from their own schools. Final selection of LARC teachers and sites should be made prior to the end of the school year to facilitate this planning.

Some teachers found counselors uncooperative. Although their number was low, no effective procedure was developed to deal with this problem. The teachers recommended that the camp directors be encouraged to assess the performance of the counselors more frequently.

One LARC camp serviced many Spanish-speaking children. The LARC teacher thought that bilingual materials should be provided for Spanish-speaking camps.

All of the 17 LARC teachers agreed that the services of the two full-time teachers were necessary and effective. The full-time teachers were responsible for providing vital instructional services, monitoring, and supporting and coordinating LARC activities for each camp.

ATTAINMENT OF OBJECTIVES

Objective 1: To improve children's verbal functioning through the use of discussion, tape recorders and interviews as measured by pre- and post-taping and interviewing.

This objective was attained, according to information from 17 LARC teacher interviews. However, equipment was not available in the camps for pretest and posttest taping of the children's responses.

In the interviews, teachers stated that substantial improvement had been made in the verbal functioning of camp participants. During the camps' first and last weeks, each pupil was tested on his ability to recount the same camp-experience story. Across all camps, approximately 75% of the 1,000 participating pupils were judged to have related the story more clearly and concisely in the last week of the camp than in the first.

Objective 2: To increase the quantity of children's writing through production of camp newspapers as measured by comparisons of each child's early and later writings.

This objective was attained. A project-specific checklist, completed by LARC staff, showed that 1,880 articles for weekly camp newspapers were written during the six-week session. On the average, each pupil wrote two articles during the summer. This should be considered significant since target-area children generally do not write at all during the summer.

Additionally, an evaluator-developed picture-stimulus test was administered at the beginning and end of the program to 84 randomly-selected LARC children. The test was designed to measure samples of children's writing abilities, using as an index the number of words and sentences written.

Of the 84 children, 62 (73%) showed greater production in words written on the posttest story than on the pretest story. On the average, the posttest stories for the 84 children were 7.3 words longer. As shown in Table 1, a correlated *t* test indicated that the 7.3-word increase was significant at the .01 level.

Of the 84 children, 48 (57%) showed greater sentence production on the post-test story than on the pretest story. Average posttest stories were 1.0 sentence longer. Table 1 shows that the one-sentence increase was significant at the .01 level.

Objective 3: To encourage the reading of paperback books at home as measured by checklists of books read.

This objective was attained. According to the project-specific checklist, participants read 1,686 paperback books during the six-week camp session. Each pupil read an average of two paperback books during the course of the summer. The attainment of this objective is significant, because disadvantaged students were provided with an atmosphere conducive to reading, and the accessibility of books which are not usually available in the summer.

Objective 4: To improve specific language-arts skills through use of games and other materials, to be measured by teacher judgments.

This objective was attained. On the project-specific checklist, teachers acknowledged improvement in written expression, vocabulary, reading comprehension, oral communications, phonics, poetry, and reading for pleasure.

Objective 5: To train parents and community persons to acquire language-arts skills and techniques which can be carried over into extended learning experiences, as reported by LARC teachers.

This objective was also attained. On-site workshops were held to acquaint the staff with language-arts skills and techniques. The LARC teachers instructed the staff in written expression, vocabulary, reading, oral communications, phonics, book reporting, creative drama, poetry, pupil competencies, and story telling.

Objective 6: To train teenagers to help children in language-arts areas and make better use of their own communication skills as determined by case studies of individual youth tutors by the LARC teachers.

This objective was attained. LARC teachers reported that the teenage camp counselors participated in on-site staff workshops and became acquainted with language-arts skills and techniques. LARC teachers reported that counselors served as tutors and were given responsibility for supervising groups of children. In the opinion of the teachers, growth in language-arts skills was attained by individual youth tutors because of their participation in the children's language-arts activities.

SUMMARY AND CONCLUSIONS

The LARC project, consisting of 17 summer day camps, involved children, parents, youth counselors, community leaders, Temple University interns, and Veterans in Public Service with language arts. LARC programs, located in target-area projects and housing developments, provided a summer of learning experiences in language arts.

Specially-trained language-arts teachers helped to increase the communication abilities of the children served, in addition to training youth counselors and parents in language-arts techniques and skills. LARC encouraged children to read paperback books, participate in the production of weekly camp newspapers, and improve their verbal functioning.

LARC provided a structured teacher-training environment for Temple interns and VIPS by helping them develop and master language-arts teaching techniques through work with LARC children.

LARC teachers used many activities and games to provide an informal approach to language. In many cases, LARC teachers used their creative, innovative ideas to develop activities which motivated children to improve their language-arts skills.

LARC successfully attained most of its stated objectives: (a) the average LARC participant wrote two articles during the summer, (b) LARC participants read an average of two paperback books during the summer, (c) picture-stimulus pretests and posttests, administered to 84 randomly-selected children, showed significant increases in frequencies of words and sentences, (d) LARC teachers reported that most children were able to describe experience stories more clearly and concisely at the end of the program, (e) parents, youth counselors, and community persons were taught language-arts instruction techniques by LARC teachers in weekly on-site workshops, and (f) according to LARC teachers, pupils made significant progress in reading, writing, and oral communication.

In interviews, LARC teachers suggested some improvements for the project: (a) extending the services of Temple interns and Veterans in Public Service to all camps, (b) providing tape recorders and cameras for each camp, (c) establishing a central location for newspaper duplication, (d) having camp-staff orientation conducted by LARC teachers, held on campsite five days prior to camp, (e) allotting daily preparation time for LARC teachers and staff, (f) making the final selection of LARC teachers and sites before June 1, (g) encouraging camp directors to assess the performance of camp counselors, (h) providing bilingual materials for Spanish-speaking camps, and (i) retaining the services of the two full-time teachers.

TABLE 1

RESULTS OF CORRELATED t TESTS OF DIFFERENCES BETWEEN PRETEST AND POSTTEST SCORES OF LARC PARTICIPANTS ON A PICTURE-STIMULUS TEST

Variable	df	Difference	Standard Error	t	p
Total Words	83	7.3	1.68	1.99	<.01
Total Sentences	83	1.0	0.20	5.15	<.01

OPERATION INDIVIDUAL
(A Component of the COMPREHENSIVE READING PROJECT)

Operation Individual is designed to help underachieving ninth-grade students at West Philadelphia Catholic Girls High School to develop competence in basic academic skills and to improve their attitudes toward self and school.

THE PROJECT

RATIONALE

The project operates on the assumption that the underachievement of the girls in the target population is attributable to their low reading levels, inadequate study skills, low self-concepts, and poor attitudes toward school. It is further assumed that, if competence can be achieved in reading and study skills, the students will tend to develop more positive self-concepts and attitudes toward school.

EXPECTED OUTCOMES

By participating in the project, the girls should develop competence in reading and study skills. As academic competence increases, their attitudes toward self and school should become more positive.

MODE OF OPERATION

Underachieving ninth-grade students at West Philadelphia Catholic Girls High School are assigned to the project's block-rostered classes. Students are selected for project participation on the basis of eighth-grade records: low scores on a high school placement test, low reading levels, inadequate study skills, poor self-concepts, and poor attitudes toward school.

Each day, the girls receive reading instruction from the project's reading teacher. In addition, reading is emphasized in social studies, science, and mathematics classes. During each class session, half the students receive small-group instruction from the subject teacher; the others work under the direction of an aide on specific programmed materials assigned by the teacher.

PREVIOUS FINDINGS

Last year the Iowa Tests of Educational Development (ITED) were administered in October and in May. The average participating student advanced from the national 14th percentile to the national 16th percentile. However, because the project was not operational until March 1973, the test results may have been attributable to variables occurring prior to the project's inception.

THE 1973-1974 EVALUATION

This year's evaluation of Operation Individual focused on (a) the degree to which the participating students increased their competence in reading and study skills as indicated by standardized tests, and (b) the degree to which the students' self-concepts and school-related attitudes improved as measured by a semantic differential survey.

IMPLEMENTATION

The evaluation team systematically observed classes and interviewed participating teachers, aides, and the project coordinator concerning their impressions of the project and its current implementation.

The students were selected into the project on the basis of low reading level, low scores on a high school placement test, inadequate study skills, low self-concept, and poor attitudes toward school as indicated by eighth-grade records. They were assigned to special Operation Individual block-rostered classes.

In order to help the students develop the skills necessary to cope with the high school curriculum, daily reading instruction was provided by the Operation Individual reading teacher (with the assistance of an aide). Each project classroom in the areas of English, mathematics, science, and social studies, contained appropriate programmed materials and had the services of an aide. During each class period half the students received small-group instruction from the subject teacher; the others worked under the direction of an aide on specific programmed materials assigned by the teacher.

Interviews with the teachers and the aides indicated that the project's functioning had improved over its first year of operation. The strength of the project this year was having the aides and the instructional materials in the classroom rather than in a large Learning Center. This arrangement gave the teachers better control over the students, aides, materials, and instruction. Other improvements were the project's prompt beginning in the fall, increased coordination, and better organization of project activities.

Even though the project's functioning had improved over the previous year, several of the interviewed teachers indicated that some aspects of the coordination of activities were insufficient. Some of these were providing in-service training for aides, informing parents about their children's participation in the project, and coordinating the work of the reading psychologist with the project. Nevertheless, all participating staff indicated that Operation Individual was of great benefit to the students and was meeting their emotional, social, and academic needs.

ATTAINMENT OF OBJECTIVES

Objective 1: To increase the achievement level of project students to the extent that (a) 75% of the students demonstrate one year's gain in GE scores within one academic year on the Total Reading and Reference Skills batteries of the Comprehensive Tests of Basic Skills, (b) 75% of the students advance at least one grade level within one academic year on the programmed materials provided by the project in the areas of social studies, science, mathematics, and English.

The two parts of this objective are treated separately in this report.

(a) Achievement on standardized tests. The Comprehensive Tests of Basic Skills (Form S, Level 2) were administered to 105 participating students in October 1973. In reading, the pretest GE scores ranged from 1.5 to 11.9 with a mean of 7.3; posttest scores in May 1974 ranged from 1.6 to 11.6, with a mean of 7.7. Gains made by individual students are summarized in Table 1.

In reference skills, the pretest scores ranged from 2.5 to 11.9 with a mean of 7.4; posttest scores ranged from 2.5 to 11.9 with a mean of 8.0. Gains made by individual students are summarized in Table 2.

Since the pretest and the posttest were administered seven months apart rather than a full academic year apart, the criterion of one year's gain in GE scores was equated to 0.7 year gain for the period from October until May. Forty-two percent of the students gained 0.7 year or more in reading and 54% gained 0.7 year or more in reference skills.

On neither subtest did the project attain the objective of having 75% of the participants make the 0.7 year gain. However, more than one third of the students did gain two or more years in reference skills and almost one third of them gained more than one year in reading during the seven-month interval from October until May.

(b) Student achievement on Operation Individual materials. Student records and interviews with teachers indicated that in addition to commercial programmed materials, the subject teachers provided a large number of special worksheets for the students to work on under the direction of the aides. The programmed materials were interspersed with the teacher-made materials. In order to take into account the wide variety of materials, the teachers in each subject area established criteria for attainment of a year's work in the materials provided. Individual student records were examined to determine whether the criteria had been met for each subject. Progress of individual students is summarized in Table 3.

The project objective of 75% of the students advancing at least one grade level was attained in social studies (76%) and was nearly attained in science (70%). However, in the areas of English (45%) and mathematics (15%) the objective was clearly not attained.

Although the table does not show it, 76% of the students made the prescribed one-year gain in at least two subjects, with 8% attaining the year's gain in all four subjects.

Objective 2: To develop more positive self-concepts on the part of project students, as indicated by a significant difference in pretest and posttest scores on a Semantic Differential Survey.

Changes in a student's self concept which could be ascribed to project participation were assessed by means of a Semantic Differential Survey which was administered to project students in October and again in May.

The survey consisted of 20 concepts: eight were related to attitudes toward oneself, eight were related to school attitudes, and four were "marker concepts" which served to determine the degree of response set (tendency to respond in a particular position or pattern). For each concept, students rated themselves on nine seven-point bipolar adjective (Likert) scales.

Pretest and posttest factor analysis of this instrument indicated that the majority of the bipolar adjective scales grouped into a single factor. Therefore each student's ratings on these scales were converted to a single factor score on each concept. (Those scales which did not contribute to the factor were eliminated from the scoring.) Comparison of pretest and posttest results by multivariate analysis of variance (Wilks' Lambda = .8957) indicated that there were no significant differences between pretest and posttest scores. For the aspects of self-concept measured by this instrument, there were no apparent changes in students' attitudes. The students' self-perceptions were equally neutral before and after their participation in the project. Thus the objective was not attained.

Objective 3: To develop more positive school-related attitudes on the part of the project students, as indicated by a significant difference between pretest and posttest scores on a Semantic Differential Survey.

Changes in a student's school-related attitudes which could be ascribed to project participation were assessed by means of the Semantic Differential Survey, described under Objective 2, which was administered to project students in October and again in May. Eight of the instrument's 20 concepts were related to school attitudes. Analysis procedures are described under Objective 2.

No significant differences were found in the students' school-related attitudes between pretest and posttest. Thus the objective was not attained.

SUMMARY AND CONCLUSIONS

During 1973-1974, Operation Individual was still in the formative stage. Even though its implementation was much improved over its initial year, there were some areas which still needed more coordination.

While the project did not fully attain its academic objectives, nearly half the students did demonstrate seven months' gain in GE score in a period of seven months on the Total Reading and Reference Skills subtests of the Comprehensive Tests of Basic Skills. On the programmed materials provided by the project, in two of the four subject areas (social studies and science) approximately three-fourths of the students advanced one grade level in one academic year.

There were no changes in self-concepts or in school-related attitudes as measured by the Semantic Differential Survey.

TABLE 1

GAINS FROM OCTOBER UNTIL MAY (0.7 YEA .)
ON CTBS TOTAL READING SUBTEST
BY OPERATION-INDIVIDUAL ST JDENTS

GE Score Gain	No. of Students	Percentage
2.0 or more	8	7%
1.6 - 1.9	8	7
1.1 - 1.5	16	15
0.7 - 1.0	14	13
Less than 0.7	59	58
Total	105	100%

TABLE 2

GAINS FROM OCTOBER UNTIL MAY (0.7 YEAR)
ON CTBS REFERENCE-SKILLS SUBTEST
BY OPERATION-INDIVIDUAL STUDENTS

GE Score Gain	No. of Students	Percentage
2.0 or more	34	33%
1.6 - 1.9	5	4
1.0 - 1.5	11	10
0.7 - 1.0	8	7
Less than 0.7	47	46
Total	105	100%

TABLE 3

STUDENTS WHO ADVANCED AT LEAST ONE GRADE LEVEL ON
OPERATION-INDIVIDUAL PROGRAMMED MATERIALS

Subject	Number of Students Advancing	Percentage of Project's 127 Students
Social Studies	97	76
Science	89	70
English	57	45
Mathematics	19	15

PRIMARY READING SKILLS CENTERS
(A Component of the COMPREHENSIVE READING PROJECT)

The Primary Reading Skills Centers project provides remedial reading instruction to primary-grade children with deficiencies in reading skills.

THE PROJECT

RATIONALE

The participating pupils have failed to master basic reading skills and, therefore, are reading below grade level. The project is based upon the assumption that supplementary services can ameliorate low academic achievement resulting from reading difficulties. Services are provided to improve the comprehension and word-attack skills of the participating pupils.

EXPECTED OUTCOMES

It is expected that, through participation in the project, pupils will improve in reading-comprehension and word-attack skills.

MODE OF OPERATION

First-grade pupils who do not know the alphabet, and other pupils who are four or more instructional book levels below grade level (on the Informal Reading Inventory) are accepted into the project.

Equipment and instructional materials of many kinds are utilized for optimal development of specific skills. During the course of a lesson (50 minutes in length), the pupils engage in a variety of activities emphasizing individual skill development. The pupils work in small groups, with the reading teacher and an aide acting as resource persons. Each day, the reading teacher usually meets four instructional groups of approximately 12 to 18 pupils each.

Pupils leave the project when they are reading on grade level or when they are promoted to a grade above those served by the project.

PREVIOUS FINDINGS

Previous evaluations consistently indicated that project participants demonstrated gains in reading ability. In 1972-1973, approximately 75% of the participating pupils met or exceeded the goal of gaining two instructional book levels per year, as measured by a group Informal Reading Inventory; approximately 50% attained the desired mastery of alphabet/phonics skills, as measured by the Botel Phonics Inventory or by an alphabet-recognition test.

THE 1973-1974 EVALUATION

This year's evaluation of the Primary Reading Skills Centers project focused on the degree to which participating pupils (a) improved in reading achievement, as measured by a group Informal Reading Inventory, (b) developed their word-attack skills, as measured by the Botel Phonics Inventory or by an alphabet-recognition test, and (c) improved in reading skills measured by the 1970 California Achievement Tests' (CAT-70) Vocabulary and Reading Comprehension subtests.

IMPLEMENTATION

The evaluation team made six observation visits to project sites this year. Monitoring of the Primary Reading Skills Center classes and teacher interviews indicated that there was no substantial change in operation from previous years.

A second Skills Center opened in December 1973. Because this was its initial year of operation, this center served only first graders. It included additional grades in future years. Both centers were equipped with a wide variety of commercial and teacher-made instructional materials and equipment designed to develop specific reading skills. Each center had the services of an aide.

Pupils were selected for the project on the basis of the classroom teacher's recommendation and screening by the Skills Center teacher.

The pupils, in groups of eight to 18, spent 45 to 60 minutes daily in the center. The pupils spent a portion of the period in large-group instruction, after which the class was divided for small-group and individual work.

ATTAINMENT OF OBJECTIVES

Objective 1: To increase project pupils' reading achievement levels to the extent that 90% of the pupils gain one book level, with 60% gaining two or more book levels in a school year, as measured by pretest and posttest scores on a group Informal Reading Inventory.

The Informal Reading Inventory (IRI) was administered in September and May in the project's original center. Gains made by individual pupils are summarized in Table 1. Although only 86% (not the expected 90%) of the pupils gained at least one book level, 68% (more than the expected 60%) gained at least two levels. Thus the objective regarding IRI gains was partially attained.

(A group IRI was administered to 34 pupils in the project's new center in May only. The book levels ranged from Reading Readiness to 3[1]. The median book level was Primer; 14 pupils scored at that level.)

Results on the CAT Reading Comprehension subtest are summarized in Table 4. All grades demonstrated gains in mean GE score each year. The discrepancies between average GE scores and national norms did not decrease consistently as grade level increased. For current third graders the discrepancy increased a year ago but decreased this year to zero; for current second and fourth graders the discrepancy increased each year. Because the gains in reading-comprehension skills were not sufficient to produce a consistently decreasing discrepancy between the project participants' average scores and the national norms, the objective was not attained.

SUMMARY AND CONCLUSIONS

The instructional reading levels of approximately two-thirds of the Primary Reading Skills Center pupils have increased at least two book levels in a year's time. The criterion for phonics mastery (a 20-point gain in percentage of pupils achieving mastery) was exceeded by a considerable margin. While most participating pupils demonstrated gains in other specific skill areas (alphabet recognition, vocabulary, and reading comprehension) not all of the criteria for these specific skills have been met. However, on the whole, children participating in this project have shown gains in reading ability from year to year.

Objective 2: To increase project pupils' word-attack skills to the extent that there is an increase of 20 points in the percentage of pupils attaining an 80% mastery score on the Botel Phonics Inventory, and 95% of the first-grade pupils achieve a mastery score of 95% on an alphabet-recognition test.

In September and May, 46 items of the Botel Phonics Inventory were administered to the original center's second-grade pupils and all 64 items were administered to its third- and fourth-grade pupils. Results are summarized in Table 2. From pretest to posttest there was an increase of 42 points (more than the expected 20 points) in the percentage of pupils attaining mastery.

(The pupils in the newer center were given the 64-item Botel test in May only. Their mean score was 31.5; three pupils attained 80% mastery.)

At the end of the school year, the 14 pupils in Grade 1 at the original center were given a 52-item alphabet-recognition test. Eleven pupils (79%) achieved at least a 95% mastery score (50 or more correct).

Thus the objective regarding word-attack skills was partially attained. Gains on the Botel Phonics Inventory in Grades 2-4 exceeded the expectation, but the first-graders' alphabet-recognition mastery rate fell short of the expected 95%.

Objective 3: To increase project pupils' knowledge of vocabulary to the extent that the discrepancy between their scores and national norm scores on the California Achievement Tests' (CAT-70) Vocabulary subtest decreases as the pupils' grade level increases.

Respective national norms for midyear testing of Grades 1-4, are 1.5, 2.5, 3.5, and 4.5.

The results on the CAT-70 Vocabulary subtest are summarized in Table 3. All grades demonstrated gains in mean GE score each year. The discrepancies between average GE scores and national norms did not decrease consistently as grade level increased. For current second graders it remained the same as a year ago; for current third and fourth graders it increased and decreased irregularly. Because the gains in vocabulary skills were not sufficient to produce a consistently decreasing discrepancy between the project participants' average scores and the national norms, the objective was not attained.

Objective 4: To increase pupils' reading-comprehension skills to the extent that the discrepancy between their scores and national norm scores on the CAT-70 Reading Comprehension subtest decreases as the pupils' grade level increases.

National norms for midyear testing of Grades 1-4 are the same as those noted for Objective 3.

TABLE 1

GAINS ON IRI BETWEEN SEPTEMBER AND MAY BY PUPILS AT PRIMARY READING SKILLS CENTER

Grade	No. of Pupils	Pupils Making No Gain		Pupils Gaining One Level		Pupils Gaining Two or More Levels	
		N	%	N	%	N	%
2	12	3	25	3	25	6	50
3	16	1	6	1	6	14	88
4	16	2	12	4	25	10	63
All	44	6	14%	8	18%	30	68%

TABLE 2

PERCENTAGE OF PRIMARY-READING-SKILLS-CENTER PUPILS ACHIEVING MASTERY ON BOTEL PHONICS INVENTORY

Grade	No. of Pupils	September Pretest	May Posttest	Increase in Percentage
2	12	8%	67%	42
3	16	6	42	36
4	16	25	56	31
All	44	14%	56%	42

TABLE 3

CAT-70 VOCABULARY SCORES OF PRIMARY-READING-SKILLS-CENTER PUPILS COMPARED WITH NATIONAL NORMS

Current Grade	N	Tested in First Grade (Norm=1.5)		Tested in Second Grade (Norm=2.5)		Tested in Third Grade (Norm=3.5)		Tested in Fourth Grade (Norm=4.5)	
		Mean GE Score	Diff. from Norm	Mean GE Score	Diff. from Norm	Mean GE Score	Diff. from Norm	Mean GE Score	Diff. from Norm
1	14	1.4	-0.1						
2	12	0.8	-0.7	1.8	-0.7				
3	16	1.3	-0.2	1.5	-1.0	3.2	-0.3		
4	16	0.3	-1.2	1.7	-0.8	3.1	-0.4	3.7	-0.8

TABLE 4

CAT-70 COMPREHENSION SCORES OF PRIMARY-READING-SKILLS-CENTER PUPILS COMPARED WITH NATIONAL NORMS

Current Grade	N	Tested in First Grade (Norm=1.5)		Tested in Second Grade (Norm=2.5)		Tested in Third Grade (Norm=3.5)		Tested in Fourth Grade (Norm=4.5)	
		Mean GE Score	Diff. from Norm	Mean GE Score	Diff. from Norm	Mean GE Score	Diff. from Norm	Mean GE Score	Diff. from Norm
1	14	1.6	+0.1						
2	12	1.2	-0.3	1.7	-0.8				
3	16	1.3	-0.2	1.8	-0.7	3.5	0.0		
4	16	1.3	-0.2	2.2	-0.3	3.1	-0.4	3.8	-0.7

READING IMPROVEMENT THROUGH TEACHER EDUCATION
(A Component of the COMPREHENSIVE READING PROJECT)

The RITE project is designed to help train urban elementary school teachers to diagnose reading problems and to design and implement effective developmental reading programs. Teachers practice new techniques in their classrooms; on-site follow-up is provided by the project staff.

THE PROJECT

RATIONALE

The reading and language-arts deficiencies of target-area children are well documented. In order to help these children become successful learners, teachers should have a wide range of experience with various reading techniques and materials. Because many teachers lack this experience, the project supplements their preservice training with in-service training programs specifically designed to meet the reading needs of teachers of urban school children.

EXPECTED OUTCOMES

With the help of the project specialists, teachers should develop competence in using the Directed Reading Activity approach, in diagnosing the individual pupil's reading needs, in prescribing independent activities for the pupil, and in utilizing efficient classroom-management techniques.

MODE OF OPERATION

Seven RITE reading specialists provide services for 315 teachers in 28 Title I schools. Of the teachers receiving services, 52 had no classroom experience prior to this year. They receive help in classroom management and organization and in lesson planning. The project specialists also confer with principals and reading coordinators about specific needs of their schools.

Services provided to teachers include conferences, observations, demonstration lessons, and workshops. Conferences are arranged to discuss problems and share information on specific techniques. Observations are provided either at the teacher's request, or at the principal's request with the teacher's approval. Observations are preceded and followed by conferences to discuss improvement of instructional techniques.

Demonstration lessons are planned in advance by a project specialist. Planning activities include at least one preliminary observation of the children and a specialist/teacher conference which prepares the teacher to watch for specific occurrences during the lesson. Each demonstration lesson is followed by a conference about the lesson and the teacher's observations.

Workshops are of two types: one, jointly planned by the project specialist and the school's reading coordinator, deals with a specific need within a school; the other, planned for all teachers in several schools, deals with more general topics. The workshops frequently involve resource persons from outside the project team and deal with such topics as use of the Peabody Language Development Kits, specific kindergarten-teaching information, techniques of developing language and perceptual skills, and reading readiness.

PREVIOUS FINDINGS

Because 1972-1973 was the project's first year of operation, its evaluation was formative and focused on the implementation of services.

Following an introductory workshop and needs assessment at each of the 33 participating schools, on-site services were provided by four project specialists to approximately 450 teachers. The specialists provided 660 conferences, 124 classroom observations, 45 demonstration lessons, and 45 workshops for a total of 874 contacts with classroom teachers.

Most of the project specialists' contacts were concerned with reading groups (17%) and the Directed Reading Activity (22%). Forty-four percent of the contacts were with primary-grade teachers, 46% were with intermediate-grade teachers, and limited service was provided to teachers of kindergarten and Grades 7 and 8. Seventy-five percent of the contacts were made with teachers who had one to five years of teaching experience.

Classroom observations and interviews with participants, project staff, and principals indicated that the project was delivering services which should improve the teacher's skill in reading instruction. A rating scale completed by the principals indicated satisfaction with the effectiveness of the project and its specialists. The principals expressed a desire for more intensive project service.

As a result of that evaluation, the project's objectives were refined for 1973-1974, to focus on more specific knowledge and teaching skills.

THE 1973-1974 EVALUATION

This year's evaluation of the RITE project measured the effect of the project's services on specific teacher competencies by using formal assessment measures (observational instruments, case studies, and a self-rating scale of competency).

IMPLEMENTATION

Project records indicated that 7 RITE reading specialists made 581 visits to 28 participating schools between October 1973 and April 1974. The average length of time for each visit was three fourths of a school day.

The RITE specialists provided 2,552 service contacts to various school personnel. Of these contacts, 624 (24%) were conferences with principals or school reading coordinators. The remaining 1,928 contacts were direct services to classroom teachers (including 637 contacts with new teachers). At least five service contacts were made to each of approximately 100 teachers.

Services to classroom teachers were of four types: observation of some aspect of a reading lesson, classroom demonstration, conference, and workshop. The project records indicated that 16% of the specialists' contacts with individual teachers were classroom observations, 27% were demonstrations, and the remaining 57% were conferences. Information obtained during 35 classroom-observation visits by the evaluators indicated that the proportion of conferences may have been somewhat higher than was reported, and the proportion of demonstration somewhat lower.

In addition to direct services to individual teachers, RITE staff members provided 48 workshops to groups of teacher. Three of these were full-day regional workshops for approximately 65 teachers from eight project schools.

With the exception of workshops, contacts usually were provided upon the teacher's request. Observation contacts generally included a follow-up conference to discuss the teacher's strengths and weaknesses and to plan for future contacts. Demonstrations usually were preceded and followed by conferences to ensure that the teacher would be able to utilize what was presented. Conferences between RITE specialists and teachers were at least 15 minutes in length and focused on specific topics.

Topics for all of the various types of contacts were based on the needs of the individual teacher or school. They varied in scope from effective management of reading groups to the use of specific reading materials. Overall, the topics mirrored the project objectives, and placed much emphasis on appropriate implementation of the Directed Reading Activity.

ATTAINMENT OF OBJECTIVES

Three procedures were used to provide information concerning the attainment of the objectives of the RITE project. Data obtained from each of the three procedures were relevant, in differing degrees, to various aspects of the five objectives.

The most direct evidence regarding the attainment of objectives was provided by observation of reading lessons. Of the teachers receiving RITE services in each school, 35 were selected randomly for observation. Each teacher's classroom was visited once by the evaluation staff. Project-specific items on the RITE Observational Checklist were used to indicate the basic characteristics of the classroom (e.g., teacher experience, amount of RITE service, type of reading program) as well as the presence or absence of indicators for Objectives 1, 3, 4, and 5. It was expected that these indicators would be seen in 70% of the observations.

A large portion of the current year's evaluative effort was spent in the development of two instruments which would be useful in future evaluations. Since this was a formative year for both instruments, the information which they provided concerning the attainment of the objectives was limited.

The RITE Teacher Rating Scale was related to all objectives. The instrument listed 24 reading-instruction behaviors. Respondents rated their own abilities to perform each of the listed behaviors on the following rating scale: 1=can do only with great difficulty; 2=can do with some facility; 3=can do with moderate facility; and 4=can do with much facility.

The rating scale was completed by 32 teachers, randomly selected from a group of 100, who received more than five direct RITE service contacts. These teachers received the rating scale in May and were asked to make two sets of ratings. One rating assessed their end-of-year competencies for the teaching behaviors; the other rating was retrospective with regard to their levels of competency at the beginning of the school year. Comparison of the posttest mean score (77.3) with the retrospective pretest mean score (66.5) indicated that a statistically significant increase in ratings ($t=5.07$, $p<.01$) from pretest to posttest. Although the retrospective pretest design may place some limitations on the generalizability of the findings, the difference in mean scores was construed as providing supplementary information (based upon teachers' perceived changes in their abilities) concerning the attainment of each of the objectives.

The RITE Case Study was designed to assess teachers' knowledge of two aspects of reading instruction: the appropriate implementation of a Directed Reading Activity (DRA), and the interpretation and use of test results for reading instruction. On both the primary and intermediate forms of the case study, teachers were presented with simulated situations and were asked to describe, in writing, the procedures they would use were the situations in their respective classrooms.

This instrument was used with 40 primary and 40 intermediate grade teachers in April. According to the judgment of the RITE specialists, 20 members of each level-group were superior teachers (Group A) and 20 needed improvement (Group B). The 80 teachers were randomly selected from names of superior primary and intermediate teachers and primary and intermediate teachers needing improvement in each school which were submitted by each RITE specialist. While selection of A- and B-group teachers by schools provided a representative sample of schools, it may have diminished the differences in teaching performance between the A and B groups (i.e., an A teacher in one school may not have been so rated in a school having many superior teachers).

Identifying information was removed prior to scoring the case study so that scorers would not know which were the papers of A or B teachers. RITE staff members used a predetermined key to score the responses. Interrater reliabilities were determined by having each of 10 intermediate and 10 primary teachers' papers scored by the same four individuals. Reliability coefficients obtained for the various sections are summarized in Table 1. With the exception of the Primary DRA, the obtained reliability estimates were found adequate for making decisions about groups of respondents. Comparison of the average scores of the A and B groups of teachers on the Primary (t=.38) and Intermediate (t=1.15) forms of the RITE Case Study indicated no statistically significant difference between the two groups of teachers at either level separately in their knowledge of material relevant to Objectives 1 and 2. Therefore, in assessing the attainment of these objectives, this report treats scores on relevant sections of the case study in terms of mastery of the material by the total group of 80 teachers.

Objective 1: The teachers will make use of a variety of techniques to implement effectively various approaches to reading as indicated by the use of a Directed Reading Activity (DRA) for the Basal Reader and Language Experience approaches and/or appropriate implementation of Individualized Reading approaches.

Of the 35 classrooms observed, 24 used the basal reader approach to reading, six used language experience, and five used programmed reading. In 30 of the classrooms (86%), some phase of a DRA was being implemented. Since the DRA was appropriate for many approaches to reading instruction, the project appeared to be exceeding the stated criterion.

The overall increase in ratings from retrospective pretest to posttest by the teachers who responded to the RITE Teacher Rating Scale might indicate that teachers receiving intensive RITE services perceived themselves as gaining facility in the teaching of reading skills related to this objective.

The first section of the RITE Case Study was directly relevant to this objective. It assessed the teachers' knowledge of the set of processes comprising the DRA. Although problems with the selection of respondents precluded the instrument's distinguishing between two groups of teachers, the instrument still provided information about their mastery of the material; for the DRA section, a score of eight points

would indicate adequate treatment of all items listed on the scoring sheet. Additional points were added to scores for answers of unusual quality. The mean scores for this section, 4.8 for the Primary form and 4.3 for the Intermediate form, indicated that the teachers' knowledge of implementation of a DRA fell short of the desired level of mastery.

Observational data, supplemented by information from the RITE Teacher Rating Scale, indicated that teachers were able to implement appropriate reading techniques in the classroom. However, low scores on the RITE Case Study tended to indicate that teachers did not have precise knowledge of these procedures.

Objective 2: The teachers will increase their skill in diagnosing and prescribing for individual reading needs (including the recognition of those children having specific reading disabilities) as indicated by the ability to (a) interpret standardized test scores, (b) administer group Informal Reading Inventories, (c) utilize criterion-test results, and (d) make referrals.

To the extent that items on the RITE Teacher Rating Scale were relevant to this objective, the higher posttest average score on this instrument indicated that teachers perceived a growth in their mastery of these skills.

Information concerning teachers' proficiency in diagnosing and prescribing for individual reading needs was provided by the second section of the RITE Case Study. A score of six points would indicate basic mastery of material in this section. The average scores on the Primary form (5.3) and the Intermediate form (3.2) indicated that at least the primary teachers were found to have approached mastery of the skills required to diagnose and prescribe for individual reading needs.

Objective 3: The teachers will provide purposeful and varied independent activities designed to meet individual pupil needs as indicated by (a) a classroom activities center used by the children, and (b) the children's use of reading games, a variety of worksheets and materials for creative activites.

Information from the RITE Teacher Rating Scale provided limited indications that teachers were able to offer these activities to their pupils. Observational data only partially corroborated the existence of the indicators listed in the objective.

Two items on the RITE Observational Checklist referred to this objective. The use of a classroom-activities center was observed in only 12 (34%) of the 35 visited classrooms, and the use of games, worksheets, and materials for creative activities were observed in 24 (69%). However, these activities frequently appeared to be geared to group rather than individual needs. Observational data tended to indicate that teachers receiving RITE services were not yet successful in providing purposeful and varied independent activities designed to meet individual pupil needs.

Objective 4: The teacher will manage effectively her classroom reading program utilizing available management techniques and procedures as indicated by (a) adequate record keeping, (b) efficient use of classroom space, (c) proximal physical grouping of those children working with the teacher on common material, (d) use of effective mechanics of conducting reading groups.

Three project-specific items on the RITE Observational Checklist were related to this objective.

Adequate record keeping for reading instruction (usually the Cumulative Reading Record of the Archdiocese) was observed in 29 (83%) of the 35 visits. In 30 classes (86%), teachers made appropriate use of space and grouped the pupils in close physical proximity for direct instruction.

On a rating scale from one (poor) to five (excellent), 32 teachers (91%) received average (3) or better ratings on the mechanics of conducting reading groups. This was further supported by two nonproject-specific items which indicated that pupil attitudes were either adequate or excellent in 33 (94%) of the observations.

Data from observations of 35 teachers receiving RITE services, as well as the additional information provided across all objectives by the RITE Teacher Rating Scale, indicated that most teachers were managing their classroom reading programs effectively.

Objective 5: The teachers will organize their classrooms to provide for the individual needs of their pupils as indicated by (a) efficient use of aides, (b) effective use of the school library and learning center, (c) flexible groupirg.

Six project-specific items on the RITE Observational Checklist were related to this objective.

In the 16 classrooms where aides were present, the aide was utilized in an efficient manner, usually providing skill-reinforcement activities for a group of children.

In 30 of the 35 observations, the class was divided into two or more groups (usually three) for reading instruction for 81% to 99% of the period. While there was some individualized activity, the pupils generally remained in their groups throughout the lesson. This would indicate that teachers were not using flexible grouping to deal with immediate short-range pupil needs or interests.

Despite the teachers' perceived competency, as indicated by the RITE Teacher Rating Scale, classroom observations tended to indicate that the organization of classes for reading instruction to meet individual pupil needs was being implemented only to a limited extent (i.e., assignment of pupils to one of three reading groups and use of aides).

SUMMARY AND CONCLUSIONS

Two instruments, the RITE Case Study and the RITE Teacher Rating Scale, were developed as part of this year's evaluative effort. Since these instruments were in the developmental stages, the information which they provided concerning attainment of project objectives was of a supplementary nature.

Taken together, the RITE objectives depict an ideal reading-instruction situation. Within the framework of these objectives, the RITE specialists provided a wide variety of services to a large number of teachers. These services were delivered on a needs basis and with varying degrees of intensity. There was indication that teachers receiving these services managed their reading lessons effectively, and that they implemented the various phases of the DRA. At least at the primary level, teachers also seemed able to make use of test results in their teaching of reading. However, there was less evidence of progress toward development of the teachers' abilities to individualize reading instruction.

TABLE 1

INTERRATER RELIABILITY COEFFICIENTS FOR RITE CASE STUDY

Grade Level	DRA	Test Interpretation	Total
Primary	.23	.55	.58
Intermediate	.86	.91	.88

SUMMER ADVENTURES IN LEARNING
(A Component of the COMPREHENSIVE READING PROJECT)

SAIL is a "contracted services" project which provides tutoring in language arts (including reading) combined with a summer art and recreational program designed to increase motivation.

THE PROJECT

RATIONALE

The participating target-area pupils have failed to master the basic reading skills, and are reading below grade level. Many pupils also tend to drop in reading level during the summer. The project is based upon the assumption that supplementary services during the summer can help the pupils maintain and/or improve their reading levels and improve their word-attack skills.

EXPECTED OUTCOMES

It is expected that through participation in the SAIL project pupils will maintain and/or increase their achievement levels in reading, will have increased motivation for learning, and will improve their language-arts skills.

MODE OF OPERATION

SAIL centers operate in public school sites and serve both public and parochial school pupils. At each center, approximately 75 pupils are instructed in small groups by high school student tutors under the direction of an experienced teacher and two associate teachers. Students are grouped by reading level.

SAIL's reading-instruction program is based on Reader's Digest Skill Builders. For follow-up and variety, the SRA Reading Laboratory, 'We Are Black," is used. Scott-Foresman picture dictionaries also are available for reference and for developing basic dictionary skills.

In addition to the basic reading activities, the children engage in a variety of written experiences, daily art instruction, and a daily period of supervised physical activity. The children are given opportunities to work with cameras and tape recorders.

Each child also participates in five all-day field trips to places of interest.

PREVIOUS FINDINGS

In the formative years, 1970 and 1971, evaluations were conducted by the project administrator. Centers were found to be working efficiently, absenteeism was low, and ratings by staff and parents were favorable.

In both 1972 and 1973, the percentage of pupils maintaining book level over the summer (68%) was greater than the expected criterion (60%). In both years, while gains in reading achievement as indicated by a change in book level (29% of the pupils) and the gain in average GE score on the Wide Range Achievement Test (0.5) were substantial, they were below the expected levels of achievement.

The average attendance rate for all SAIL centers was 83.6%, exceeding the criterion rate of 80%. Thus SAIL appeared to be motivating its students to participate in learning activities.

THE 1973-1974 EVALUATION

This year's evaluation, based on data collected by the evaluation team, focused on the extent to which the project was successful in having the pupils (a) improve their word-attack skills (as measured by the Sight and Sound Inventory), (b) maintain and/or increase their reading levels, and (c) participate in learning activities (as measured by pupil attendance rate).

IMPLEMENTATION

The project was conducted in the 1974 summer session in accord with its intended mode of operation. Five SAIL centers were operative. All centers were at public school sites and served both parochial and public school pupils. The number of pupils in each center ranged from 35 to 100, with a mean of 64. The student tutors attended daily, half-hour staff-development sessions and were responsible for turning in lesson plans.

ATTAINMENT OF OBJECTIVES

Objective 1: To maintain and/or increase project pupils' achievement levels in reading and word-attack skills during the summer recess period to the extent that (a) 35% of the project pupils gain one book level on the Reader's Digest Skill Builders, and 60% of the pupils will maintain the same level (i.e., will not regress), and (b) there is an increase of 10 points in the percentage of pupils attaining a mastery score of 51 (out of 54) on the Sight and Sound Inventory.

Records of progress on the Reader's Digest Skill Builders were available for 117 pupils. Examination of these records indicated that 116 pupils (99%) had at

least maintained their level and 42 pupils (36%) had gained at least one book level. In both cases, the criterion was exceeded.

The Sight and Sound Inventory was administered to 105 pupils during the first week and the sixth week of the project. Thirty-two pupils (31%) attained a mastery score of 51 (out of 54) on the pretest and 28 pupils (27%) attained a mastery score on the posttest. Since more students demonstrated mastery on the pretest than on the posttest, the criterion was not met.

Thus, the objective regarding reading and word-attack skills was partially attained. Performance on the Reader's Digest Skill Builders exceeded the expectation, but the Sight and Sound Inventory mastery rate fell short of the expected 10-percentage-point gain.

Objective 2: To increase the motivation for learning of the project children during the summer recess as indicated by an average daily attendance of 80% during the overall program.

During the six weeks of the summer term, attendance records were maintained by the project coordinator. The average attendance rate for all SAIL centers was 77%, thus approaching the stated criterion of 80%.

Objective 3: To improve the language-arts skills of project pupils so that, in 60% of the cases, students' written selections submitted during the sixth week of the project will receive higher ratings by project staff than those submitted during the second week.

Written selections collected during the first and sixth weeks of the project were randomly selected for a sample group of 50 pupils (10 per grade). The papers were typed with all identification omitted and were coded for later identification.

Each student's pretest and posttest writing samples were rated by a panel of three raters. Using a preestablished set of criteria a rater gave a "plus" rating to the better of each pupil's two writing samples. (Raters were not aware of which paper was pretest and which was posttest.) Total rating scores for each paper were obtained by combining the scores of all three raters. Pretest and posttest "plus" ratings were summed for all papers.

Of 150 possible plusses, the posttest papers received 74 (49%) and the pretest papers received 76 (51%). These results indicated that the criterion of 60% of the posttest papers receiving the higher rating was not met.

However, the project's not attaining this objective may be attributable in part to problems in measuring improvement in language-arts skills over a short

time period. These problems were further complicated by the fact that pupils did not write on the same topic and the raters found the difference between papers very slight.

SUMMARY AND CONCLUSIONS

Records of pupil progress on the Reader's Digest Skill Builders indicated that almost all of the SAIL pupils had at least maintained their book level and 36% of the pupils had increased their book level. Thus the project exceeded one part of its stated objectives. However, there was no increase in the percentage of pupils attaining mastery on the Sight and Sound Inventory.

The average daily attendance rate of 77% (approaching the criterion of 80%) indicated that the project made progress toward increasing the project pupils' motivation for learning, even though the objective was not fully attained.

The project did not fully attain its language-arts objective of having 60% of the posttest writing samples receive higher ratings than the pretest samples. However, this fact may be attributable in part to the problems in measuring improvement in slowly-developing language-arts skills over a short time period.

While the project did not fully attain its objectives, it did make progress toward having pupils maintain and/or increase their reading levels and it approached the desired level of average daily attendance.

SUMMER READING READINESS
(A Component of the COMPREHENSIVE READING PROJECT)

The Summer Reading Readiness project is designed to provide formal learning experiences for two groups of children: (a) children about to enter the first grade with no kindergarten or formal preschool experiences, and (b) children who have completed the first grade with less than satisfactory academic achievement. The project attempts to strengthen in these children those readiness skills required for successful involvement in the relatively structured first-grade reading program.

THE PROJECT

RATIONALE

Because nonpublic schools generally do not provide formal kindergarten programs, many children entering the first grade experience unsatisfactory academic achievement. Most pupils participating in this summer project are enrolled in Philadelphia nonpublic schools. However, eligible public school pupils also attend the project. Participants generally have had no formal preschool experience designed to develop readiness skills identified as prerequisite for success in the first grade.

EXPECTED OUTCOMES

The primary goal of the project is to provide appropriate learning experiences designed to develop a stable foundation of readiness skills for children entering the first grade of formal schooling.

MODE OF OPERATION

Eligible children are recruited from target schools and screened into nonpublic school centers. They are organized into units of approximately 40 children each. Three teachers have the responsibility of developing and implementing a suitable program for each unit.

The project operates daily, from 8:45 until 11:45, during a six-week period, using instructional materials and equipment provided by the schools themselves and by previous years' Title I funds.

PREVIOUS FINDINGS

During the summer of 1972, participating children who attended with regularity made significant improvement in reading-readiness and basic reading skills. Follow-up interviews with teachers revealed that participating children differed from nonparticipating children in achievement levels and classroom performance in Year 1.

During the summer of 1973, the difference between mean pretest and posttest scores on the Philadelphia Readiness Test were statistically significant, proving that the objective of developing readiness skills of pre-first-grade children had been attained.

THE 1973-1974 EVALUATION

The current year's evaluation of the Summer Reading Readiness project focused upon the development of aural comprehension skills in pre-first-year pupils, and upon the strengthening of reading-readiness skills of underachieving first-year pupils. The evaluation design was developed after extensive consideration of previous years' findings and the recommendations of project personnel.

IMPLEMENTATION

This summer, 1,308 pre-first-year pupils and 662 underachieving first-year pupils participated in the project. Fifty-two units were organized in 40 nonpublic centers, employing 155 teachers supported by six supervisors. Each center contained sufficient educational materials and equipment to provide relevant experiences for each pupil.

Forty-five on-site observations were conducted by six supervisors. The Coordinator of Nonpublic School Projects made 13 observations, and the evaluation team, six. The supervisors recorded their findings on a standard report form which included (a) ratings of the order and organization of the program, the materials in use, the preparation and interest of the faculty, and the children's participation and activity, (b) additional comments, and (c) special recommendations. The coordinator and the evaluation team recorded their observations in anecdotal fashion. Salient findings were shared with the center teachers at the conclusion of each observation. Table 1 summarizes the supervisors' ratings. Nearly all of the ratings in each category were satisfactory or better.

In general, the project apparently was functioning according to the intended mode of operation, teachers were aware of the project's objectives, and observed activities were appropriate for achieving the project's expectations.

ATTAINMENT OF OBJECTIVES

Objective 1: To improve the aural comprehension skills (abilities to pay attention to, organize, interpret, infer, and retain what has been heard) of pre-first-year children who attend at least 75% of the project sessions as measured by Part 4 (aural comprehension) of the Stanford Early School Achievement Test.

The Stanford Early School Achievement Test (SESAT) was administered to all pre-first-year project pupils during the final week of their six-week summer experience. All four parts of the test were completed and scored, and the results were forwarded to the pupils' respective schools. However, only the results for Part 4 were specifically related to this objective. A mastery score of 18 correct items was selected as the measurable criterion of success for the project. This score was the mean score obtained by pupils completing kindergarten during the 1972-1973 school year in Districts 2 and 4 of the School District. In these two districts the project operated exclusively in nonpublic schools and served both public and nonpublic pupils. It was expected that a score of 18 would be achieved by at least 60% of the project pupils who attended at least 75% of the project's sessions.

In all, 1,003 pre-first-year pupils completed the SESAT battery. The scores for Part 4, aural comprehension, were categorized according to the attendance of each child. Seven hundred eighty-eight of the pupils had attended at least 75% (21 half days) of the project sessions. Of these pupils, 446 (56%) attained the mastery score of 18 items correct out of a possible 28 items.

Although the objective of having 60% of the pupils achieve the mastery score was not attained, the project director expressed satisfaction with the results. Plans have been made for further investigation regarding the appropriateness of the criterion score of 18 and the procedure for selecting children for future participation in the project. The possibility exists that children who do not actually require the supplemental experience may be attending the project.

Objective 2: To develop the reading-readiness skills of underachieving first-year children who attend at least 75% of the project sessions, as indicated by a mastery rating for 85% of the skills on the Continuous Progress Skills Program's Cumulative Record of Reading by 75% of the children.

Modifications in the statement and procedures of this objective were considered appropriate. A diagnostic profile was developed which specified those reading-readiness skills required for a successful introduction to the first-year reading program. The profile consisted of four levels of skills arranged in hierarchical fashion, based upon the premise that children develop reading-readiness skills in a specific order of difficulty. The first-year teachers provided ratings of entering academic behavior by completing a profile for each pupil, circling the level of pre-project functioning and the elements of that level which the child had failed to master. These completed profiles were distributed to the pupils' respective project teachers, to be used as a prescription for program development for each child.

At the conclusion of the project, the project teachers indicated on each profile the pupil's new level of functioning and any elements of that level which the child had not yet mastered. Differences between the two ratings were used as a relative indicator of the project's success in developing the designated reading-readiness

skills. Levels of expectation were selected which generally stated that 85% of the pupils who enter at a particular level of the profile, and attend at least 75% of the project sessions, will progress during the summer by fully mastering their entrance level and attaining certain degrees of mastery of specified subsequent levels.

In addition to the profile, a sight-word list was developed which included the 60 sight words (preprimer and primer) found in most of the basal reading series used today. The same procedures were used with the sight-word list as with the profiles. It was expected that 85% of the pupils who attended at least 75% of the sessions would acquire 15 new sight words or exhibit mastery of the entire list.

The project participants included 662 underachieving first-year pupils; 297 of them attended at least 75% (21 half days) of the project sessions. Of these pupils, 193 (64%) attained the mastery criterion. Of the 291 pupils who attended at least 75% of the project's sessions, 164 (56%) mastered at least 15 new words or mastered the entire sight-word list.

For both the diagnostic profile and the sight-word list, the numbers of pupils attaining mastery were well below the 85% specified in the revised objective. It appeared that the 85% criterion (which had been determined through speculation) might have been inappropriate for a project operating for only 28 half days. Future evaluations should determine the most reasonable expectation and appropriate criterion level of success for this objective.

SUMMARY AND CONCLUSIONS

The Summer Reading Readiness project was created to provide formal preschool experiences for target children who have not developed those reading-readiness skills identified as prerequisite for success in the first grade. Most of these children have not experienced formal kindergarten classes. Some have attempted the first-grade program and made less-than-satisfactory academic progress.

The current year's evaluation focused upon the development of aural comprehension skills in pre-first-year pupils and the strengthening of reading-readiness skills of underachieving first-year pupils. The project was found to be implemented according to its intended mode of operation.

Neither of the project's stated objectives was attained. Although the project was successful in developing the aural comprehension skills of pre-first-year pupils and the reading-readiness skills of underachieving first-year pupils, the expected proportion of pupils attaining mastery was not reached by either group.

Plans have been made for further investigation to determine the appropriateness of the criteria of success and the reasonableness of the expected proportions of pupils attaining mastery. Meanwhile, the project holds a reputation of importance and success among teachers and principals of pupils who have participated in it.

TABLE 1

SUMMARY OF 45 PROJECT-IMPLEMENTATION RATINGS
BY SIX SUMMER-READING-READINESS SUPERVISORS

Category	Very Good	Good	Satisfactory	Poor
Order and organization	18%	56%	24%	2%
Materials in use	13	56	27	4
Preparation and interest of the faculty	22	45	29	4
Children's participation and activity	16	42	36	6

TEACHING BASIC READING SKILLS--A SYSTEMS APPROACH
(A Component of the COMPREHENSIVE READING PROJECT)

Beginning readers learn basic reading skills through an individualized, computer-managed approach. Multimedia and multilevel activities which appeal to the target-area children's interests are utilized.

THE PROJECT

RATIONALE

Many target children do not develop adequate reading skills. Their deficiencies have been attributed to (a) curricular materials which are not relevant to the children's experiential backgrounds, (b) a lack of positive attitudes toward learning, language, school, and reading, (c) failure and rejection experienced in academic development, and (d) a lack of emphasis on reading in the home. The project helps these children develop adequate reading skills by providing a wide variety of relevant curricular materials, continuous positive reinforcement, a nonthreatening and nondisparaging learning environment, individualized instruction, and a structured, incremental reading program. The resulting reading skills provide an important basis for the pupils' general academic progress.

EXPECTED OUTCOMES

It is expected that, after three years in the project, participating pupils will have a strong foundation in the basic reading skills of decoding and comprehension, and an appreciation for literature.

MODE OF OPERATION

Pupils in Grades 1-3 receive individualized instruction in basic reading skills. Multimedia and multilevel activities are matched to each pupil's needs. The computer is used to manage the individualized classroom (e.g., monitor student progress and schedule daily activities in decoding, comprehension, and literature appreciation) and to provide reinforcement, enrichment, and/or remediation in decoding and comprehension. The computer presentations (cathode-ray terminal displays synchronized with audiotape cassettes) are composed of learning sequences of increasing complexity to allow pupils to work at their own rate and to minimize their frustration in learning.

PREVIOUS FINDINGS

For the first two years of the project's operation, the evaluations were formative and descriptive. They indicated that the individualized activities provided learning experiences which the pupils were able to master at desired rates as indicated by the project's internal computer monitoring and by the external criterion tests. When compared with other groups, project pupils showed greater mastery of phonics skills by the end of Year 2. Informal Reading Inventory results showed that project pupils were progressing toward the desired reading-achievement levels by the end of Grade 3.

THE 1973-1974 EVALUATION

The current evaluation focused on project pupils' reading achievement in relation to that of pupils in a comparison school. In addition, internal computer monitoring and the Read-On Criterion Tests in Reading were used to judge pupil progress in the project.

IMPLEMENTATION

In 27 visits to the project the evaluators found all components operating in the center as intended. Individualization of reading instruction was fully attained with pupils receiving from the computer each day unique rosters based on their previous classroom instruction (Stern Reading Series). At any one time some pupils were observed working individually either at the computer terminals or on self-selected off-line reading activities, while other pupils worked in small groups on common activities (e.g., word games, story telling). Several audiovisual aids were in use, including Dukane projectors (synchronized filmstrips/record presentations), Language Master cards (combined audiovisual cues), and the audiotape cassette computer presentations.

At the center's eight cathode-ray computer terminals (CRTs) pupils received individual reinforcement and/or remediation of decoding and comprehension skills included in their regular classroom reading instruction (in the Stern Series). Visual displays on the CRTs were synchronized with audiotape cassettes through auditory cues, including a "bong" which signaled for the pupils to press a designated button. First-grade pupils had some difficulty at first with this procedure, but eventually mastered it. The computer presentations were specific to particular skills and/or subskills (several reading skills identified in the Stern Series required as many as ten separate tapes for the subskills to complete the presentation for that skill). Pupils were allowed to work at their own rate (a high time limit was placed on each item to virtually insure this).

The incremental nature of the instruction coupled with self-pacing minimized pupil frustration in learning, as judged by the evaluator during the observation of

individual pupils during each visit. Almost all observed instances of frustration involved either first graders or the highest achievers in second and third grades who found the sequence too laborious. Evidence of the motivational impact of the computer presentations throughout the year was the pupils' continued eagerness to obtain a "Smokey the Bear" display on the CRT upon attaining the mastery criterion for each decoding or comprehension instructional unit.

According to the project staff, pupil participation in the project was less than had been originally anticipated. Due to schedule changes, pupils were able to attend the center an average of only three hours per week, instead of five hours per week as during the project's first two years. Participation ranged from two hours and 40 minutes to three hours and 45 minutes. Teacher conferences, parent visitations, and day trips further diminished pupil participation, particularly in the afternoon. The project staff also reported some difficulty in maintaining a correlation between the reading-skills instruction in the Stern Series in the classroom and the reinforcement/remediation in the same reading skills provided by the project.

ATTAINMENT OF OBJECTIVES

Objective 1a: To teach pupils in Grades 1-3 skills of following directions and decoding and comprehension skills, so that participating pupils will show mastery of the required reading skills through Book E of the Stern Reading Series by the end of third grade.

The project was partially successful in having pupils attain Book E of the Stern Series by the end of third grade.

Computer reports from the project's internal monitoring system indicated partial attainment of the specified reading skills by participating pupils. Roster reports were examined and summarized for the 18 of the project's 20 third-grade pupils who had been in the project for three years. The computer roster reports showed that eight of those 18 pupils who had participated in the project for three years attained or exceeded Book E of the Stern Reading Series. Three of the remaining ten pupils were nearing completion of Book D, while the seven other pupils were either completing Book C or just beginning Book D. Fourteen pupils in the project's second-grade morning class either had completed or were just completing Book C. The ten other pupils in that class were at various places in Book C. Seven of the 22 pupils in the afternoon second-grade class were nearing completion of Book C. In the first-grade class 10 of the 24 participating pupils were working in Book C and three were in Book D.

Curriculum reports were used to determine rates of mastery for all project pupils by class during the computer presentations. The curriculum reports, summarizing pupil rates of mastery of the respective decoding and comprehension

units, indicated that the 20 third-grade pupils attained the 80% mastery criterion on 81% of the 311 decoding units attempted, but on only 51% of the 233 comprehension units. Because they participated in the afternoon the third graders completed approximately 13% fewer instructional units per pupil than the morning second graders who attained mastery at levels reported in previous years (77% and 61% respectively in 432 decoding and 352 comprehension units. Likewise, the afternoon second graders completed approximately 59% fewer instructional units per pupil than the morning second graders. The afternoon second graders attained mastery on 66% of the 153 decoding units attempted and on 44% of the 190 comprehension units. First graders had lower mastery rates (52% and 24% respectively on 207 decoding and 190 comprehension units) because of their early difficulties with the alphabet and operating the CRTs, according to the project staff.

Computer class summaries of the Read-On Criterion Tests in Reading provided external evidence of the effectiveness of the project's instruction in the specific reading skills. The criterion-referenced tests were administered individually to the pupils by project staff upon completion of the necessary instructional units.

The computer class summaries of the externally administered Read-On Criterion Tests in Reading showed that pupils attained mastery (90%) on all 513 criterion-referenced tests taken during the year. However, the number of tests taken by the afternoon groups was substantially below the number taken by the morning second graders (143 vs. 370). The results of the criterion-referenced tests indicated the effectiveness of the remedial off-line activities prescribed for pupils who did not attain mastery of the decoding and comprehension units presented by the computer.

The results of the project's computer monitoring and the criterion-referenced tests provide ample evidence of the effectiveness of the project's instruction in basic reading skills. The shortfall, then, seems to be due to the rate at which pupils progressed through the instruction. The previously discussed difficulties in scheduling and in maintaining the necessary articulation between the classroom instruction and the reinforcement/remediation of the center appear to have substantially limited the number of units completed by the participating pupils. The morning second graders who received the greatest exposure to the project made substantial progress during the year and, if their progress continues at a comparable rate next year, should attain Book E and the required reading skills by the end of third grade.

Objective 1b: To teach pupils in Grades 1-3 skills of following directions and decoding and comprehension skills, so that participating pupils will read on grade level on the CAT-70 by the end of third grade.

Tabulation of the CAT-70 Total Reading subscores indicated that the project was partially successful in bringing pupils to on-level status by the end of third

grade. The Total Reading subscores for pupils who were in the project for three years were obtained, as well as scores for the remaining three groups of project participants and for the respective grade in two feeder schools of the Intensive Learning Center (ILC).

The Total Reading subscores for the CAT-70 revealed that four of 17 pupils (scores were not available for one pupil) in the project for three years equaled or exceeded the on-level norm (3.6 grade-equivalent score). An average GE score of 3.0 was attained by the participating third graders.

Although only four of the 18 third graders attained the desired on-level status on the CAT-70, project pupils at each grade level did exceed the achievement of comparable pupils in the feeder schools. National percentile ranks corresponding to mean scores on the CAT-70 Total Reading subtest are shown in Table 1.

In partially attaining its objective to have pupils achieve on-level status on the CAT-70 Reading subtest by the end of third grade, the project was at the same time bringing first and second graders to levels of competence in reading that are close to on-level. This is significant in view of the average reading-achievement scores of comparable pupils in the feeder schools, which averaged 20 percentile points below the project. These levels of achievement by the project's first and second graders also represent progress toward meeting the objective by the end of third grade.

Objective 1c: To teach pupils in Grades 1-3 skills of following directions and decoding and comprehension skills, so that participating pupils will score higher than comparable inner-city pupils on a phonics inventory and on informal reading inventories.

The project was partially successful in attaining this objective. Where pupils received more intense exposure, significant differences were found to favor the project over comparison pupils. A nearby target-area school was selected to obtain comparison pupils in Grades 1-3. The school was selected to enhance the chances of cooperation in the evaluation procedures, and because of similarities in achievement levels to the ILC. Pupils in the comparison school received approximately two hours of formal reading instruction per day during which an aide assisted the teachers.

The Sight and Sound Inventory, developed by the School District, was administered in June to all pupils in both schools as part of the District 7 Reading Plan. A group informal reading inventory (IRI), developed by a School District reading teacher, was administered to pupils in the project and in the comparison school in February and in June by reading specialists from the English Education Office. These tests were selected on the recommendation of both project staff and a reading supervisor as measuring reading skills taught by both the project and the comparison school.

The significance of differences between project and comparison groups on the phonics test was determined by t tests; significance of corresponding differences on the IRI was determined by sign tests. IRI book-level changes were converted to years of growth, i.e., book-level changes were translated in terms of what growth was expected per year by the reading supervisors. This procedure served to put the data into a form which had meaning in terms of the project's expectations and yet retained the rank order of the pupils' scores for use in the sign-test analysis. The probability level was set at .20 to maximize the chances of detecting the project's impact on reading achievement.

As shown in Table 2, t tests revealed that project second graders scored significantly higher ($p<.20$) than comparison second graders on the phonics inventory. Although project pupils in first and third grades obtained higher scores than the comparison pupils, the differences were not statistically significant. However, the eight project third graders who were tested probably were not representative of the 18 pupils who had participated in the project for three years; six of the eight pupils who attained Book E of the Stern Reading Series were absent during the testing period.

On the IRIs administered to second and third graders in February and June, the project's morning second graders exceeded the growth of the second graders in the comparison school (approximately the equivalent of 0.8 year vs. 0.5 year, $p<.20$). Although both the project second graders as a whole and the third graders had slightly greater gains than the comparison groups (approximately the equivalent of 0.59 year vs. 0.54 and 0.85 vs. 0.82), the differences in gain were not significant. All groups had significant ($p<.01$) growth which exceeded the 0.4 year's growth specified for the time interval by the reading supervisors, i.e., two book levels per 10-month year through Book 3^2 and one book level through the rest.

The growth in reading skills attained by the participants was greater than that of the comparison groups, but the differences were generally not statistically significant. Although the comparison school received a more intense formal reading program, the project pupils were still able to show slightly greater achievement. Moreover, in those situations where project pupils received more intense exposure, significant differences were found between project and comparison pupils.

Objective 2: To teach participating pupils an appreciation for literature.

Frequent use of the project's "library" by participating pupils was considered evidence of the attainment of this objective. Project staff maintained sign-out sheets for pupils to record the books they borrowed. The number of books voluntarily borrowed during seven weeks (April to June) were summarized by the project staff.

The staff reported that the average participant borrowed one book per week. Project and school staff heard frequent recounting of the stories by the pupils, indicating that the books had been read. These results were considered meaningful in view of the usually low rate of book possession by the target-area children. Such outside reading is viewed by the project as necessary to the full development of the participating pupils' reading skills and attitudes.

Objective 3: To introduce district reading project managers, supervisors, and reading and regular classroom teachers to the possibilities of the program as an adjunct to the regular school programs.

Interviews with the project staff revealed that presentations were made to the superintendents, supervisors, and principals from two districts. Two groups of Temple University students and staff also attended presentations. Following the presentations, one district superintendent indicated that he planned to implement the project on a pilot basis in one school as part of his district's reading plan.

SUMMARY AND CONCLUSIONS

The project helps target-area children develop reading skills by providing a wide variety of relevant curricular materials, continuous positive reinforcement, a nonthreatening learning environment, individualized instruction, and a structured, incremental reading program. The current evaluation focused on participants' reading achievement compared with expected achievement levels and with the achievement of pupils in comparison schools.

During frequent visits it was found that all components were successfully implemented in the project center. However, because of schedule changes, pupil participation in the project was reduced from five hours per week to three hours. Teacher conferences, parent visitations, and day trips further diminished pupil participation, particularly in the afternoon. Some difficulty was experienced in maintaining a close correspondence between the reading-skills instruction in the Stern Reading Series in the classroom and the reinforcement/remediation in the same reading skills provided by the project.

Eight of the 18 third-grade pupils in the project for three years were able to attain the project's objective to have pupils show mastery of the required skills through Book E of the Stern Reading Series by the end of third grade. The results of the project's internal computer monitoring and the external criterion-referenced tests showed the effectiveness of the project's instruction in basic reading skills. That more of the third graders did not reach Book E was in part due to difficulties in scheduling which resulted in 40% reduction in the time third graders participated, compared with past years.

Four of 17 pupils in the project for three years attained the project's objective to have pupils read on grade level on the CAT-70 by the end of third grade. An average GE score of 3.0 was attained by the third graders. However, it was found that while the average third-grade participant did not attain on-level status on the CAT-70, the project pupils did exceed the achievement of comparable pupils in the feeder schools. Moreover, the project was able to bring first and second graders to levels of competence in reading that approached on-level and that represented progress toward meeting the objective by the time these pupils would complete third grade.

Project pupils in general scored higher than comparable inner-city pupils on a phonics inventory and on an informal reading inventory (IRI). However, the differences were significant only for the morning second graders who received more intense exposure to the project.

An increase in project pupils' appreciation for literature was inferred from the frequent borrowing of books from the project's "library". Project staff also reported frequent recounting of the stories by the pupils, indicating that the books had been read.

Project staff made presentations to introduce district superintendents, supervisors, principals, and Temple University students and staff to the possibilities of using the program as an adjunct to the regular school programs.

It appears that in view of the reduced pupil participation from that of past years, the reported impact on participating pupils' reading achievement can be considered in a favorable light. Where exposure to the project was greatest, the objectives in terms of pupil reading achievement were attained. Even with limited exposure, project pupils in general showed greater achievement than both pupils in a comparison school with a more intense formal reading program and pupils in feeder schools to the ILC. Furthermore, both the project and the comparison-school pupils exceeded the amount of growth specified by reading supervisors for the test interval.

Future modifications in the schedule may alleviate this year's problem of reduced pupil participation. In the opinion of the evaluation team, closer articulation of the classroom instruction with the reinforcement/remediation activities in the project center will be required to maximize the reading achievement of participating pupils.

TABLE 1

NATIONAL PERCENTILE RANKS CORRESPONDING TO MEAN SCORES ON CAT-70 TOTAL READING SUBTEST

Grade	SABRE Pupils*		Feeder-School Pupils	
	N	Percentile	N	Percentile
1	22	40	195	21
2	25	[redacted]	216	27
3	18	31	199	25

*The designation "SABRE" has persisted after the change of project title from Systems Approach to Basic Reading to its present title.

TABLE 2

MEAN RAW SCORES ON SIGHT AND SOUND INVENTORY ADMINISTERED IN JUNE 1974

Grade	SABRE Pupils		Comparison Pupils	
	N	Score	N	Score
1*	24	25.88	48	25.69
2*	28	28.12**	24	26.13
3	7	67.63	26	66.50

*Only the results from Part A (31 items) were available for all pupils in Grades 1 and 2, while the third graders received Parts A and B (72 items).

**Significantly higher ($p<.20$) than comparison pupils' mean score.

COMPUTER-ASSISTED INSTRUCTION

Basic skills instruction in reading, mathematics, and science (biology) is individualized by means of the computer. Extensive branching in the computer program provides the appropriate enrichment, remediation, or reinforcement for each student. Student records, maintained by the computer, are used by the teachers in diagnosing student needs and in prescribing individualized learning activities. Staff development and in-class support from curriculum specialists assist participating teachers in individualizing instruction.

THE PROJECT

RATIONALE

Traditional methods of teaching have been unsuccessful with many target-area children. Educators have stated that students' chances of school success are enhanced by individual attention and instructional materials matched to their specific needs. Such instructional materials must be presented in short, incremental steps with continuous evaluation and immediate reinforcement. Computer technology provides both the structure and the flexibility required for individualizing instruction and maintaining student interest.

EXPECTED OUTCOMES

It is anticipated that in the respective content areas the achievement of participating students will exceed that of comparable target-area students and will equal that of their national peers. Furthermore, a high proportion of students will master the respective skills as they move through the instructional sequences.

Staff-development sessions and frequent classroom visits by the CAI curriculum specialists are expected to assist the participating teachers in individualizing instruction in their classrooms.

MODE OF OPERATION

The thrust of the CAI project has been to provide individualized instruction in remedial reading and natural science for target students.

Following the 1972-1973 evaluation, the project was substantially revised for 1973-1974 to shift emphasis from the tutorial mode of presentation (in which students receive on-line computer-assisted instruction on a one-to-one basis) to computer management of instruction (in which the teacher uses the computer for

assistance in diagnosis, prescription, and evaluation of individual students' progress in the off-line instruction). The project revision was planned in three parts:

1. Off-line instructional materials. For the CAI mathematics component, appropriate instructional sequences in existing off-line instructional materials were to be identified or developed to match the respective CAI Drill and Practice sequences. For the reading component, instructional sequences for developing decoding skills and for increasing literature appreciation were to be identified in existing instructional materials or to be developed. In biology, additional modules were to be developed to increase the range of available topics.

2. On-line revisions. The entire on-line CAI reading component was to be reviewed and rewritten where necessary. Teacher feedback which had proven to be valuable in past revisions, was considered an important source of information for this revision.

3. Computer-managed instruction (CMI). Computer programs were to be written to assist the teacher in diagnosing student needs, selecting and assigning the necessary instructional materials, and evaluating student progress in the individualized CAI project. To write these programs would require identification and/or development of on-line and off-line instructional materials corresponding to the sequence of objectives stated for the respective content areas (e.g., in reading, the "School District of Philadelphia Reading Competencies").

Staff development and in-class support for teachers are ongoing activities of the CAI curriculum specialists and are considered necessary to the implementation of the individualized instructional program.

PREVIOUS FINDINGS

Past evaluations showed that, where the project was appropriately implemented, CAI students evidenced significantly greater achievement in reading comprehension and in biology than other students. On student-opinion surveys, participants indicated that they enjoyed working with the computer, liked the CAI class better than regular classes, learned skills more quickly in the CAI project than in regular classes, felt they were doing their best work in the CAI class, and were satisfied with skills they learned on the computer.

Teachers' attitudes toward CAI also were favorable. Teachers viewed CAI as an excellent motivational project which enabled the students to succeed, gave them some control over their own learning, and did not criticize their mistakes. Also, the teachers felt that without the computer's record keeping and scheduling, individualization of instruction would not be possible in their classrooms.

Interviews with teachers, supervisors, and curriculum specialists familiar with the program led to a 1973 recommendation of the changes cited in the "Mode of Operation" section of this report.

THE 1973-1974 EVALUATION

The focus of the current evaluation of the Computer-Assisted Instruction project was the effectiveness of the additional off-line instructional materials on student achievement. Participating students' mastery of specific content areas was examined. The achievement of CAI students was compared with that of non-CAI students.

IMPLEMENTATION

Interviews of project staff, CAI teachers, and school administrators, and observations in the CAI classrooms were used to determine whether the project followed the intended mode of operation. Development of off-line instructional materials, improvement of computer-management capability, revision of on-line instructional materials, and individualization of instruction in CAI classes were assessed through the interviews and observations. The project served approximately 1,400 students in six schools.

CAI reading-curriculum specialists reported that criterion-referenced tests were written in three parallel forms, following the School District's Reading Competency Tests in decoding (Levels 2-8) and comprehension skills (Levels 2-7). These tests formed the bases for the identification of specific instructional materials which constituted the instructional sequence for the off-line computer-managed component. Computer-generated prescriptions were developed to identify the appropriate instructional materials for the students based on their diagnosed individual needs. Three levels of difficulty were identified for each of the instructional sequences; the second and third levels were progressively easier than the first level. Students who were not successful at the first level received a second or third level depending on their score on the first-level posttest. Project reading-curriculum specialists selected the off-line computer-managed instructional sequences to articulate with the existing on-line instruction which generally covered Levels 9-14 of the Philadelphia Reading Competency Test in comprehension skills. This on-line component of the project was revised through the introduction of branching, in which students skipped over sequences they had already learned. Also, one of the 18 topics was deleted, since the project staff considered it poorly written and extremely lengthy.

Mathematics-curriculum specialists continued to develop instructional materials for the off-line computer-management component of the Drill and Practice program. Off-line computer-managed instructional materials for the first two years (Grades 1-2) were developed for the mathematics concepts and skills practiced by the students on-line. Computer programs were modified, enabling the Drill and Practice program to provide students with the off-line assignments based on the program's existing pretests for each instructional subunit (block).

Writing was continued for the biology component of the project. Twelve modules, covering general topics such as digestion, respiration, and genetics, were added to the 13 existing modules. These 25 modules provided individualized computer-managed instruction for most of the topics included in the School District's biology syllabus. In response to one teacher's concern that students needed more structure in their independent reading assignments, questions which focused the students' attention on concepts and facts to be learned were added to the work-study sheets. All CAI biology teachers found that these questions enabled their students to complete the independent study materials more successfully.

Interviews with CAI teachers and school administrators, and observations in CAI classes, revealed that the project was partially successful in individualizing instruction. Generally, on-line instruction was completely individualized, but off-line instruction was class oriented.

In most CAI reading classes, students were assigned to two groups--one group worked at the terminals while the other completed a class assignment. The groups alternated at the terminals either every half-period or daily. Teachers found that individualizing off-line instruction to articulate with on-line instruction was not feasible in classes of 30-35 students. Continuity of instruction was difficult because of the limited on-line time (approximately 20 minutes per student) resulting from the student/terminal ratio.

Difficulty in managing off-line instruction was also experienced by CAI mathematics teachers who were new to CAI this year. Again, teachers felt that the task was too time-consuming in large classes with extremely diverse needs and skills. (Their mathematics program served as a remedial program for secondary students.) Hence, students were not observed receiving drill and practice in the concepts and skills taught in their mathematics classes. Students experienced difficulty in some on-line sequences which were modern-mathematics oriented, since their class received traditional instruction.

The CAI teacher at one school left the system in midyear. Substitute teachers were assigned to her classes for the remainder of the year, during which little additional work was recorded on the computers.

In CAI biology classes, already computer-managed, the difficulties observed in individualizing instruction stemmed from other factors, such as new teachers in the project, and acquisition and storage of materials for biology-laboratory activities. The difficulties were extreme at one new project school, in which the CAI room had no storage facilities. The teachers, trying to learn the system, also had to assemble all needed instructional materials every day. Textbooks for the independent reading assignments, laboratory-activity materials (including water), assignment and work-study sheets, student folders, and paper programmed-instruction booklets (the third-level remedial assignments) were transported by

the teachers to the CAI classroom/laboratory. Teachers in this situation decided to have one or two "lab days" per week, rather than conducting daily, individual laboratory activities related directly to the reading assignments. In two schools with the biology program, the terminals were in the biology laboratories. In these schools (one new to the project) students were observed in completely individualized instruction, for both reading assignments and laboratory activities.

Most of the interviewed teachers expressed the desire for a substantial increase in staff development to promote understanding of terminal operation, and hence their effectiveness as CAI teachers. The teachers felt that several days at the Computer Center (Fifth and Luzerne Streets) would provide the necessary understanding and skills required to fully utilize the computer in their CAI classes.

ATTAINMENT OF OBJECTIVES

Objective 1: To have participating students meet specified criteria of mastery within the instructional units of the respective content courses: reading, 80% (with seven instructional units completed); remedial mathematics, 95% (with 30 instructional subunits completed); biology, 70% (with ten instructional units completed).

Participating students attained the specified criteria of mastery in remedial mathematics and in biology. However, computer reports for the criterion-referenced tests of the 810 students participating in CAI reading, generated by the project's internal evaluation system, indicated that the average scores, ranging from 48% to 81% correct, did not meet the 80% criterion of mastery in seven of the first eight instructional units (termed topics by the project). An average of three instructional units were completed by the participating students during the year, versus the seven units expected.

Computer reports for the criterion-referenced tests of the 429 students participating in CAI remedial mathematics indicated that the criterion of 95% mastery was exceeded in each of the first four instructional units (years). An average of 27 subunits (termed blocks by the project--24 blocks included in each year) were completed by the participating students during the year. It was expected that 30 subunits would be completed.

Computer reports for the criterion-referenced tests of the 208 students participating in CAI biology indicated that, on the average, the criterion of 70% mastery was exceeded in each of the first 14 instructional units (modules). The students completed an average of nine instructional units during the year, but 10 units were expected to be finished.

In CAI remedial mathematics and biology, students surpassed the respective criteria for mastery within the instructional units, as measured by project-developed

criterion-referenced tests. Fewer than the projected number of instructional units were completed; this may have been the result of difficulties in implementation. Of the two schools participating in the remedial mathematics component, one lost its CAI teacher in February and used many substitutes until June, and the other school's CAI teacher was new to the project. CAI biology was a new subject in two of the three participating schools.

One of the factors contributing to the nonattainment of the desired 80% score on the criterion-referenced reading tests may have been the relatively slow pace of the students through the units. Students came to the CAI room two or three times per week; they were on-line for approximately 20 minutes at a time. Off line instruction was not related to the on-line topics; this may also have contributed to scores below the criterion, since the project staff had intended high correlation between on-line and off-line instruction.

Objective 2: To have participating students exceed the achievement of comparable groups of students in the respective content areas (reading, remedial mathematics, and biology) on both nationally normed and locally developed tests.

On a locally developed test, the project attained this objective in CAI reading but not in remedial mathematics or biology. Comparisons were made between 29 CAI classes and 11 non-CAI classes selected on the basis of grade (7, 8, 9, 11) and reading level. Because of the participating schools' rostering procedures, which placed students in one of three reading programs based on their reading levels, exact matching of CAI and non-CAI classes was not possible, since most students with the same ability level were placed in the same program. Consequently, the non-CAI comparison classes had higher reading levels than CAI classes. However, since the differences between the groups were small, a repeated-measures technique was used to determine the significance of differences in pretest-to-posttest gain by the two groups.

The CAI Comprehension Test was developed specifically to measure student achievement of the reading-comprehension skills presented in the first seven instructional units of CAI reading. Items were written by the project's reading-curriculum specialists. Item analyses enabled the staff and the evaluators to select 40 items with low-to-moderate difficulty levels, which discriminated between high- and low-achieving students in terms of the selected comprehension skills. The number of items was limited, so that most students could complete the test in a normal, 40-minute class period. A reliability estimate (KR-20) of .92 was obtained using approximately 500 of the CAI and non-CAI students' posttest responses.

CAI teachers administered the test to their classes in September and June. The teachers and the evaluators selected the most appropriate non-CAI comparison classes from the respective grades and schools. These students were tested by their regular reading teachers.

A three-factor, repeated-measure analysis of variance was used with grade level and program (CAI or non-CAI) as the main effects, and the CAI pretest/posttest as the repeated measure. A .20 significance level was selected to minimize the chances of failing to detect differential effects of the project. Class-mean score (average number correct) served as the unit of analysis.

The results, shown in Table 1, indicated that the students participating in CAI reading made significantly greater gains ($p<.08$) than the non-CAI students, as measured by the CAI Comprehension Test, exceeding the level of significance anticipated (.20). No significant grade effects were found. The CAI students gained an average of 3.9 correct items, while the non-CAI students gained 2.6 correct items. However, caution should be taken in drawing conclusions from this result, since the format of the CAI test closely paralleled the format of the CAI on-line criterion-referenced tests. This may have contributed to the CAI students' gain.

CAI and non-CAI gains on the CAT-70 Comprehension subtest were not compared, because there were no baseline data from the 1972-1973 school year.

In CAI remedial mathematics, 84 participating secondary students were compared with 73 nonparticipants in a posttest-only design. Pretesting was considered unnecessary, since the students had already been diagnosed as requiring instruction in skills included on the test, and since students were randomly assigned to classes within achievement levels. All students tested were from the lowest achievement-level track. The Philadelphia Mathematics Power Test was selected, on the recommendation of a mathematics supervisor and a department head, and was administered in June by CAI and non-CAI mathematics teachers. The test, free-response in format, had 14 "levels", each with four items in ascending order of difficulty. The directions specified that when a student reached an item which he could not complete he should proceed to the next level.

No difference was found between CAI remedial mathematics and non-CAI students (t test, $p>.20$). Examination of the tests revealed that most students scored extremely low and answered most items in sequence, indicating that the students may not have followed the intended testing procedure. This may have contributed to the lack of difference between the CAI and non-CAI students' scores. Although the results were not significantly different, teachers believed that students profited from CAI participation, because it provided mathematics practice and motivation.

In CAI biology, 74 participating secondary students (four classes) were compared with 95 non-CAI students (five classes) in one school, utilizing a repeated-measures design. Non-CAI classes, selected by the science department head, were on an ability level comparable to that of the CAI classes.

The CAI Biology Test was developed to assess achievement in terms of the biology syllabus of the School District, which CAI biology closely paralleled. The test, multiple-choice in format, had 53 items and was determined to be reliable (KR-20 reliability = .91).

Two CAI teachers administered the CAI Biology Test to both the CAI and non-CAI classes in February and June. Results of the repeated-measures analysis of variance indicated there was no significant difference in gain from pretest to post-test between CAI and non-CAI classes. Lack of difference was probably due to the limited amount of the biology syllabus covered by the CAI classes, because of the late start-up date (midyear) and the newness of the project. The science department head and teachers reported that the non-CAI classes covered a greater proportion of the syllabus because of the didactic teaching approach used in those classes. However, they felt that the individualized laboratory activities, reading assignments, and programmed texts experienced by CAI students were more important and beneficial to the students than the usual rote-learning methods. Therefore, the results of this analysis may be viewed favorably, since CAI participants equaled the achievement of non-CAI students on the test, and also profited from the individualized learning experiences.

Objective 3: To have participating teachers individualize instruction within project classrooms.

On-line instruction was individualized, but off-line instruction was mostly class oriented. The partial attainment of this objective is described in the Implementation section of this report.

SUMMARY AND CONCLUSIONS

Individual attention, and instructional materials matched to specific needs, must be provided to improve target-area students' chances of school success. Computer-assisted instruction offers both the structure and the flexibility required for individualizing instruction within a mass-education system. The current evaluation focused on three issues: (a) whether participating students attained specified levels of mastery, (b) comparison of the achievement of CAI and non-CAI students in the three content areas (reading, remedial mathematics, and biology), and (c) the project's success in individualizing instruction in CAI classes.

The project staff developed additional off-line instructional materials for the three content areas, improved computer-management capability, revised on-line instructional sequences, and aided CAI teachers in individualizing instruction.

Observations and interviews in CAI classes revealed that teachers were only partially successful in attaining individualized instruction. On-line instruction was individualized, but off-line instruction generally was group oriented and

unrelated to the on-line instruction. Most CAI teachers found that they could not individualize off-line instruction because individualization was too time-consuming and not feasible in classes of 30-35 students. Several teachers reported difficulty in managing the large quantity of instructional materials required for individualized instruction. One school new to the program experienced difficulty in providing adequate classroom facilities for the project.

In spite of inadequate school facilities and teacher difficulties in individualizing off-line instruction, the project was able to attain partial success in its student-achievement objectives. Participating students on the average attained the specified criteria of mastery on criterion-referenced tests in remedial mathematics (95%) and biology (70%), but not in reading (80%). In all areas, students on the average completed fewer than the projected number of instructional units.

CAI students made greater gains than non-CAI students in reading, as measured by the CAI Comprehension Test. Although differences between CAI and non-CAI students in mathematics and biology were not significant, teachers and administrators who were interviewed thought that the students profited not only from the individualized activities but also from the motivation received from CAI. CAI biology teachers and a science department head thought that their students particularly profited from individual reading assignments and laboratory activities. In addition to having responsibility for their own learning, CAI students learned science concepts in depth and practiced science process skills (hypothesis formation, data collection, etc.) which are usually not possible in didactic teaching approaches. CAI students also learned at least as much about the "facts" of biology, as measured by the CAI Biology Test, as non-CAI students.

Teacher difficulty in managing individualized off-line activities could be alleviated somewhat by the implementation of computer-managed instruction (CMI) during the 1974-1975 school year. However, maximum effect of the project appears to require both increased student exposure to the on-line instruction (many students received less than 20 minutes of on-line instruction per week) and more intensive staff development (several teachers felt that they needed additional instruction to be most effective with CAI).

TABLE 1

MEAN RAW SCORES ON CAI COMPREHENSION TEST

Item	633 CAI Students	279 Non-CAI Students
Pretest (September)	22.6	25.4
Posttest (June)	26.5	28.0
Gain	3.9*	2.6

*Significantly greater ($p<.10$) than comparison students' gain.

COUNSELING SERVICES

Each of 14 nonpublic schools is served by a team of counselors for approximately two days a week. One member of the team is an educational consultant; the other is a community consultant.

THE PROJECT

RATIONALE

Many target children fail to achieve their potential in school because their emotional or social problems develop to such an advanced state that adjustment and performance in school are seriously impaired. Individual diagnostic and remedial measures then become necessary to restore the children to an adequate functioning level.

The school and the home must cooperatively foster the children's proper development. With appropriate preventive measures, many of their problems can be alleviated before they become major problems. The Counseling Services project provides remedial and preventive services when needed by the target children, both at school and at home.

EXPECTED OUTCOMES

It is expected that project services will help to prevent the development of chronic emotional, social, or academic disability in target children, and will help to alleviate the children's existing problems.

MODE OF OPERATION

The project works closely with teachers, principals, and parents in providing psychodiagnostic and counseling services in order to alleviate the emotional and/or academic problems which interfere with some target children's adjustment in school. Direct services are provided to these children upon referral by their teacher, principal, or parent.

The CSP teams attempt to share mental health principles and practices (e.g., child development, classroom management) with teachers and parents to enhance the positive development of the children.

PREVIOUS FINDINGS

In 1968-1969, a formative evaluation revealed that the project was established in 14 nonpublic schools. In 1969-1970, questionnaire data suggested that greater community involvement and more effective counseling schedules were needed to

meet the many requests for CSP services. In 1970-1971 80% of the teachers and principals from participating schools felt that children had grown socially as a result of CSP small-group discussions.

In 1971-1972, the CSP teams in every school provided individual testing, counseling, and consulting services for pupils with psychological problems. Small-group discussions, faculty in-service training, and individual teacher consultations were provided for teachers of target grades (K-3) in every CSP school. More than 80% of the participating school personnel who were interviewed expressed satisfaction with the help their children received, and at least 90% expressed a desire for permanent CSP services in their schools.

In 1972-1973, two major changes were made in the project's operation: (a) rather than being restricted to lower elementary grades, the project was made available to all grades in participating schools; (b) rather than providing services on a prescribed basis, the project provided services as requested by individual schools. Most of the staffs had favorable attitudes toward CSP's progress; nearly 100% of those interviewed felt the project was more valuable during 1972-1973 than it had been the previous year.

THE 1973-1974 EVALUATION

The current year's evaluation focused on the diagnostic, remedial, and preventive activities of the Counseling Services project. The evaluator interviewed a sample of pupils referred for individual help, the teachers of those pupils, and a sample of pupils participating in group preventive activities. Data were gathered also from questionnaires completed by parents of referred pupils, from behavior ratings of children referred by their teachers for behavioral problems, and from detailed records compiled by CSP personnel concerning referrals and their own preventive activities.

IMPLEMENTATION

Six of the seven CSP teams were assigned to their schools before September. The seventh team was assigned to its pair of schools before the end of September; the work accomplished by this team during the remainder of the year was commensurate with that done by all of the other teams during the year.

In 1973-1974, some continuity in staff personnel was maintained from last year in 12 of the 13 schools again participating in the project. (This was the first year of project participation in the 14th school.) Nine of the 15 CSP team members had been assigned to the same schools last year and three of the new members were teamed with one of these staff members. In addition to the regular project services, the CSP teams provided a crisis-intervention service as the need for it arose. Of approximately 35 incidents which required such short-term, on-the-spot attention, nearly

half arose from a request by a teacher or principal that the counselors investigate the cause of a particular child's problem (e.g., chronic absence, a beating by parents, classroom misbehavior). Sometimes, the parents asked the counselors to help their child adjust to school. Also, counselors were called upon to settle fights and to help the children with problems that they themselves came to discuss, such as personality conflicts with the teacher or problems at home.

ATTAINMENT OF OBJECTIVES

The evaluator made 28 visits to the 14 participating schools. Two visits were made to each school: the first lasted 2 to 3 hours, the other lasted a full day. During the visits, 26 interviews were conducted with principals and 164 interviews were conducted with 122 of the 179 teachers. Also, individual interviews were conducted with 249 pupils who had been referred to the CSP teams for help and 147 pupils who were randomly selected from classrooms in which children had participated in various group activities in preventive psychological services. Data obtained from these interviews were used to evaluate Objectives 1, 2, and 3.

Questionnaires were sent to the parents of 372 pupils who had been referred to the CSP teams. Of these, 176 (47%) were returned. Data obtained from these questionnaires were used to evaluate Objective 2. Questionnaires were also sent to the 14 principals and 179 teachers in the participating schools. Twelve principals (86%) and 144 teachers (80%) returned them. Data obtained from these questionnaires were used to evaluate Objectives 1, 2, and 3.

Teachers completed two measurements for 229 pupils on the Devereux Behavior Rating Scale. (They had been requested to complete one measurement at the time of referral and a second at the beginning of May or when the pupil's case was closed.) Data obtained by this procedure were used to evaluate Objective 2.

The evaluator asked CSP personnel to keep certain types of records: (a) an individual case-record form for each referred pupil which summarized the type of referral, methods of diagnosis and treatment, and disposition of the case (used to evaluate Objectives 1 and 2), and (b) an activity log book which summarized the various kinds of preventive psychological services activities conducted and the number of participants (used to evaluate Objective 3).

The formal objectives of the project are stated as process objectives--that is, the project goal is to provide certain services. In all schools, the teams fulfilled their responsibilities prerequisite to attaining the project's objectives.

Objective 1: To provide psychodiagnosis of emotional, social, and academic problems. It is anticipated that at least 350 pupils will receive psychodiagnostic services.

The project has met this objective both in the number of referred pupils receiving psychodiagnostic services and in the quality of services provided, as perceived by a sample of the teachers of referred pupils.

Individual case records of referred pupils compiled by CSP personnel revealed that, as of May 1, 1974, 377 pupils had received psychodiagnostic services. Pupils were referred to the CSP staff because of behavioral problems (228 pupils), academic problems (208 pupils, including many who had also been referred for behavioral problems), physical problems (15 pupils) and/or other problems (66 pupils). The total number referred exceeded the number anticipated to receive service. The number of pupils receiving each type of psychodiagnostic service is shown in Table 1.

During March and April 1974, each of the cases of 255 referred pupils were discussed by the evaluator with each pupil's classroom teacher. The teachers were aware that only 91% of the 255 pupils had received psychodiagnostic services.

Teachers' ratings of the effectiveness of CSP psychodiagnostic services are summarized in Table 2. In questionnaire and interview responses, teachers indicated that approximately 80% of the pupils that teachers perceived they had referred for psychodiagnostic service received "excellent", "very good", or "good" service from CSP.

When interviewed, the referring teachers were well aware of psychological evaluations (i.e., testing) that had been done for their pupils but were less aware of the other types of psychodiagnostic services the teams had provided. This may reflect the need for more communication between CSP personnel and teachers.

Teachers completing a questionnaire estimated that 522 pupils (rather than the actual 377) received psychodiagnostic services. This overestimation probably reflects informal or unrecorded contacts with CSP personnel as well as the favorable feeling with which the teachers regarded the project's effectiveness.

Objective 2: To provide remedial help in overcoming emotional, social, and academic problems. It is anticipated that at least 325 pupils will receive individual remedial help. In addition, it is anticipated that at least 50% of the pupils receiving remedial help will, by the end of the school year, improve in at least one of the behavioral factors (as measured by the Devereux Scale) in which those pupils had previously shown unsatisfactory behavior, as determined by the classroom teacher.

The project has met this objective both in the number of referred pupils receiving remedial help and in the effectiveness of that help.

Pupils' case records compiled by CSP personnel revealed that, as of May 1, 1974, 331 pupils had received remedial help. They were helped by the CSP staff to overcome problems: 208 pupils were helped with behavior problems, 184 pupils with

academic problems (including many who had also received remedial help for behavioral problems), 14 pupils with physical problems, and/or 56 pupils with other problems. The total number of pupils receiving help exceeded the number anticipated to receive these services. The number of pupils receiving each type of remedial help is shown in Table 3. A sample of the cases of 240 pupils indicated need for remedial help and were discussed by the evaluator with each pupil's teacher. The teachers were aware that only 85% of the 240 pupils had received remedial help.

Teachers' ratings of the effectiveness of CSP remedial services are summarized in Table 4. In questionnaire and interview responses, teachers indicated that approximately 85% of the pupils they perceived had remedial help had received "excellent", "very good", or "good" service from CSP.

In most cases, the referring teachers were aware of individual counseling that their pupils had received but were less aware of the other types of remedial services the teams had provided. This may reflect the need for more communication between CSP personnel and teachers. Teachers completing the questionnaire estimated that 356 pupils (rather than the actual 331) received remedial help. This overestimation probably reflects informal or unrecorded contacts with CSP personnel as well as the favorable feeling with which the teachers regard the project's effectiveness.

During March and April 1974, the evaluator interviewed 249 pupils (in Grades K-8) who had been referred to the CSP teams. Of these pupils, 97% knew who the counselors were, 94% said that they did things with them (e.g., discussions, self-awareness activities), 91% reported that they liked doing things with the counselors, 86% felt that the counselors helped them get along with the other children, 84% felt that the counselors helped them do better in school, and 64% thought that the counselors helped their teachers. The number of pupils interviewed in each grade is shown in Table 5.

Of the parents who returned their questionnaires, 91% responded that they knew that their children had contact with at least one of the counselors and 70% felt that their children had been helped by them (as shown by improved grades and greater interest in school). Seventy-four percent of the parents reported that they were satisfied with the counselors' work; 29% wrote that there was more that they would like the counselors to do (e.g., continuing to work with their children, helping them in academic work, and keeping the parents informed about their children's progress).

Classroom teachers completed two measurements for 229 pupils on the Devereux Behavior Rating Scale (144 pupils were referred for behavioral reasons, 85 for other reasons). Of the 229 pupils, 197 (86%) improved in at least one behavioral factor in which they had previously shown unsatisfactory behavior. This number exceeds the number anticipated to show this improvement.

Of the 144 pupils referred for behavioral reasons, 116 pupils (81% of those 144 pupils for whom pairs of Devereux measures were available) improved to normal in at least one behavioral factor in which they had initially scored below the normal range. In at least one behavioral factor, 11 pupils (8% of the 144) improved from two standard deviations from normal to one standard deviation from normal. In all, 127 pupils (88% of the 144) improved in at least one behavioral factor in which they had previously shown below-normal behavior.

Of the 85 pupils referred for nonbehavioral reasons, 67 pupils (79% of those 85 pupils for whom pairs of Devereux measures were available) improved to normal in at least one behavioral factor in which they had initially scored below the normal range. In at least one behavioral factor, three pupils (4% of the 85) improved from two standard deviations from normal to one standard deviation from normal. In all, 70 pupils (82% of the 85) improved in at least one behavioral factor in which they had previously shown below-normal behavior.

The end-of-year disposition of the referred pupils' cases are summarized in Table 7 according to the reason(s) for their respective referrals.

Objective 3: To provide preventive psychological services to pupils, teachers, and parents. It is anticipated that at least 2,000 pupils, 75 teachers (approximately 50% of the total school faculties), and 400 parents will receive preventive psychological services.

The project has met this objective both in the number of persons receiving preventive psychological services and in the effectiveness of those services.

Statistical records compiled by CSP personnel revealed that as of May 1, 1974, more than 3,400 pupils, 150 teachers, and 1,600 parents received preventive psychological services. These numbers exceed the numbers anticipated to receive these services. The teams made more than 2,200 teacher consultations, more than 1,000 principal consultations, and more than 600 contacts with outside resources.

More than 35 different types of preventive psychological services were provided directly to pupils by CSP. Table 7 gives a sampling of the preventive psychological services provided, the number of schools in which each of these services was provided, and the approximate number of pupils served. Various preventive psychological services were provided for parents (e.g., adult discussions, career guidance). Also, preventive psychological services were provided to teachers (e.g., films, discussions, workshops). According to the 156 teachers responding to a questionnaire, the most beneficial preventive psychological services were teacher-education films and discussions, classroom consultations, parent-child orientations, and small-group discussions.

During March and April 1974, the evaluator personally interviewed 147 pupils (in Grades K-8) who were in classes participating in group activities. Of these pupils, 99% knew who the counselors were, 97% said that they did things with them (e.g.,

made things, went places, discussed feelings), 97% reported that they liked doing things with the counselors, 93% felt that the counselors helped them get along with the other children, 87% felt that the counselors helped them do better in school, and 78% thought that the counselors helped their teachers. The number of pupils interviewed in each grade is shown in Table 5.

SUMMARY AND CONCLUSIONS

The Counseling Services project was initiated during 1968-1969 in 14 nonpublic elementary schools to provide a variety of psychological and educational services to primary grade pupils in order to prevent the development of emotional, social, or academic problems and to provide remedial services where possible. When pupils were referred by teachers, principals, and parents, the project staff worked to provide psychodiagnostic, casework, and counseling services directly to children. The project also attempted to share mental health principles and practices with teachers and parents in order to enhance the positive development of the children in their charge.

CSP was well received from its inception in the participating schools because it provided desperately needed services that would not otherwise be available. CSP services were available to all grades in the participating schools and were provided upon teacher request.

The 1973-1974 evaluation focused on the psychodiagnostic, remedial, and preventive activities of CSP. The project has provided psychodiagnostic services for more than 350 pupils, subsequent remedial help for more than 325 pupils (more than 50% of whom improved in at least one behavioral factor in which they had previously demonstrated unsatisfactory behavior), and preventive psychological services for over 2,000 pupils, 75 teachers and 400 parents. A possible recommendation for the future might be to keep the teachers better informed about the counselors' activities in helping each child.

CSP has successfully met all of its stated objectives and was enthusiastically received by pupils, parents, and teachers.

TABLE 1

NUMBER OF REFERRED PUPILS
RECEIVING PSYCHODIAGNOSTIC SERVICES

Type of Psychodiagnostic Service	Reason for Referral*			
	Behavioral (228 pupils)	Academic (208 pupils)	Physical (15 pupils)	Other (66 pupils)
Psychological Evaluation (N = 88)	35	75	3	9
Classroom Observation (N = 196)	131	106	9	29
Pupil Interview (N = 247)	161	137	8	32
Educator Interview (N = 337)	204	193	14	57
Parent Interview (N = 276)	175	153	12	43
Professional Consultation:				
Outside Agency (N = 109)	66	68	6	17
Reading Specialist (N = 31)	11	27	2	4
Psychiatrist/ Physician (N = 25)	22	11	1	2
Project Supervisor (N = 96)	67	51	5	16
Social Worker (N = 66)	51	26	2	5

*Column totals are greater than 378 because many pupils were referred for more than one type of problem, and many received more than one type of psychodiagnosis.

This table indicates only the number of pupils receiving these services at least once. It gives no indication of the number of times the pupils received each service.

TABLE 2

ESTIMATES BY TEACHERS OF THE EFFECTIVENESS OF CSP PSYCHODIAGNOSTIC SERVICES FOR PUPILS

Rating	Source of Rating	
	Questionnaire* (For 522 pupils perceived by teachers as receiving services)	Interview (For 231 of the named referred pupils for whom teachers gave a rating)
Excellent/Very Good	223 (43%)	99 (43%)
Good	211 (40%)	83 (36%)
Fair	68 (13%)	11 (5%)
Poor	7 (1%)	1 (0%)
Don't Know/Too Soon to Tell/Not Applicable/ Omitted Response	13 (2%)	37 (16%)

*The numbers cited by the teachers exceed the actual caseload of 377 of pupils actually recorded by the CSP staff. These numbers, then, reflect the perceptions of the teachers regarding the effectiveness of the actual and general services received.

TABLE 3

NUMBER OF REFERRED PUPILS
RECEIVING REMEDIAL SERVICES

Type of Remedial Service	Reason For Referral*			
	Behavioral (208 pupils)	Academic (184 pupils)	Physical (14 pupils)	Other (56 pupils)
Pupil Group Counseling (N = 104)	78	47	2	21
Pupil Individual Counseling (N = 205)	144	106	3	31
Family Counseling (N = 184)	113	102	8	33
Referred to Outside Agency (N = 103)	66	56	9	26
Receiving Educational Remedial Help (N = 79)	29	66	6	10
Teacher Consultation (N = 215)	146	107	6	37
Classroom Observation (N = 53)	47	17	3	3

*Column totals greater than 331 because many pupils were referred for more than one type of problem, and many received more than one type of remedial help.

This table indicates only the number of pupils receiving these services at least once. It gives no indication of the number of times the pupils received each service. Many pupils received remedial services many times, often over extended periods of time. This degree of "intensity" of service is not reflected here.

TABLE 4

ESTIMATES BY TEACHERS OF THE EFFECTIVENESS OF CSP REMEDIAL SERVICES FOR PUPILS

Rating	Source of Rating	
	Questionnaire* (For 356 pupils perceived by teachers as receiving services)	Interview (For 204 of the named referred pupils for whom teachers gave a rating)
Excellent/Very Good	155 (44%)	89 (44%)
Good	141 (40%)	85 (42%)
Fair	37 (10%)	5 (2%)
Poor	11 (3%)	0 (0%)
Don't Know/Too Soon to Tell/Not Applicable/ Omitted Response	12 (3%)	25 (5%)

*The numbers cited by the teachers exceed the actual caseload of 331 pupils actually recorded by the CSP staff. These numbers, then, reflect the perceptions of teachers regarding the effectiveness of the actual and general services received.

TABLE 5

NUMBER OF PUPILS
INDIVIDUALLY INTERVIEWED
BY GRADE LEVEL

Grade	Referred Pupils (249 pupils)	Randomly Selected Pupils Who Participated in Preventive Group Activities (147 pupils)
K	8	11
1	37	28
2	39	17
3	40	18
4	40	16
5	26	18
6	27	14
7	13	4
8	19	21

TABLE 6

END-OF-YEAR CASE DISPOSITION
FOR REFERRED PUPILS

Disposition of Cases	Reason for Referral*			
	Behavioral (208 pupils)	Academic (184 pupils)	Physical (14 pupils)	Other (56 pupils)
Treatment in Progress (N = 302)	131	121	9	41
Case Closed (Improved) (N = 139)	62	60	6	11
Case Closed (Other Reasons) (N = 65)	31	21	0	13
Disposition Not Documented (N = 10)	4	5	0	1

*Numbers add to more than total because many pupils were referred for more than one type of problem.

TABLE 7

APPROXIMATE NUMBER OF PUPILS AND
NUMBER OF SCHOOLS IN WHICH
THOSE PUPILS RECEIVED PREVENTIVE PSYCHOLOGICAL SERVICES
(3401 pupils)

Number of Schools	Approximate Number of Pupils*	Type of Preventive Service
12	865	Classroom counseling (i.e., affective education) and discussions
10	540	Developing Understanding of Self and Others Program (DUSO)
10	470	Classroom activities for self-awareness and understanding (e.g., dramatics, role playing, games, photography, poetry-writing, etc.)
9	610	Guidance filmstrip/slide presentations
8	440	Small-group counseling and discussions
5	170	High school arrangements/interviews/guidance
5	280	Career guidance activities
5	75	Tutoring of younger pupils by older pupils
4	30	Language development/motivation/learning to learn programs for low achievers
3	30	Remedial instruction for groups in reading
3	120	Interschool Peace Program
3	400	Kindness awards
3	100	Videotaping of pupils in class to help pupils evaluate their own behavior

*Numbers add to more than total because many pupils received more than one preventive psychological service.

This table indicates only the approximate number of pupils receiving these services at least once. It gives no indication of the number of times these pupils received each service. Many pupils received preventive psychological services many times over extended periods of time. The degree of "intensity" of service is not reflected here.

COUNSELOR AIDES

The Counselor Aides project provides aides for junior and senior high school counselors. Counselor aides act as receptionists, handle routine counseling-office matters, and perform clerical duties.

THE PROJECT

RATIONALE

The assigned counselor/student ratio in the target-area junior and senior high schools is 1/400. Because some of the counselors specialize in college or vocational counseling, general counselors have caseloads which are larger than those originally assigned to them. Time demands are placed on the counselors because they must perform clerical and receptionist duties and also make professional contacts with students.

Secondary-school students who are deficient in basic skills need extensive counseling services. They often require monitoring and intensive follow-up once engaged in a program, to insure that their needs are met.

The project addresses itself to counselors who have heavy caseloads, and whose students require extensive counseling services. The aides relieve the counselors of some nonprofessional tasks, thereby providing counselors with more time for professional counseling, and assist in responding to routine requests received by the counseling office.

EXPECTED OUTCOMES

It is expected that counseling services for the target students will be improved and extended. The counselor, relieved of many noncounseling duties by the counselor aide, should be able to increase the number of counseling sessions held with students.

Close monitoring of target students' progress will make possible an accurate record of the problems of specific groups of students. It is expected that information provided by the records will be helpful in keeping the school curriculum relevant to student needs.

As a result of working more closely with the target students, the counselors will better understand them. The counselors will become a valuable resource for both the administration and the faculty in handling situations involving those students.

It is expected that a two-way exchange of ideas concerning the needs of target students will lead to closer communication between teachers and counselors.

MODE OF OPERATION

The project model calls for 25 counselor aides to be assigned to 25 target secondary schools, resulting in an aide/counselor ratio of approximately one to four.

Aides are to screen and appropriately refer all requests coming into the counseling office. They secure factual information needed by the counselors from school personnel and/or records. Aides perform clerical duties for the counselors, including typing, filing, and updating of files.

In each participating school, the counselors identify those students having the most critical need for the project's services. Under the counselor's direction, the aide prepares a counseling worksheet for each target student, schedules counseling appointments, and provides the counselor with relevant information about the student prior to counseling conferences. When the counselor does not plan continuing contact with the pupil, the counselor aide arranges appropriate follow-up.

PREVIOUS FINDINGS

Previous evaluations indicated that counselor aides performed receptionist and secretarial duties for the counselors. Counselors with aides engaged in significantly fewer clerical activities, involving less time, than counselors without aides. Counselors viewed the aides' services as invaluable. When counselor aides were present, visitors often waited less than one minute before receiving assistance. However, no significant difference was found between the amounts of time counselors with aides and counselors without aides spent in professional activities.

THE 1973-1974 EVALUATION

The current evaluation of the Counselor Aides project focused on the frequency and type of activities performed by counselor aides, perceptions of the aides' function, and the amount of the aides' involvement in the counseling program.

IMPLEMENTATION

Guidelines for implementation of the project were distributed to the schools in October 1973.

These guidelines required counselors and principals to determine the target group for their school according to specific criteria such as grade level, previous school record, and achievement-test scores. The overall goal was

to improve and extend counseling services to those target students who scored below grade level in the basic skills (e.g., in one school, service was provided only to 10th graders who scored at least two years below grade level).

It was the aide's duty to prepare a counseling worksheet for each student in the target group, to follow up each student with appointments, to collect additional information (e.g., attendance report, psychological report) and, if needed, to refer the student back to the counselor.

From February through April 1974, the project director met with the counseling staff in each school to assist them in identifying the students and in implementing a program for target students.

Interviews with 14 aides and 54 counselors revealed general agreement that the aide frequently performed clerical and secretarial duties as part of her job. These duties were defined as making phone calls and appointments for the counselor, typing, filing, keeping an inventory of office needs, and transmitting information to teachers. Activity logs kept by 13 aides revealed that an average of 23% of their time was spent doing clerical and secretarial tasks.

Eleven of the 14 aides and 40 of the 54 counselors who were interviewed reported that aides were frequently involved in handling routine counseling-office matters such as processing late students and early dismissals, handling grant applications, transcripts, and attendance reports, and maintaining records of test scores. Counselor responses were consistent with the evaluators' observations that because most aides received their work assignments directly from each counselor, the nature of the tasks and the amount of responsibility given the aide varied. This variation was most noticeable in the area of routine counseling-office matters. Activity logs kept by the 13 aides showed that 10% of the aides' time was spent handling routine counseling-office duties.

ATTAINMENT OF OBJECTIVES

Objective 1: To assist counselors in delivering service to educationally deprived pupils with particular attention to newly admitted pupils.

Thirteen of the 24 schools participating in the Counselor Aides project were randomly chosen for evaluation of aide services to target students. Data were collected from interviews with school personnel and from activity logs kept by the aides.

A questionnaire was developed by the evaluation team listing 24 job tasks which could be performed by counselor aides. Response choice included three degrees of involvement: none, occasionally, and frequently. Selection of items was based on (a) consultations with the project director concerning counselor aides' responsibilities and (b) the evaluators' observations from previous project monitoring. Five areas of responsibility were included in the questionnaire: service to students, receptionist

duties, gathering and preparation of student information, clerical and secretarial duties, and routine counseling matters. Items related to servicing target students included the maintenance of files, providing counselors with worksheets, and following up referrals.

The questionnaire was used by the evaluators during interviews with 14 aides, 54 counselors, 12 school administrators, and eight faculty members. In the 13 schools selected for evaluation, all of the aides and counselors were interviewed. Wherever possible, a school administrator and a randomly chosen faculty member were interviewed.

Questionnaire responses by aides, counselors, administrators, and faculty members were tabulated and averaged in each of the five general areas of responsibility.

An activity log was developed by the evaluators which contained representative items from each of the five areas of job responsibility included in the questionnaire. As with the questionnaire, items on the log pertaining to servicing target students included preparation of worksheets and following up referrals. Thirteen of the counselor aides recorded the time spent in these activities during three-hour periods on five consecutive days. The average percentage of time aides spent delivering service to target students was computed from data gathered on the activity logs.

Aides and counselors as a group tended to agree with administrators and faculty members as a group in regard to the role and function of the aide. This agreement indicated good communication and understanding on the part of school personnel as to how the aide should and did operate.

Nine of the 14 aides (64%) and 35 of the 54 counselors (also 64%) who were interviewed reported that aides were involved in delivering service to target students. As noted in the Implementation section of this report, there was inconsistency among schools in both the initiation and the degree of implementation of the project. Interviews throughout the year reflected this variation. Ten of the 13 activity logs which were kept during the latter part of the spring semester indicated aides' participation in tasks related to target students. Among those aides who so participated, an average of 19% of the time was spent in activities related to such service of target students.

Attainment of this objective was limited because of the delays in initiating the project. Since the project was functional in all sampled schools by the late spring, it was concluded that aides were assisting counselors in delivering service. Thus, by the end of the school year, this objective was attained.

Objective 2: To give immediate and direct service to pupils, parents, teachers, and others who enter or telephone the counseling area. Direct service is defined as granting permission to see counselor, making appointments, or sending the person to another office.

The interview questionnaire and activity logs used in the 13 sample schools provided information pertaining to aides' reception of persons telephoning or entering the counseling area. Items from the questionnaire include receiving incoming students, answering phones, and dealing with parents coming to see the counselor. The amount of time spent in answering the phone was recorded on the activity log. Additional information was obtained through a visitor log which was developed by the evaluation team. It was designed to record the type of visitor, whether the visitor had an appointment, the reason for entering, disposition of the inquiry, and waiting time. The 13 aides who kept activity logs also kept the visitor logs for three-hour periods of time on five consecutive days. Some of the information gathered from the visitor logs kept by 13 counselors is summarized in Figures 1, 2, and 3.

These results indicate that half the persons who enter the office have come to see the counselor. The other half have come for various reasons and are very effectively and expeditiously served by the aide. Each aide received an average of 27 visitors during the three-hour time sample. The volume of traffic was so intense and the interruptions were so frequent that without an aide a visitor could sit for long periods of time before seeing the counselor or otherwise obtaining needed information. With the aides, the average waiting time for visitors was four minutes.

All 14 aides and 54 counselors who were interviewed reported that the aides provided receptionist services to persons telephoning or entering the counseling area. The activity logs showed that an average of 17% of the aides' time was spent in answering the telephone. The aide provides services that not only enable the counselor to increase the number of children receiving professional counseling services but also afford the counselor and the counseling office the opportunity of giving immediate, direct, and necessary services to the school.

From information gathered on the interview questionnaire, activity log, and visitor log, it was concluded that the aides were successfully meeting the objective of providing immediate and direct service to persons either coming into the counseling area or telephoning it. This objective was fully attained.

Objective 3: To gather and prepare, in some orderly form, pupil information needed by other school services or counseling agencies or for preparation of summaries and recommendations.

The interview questionnaire and activity logs used in the 13 sample schools contained items relating to the gathering and preparation of pupil information. All 14 of the interviewed aides and 47 of the 54 counselors reported that aides were involved in handling pupil information. Activity logs indicated that 16% of the aides' time was spent handling pupil information. As was noted in the Implementation section of this report, the differences among counselors in delegating specific respon-

sibilities were reflected in the results of the counselor interviews. During the interviews the evaluators observed that some counselors entrusted aides with more responsitility in deciding how to handle specific information from school records than did others.

It was concluded that the project's objective of gathering and preparing pupil information was attained.

SUMMARY AND CONCLUSIONS

The Counselor Aides project provides paraprofessional assistance to counselors, relieving them of some nonprofessional tasks and assisting them in delivering service to students who require more extensive counseling. This decreases the heavy demands on the counselors' time, enabling the counselor to spend more time with professional contacts.

The current year's evaluation looked at the type of job tasks performed by the aides and the amount of time spent on each. Information was gathered from interviews with aides and counselors, and records from activity logs and visitor logs at 13 of the schools showed that aides were performing tasks directly related to the project's objectives.

By April 1974, 28 of the 29 authorized counselor-aide positions were filled in 24 junior and senior high schools.

Though the implementation of a program geared only for the target group was delayed until April 1974, during the closing months of the school year the aides spent 19% of their time in activities "to assist counselors in delivering service" to a specific group of target students. Thus, the project's first objective was attained.

In all counseling offices the aides provided receptionist services to persons entering or telephoning the counseling area. The aide spent an average of one fifth of her time on the phone regarding counseling matters. Half the persons entering the office came to see the counselor and were so directed by the aide with an average wait of approximately four minutes. The other persons were very efficiently and expeditiously serviced directly by the aide. Because, on average, 27 persons visited a counseling area within a three-hour period, the aide's direct service enabled the counselor to devote more time to children needing the counselor's personal attention. Thus, the project's second objective, "to give immediate and direct service to persons entering and telephoning the counseling area", was completely attained.

All aides and most of the counselors reported that aides were involved in handling pupil information. Activity logs showed that the typical aide spent 16% of her time collecting pupil information for the counselor. Thus the project's third objective, "to gather and prepare . . . needed pupil information", was fully attained.

If the aide were relieved of clerical, secretarial, and routine counseling responsibilities for at least one hour each day, she could spend more time on job tasks meeting the project's other major objectives. The additional time could be spent on updating records for target students, gathering and preparing pupil information, and doing necessary follow-up of students.

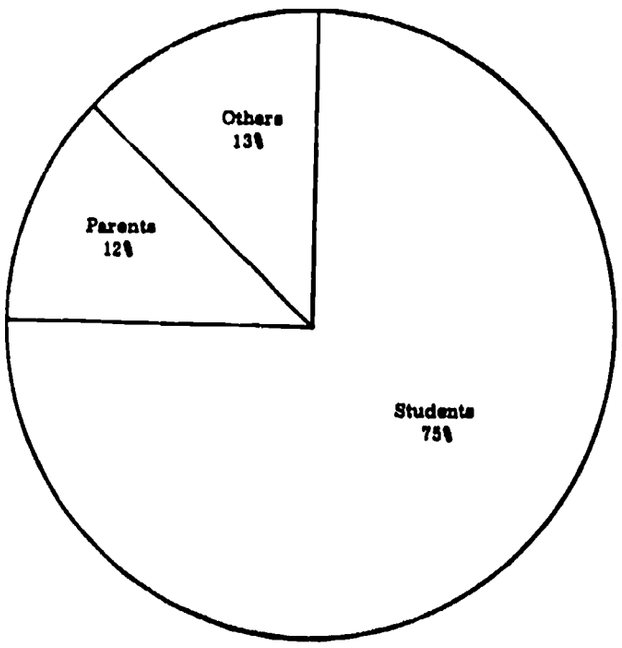

Fig. 1. Identity of 1,890 persons visiting counseling areas of 13 secondary schools having counselor aides.

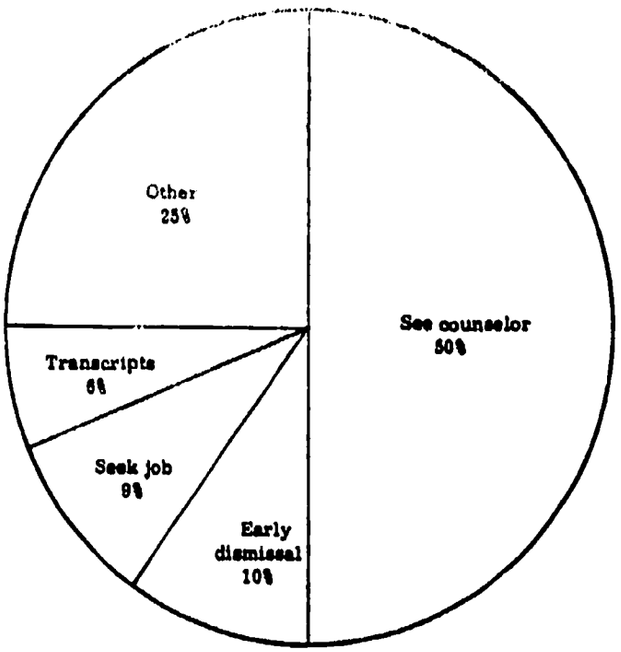

Fig. 2. Reason for 1,890 visits to counseling areas of 13 secondary schools having counselor aides.

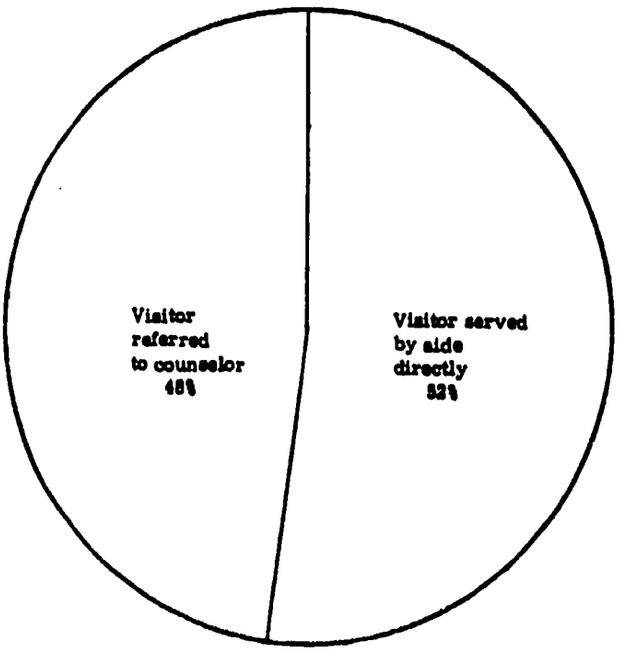

Fig. 3. Disposition of 1,890 inquiries at counseling areas of 13 secondary schools having counselor aides.

CREATIVE DRAMATICS

Creative Dramatics is a staff-development project providing experiences and training which enable participants to become more effective teachers.

THE PROJECT

RATIONALE

There is a need to develop the teachers' abilities to facilitate the pupils' creativity and motivation so that pupils can more easily master their academic subjects. The project has been designed to meet this need. CD is improvised drama. Pupils of CD-trained teachers have their interest stimulated through presentation of stories and poems, and through planning, acting, and evaluating the activities. This stimulation is especially important for target-area children who find school neither relevant nor necessary.

EXPECTED OUTCOMES

It is expected that target children will overcome language and social problems through the teachers' effective use of CD techniques.

Since CD in the classroom requires direct pupil participation, target children should increase their vocabularies and strengthen their self-confidence and self-awareness.

It is also expected that the children will show greater interest in books, use the library more often, show more confidence in expressing ideas, show an enhanced self-image, develop their creativity, show greater appreciation of the arts, and show greater interest in their own culture and other cultures.

MODE OF OPERATION

The major thrust of the project is staff development for elementary-school personnel in the use of creative dramatics as a tool in the teaching of language arts, social studies, science, and mathematics.

The techniques may be used by the teacher during any part of the school day as an addition to the regular instructional format. Through dramatization, role-playing, and improvisation, each child is encouraged to use imagination in solving problems, to communicate through body movement, and to engage in self-expression. Pupils are directed to gain background information for their activities through research in related literature. Story-telling and reading assignments, related to the pupils' own sense of the dramatic, are encouraged.

Monthly staff-development meetings are held for teachers already trained in creative dramatics; monthly supervision is afforded to teachers who are still being trained.

Eight leadership meetings are to be held to insure the project's growth. Twelve experienced teachers (a) assume responsibility for planning meetings, (b) help set policy, (c) supervise after-school groups, and (d) act as resource persons in their own schools. These 12 teachers are from various disciplines in the school system. They are in training or have been trained to lead a 13-week workshop to present the Creative Dramatics project to faculty meetings, or to act as resource persons in their own fields.

The project offers 13-week staff-development workshops sponsored by various districts for new personnel including teachers, aides, parents, volunteers, special-education personnel, librarians, and reading teachers. In addition, one-shot CD workshops are made available at meetings of general faculty, reading teachers, principals, and other groups for dissemination of project activities.

A CD Handbook developed by the project office is to be distributed as a guide to all who participate in the ongoing workshops.

PREVIOUS FINDINGS

Previous evaluations revealed that pupils in CD classes made higher-level, longer, more spontaneous contributions to their classes than pupils in comparison classes. Teachers in the project lectured less often and for shorter periods of time, and encouraged pupils to express themselves and participate in classroom activities more than did comparison teachers. Fifth-grade participants obtained significantly higher scores ($p < .10$) on the Vocabulary subtest of the Iowa Tests of Basic Skills than matched control groups. Attitudes of participants toward school and self tended to remain stable. Teachers trained in CD techniques tended to incorporate those techniques into their teaching behaviors. Participating teachers expressed their support of CD ideas, techniques, activities, and materials. However, scores on the Torrance Test of Creativity revealed no major difference between participating pupils and nonparticipants, and no significant differences were found between sixth-grade CD classes and control classes on the Vocabulary subtest of the Iowa Tests of Basic Skills.

THE 1973-1974 EVALUATION

The current evaluation of the Creative Dramatics project examined the extent to which classroom teachers trained in CD techniques were using them in their classrooms. The workshop phase of the project was evaluated through a questionnaire given to the workshop participants. Principals also responded to a questionnaire regarding the past, current, and future usefulness of CD as a classroom tool.

IMPLEMENTATION

A primary function of this project is to provide staff development in Creative Dramatics methodology. During the evaluation team's seven visits to CD workshops, innovative techniques for teaching mathematics, science, social studies, and language arts were observed being presented to participating teachers.

The types of staff-development workshops conducted by the CD staff during 1973-1974 are summarized in Table 1. The project director and two assistants engaged in the presentation of faculty and group demonstrations, conducted district workshops on a scheduled basis, and maintained separate monthly workshops for continuing staff and a leadership committee. They actively supervised participants, providing classroom demonstrations and observations. The CD Handbook developed by the project office was distributed to participants in the 13-to-15 week workshops.

The CD program through one-shot workshops reached faculty meetings, special education teachers, elementary mathematics resource teachers, student teachers, librarians, classroom aides, and parents' groups. CD participants in staff development included supervisors, collaborators, counselors, librarians, nurses, aides, regular classroom teachers, checkpoint teachers, teachers of reading, mathematics, speech, and art, and teachers of retarded educable, retarded trainable, and emotionally disturbed pupils.

The workshop phase of the CD project was evaluated through the use of a questionnaire given to all workshop participants. The questionnaire contained 33 items which permitted the respondents to record their feelings about their workshop. Responses of the 104 participants revealed that 96 of them had attended workshops regularly, 58 considered CD a part of the curriculum, 92 had read independently, 100 found that CD was accepted by their pupils, 48 of the participants presented CD techniques at faculty meetings or in other classes, and 70 considered their principal supportive of the CD program. Responses to the other 27 items on the questionnaire are summarized in Table 2. Nearly all responses were highly favorable.

A questionnaire sent to 37 principals who had experienced CD teachers in their schools was completed and returned by 33 of them. Twenty-nine principals had observed the CD teachers using CD techniques and discussed the CD project with those teachers. Twenty-four principals had discussed their school's CD program with the CD supervisor. Eighteen principals had done this on more than one occasion, while nine principals never discussed this at all with the CD supervisor. Of the 33 respondents, 30 indicated an understanding of the CD goals and methodology. Nine principals felt they were "very familiar" with the goals and methodology.

CD teachers in 24 schools used CD frequently as a part of their natural, regular, ongoing style of teaching. In 28 schools, experienced CD teachers had shared their experiences with other teachers; in 22 schools they served as resource personnel for other teachers; in 15 schools, they demonstrated such techniques at staff meetings.

Generally, the principals felt that the CD project had a positive effect on the educational program of their schools. CD was felt to be beneficial to trained CD teachers in 29 schools--in 22 "significantly" and in seven "to some degree." The children in 30 schools enjoyed CD to the extent that they became excited when the teacher used it. Although two principals felt the project should be discontinued in their schools, 10 principals desired to have it continued as it was; 20 would like to see it expanded.

Using an observational checklist, the evaluation team conducted a total of 14 classroom observation visits at 12 schools. In 12 of the 14 classes observed, there was participation by the entire class. In the other classes, seven eighths of the pupils participated. Disciplining of one or two children occurred in four of the 14 classes visited; no disciplining whatever was necessary in eight classes. The two observed CD classes requiring the disciplining of four or five children were taught by teachers new to the project. It was evident to the evaluator that the children participated knowledgeably and intently in their CD improvisations, both individually and in groups.

One fifth of the observed teachers used music with rhythmic activities during the CD lesson. Art activities were never observed.

At every site, special efforts were undertaken by the CD teacher to prepare a demonstration lesson for the evaluator's benefit. Three teachers were observed using CD while teaching a lesson in the academic areas of language arts and social studies. During the remaining 12 observations, CD games and techniques were used as a separate area in the curriculum with no relation to any specific academic area.

The project staff has stated that a teacher normally requires at least three years of intensive CD training to be considered a competent CD teacher. However, it acknowledges that there are exceptions: some first-year participants are categorized by the CD office as being competent.

The project was found by the evaluation team to be fully implemented in accord with its intended mode of operation.

ATTAINMENT OF OBJECTIVES

Objective 1: To train teachers to use Creative Dramatics techniques in their classrooms so that they will be observed (a) beginning with nonverbal communication stressing children's senses, (b) encouraging children to explore emotions

and feelings, (c) encouraging children to portray different characters, (d) introducing dialogue and encouraging imagination and concentration, (e) introducing story dramatization, and (f) simultaneously encouraging the development of creative writing.

For the purpose of this year's evaluation, this objective was interpreted to mean that CD teachers would be observed in any lesson during the year employing at least one of the six cited CD techniques. Since CD techniques used with classes progress in sequence from nonverbal communication (Level "a") at the beginning of the year with a CD teacher's new class to the use of story dramatization (Level "e") at the end of the year, the pupils' experience with CD and the teacher's mastery of each technique determined the level at which each teacher would be working with the pupils.

Fourteen observational visits to the classrooms of CD teachers were made during the course of the year. During each observation lasting at least 40 minutes, an observational checklist was used to record the individual techniques being employed.

A summary of the Creative Dramatics techniques observed is shown in Table 3. In almost all visits, nonverbal communication stressing children's senses and encouragement of character portrayal were evident. The development of creative writing was encouraged by the CD supervisor during the two visits in which this technique was observed.

In that five of the six components of this objective were observed being implemented, Objective 1 was largely attained.

Objective 2: Sixty percent of the observations will reveal the use of three or more techniques during the course of a year.

Creative Dramatics classes continually use previously mastered techniques in conjunction with the teaching of a new technique. Therefore, this objective was interpreted to mean that three or more techniques should be observed within a single lesson during the latter half of the school year.

Fourteen observational visits, each lasting at least 40 minutes were conducted. An observational checklist was used during each visit to ascertain the individual techniques observed during the lesson.

During 13 of the 14 observation visits, CD teachers used three or more Creative Dramatics techniques. Because this rate exceeded the 60% criterion, the objective was attained.

SUMMARY AND CONCLUSIONS

The Creative Dramatics project's effort to train teachers throughout the school system was fully implemented through staff-development workshops, monthly meetings, and regular on-site classroom demonstrations.

The objective of having the CD-trained teachers put their training into practice was largely attained. All six of the basic CD techniques were observed being utilized to some degree by CD classroom teachers. Five of the techniques were used by all observed teachers: nonverbal communication stressing children's senses, exploration of emotions and feelings, portrayal of different characters, introduction of dialogue and encouragement of imagination and concentration, and introduction of story dramatization. The supervisory staff was in the process of encouraging the CD teachers to make more use of the sixth technique--creative writing--simultaneously with the lesson.

The objective of having 60% of the teachers use at least three of the CD techniques in one lesson was attained. In fact, more than 90% of the observed CD teachers utilized at least three techniques in a class session. Although the evaluators' observation visits were made primarily to formal CD lessons rather than to academic classes, CD teachers reported that they were also using CD techniques in their regular, ongoing style of teaching.

Principals tended to exhibit an understanding of CD methodology and to express the feeling that the use of CD in their respective schools was an asset to the children, to the CD teacher herself, and to the school staff serviced by the CD teacher.

Teachers responded favorably to the citywide use of CD in the schools. They were in positive agreement that CD should become incorporated into all elementary school curricula. Participants further indicated that the CD project contributed to the improvement of the understanding of the learner in conjunction with the building of his self-confidence and the improvement of his behavior. Teachers generally felt that they, as individuals, had become more creative through the use of CD techniques and had found an invaluable tool to facilitate both learning and instruction.

The project is fully implemented, has generally attained its stated objectives, and has been received with enthusiasm by principals and teachers.

TABLE 1

SUMMARY OF CREATIVE DRAMATICS WORKSHOPS
REPORTED BY PROJECT ADMINISTRATOR

Staff-Development Activity	Number of Events	Number of Teachers Involved
1. Thirteen-to-15-Week Workshops	7	98
2. Continuing Staff Development (Evening Workshops)	1 per month	97
3. "One-shot" Workshops for Staffs of Individual Schools	30	828
4. "One-shot" Workshops for Parents	3	54
5. Leadership Staff-Development Workshops	1 per month	13

TABLE 2

SUMMARY OF 104 PARTICIPANTS' RESPONSES TO THE CREATIVE DRAMATICS WORKSHOP QUESTIONNAIRE

Questionnaire Item*	Number of Responses	
	Positive	Negative
2. I like the CD approach.	102	1
3. CD program is well organized.	103	0
4. I learned new techniques at night meetings.	70	1
5. I learned new techniques from the supervisor's visits.	71	2
8. I wish to share CD material at staff meetings.	74	18
12. CD should be available to more teachers.	103	0
13. CD should have citywide workshops.	103	0
14. CD should be part of all elementary curricula.	102	1
15. My pupils are more eager to learn.	100	2
16. CD is excellent for pupils with learning disabilities.	98	0
17. I gained functional knowledge.	70	1
18. I learned new techniques (basic skills).	100	0
19. I feel freer and more creative.	97	5
20. CD gives insight into content.	92	7
21. CD imprcved my children's self-image.	92	5
22. CD adds zest to daily learning.	101	1
23. I'm more sensitive to people.	97	4
24. CD opened lines of communication.	74	6
25. I feel more creative.	92	7
26. I feel more relaxed.	89	12
27. I'm more aware/imaginative.	95	7
28. I encourage my pupils to listen, think, and verbalize more.	96	6
29. CD helps independent thinking.	100	1
30. CD gives self-confidence/self-discipline to children.	96	5
31. CD gives meaning to content.	101	0
32. CD causes greater pupil involvement.	95	2
33. I desire to participate in future meetings.	84	13

*See text for special comment on Items 1, 6, 7, 9, 10, and 11. The responses to those items were different in format (i.e., multiple choice) from those displayed here. Where fewer than 104 responses are indicated, respondents omitted the item.

TABLE 3

SUMMARY OF CREATIVE DRAMATICS TECHNIQUES
OBSERVED IN 14 CLASSES

Technique	Number of Classes	
	Condition Present	Condition Lacking
a. Beginning with nonverbal communication stressing children's senses	14	0
b. Encouraging children to explore emotions and feelings	6	8
c. Encouraging children to portray different characters	13	1
d. Introducing dialogue and encouraging imagination and concentration	6	8
e. Introducing story dramatization	7	7
f. Encouraging the development of creative writing	2	12

CULTURAL EXPERIENCES

The Cultural Experiences project offers pupils cultural and educational experiences generally not available to target-area children. The purpose of the project is to expand the child's knowledge of his community and to relate specific experiences to his classroom activities.

THE PROJECT

RATIONALE

According to standardized test results, inner-city children lag behind children from other parts of the city in basic skill achievement. Their general deficiency in language and conceptual skill has been attributed to the absence of experiential background.

Through visits to cultural and educational institutions, and experiences in selected educational programs, the project provides the necessary cultural and educational experiences which are an integral part of a child's experiential background and a prerequisite for conceptual development. These experiences provide the child with opportunities to develop and refine ideas and concepts to a greater extent than is possible through regular classroom instruction.

EXPECTED OUTCOMES

As a result of participation in project activities, target-area children should become more aware of cultural and educational resources within their community, and should extend their cultural and educational experiences.

MODE OF OPERATION

At the start of the school year, a list of suggested places to visit is provided to a designated faculty member in each of the 38 target-area schools. This faculty member is responsible for informing teachers of the availability of sites, and for scheduling the visits requested by the teachers within his school. The selection of sites and the timing of trips are left to the initiative of the individual teachers.

Regardless of whether the trips are taken for general enrichment or in relation to specific curricular lessons, the pupils are carefully prepared for all trips. Minimal preparation includes discussions or other activities related to the purpose of the visit and what to expect during the visit. Follow-up activities allow children to review their experiences and to relate them in classroom activities such as reports, projects, discussions, and displays.

PREVIOUS FINDINGS

Previous evaluations of the project tended to focus on the delivery of services to project pupils. They indicated that project pupils have participated in field trips and home-school activities designed to supplement curricular objectives and to provide for general enrichment.

From 1969 until 1972, each of the project schools averaged 38 trips, involving 6,927 pupils. Activities at the sites appeared to be related to curricular objectives.

During the 1972-1973 school year, 11,615 pupils participated in 387 project experiences; 371 of the experiences were visits to sites outside the home school. Participating teachers stated specific curricular or cultural objectives for 198 of the 387 events; 131 (66%) of those objectives were directly related to the curriculum.

THE 1973-1974 EVALUATION

The current year's evaluation of the Cultural Experiences project focused on assessing (a) the children's awareness of the site and purpose of each visit, and (b) the ability of participating children and teachers to relate these experiences to their classroom work.

IMPLEMENTATION

During the year, coordinators in 33 schools arranged 462 cultural and educational experiences for 8,236 students in Grades K-8. Of these students, 6,685 (81%) participated in at least two cultural experiences. Of the 462 experiences, 205 (44%) involved primary-grade classes (Grades K-3), 241 (53%) involved upper-grade classes (Grades 4-8), and 16 (3%) involved special education classes.

Of the total number of experiences, 456 were visits to 55 sites outside the home school and six were attendance at a theatrical performance in the home school. The most frequently visited sites were the Philadelphia Zoo, Valley Forge State Park, Franklin Institute, and the Academy of Natural Sciences.

In the Summary of Cultural Experiences, completed monthly by each school, specific curricular or cultural objectives were cited for 327 (71%) of the 462 events. Two hundred ninety-three (90%) of the stated objectives were directly related to the curriculum; the remaining 34 (10%) sought to develop more general cultural awareness.

ATTAINMENT OF OBJECTIVES

Using the Cultural Experiences Project Teacher Interview Schedule, the evaluation team interviewed 30 teachers of Grades K-3 and 31 teachers of Grades 4-8 in 18 participating schools, ascertaining whether preparation and follow-up activities were conducted for each trip. The team used the Cultural Experiences Project Pupil Interview Schedule to interview one boy and one girl from each of the same 61 classes, to ascertain (a) whether the children could state when and why they had visited specific sites and (b) whether they could relate the specific experiences to their ongoing classroom work.

Objective 1: To provide experiences to increase the children's awareness of the cultural and educational resources of their community, so that 75% of the participating children are able to state when and why they have visited specific sites.

In the interviews, 120 of the 122 pupils could identify the times and places of the visits; 114 could also give further descriptions of the visits. However, only 65 (53%) were able to state the major purposes of the visits; 46 of these were in Grades 4-8, and 19 were in Grades K-3.

Although 98% of the pupils could identify the times of their visits, the fact that only 53% were able to identify the purposes of the visits indicated that the project had not fully attained its objective of having 75% of the participants able to identify both time and purpose.

Objective 2: To extend the experiential base for concept development within specific curricular areas, so that 75% of the participating children are able to relate the specific experiences to their ongoing classroom work.

Preparatory and follow-up activities were reported by 27 of the 61 interviewed teachers. However, in only seven classes could at least one child state that he had experienced these preparatory or follow-up activities. For the three teachers who reported only preparatory activities, none of the pupils recalled such preparation when they were interviewed. On the other hand, 26 teachers reported follow-up activities only. In 22 of these classes, at least one of the children recalled having experienced such activities.

In total, 56 teachers reported some preparation and/or follow-up activity for each of the experiences. However, the pupils of only 29 (52%) of these teachers were able to identify the relationship of these experiences to their classroom work. Thus, although relating the experiences to classroom work was attempted, this objective was not achieved because less than 75% of the pupils were able to identify the relationships.

SUMMARY AND CONCLUSIONS

In this project, 8,036 children participated in 462 cultural and educational experiences during the year. Interviews with 122 pupils indicated that over 90% of them were able to state the time and place of their visits to various educational and cultural sites as well as to describe their experiences. However, only 53% of these pupils were able to state the purpose of their various experiences.

Though 56 of the 61 teachers who were interviewed indicated some preparatory and/or follow-up activity, only 48% of the 122 children who were interviewed could identify the relationship between the experience and their classroom work.

It was clear that the children were able to profit from these cultural and educational experiences. If these experiences were more fully integrated into classroom instruction they could be more useful in enriching a child's experiential and educational background.

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EDUCATION IN WORLD AFFAIRS

Education in World Affairs is a project that promotes knowledge and understanding of current world affairs and of the characteristics of various countries of interest. Guest speakers, trips, materials, and conferences are provided for students in Grade 6 and in junior and senior high school.

THE PROJECT

RATIONALE

Children should have the opportunity to acquire understandings of the world which go beyond family and local events. Target children have few opportunities to meet people from other nations and learn firsthand of their history, culture, and mores. Although books, booklets, and visual materials are used, the project emphasizes a direct, personal learning approach involving classroom visitations by foreign students, structured visits to cultural or historical centers, and carefully planned conferences which allow the children to meet and discuss issues of interest. Thus the project offers educational experiences not normally available in the regular classroom program of most inner-city schools.

EXPECTED OUTCOMES

It is expected that meetings with foreign students, visits to sites of interest, and discussions with peers will encourage curiosity, stimulate new interests, inculcate new knowledge, and build respect for other cultures and races. Students should learn about other people: what life is like in other countries, how food and dress relate to climate and customs, and how the lives and problems of people the world over are similar.

MODE OF OPERATION

The project's elementary school component concentrates on the study of four countries and a unifying study called "One World". Teacher sponsors who volunteer to work in the project receive training from an elementary school liaison teacher who assists the sponsors and coordinates activities. Booklets for each child, along with reference books, charts, and filmstrips are distributed to each class prior to the unit activities. At the end of each unit, participating classes meet and make presentations at one of the district schools. Planned experiences at cultural centers are scheduled, and guest speakers from foreign countries are invited to interact with classes at the schools.

The junior high school component concentrates on the study of four countries. Volunteer teacher sponsors conduct lessons either as part of a class session or as a club activity. Booklets, books, filmstrips, charts, and maps are sent to each sponsor prior to unit initiation. A junior high school liaison teacher coordinates the various schools' activities, trips, and classroom visitations by guest speakers. At the end of the school year, the schools participate in a World Fair of cultural presentations, displays, and projects.

The senior high school component concentrates on the study of topics of international interest and concern. Guest speakers address the students at seminars held during the week and at forums conducted on Saturdays. Question and answer sessions are scheduled. Students are provided an opportunity to share ideas with peers from other ethnic backgrounds. A senior high school liaison teacher helps to plan and organize the various meetings and trips, and consults with teachers.

A special-education component, similar to the elementary school component, services eight classes of retarded children. The children study two countries, attend a cultural event, and go on a planned trip. A conference for parents, sponsors, and project personnel is held to introduce the elements of this project to the parents.

PREVIOUS FINDINGS

From 1966 thrugh 1970, project students demonstrated significantly greater knowledge of the countries studied than students who were not in the project. A device used to compare the open-mindedness of project students with that of other students indicated no significant differences.

Monitoring in 1970-1971 through 1971-1972 indicated that project-produced materials were utilized by teachers and that trips were conducted as scheduled.

In 1972-1973, teachers expressed satisfaction with the success of the pilot six-week special-education component involving nine classes of retarded children.

THE 1973-1974 EVALUATION

The current evaluation of the Education in World Affairs project was designed primarily to monitor the activities and the functions of the project. In cooperation with project personnel, the evaluation team developed two tests to measure the amount of information the students learned about two of the countries studied.

IMPLEMENTATION

This project was designed to meet the unique cultural needs of 4,000 children from target-area public and nonpublic schools, by extending their scope of knowledge and by improving their attitudes toward ethnic groups and cultures different from their own. Although the project's components focused primarily on students in Grades 6, 7, and 11, and special education (educable retarded), other grades also were served. Teachers of all grade levels, administrators, and parents also participated.

The EWA staff coordinated all project activities. The organizational structure included a director, and a separate liaison teacher for elementary, junior high, and senior high schools. For each country studied in 1973-1974, a booklet was specially prepared by EWA. Each booklet included information on the history, culture, geography, and customs of the country. Photographs, illustrations, maps, art reproductions, poetry, games, and puzzles were interspersed throughout the text to add clarity and interest to the material. Teachers received records, filmstrips, films, maps, and posters to enhance their classroom presentations. The liaison teachers were available to the classroom teachers and provided ideas for teaching each unit and for follow-up activities.

Elementary students studied five units: "One World", Israel, Italy, Kenya, and Mexico. Speakers from each of the four countries visited classrooms, talked about their countries, and encouraged participation in discussions.

In the elementary component, a trip was planned for each unit, but only half of the classes went each time, providing two trips a year per group. At the Civic Center and the Art Museum, the students heard special lectures arranged by the EWA staff. Trips to the United Nations and other places of interest in New York City also were made.

At the completion of each unit, participating classes in each district gathered to sing and dance, and to share original presentations with one another. Presentations by these children displayed planning and variety. Great enthusiasm was exhibited at these final celebrations. Invitations for relatives and friends were provided by EWA, to encourage community awareness and involvement in the elementary program.

The junior high school program started later in the year because of a delay in hiring a liaison teacher to organize activities. The program covered three units: Italy, Kenya, and Mexico. Students went on a trip for each unit, visiting the Ile-Ife Cultural Museum, the Philadelphia Art Museum, and the Civic Center Museum. At the Ile-Ife Cultural Museum, the Arthur Hall Afro-American Dance Ensemble performed, explained artifacts, and conducted informal group lessons in the basics of African dancing and drum playing. Also, a slide lecture was provided by a Kenyan student.

A World's Fair was conducted at the Civic Center as a culminating activity for the junior high school participants. Presentations were made by several classes, and examples of students' work were exhibited. The Arthur Hall group performed and danced with the students.

Senior high school students had the opportunity to attend three seminars and three forums that dealt with current international topics such as the oil crisis, social liberation, and the future of the city. An average of 200 students attended these seminars and forums to hear guest speakers who were experts in each area.

Each student received half-year subscriptions to both Newsweek and Time magazines as encouragement to become well-informed. Through a process of tryouts and briefings, two groups of students were selected to participate in model Senate Foreign Relations Committee hearings. The first hearing had 84 participants representing 16 schools. The second, two weeks later, had 97 participants from 19 schools.

Six full-day trips, three to the United Nations and three to Washington, D.C., were offered to the senior high students. In both places, briefings by diplomats and official state representatives covered issues discussed during the year, and added still another dimension to the students' studies.

To enable participating teachers to attend special EWA programs with their students, substitute teachers were hired and paid through the EWA budget. Also, announcements of special seminars were made so that interested teachers could attend.

Four conference dinners were provided for teachers and school administrators on topics dealing with the culture, history, and sociology of minority-culture groups in the Philadelphia area. Guest speakers were usually backed up by performers who danced or sang, dressed in the attire of the particular ethnic group. Teachers of junior high school students also had the opportunity to attend a Mexican fiesta workshop where they learned Mexican crafts and cooking to use in their classrooms.

Two special education parent-teacher dinner conferences were conducted--one dealing with Israel and the other with Kenya. Principals, teachers, and parents heard speakers and participated in activities similar to those the children experienced.

ATTAINMENT OF OBJECTIVES

Objective 1: To increase students' knowledge and understanding of Italy, Mexico, Kenya, and Israel.

This objective was attained. Students' knowledge and understanding of each country's culture, geography, history, and government were increased. This conclusion was based on evaluators' visits to classrooms, observations of students during trips and special events, and use of specially developed tests.

Elementary school students were given tests after completing the Israel and Mexico units. The tests were based on information covered in the specially prepared unit booklets. Students had a better knowledge of history and general information than of geography. After review of results of the Mexico test, several items were modified to increase the reliability of the test. The KR-20 reliability coefficient was .84, which was considered quite acceptable. The revised version of the test on the Mexico unit was administered as pretest and posttest to a random sample of five participating junior high school classes, to determine the impact of the booklet information. A comparison group which was not involved in the EWA project was also given the pretest and posttest. Half of the classes were given the tests by a member of the evaluation team; the other classes were tested by their classroom teachers.

Analysis of results is summarized in Table 1. Students participating in the testing program showed improvement in their scores. The correlated t tests applied to the data indicated that the improvement was statistically significant for both the EWA students as a whole ($t = 6.96$, $df = 82$, $p<.01$) and the comparison students ($t = 1.80$, $df = 19$, $p<.05$).

There was no available test of students' understanding of, and attitudes toward, a country's customs and mores--the major emphasis of the EWA project. During numerous visits made by evaluators to various EWA activities, teachers and pupils expressed their satisfaction and enthusiasm with their EWA involvement. Many teachers indicated that pupils had learned tolerance and understanding of others.

Objective 2: To provide appropriate materials and to sponsor trips to the United Nations, to embassies in Washington, to the Philadelphia Art Museum, and to the Philadelphia Civic Center.

Observation visits, interviews, and teacher questionnaires indicated that this objective was attained. In their responses to the questionnaire, more than 90% of the 121 teachers indicated that they had received materials on schedule and had used them with their classes or clubs. They also indicated that schedules for trips were met.

Three 15-student trips to Washington, D.C., were made to accommodate all interested high school students. Title I funding covered the $15 cost for each student on the trip. Arrangements were made in advance for the students to meet officials of agencies that deal with the issues and problems covered in their forums and seminars. Typical was the February trip, in which the students met a State

Department official in charge of the narcotics division, an economist from the Office of Economic Development, and the First Secretary of the Turkish Embassy. Each session included a presentation by the dignitary on a prearranged topic, and a question/answer period.

Evaluators observed at least six of the various planned trips. Informal interviews with students and teachers brought enthusiastic comments.

Another key aspect of the project was classroom visitations by foreign students. Teacher questionnaires indicated that two such visits were made to each elementary class and three to the junior high group. This aspect of the total program received strong endorsement from the teachers.

Objective 3: To provide in-service training for teachers on current issues in world affairs, and to help teachers implement the EWA project in their schools.

Four teacher-conference dinners were held this year at the Philadelphia Civic Center. Topics were chosen to enhance teachers' awareness of the problems and strengths of minority cultures in the Philadelphia area. Conferences dealt with such topics as the Philadelphia Chinese community, Israel today, and Afro-Americans. At each meeting a representative spokesman from a minority community made a presentation. Community members performed a custom particular to their culture. Paperback books and other instructional aids from that culture were given to each registered teacher. Attendance was limited to 150 teachers on a first-come, first-served basis; there was always a full house.

Planning sessions, where ideas and suggestions were freely exchanged, were held for involved teachers. Junior high teachers were invited to a workshop on Mexico, where they gained firsthand experience with Mexican crafts and cooking, as well as ideas for enrichment activities. EWA liaison teachers often visited classrooms and were available for consultation upon request.

Objective 4: To provide parent-teacher conferences in order to develop an understanding of the challenges of educating retarded pupils in world affairs. It is anticipated that at least 280 parents will attend at least one conference each year.

Approximately 165 parents attended the two conferences. These meetings showed parents of students in the eight participating classes examples of the activities and programs provided for their children. The special education component was still in the developing stages this year, and growing attendance figures were considered a positive sign of increasing support and cooperation from the parents of the involved children. However, the proposed attendance figure was not reached.

The attending parents reported enthusiastic involvement and interest. Teachers indicated their pleasure with the beneficial impact of this program on their students. At the one conference observed by evaluators, more emphasis was placed on the unit to be taught than on the needs of the retarded children.

SUMMARY AND CONCLUSIONS

The Education in World Affairs project originated as a public school extension of the World Affairs Council. Target-area students needed an opportunity to gain factual knowledge about the world around them and about different cultures, through first-hand experience. A carefully planned program using materials and field experiences gave students background information, in an effort to promote openmindedness toward other cultures' different values and customs. Interest and enjoyment in learning about other people and places were developed, so that the impetus for continued interest and learning was provided.

Books and materials were furnished to reinforce and enrich reading skills at the elementary and junior high school levels, and to develop library-research skills of the senior high students. Special education students gained increased awareness of the world's diverse cultures. Trips to museums and other cultural centers were planned as part of each unit, to give students exposure to the country's history and artifacts. Exchange students gave prepared lectures, often with their own slides, and answered questions, providing EWA students with a firsthand, modern viewpoint of life in other places.

The key to all enrichment programs is the enthusiasm and preparedness of the involved teachers. Constant support by the EWA staff was given via well-planned curriculum materials, suggested activities, in-class support, and availability for consultations. Many workshops, planning sessions, and conferences were conducted to keep teachers informed about current trends and materials available to them for teaching units on various cultures represented in the Philadelphia area.

Observations were made in classrooms, at conferences and workshops, on trips, and at culminating activities. Informal interviews were conducted to ascertain the feelings of participants. Checklists and anecdotal records were kept. At the end of each unit, a questionnaire was sent to each participating teacher in elementary and junior high schools. Tallies taken at the end of each unit gave the evaluators an idea of strengths and problem areas in the program, so that adjustments could be made quickly. An end-of-year tally of the questionnaires revealed that trips were taken as planned, and that speakers generally arrived in classrooms and at special events as scheduled. Comments received from the teachers expressed enthusiasm.

Tests on the information contained in the Israel and Mexico booklets were prepared especially for elementary and junior high students. The tests were given to selected groups, to determine whether a growth in factual knowledge of those countries resulted from the use of EWA booklets. A t test, conducted for the results of the pretest and posttest given to the junior high students, indicated that there was a significant gain in score for both the EWA students and a comparison group.

The major aims of the EWA project are to broaden attitudes and to enrich skills and factual knowledge. This year's evaluation concentrated on informational aspects of the project--only a part of its true impact. Observations, questionnaires, and interviews strongly indicated that EWA was providing Title I students with a well organized, well supplied enrichment program. The project was found to motivate basic reading skills, and to develop a better understanding of the geography, culture, and history of other people and other lands. In addition, the project's carefully prepared materials and events provided needed ingredients for manageable six-week units in social studies.

TABLE 1

SUMMARY OF t TESTS OF SIGNIFICANCE OF GAINS
BY JUNIOR HIGH SCHOOL STUDENTS
FROM PRETEST TO POSTTEST

Class	t	df	p<
EWA 1	2.63	22	.01
EWA 2	8.83	21	.001
EWA 3	2.85	10	.01
EWA 4	1.58	11	.10
EWA 5	1.89	14	.05
Comparison	1.80	19	.05

ENGLISH AS A SECOND LANGUAGE

The English as a Second Language (ESL) project serves pupils in Grades K-12 whose native language is not English. Using a staff of bilingual teachers, it emphasizes development of English speaking and listening skills.

THE PROJECT

RATIONALE

The acquisition of English as a second language has been described by Robert Lado as "acquiring the ability to use its structures within a general vocabulary under essentially the conditions of normal communication among native speakers at conversational speed."

Most of the target pupils in the ESL project have only minimal skills in spoken English. The project is based on the premise that the patterns of language need to be provided in a systematic manner. Chance contacts with spoken English are usually insufficient for target children to gain needed skills. Bilingual teachers facilitate communication.

EXPECTED OUTCOMES

Pupils served by this project are expected to show marked improvement in speech production and comprehension, and to demonstrate better communicative skills in English when compared with non-ESL pupils with similar backgrounds. It is expected that pupils will learn the patterns of everyday speech and will develop appropriate skills in reading. These pupils are expected to be able to use and understand English in normal conversational settings when their participation in the project is completed.

MODE OF OPERATION

In elementary schools, the project provides a springboard into reading and writing skills by emphasizing essential structures, idioms, and vocabulary of oral English.

In most schools where the project is implemented, pupils are scheduled to leave regular classrooms and attend the ESL lesson. Class size, instructional time, materials used, and homogeneity of groups vary among the participating schools. When the lesson is completed, children return to their regular classroom settings.

Facility in the second language is enhanced by memorization of short dialogues, practice in listening, and drills of idiomatic speech patterns. The ESL project deals with English language and the thought of the speaker, and with the rules for associating the two within the system of idiomatic English. Patterns are learned through use rather than through rules. The ability to associate thought with English expression is presented through direct experience rather than through learning formal grammars or through translation from the native tongue. Visual aids are frequently utilized.

After pupils become familiar with the spoken language, they are taught reading and writing skills. The underlying goal of this project is to enable target pupils to function adequately in an English-speaking environment, including classrooms where English is the instructional language.

PREVIOUS FINDINGS

Since the project's inception in 1966, evaluations have shown that pronunciation, speech patterns, and fluency of English had improved. Students had also gained in aural and written comprehension. Most pupils were being taught oral English; about one third of them received reading instruction. Most classes used English exclusively. Class size and the length of instructional periods were found to affect the performance of pupils.

Surveys indicated that approximately 90% of the project's pupils were born in Puerto Rico, 8% were born in the continental United States, and 2% were born in Central or South American countries.

THE 1973-1974 EVALUATION

The current evaluation of the English as a Second Language project involved monitoring of the instructional process and focused on the development of instruments to measure English speaking and aural comprehension skills.

IMPLEMENTATION

Observations and interviews were conducted with 22 teachers in 16 participating schools. One additional teacher in another participating school was observed but not interviewed. Instructional time varied considerably among these teachers. A compilation of the average instructional time given their classes by teachers was as follows: three teachers had all-day, self-contained classes, five teachers provided from two to three hours' instruction to at least one of their classes, six teachers provided 45 to 90 minutes of instruction, and nine teachers provided 45 minutes or less. Four of the teachers inteviewed were able to provide the three hours of instruction

suggested as a minimum by the Foreign Language Office; however, most classes observed were smaller than "normal" class size. Class size varied from one to 30 pupils; elementary school classes tended to serve about eight pupils, and secondary school classes tended to have about 14 pupils per class. See Table 1.

The project provided instruction from kindergarten through Grade 12 in public schools and to Grade 8 in nonpublic schools. The three nonpublic school teachers observed taught more classes for shorter intervals of time than public school teachers. See Table 2. The project director indicated that she could not get the nonpublic schools to provide the three hours of instruction per day suggested as optimal.

Common speech patterns and conversational speech were stressed. Individual attention to pupils was common in the earlier grades and in classes for beginners. High school and advanced levels placed more emphasis on reading and writing activities. The vast majority of pupils spoke Spanish as their first language, but Chinese, Greek, and other languages were not unusual. The continual influx of new pupils throughout the year presented the teachers and the project with one of their chief challenges--to provide instruction to a highly mobile population. Pupils who did not know English were found throughout all grades. Pupils who were judged not to need further ESL instruction were returned to the normal classroom schedule; however, no uniform promotion policy was found after observations and interviews with teachers.

Although teachers were bilingual, their use of explanations or instructions in Spanish was only rarely observed. Most teachers used conversational patterns of speech. They gave personal attention to their pupils and placed emphasis on common international stresses and idiomatic language, using dialogues and drills throughout the lesson. Three teachers spoke with a distinct accent. Visual aids, the chalkboard, and homemade materials were utilized by teachers.

Among 22 teachers who were interviewed, the most commonly used materials were Lado's English Series (15 teachers), Slager's Core English (8 teachers), Lancaster's Introductory English (6 teachers), Dixon's Modern American English (3 teachers), and Marquardt's English around the World (2 teachers). Five of the teachers preferred materials they themselves had devised. Needless to say, some teachers used more than one text. The School District's Foreign Language Office has been developing a text (English Your Second Language) addressed to the needs of target pupils; two teachers indicated that they were using this text.

Most of the teachers relied on personal interviews with the children for initial placement. According to teachers interviewed, an adequate screening device still had not been developed.

The classroom mode of operation tended to reflect individual teacher styles, texts used, and school needs rather than a uniform curriculum. The methods and procedures as stated in the proposal have allowed principals and their ESL teachers a great deal of latitude to meet the specific needs of their school's population.

Interviews with teachers of intermediate and advanced pupils revealed that they wanted more direction, guidance, and sharing of ideas. There seemed to be fewer concerns about program content among teachers of younger and beginning ESL pupils than with teachers who taught upper grades or more advanced skills.

One of the planned staff-development sessions was observed involving ESL teachers from schools throughout the city. The guest speaker was well known in the field of languages and gave a presentation to the group on methods and usefulness of language drills.

ATTAINMENT OF OBJECTIVES

Objective 1: Pupils will learn to comprehend and speak English. Progress will be assessed by an oral mastery test and the Peabody Picture Vocabulary Test.

Observations of 20 classrooms indicated that this objective was being attained.

After due consideration, the Peabody Picture Vocabulary Test was deemed inappropriate for the purpose of measuring the aural comprehension skills of non-English-speaking children. No appropriate oral mastery test was available. After discussing possible formats, members of a committee worked together developing items for a test.

With the recommendation of the project director, the Boehm Test of Basic Concepts (BTBC) was selected to measure the aural comprehension skills of pupils. This test was developed for Anglo children in kindergarten and first grade, and consists of 50 concepts, including space (e.g., below), quantity (e.g., several), and time (e.g., always). The format is relatively simple in appearance. The test uses brief phrases of English as cues, and groups of pictures as multiple-choice responses. This format met the need for a test of aural comprehension which required no reading ability on the part of the non-English-speaking pupils and tested the most rudimentary type of comprehension. Previous research by Offenberg in the Title VII Bilingual Program in Philadelphia had indicated that most of the Spanish-speaking kindergarten children tested with this instrument were familiar with more than half the items when given the verbal cues in Spanish. It was assumed, therefore, that the pupils in the program knew most of the concepts and that incorrect answers would most likely be indicative of not knowing English. This test was judged appropriate to the skills of pupils beginning to learn English.

The BTBC was administered in May to a sample of 146 pupils throughout Philadelphia schools: 123 current participants in the ESL project, 16 who had been promoted out, and seven non-native speakers who were nonparticipants. Relevant information, such as time in the program and on the United States mainland, age, and grade, was collected.

The testing procedure was modified to exclude the youngest and oldest pupils. During the administration of the test one group of beginning children became very agitated, and the test was terminated after Part A when it became clear that the testing situation was excessively stressful. Some high school students reacted negatively to being given a test for "babies". The size of the groups of children tested varied from five to 35 and was determined by local conditions and the recommendation of the ESL teacher.

The data from the BTBC were collected and analyzed to allow post hoc analysis. Further verification and replication of the findings are needed because of the unique characteristics of the pupils being tested. Scores on BTBC, summarized in Table 3, indicated that pupils appeared to learn the words and concepts measured by the Boehm test rapidly during their first year (10 months) in the project. Growth on these words and concepts leveled off during the second year.

There was concern that the pupils' age, grade, or amount of exposure to English on the mainland might have a strong impact on the test scores. Table 4 indicates the mean scores of groups of pupils which were analyzed to determine the effects of these factors. Pupils in the project more than one year had higher scores in each instance.

Objective 2: Pupils who are in the "reading stage" of the project will improve their reading skills by at least one book level.

Observations indicated that pupils were gaining reading skills. The design of the evaluation called for pretesting and posttesting using informal reading inventories. IRIs had not been developed or used; therefore, the Level I Stanford Diagnostic Reading Test was selected for this purpose. However, only end-of-year scores were collected with this test.

The Stanford test, developed for Anglo children in Grades 2-4, was selected after consultation with the project director. This test also offered the option of testing vocabulary skills.

The subtest on reading comprehension was given to pupils considered able to read by their ESL teachers. This subtest used paragraphs of two, three, or four sentences in which words were missing. Pupils had to read the paragraphs and select the correct response from among multiple choices. No oral cues were given after the test was begun.

The first section of the Level I Stanford test was administered to a stratified sample of 113 pupils in Grades 3-11 who were in the reading stage. In addition, the BTBC was given to 46 of these pupils. Of the 113 pupils who responded to the comprehension section, 40 also responded to the vocabulary section. The subtest on vocabulary primarily involved aural comprehension since both the verbal cues and responses were read by the test administrator to the class. The vocabulary subtest was not widely used because pilot use indicated the test was too difficult. Since neither the design nor the test allowed generalizations about the gain in reading skills, it was decided to assess, post hoc, the impact of the program using the comprehension scores collected.

These comprehension scores tended to improve in relation to the time pupils were enrolled in the project. The relationship between length of time in ESL and the Stanford comprehension score is shown in Table 5.

Although spoken language may be largely acquired by chance contact with the culture, rather than by formal instruction, this is unlikely for reading skills. The data suggested that the reading skills of ESL pupils in the "reading stage" improved with length of time in the project. It was apparent that the improvement in reading comprehension was not due solely to grade, age, or length of time on mainland. The finding that pupils in ESL for more than a year had reading skills better than those with less experience in the project was consistent, but small.

Early in the year the project director agreed to the need of developing an adequate assessment instrument. Beginning in March 1974, a committee of teachers, administrators, and evaluators met to develop an instrument appropriate for measuring the ESL skills of target pupils. Since no lists of vocabulary or structure were available, teachers using the four most widely used texts described the structures and vocabulary words they used with their classes. The list compiled by the teachers was expected to coincide with the speech patterns and words taught throughout Philadelphia ESL classes. Items were generated and reviewed by early May, and a first draft of a test of aural comprehension suitable for Grades 2-8 was developed. However, because the draft prepared by the committee required substantial revision and the project director felt that these revisions could not be effected for this year's evaluation, further meetings of the committee were deferred. A refinement of the present efforts should enable field testing of an ESL test of aural comprehension in 1974-1975.

SUMMARY AND CONCLUSIONS

The English as a Second Language project was begun in 1966. It was developed and initiated to meet the needs of large numbers of Spanish-speaking and other non-English-speaking children who entered school unable to understand, speak, or read English.

In 1973-1974, pupils in public and nonpublic schools were served by this project. Some pupils were in bilingual programs in which they learned Spanish as the primary language and were enrolled in an ESL class also. With the exception of a very few half-day and full-day situations, the majority of pupils did not receive the three hours of ESL instruction per day recommended by the project proposal.

In some schools the pupils in need of English instruction were placed in a self-contained all-day classroom with an ESL teacher. Most of the pupils served by the project were scheduled to visit an ESL teacher for instructional periods ranging from 30 to 120 minutes. When the lesson was completed the participating pupils returned to their regular classrooms. However, instructional groups were quite small, allowing a great deal of teacher-pupil interaction. Average class size was eight in elementary schools and 14 in secondary schools.

There appeared to be a need for a well-defined curriculum specifying the various levels of achievement in aural comprehension, oral production, and reading. The project's staff indicated that efforts would be made in this direction during 1974-1975. Admission to the project and promotion out of it depended largely on the unique local conditions in a school rather than upon clearly defined program criteria.

The project was evaluated via observation, interview, and monitoring techniques. Achievement testing also was conducted. Time and effort were given to the task of selecting appropriate tests of oral production, aural comprehension, and reading for those pupils who were learning to speak and read English after they had learned another language. (This is why the project was called "English as a Second Language".)

The Boehm Test of Basic Concepts was selected for nonreading children because it allowed the child to hear an English sentence and respond to it by selecting a picture. The scores indicated that there was incremental growth during the first year of a pupil's participation in the project; i.e., the longer the pupil was in the project, the higher was his score. The scores tended to stabilize during the second year but increased thereafter. These results suggest positive project impact.

The teachers and staff were found to be dedicated to their task and eager to serve the project and their pupils. However, the evaluators sensed continuing needs: (a) to develop tests for diagnosing skills and measuring achievement, (b) to provide non-English-speaking pupils with a more extended instructional period than the present average, and (c) to develop a projectwide curriculum guide.

TABLE 1

SUMMARY OF CLASS SIZES REPORTED BY
22 ESL TEACHERS IN 16 SCHOOLS

Number of Pupils in Class	Number of Classes*	
	Elementary	Secondary
1-5	8	2
6-10	26	8
11-15	3	10
16-20	3	6
21-25	0	4
26-30	1	2

*Data from eight classes were not available.

TABLE 2

AVERAGE INSTRUCTIONAL TIME REPORTED BY
18 ESL TEACHERS IN 15 SCHOOLS

Average Daily Instructional Time per Class	Number of Teachers*		
	Nonpublic Elementary	Public Elementary	Public Secondary
Full Day	0	2	1
120-180 minutes	0	0	3
50-90 minutes	0	0	4
30-45 minutes	3	3	2

*Data from four other teachers indicated a range of instructional time: two public elementary teachers reported teaching six classes of 45-120 minutes; two secondary teachers reported a range of 45-90 minutes for their classes.

TABLE 3

MEAN SCORES OF 99 ESL PUPILS
ON BOEHM TEST

Months in Project	No. of Pupils	Mean Score (50 Possible)
1-5	15	27.7
6-10	50	36.1
11-15	8	35.4
16-20	11	36.6
21 or More	15	43.1

TABLE 4

MEAN SCORES OBTAINED ON BOEHM TEST OF BASIC CONCEPTS
BY PUPILS IN ESL PROJECT

Group Characteristic	72 Pupils in Project One Year or Less	41 Pupils in Project More than One Year
Years on U.S. Mainland		
Less than 1½ years	35.0	35.8*
More than 1½ years	34.0	38.1
Grade		
1 - 5	32.4	36.4
6 - 11	36.9	41.7
Age		
6 - 10	32.3	32.9
11 - 20	35.9	38.7

*Based on fewer than five cases.

TABLE 5

MEAN SCORES OBTAINED ON STANFORD DIAGNOSTIC READING TEST BY PUPILS IN ESL PROJECT

Group Characteristic	53 Pupils in Project One Year or Less	42 Pupils in Project More than One Year
Years on U.S. Mainland		
Less than 1½ years	21.8	35.0*
More than 1½ years	30.7	30.8
Grade		
1 - 5	31.1	32.5*
6 - 11	24.0	30.9
Age		
6 - 10	31.8	37.0*
11 - 20	24.2	29.8

*Based on fewer than five cases.

ENGLISH AS A SECOND LANGUAGE--READINESS

The ESL Readiness project is designed to provide Spanish-speaking children with kindergarten experiences structured to develop English language competency and readiness skills.

THE PROJECT

RATIONALE

The primary assumption of the project is that many first-grade Spanish-speaking children in target schools are low achievers because of poor English facility, a lack of the necessary readiness skills, and the attendant effects of poverty. Low achievement frequently continues throughout the school career of the Spanish-speaking child. The project seeks to avoid this long-term handicap by serving Spanish-speaking children while they are in kindergarten.

EXPECTED OUTCOMES

As a result of project participation, the pupils are expected to develop essential readiness and English-language skills which will enable them to succeed in first grade and, consequently, in their entire school careers.

MODE OF OPERATION

A project center is located in each of six schools which have a high percentage of Spanish-speaking pupils. Each center is staffed by one teacher who is assisted by two bilingual parent aides (parents of participating children). The teachers are trained to work with language-development programs (e.g., Distar, Let's Learn Language, Michigan Language Program) having a proven high degree of success in developing requisite skills in bilingual children. Teachers are trained also to emphasize the inquiry methods and to stimulate language development.

Classes meet for either half-day or full-day sessions in an informal classroom setting. Project children receive instruction in English language and readiness skills at least three hours per day. The teachers use both English and Spanish as instructional languages. The amount of English used increases during the school year. Funds are available for visits to local institutions (e.g., Franklin Institute, Art Museum) and for other vocabulary- and concept-development experiences.

PREVIOUS FINDINGS

The initial evaluation (1971-1972) was formative and focused on the project's activities. Observational data indicated that appropriate experiences were being provided for the pupils.

The 1972-1973 evaluation indicated that the project was successful in meeting its goals. Approximately 66% of the pupils attained mastery scores (24 or more items correct) on the Philadelphia Readiness Test, which is predictive of success in first grade. Students also progressed in English language facility, showing significant gains from pretest to posttest scores on the English subtest of the Elementary School Speaking Test in English and Spanish.

THE 1973-1974 EVALUATION

This year's evaluation of the ESL Readiness project focused on the degree to which the pupils developed their readiness skills (measured by the Philadelphia Readiness Test) and the degree to which they improved their English language skills (measured by the English subtest of the Elementary School Speaking Test in English and Spanish).

IMPLEMENTATION

Observation visits and interviews with the ESL Readiness teachers indicated that there was no substantial change in the project's operation from that of previous years.

ESL Readiness centers were located in six schools with a high percentage of Spanish-speaking children. Kindergarten experience was provided for five-year-old Spanish-speaking children. Where space permitted, children under five years of age and/or non-Spanish-speaking children also were admitted to the centers. Each center was staffed by a teacher and two bilingual parent aides. Four centers operated with two half-day shifts; one (St. Malachy) had one all-day shift; the sixth (Cathderal) had one half-day shift.

The ESL Readiness classes generally were divided into small groups for instruction in English language-readiness skills. Each center used one of the various readiness programs made available by the project. (The teachers were involved in ongoing staff development, where they were trained to use the programs made available to them.) In addition to the specific readiness programs, informal development of English language skills was stressed. The pupils also received training in perceptual, motor, and mathematics-readiness skills. Experiences such as trips to the Academy of Natural Sciences and the Planetarium were used to assist in vocabulary and concept development.

The teachers utilized both English and Spanish as instructional languages. The amount of English used increased as the year progressed.

An additional dimension this year was the provision of a written report to each pupil's parents describing the child's functioning in the perceptual, motor, mathematics-readiness, and English language-readiness skill areas. These reports also provided diagnostic information which could be used by the pupils' first-grade teachers next year.

ATTAINMENT OF OBJECTIVES

Objective 1: To develop the project children's readiness skills to the extent that 75% of the pupils attain an 85% mastery score on the Philadelphia Readiness Test.

The Philadelphia Readiness Test was administered to 174 five-year-old project children in May. Fifty-seven percent of them attained a score of 24 (85% mastery) or higher on the test. Because less than the expected 75% of the pupil participants achieved mastery, the project did not fully attain its objective of developing readiness skills.

Objective 2: To improve the project children's English language skills to the extent that there will be a significant difference between pretest and posttest scores on the English subtest of the Elementary School Speaking Test.

The English subtest of the Elementary School Speaking Test was administered to 176 five-year-old project children in September and again in May. The mean pretest score was 32.7; the mean posttest score was 43.7. A correlated t test revealed that the difference was statistically significant beyond the .05 level. Thus, the project attained its objective of improving English language skills.

SUMMARY AND CONCLUSIONS

The pupils in the project made significant gains in improving their English language skills as measured by the English subtest of the Elementary School Speaking Test. Although the project did not fully attain its readiness-skills objective, approximately three-fifths of the pupils (less than the expected three-fourths) attained an 85% (or higher) mastery score on the Philadelphia Readiness Test.

Most of the participating pupils have shown significant improvement in English language skills, and attainment of readiness skills.

ENRICHMENT ACTIVITIES FOR THE DEAF AND HARD-OF-HEARING PUPIL

This project offers pupils with severe auditory loss an assortment of enrichment activities including vocational training, compensatory language-skill learning, social interaction with peer groups, and creative expression.

THE PROJECT

RATIONALE

Identified needs of the Martin School's deaf and hard-of-hearing pupils are addressed by components of the project. The vocational training component provides training and practice in those fields where the pupils can expect to be employed. The additional instructional time gives individuals and small groups expanded opportunities for training and varied experiences.

The communications component provides needed opportunities for the younger pupils to improve oral language skills; it offers formal training in manual language signals and finger spelling, recognized as a need for inclusion in the school's program, but not provided during the regular school day.

The social activities component allows deaf and hard-of-hearing pupils attending from all areas of the city to interact outside a classroom setting, and encourages their social development. This experience is helpful because deaf pupils are frequently subject to exclusion by peers in their home environments.

The creative expression component is needed because even the simplest hobby activities require some degree of training which is not normally available to deaf children. This component provides pupils with competencies leading to experiences of successful achievement and concurrent development of their self-esteem.

EXPECTED OUTCOMES

It is expected that pupils will be trained in salable skills and will gain competence in the use of coherent and consistent oral and manual signal systems. Younger participants are expected to improve in reading skills and enunciation. Participants should learn to interact with deaf and hard-of-hearing peers and with others. Through creative activities the pupils should develop skills in arts and crafts, their self-images should improve, and their avocational interests should be augmented.

It is expected that parent-child communications will improve as a result of parents' involvement in the project.

MODE OF OPERATION

The program is planned and implemented by the school principal. Each teacher is given the opportunity to volunteer as an activity sponsor. The frequency of activity sessions varies from once a month to several times a week, depending on the sponsor's availability and the pupils' interest. Groups vary from four to eight pupils and usually meet for an hour and a half.

Each participating faculty member sets general goals for his activity, acquires the necessary materials, supervises the pupils' activities, and keeps records of the pupils' attendance and performance.

The project's vocational activities augment the vocational training the pupils receive during the regular school day. There is instruction in keypunch operation, typewriting, woodworking, and dressmaking.

Compensatory training in manual language signaling and in finger spelling is planned for pupils. Very young pupils are taught phonics and production of speech sounds.

Social activities give the pupils an opportunity to interact with classmates in leisure pursuits. Creative activities are designed so that the pupils have a chance to attain self-expression and self-fulfillment.

Attendance is voluntary for pupils. Parents are invited to attend activity sessions, especially those after school, with their children.

PREVIOUS FINDINGS

This was the project's first operational year. Approval of funding was received too late for implementation during the 1972-1973 school year.

THE 1973-1974 EVALUATION

The evaluation of the Enrichment Activities project involved site visitation, observation, monitoring, and informal interviews with the project director, teachers, and pupils. Part of the monitoring process involved monthly reports by teachers about pupil and parent attendance, activities undertaken, and results. Data from the month of March were used to assess progress toward the project's objectives.

Because of such considerations as winter weather and school holidays, March 1974 was used as the sample month for data regarding attainment of the project's objectives. The selection of that month followed a satisfactory cross-check of the March data against data for other months of the project's operation.

IMPLEMENTATION

The project was initiated in November and consisted of 12 unique activities, four operating before the start of school and eight offered after school. All teachers were invited to participate as sponsors of such activities. Schedules of activities varied from meeting once a month to meeting several times a week. Sessions lasted from 60 to 90 minutes. Groups met in individual classrooms with their sponsors and conducted their specific activities. Programs were geared to eligible pupils who could travel safely alone.

Eligible pupils were defined as all of those 14 years of age or older or any pupil under 14 years of age who lived within walking distance of the Martin School. School regulations prohibited deaf and hard-of-hearing pupils under 14 years of age from using public transit between home and school unless accompanied by an adult. Because almost all the Martin School pupils lived beyond walking distance to school and the project operated after the operating hours of school buses, many of the Martin School pupils were unable to participate.

ATTAINMENT OF OBJECTIVES

Objective 1: To engage pupils in at least one AFTER-SCHOOL activity (e.g., woodshop, cooking and kitchen skills, gardening, knitting, dressmaking, and and arts and crafts) by having them complete projects within that activity area.

This objective was attained. During the sample month of March, project reports indicated that 57 of the 80 eligible pupils participated in at least one activity (a 71% enrollment rate). Approximately half these pupils attended more than one program each week. Total enrollment for the 12 activities (including multiple participation) was 121.

Attendance rates are shown in Table 1. Attendance at each of the activities ranged from a low of 59% to a high of 100%. Average attendance rate was 76%. Early morning groups had an average attendance rate of 80% of enrolment; afternoon groups averaged 73%.

Objective 2: To improve the level of pupils' marketable skills (seventh through twelfth grade) in at least one vocational area (e.g., typing, bookkeeping, key-punching, and printing).

Three activities were conducted which directly related to the development of marketable skills: keypunch and typing, woodworking arts and crafts, and advanced dressmaking. Average attendance rates for meetings of these three activities during the sample month were 88%, 79%, and 69%, respectively. Completed projects such as tables, lamps, and creative metalcraft products were observed by the evaluation team. The quality of these products (high enough for consumer purchase) was so impressive that the evaluation team considered this objective attained.

Objective 3: To improve communication in the family by involving parents in activities with their children.

This objective was not attained. Project records revealed that parental participation occurred in only two of the 12 activities: three parents attended the needlecraft activity, and four parents attended the speech-improvement group and received instruction in how to help their children at home. All the children in the speech-improvement group were young children who had to be taken home by their parents because the school buses had already left.

SUMMARY AND CONCLUSIONS

The enrichment activities provided to these deaf and hard-of-hearing children were meaningful and valuable. When as many as 70% of a group of teenagers voluntarily spent time in school, there could be little doubt that the activities were meeting pupil expectations and needs.

Whether or not pupils' marketable skills were improved as a result of the program's activities (Objective 2) is difficult to determine. While three of the 12 activities were oriented toward improving such skills, the "salability" of skills after only a year of participation several times a month was hardly assessable. It was evident that pupils were either learning new skills or reinforcing previously learned skills. It was also evident that they were highly motivated.

The expectation of ongoing parent involvement was an optimistic objective. It was known that parents who had younger children, who worked, or who lived at great distances would be unable to attend. The aim was noble but practical reality made its attainment almost impossible.

The project has generated remarkable pupil enthusiasm, and has inculcated and reinforced knowledge, skills, and social processes for deaf and hard-of-hearing pupils. The data support continuance of these pupil-oriented activities. Parents should continue to be invited, but their involvement should be deleted from the project's formal objectives.

TABLE 1

ATTENDANCE AT ENRICHMENT ACTIVITIES
DURING MARCH 1974

Activity	Number of Meetings	Number of Pupils Enrolled	Average Attendance Rate
Morning			
Cultural Awareness	17	5	97%
Keypunch and Typing	20	5	88
Physical Fitness	4	15	82
Social-Recreational	20	16	72
Afternoon			
Advanced Dressmaking	8	9	69
Jr. Ass'n. of the Deaf	8	17	84
Needlecrafts	7	11	71
Photography	1	4	100
Hobbies and Games	8	10	59
Sign Language	8	16	67
Woodworking	9	9	79
Speech Improvement	7	4	71
Total	117	121	76%*

*Weighted average based on both number of meetings and number of pupils enrolled in each activity.

EPISCOPAL ACADEMY: SUMMER ENRICHMENT

In a private school campus setting, boys from the inner city who have been identified as economically disadvantaged but with academic potential participate in instructional and recreational activities. These activities are designed to remedy specific deficiencies, to stimulate academic inquiry, and to provide opportunities for the exploration of individual interests and the development of special abilities and talents.

THE PROJECT

RATIONALE

There are few programs which provide an opportunity for boys in the inner city to experience a private school atmosphere while exploring their individual interests and developing special abilities and talents. In this project inner-city boys are identified who are economically disadvantaged and who are one or more years behind in basic skills such as reading, writing, spelling, oral and written expression, arithmetic, and science. They have a need for experiences beyond their own environment and for opportunities to interact constructively in group situations. These boys need also to develop their physical skills and proficiencies in athletics or leisure-time activities.

EXPECTED OUTCOMES

It is expected that participants will improve in both academic basic skills and athletic skills.

MODE OF OPERATION

The boys are selected from eligible Title I schools in the inner-city area. Schools are in close proximity to facilitate transportation of students.

Under the leadership of the project director, teachers of reading, English, mathematics, and science diagnose learning deficiencies of the students and provide remedial instruction. These activities take place in the morning hours with the aid of paraprofessionals. Small-group instruction is used to reinforce the regular school activity. The project's afternoon activities consist of the physical aspects of the program. Group activities designed to promote team or cooperative participation are ar integral part of the activities. Individual instruction is given in swimming and other athletics.

PREVIOUS FINDINGS

This was the first year of the project's operation.

THE 1973-1974 EVALUATION

The information reported here was provided by the project director and her staff.

IMPLEMENTATION

The purpose was to run a summer enrichment program for 30 target-area boys. They were chosen from public and nonpublic schools within the city and were "students with above-average potential but below-average achievement" who had completed Grade 6 in their present school. Scheduled to run six weeks, the program was devoted to strengthening basic skills in mathematics, reading, and writing while broadening the individual's outlook through classes in music, art, and history. Trips to points of historical and educational interest were an integral part of the program.

To run the program there were five "master" teachers, four or five "assistants" (chosen from among the juniors and seniors at Episcopal), and a swimming instructor, because the program would include both team-type athletics and swimming daily.

Each day 31 boys were picked up in front of their respective schools and brought to Episcopal Academy. The day began with five 30-minute classes in mathematics, reading, history, science, and "art and music." The boys were divided into four groups of eight by ability, permitting the instructors to move along adequately as a group. However, there was always a great spread of interest, and the small groups with two guides (teacher and assistant) were able to bend to the interests and needs of the individual.

The reading program had a filmstrip and tape recording that were synchronized with the reading books. The subject matter, football and baseball, was highly motivating. The students appeared to be interested in the subject.

In history the teacher had the boys in the library every day. They could read any books they chose as long as they wrote a brief report on each. Again, the students were motivated to read. Some of them actually read history and science books, but for the most part they were interested in joke, car, and sports books. Still they were reading every day.

In mathematics the teacher worked on improving basic skills by drill work mixed with motivating games.

In science the teacher had the boys doing a variety of things. They began by learning about food and how it is assimilated. From there they branched out into studying simple anatomy and biochemistry. The boys were fascinated by the many dissections that were done and by the feeding of an eight-foot boa constrictor.

The art program was a source of much enjoyment to the boys. The teacher b gan by teaching them the rudiments of drawing and ended with instruction in working with clay. Each of the boys made at least one project which was glazed and fired in the kiln.

Following classes, the boys were taken to the "Chuckwagon" for lunch and returned for sports and swimming. The sports program was, of course, popular. The boys participated in numerous games and were coached in their skills; good sportsmanship was emphasized.

ATTAINMENT OF OBJECTIVES

Objective 1. To improve academic skills and knowledge in reading, writing, spelling, oral and written expression, arithmetic, and science.

This objective was attained. Results obtained on the Intermediate Stanford Achievement Tests are summarized in Table 1. The average student improvement in reading was 1.1 years (GE). In mathematics the average improvement was 0.8 years. Reading scores ranged from 2.0 to 4.9 on the pretest and from 2.5 to 5.0 on the posttest. Mathematics scores ranged from 2.5 to 5.0 on the pretest and from 2.5 to 7.8 on the posttest.

Objective 2: To foster basic physical skills, and to encourage participation and proficiency in sports.

The swimming program was quite successful. The first day eight of 30 pupils could swim across the pool. At the end of six weeks, all but four children were comfortable in deep water. Fourteen passed the Red Cross Beginner test, nine passed the Advanced Beginner test, and two passed the Swimmer test. Therefore, this goal was attained.

SUMMARY AND CONCLUSIONS

This summer project provided a program of academic subjects and sport activities for target-area children in a private school setting. The project was successful with respect to both its goals. Participants improved both in academic subjects and in athletic proficiency. The average child increased his reading and mathematics scores on the Stanford Achievement Tests by 1.1 GE and 0.8 GE respectively. In addition, 27 of 31 children made excellent progress in swimming.

TABLE 1

MEAN GE SCORES OF 31 EPISCOPAL-ACADEMY-PROJECT STUDENTS ON INTERMEDIATE STANFORD ACHIEVEMENT TESTS

Subtest	Pretest	Posttest	Change
Reading	3.2	4.3	+1.1
Mathematics	3.3	4.1	+0.8

FOLLOW THROUGH (ESEA TITLE I COMPONENT)

Follow Through is a nationwide, comprehensive program for children in Grades K-3. It emphasizes planned variation in instructional approach, intensive parent and community involvement in school functioning, and special supportive services.

THE PROJECT

RATIONALE

The local project administration formulated a needs statement as the basis for introducing Follow Through in Philadelphia:

> Children having lived in or existed under certain conditions of the city have the need for a comprehensive program in the early years. An attempt must be made to provide them with the special support services deemed important to the learning process, i.e., medical and dental care, nutrition, social and psychological services, teacher training and active parent involvement. Children need to experience a good feeling about school and its environment derived from achieving success academically and socially. There is also a need to offer alternative instructional models to improve opportunities for these children. New approaches to early childhood education must be examined in the pragmatic settings of the local schools.

EXPECTED OUTCOMES

The broad goal of Follow Through is to improve the scholastic achievement of the participating children by meeting their academic, health, and psychosocial needs through provision of a comprehensive service program for both the children and their parents. The project aims to attain this goal by providing the following services: (a) an individualized instructional program adjusted to the ability level of the child, in order to increase his productivity, self-expression, and self-confidence; (b) a continuous in-service program for all staff, administrators, and parents; and (c) health services, diagnosis, and treatment as necessary to promote the child's educational, emotional, and physical development.

MODE OF OPERATION

Nationally, there are 22 different Follow Through models, each with a different sponsor. Seven of the models are operating in Philadelphia: Bank Street, Behavior Analysis, Bilingual, Educat Development Center (EDC), Florida Parent Education, Parent Implemented, and Philadelphia Process. Each model focuses on attainment of the project's broad goals in specific ways. Instructional variation ranges

from the highly structured, specific curriculum of the Behavior Analysis model to the open classroom, nonspecific curriculum of the EDC model.

The Bank Street model combines open classroom elements with its own specific curricular materials. The Bilingual model has specific curricular elements and emphasizes simultaneous Spanish and English language development; the Florida Parent Education model is nonspecific in its curriculum but is distinguished by its use of special parent educators who train parents in home-instruction techniques in support of specific learning tasks currently being stressed in their child's classroom. The Philadelphia Process model is self-sponsored, and was established as an attempt to extend the AAAS science approach to all subject matter areas. The Parent Implemented model uses the Philadelphia Process model's curriculum, and was initially characterized by a more intensive level of parent involvement in all aspects of school functioning than was stressed in the other models. Currently, this factor is less uniquely characteristic because other models have incorporated this emphasis also.

The project's parent-involvement component is implemented by means of special Parent Advisory Committees (PACs) in the respective schools and, more recently, through a model-management strategy whereby parents are integral members of the management and decision-making team. The model-management concept, originally part of the Behavior Analysis model, is gradually being extended to all the models and schools.

PREVIOUS FINDINGS

In the project's initial years of operation, evaluation efforts consisted of monitoring the program implementation. In the 1971-1972 school year, a form of summative evaluation was undertaken to provide the School District with pertinent information on the project's progress during the first four years of operation. (In conjunction with this effort a request from the Office of Education to supply pupil-mobility data allowed the formation of the computerized individual pupil file for the total Follow Through population; this initial file has since been expanded to provide the foundation for the comprehensive documenting orientation of subsequent evaluations.)

In the last two years' evaluations it was found that, of all project staff, teachers, aides, and parents, 80-90% wanted the project to continue. Most principals and teachers had favorable attitudes toward the project's parent-involvement component. Every school year, there were an average of 15 regular PAC members at each school and an average of 25 parents attending open PAC meetings.

During the project's first four years of operation, 60-70% of participating pupils and 75% of the teachers remained in the project.

Special medical services were found to be well established in all schools; special psychological services were in need of better implementation.

On the Spring 1972 citywide achievement tests, pupils in schools using the Behavior Analysis model scored higher than the total subdistrict reference group in all first-grade subject-matter areas and in the second-grade mathematics areas. In the same testing, one district's group consisting of three different models scored higher than the total subdistrict reference group in most subject-matter areas of all grades (K-3).

In the spring of 1973, Follow Through participants scored higher on the Metropolitan Achievement Tests (MAT) than the total local comparison-school group in all kindergarten areas, in four of five first-grade areas, in all second-grade mathematics areas, and in two of the third-grade mathematics areas. Pupils in the Behavior Analysis and Bank Street models exceeded the comparison group in most test areas across all grades (K-3). Pupils in these two models also showed improvement over their 1972 performance.

THE 1973-1974 EVALUATION

The basic comprehensive documenting approach for local evaluation was continued in the current year. Local evaluation focused on pupil-attendance rates, pupil and teacher mobility, parent involvement, and provision of special supportive services. Pilot testing of a special classroom-observation instrument and of criterion-referenced reading tests also was in process this year.

IMPLEMENTATION

The implementation of the Philadelphia Follow Through project was assessed in the same way as the national program. Monthly reports were made by the model sponsors (after site visits) and by the six District Liaison Assistants (designated staff coordinators).

This year was marked by greater and more effective concern for parent involvement. The model-management concept, which was successfully developed by the local staff in the Behavior Analysis schools, was extended to all models. Sponsors of the EDC and Bilingual models gave increased attention to parent involvement, which was already typical of the other models. The local staff felt that future efforts would be needed to obtain a wider representation of parents at all schools, especially because parent representation could provide a powerful vehicle for disseminating knowledge of the project and its ideals.

There were problems with this year's implementation. A general unrest and uneasiness affecting all levels of staff and model sponsors became apparent in the second half of the year. The main causes apparently were concerns about continued funding at the national level, and about the local effects of the Title I lawsuit. Notable lapses in regular sponsor contacts and/or feedback from site visits resulted. Concentration on programmatic concerns was replaced by increasing emphasis on political strategies that might relieve the funding pressures.

Although the local project staff tried to deliver the special supportive services mandated by program guidelines, the results were less than satisfactory. Last year's evaluation suggested that schools provide transportation and/or escort services to medical, dental, psychological, and social service appointments. The staff tried to implement these services, but success was only moderate.

This year, all models gave more attention to second- and third-grade instructional components, in light of last year's finding that performance in these grades was not equal to kindergarten and first-grade achievements. However, 1973-1974 test results may not indicate the project pupils' true performance capabilities, because of too much testing in a brief time period.

Implementation was successfully achieved in the parent-involvement and specialized-instruction components this year. However, the supportive-services component appeared to need continuing efforts to solve its problems.

Although the evaluation team felt that the total project had overcome many obstacles and on the whole was well implemented, the degree of implementation varied from model to model. The Bank Street model had excellent sponsor support and was very well implemented in the second half of the school year. The Behavior Analysis model also was very well implemented in the second half of the school year, despite a noticeable decline in sponsor responsiveness and support. The Bilingual model showed an improved effort toward attaining parent involvement; however, sponsor support continued to be inconsistent. The EDC model improved sponsor attention to curricular concerns; the parent-involvement component was better implemented. The Florida Parent Education model had serious problems in conducting home visits, which were central to it. The Parent Implemented and Philadelphia Process models, both of which used the Philadelphia Process curriculum, improved efforts to define clearly the tasks and methods in which they should specialize.

ATTAINMENT OF OBJECTIVES

Data-processing delays substantially affected the assessment of 1973-1974 pupil performance in all project objectives. Some preliminary data for the 1973-1974 school year were available for six of the objectives: those regarding parent involvement, the special supportive services, and teacher-retention rates. Conclusions regarding the other four objectives were based on recently completed studies of pupil performance in 1972-1973--the latest school year for which detailed analysis was completed. Pupil-achievement data for that year were analyzed cross-sectionally in last year's report (Evaluation of Title I ESEA Projects, 1972-1973); the same data were analyzed longitudinally and quasi-longitudinally during the current year. In keeping with the regular Follow Through procedure, fully detailed reports covering attainment of all the 1973-1974 objectives will be submitted to the Follow Through branch of the United States Office of Education.

An individual pupil file of computerized records was kept for each child who was in the Philadelphia Follow Through project for at least five months in any year since the project's 1968 inception. In the spring of 1973, 10,693 records were on file.

Information regarding attainment of Objectives 1, 2, and 3 was based on longitudinal and quasi-longitudinal studies of Metropolitan Achievement Test (MAT) performance in relation to project and model exposure and Head Start or equivalent experience. The performance data used this year were Spring 1973 achievement scores on the MAT, as referenced by pupils' project and model exposure, cross-tabulated with grouping by Head Start or equivalent experience (HS) or no Head Start experience (NHS). The maximum exposure for kindergarten pupils was one year; for first graders, two years; for second graders, three years; and for third graders, four years.

With regard to Objectives 4-8 (parent involvement and special supportive services), while there was substantial national and sponsor monitoring of the project, a brief recording form was issued to schools to elicit information for the local evaluation. When this report was written, most schools had returned their forms; tentative findings are based on the information available at that time.

Objective 1: To improve pupil performance in reading skills.

Major findings for total reading are shown in Tables 1 (cross-sectional data) and 2 (quasi-longitudinal data). The Bank Street and Behavior Analysis models are included because only they evidenced consistently higher performance than the total project, each other model, and non-Follow-Through groups, both in cross-sectional and in quasi-longitudinal analysis (where the level of performance was usually still higher under maximum exposure and Head Start conditions than on simple cross-sectional analysis).

Longitudinal analysis was possible for two groups: (a) those who had taken the MAT during citywide testing in first grade in Spring 1972, and in second grade in Spring 1973, and (b) those who had taken the MAT in 1972 and again in 1973 as second and third graders respectively. The 1973 scores were consistently lower than the 1972 scores of the same pupils.

The principal form of longitudinal analysis consisted of a multiple regression procedure using 1973 scores as the dependent variable; model indicators, Head Start indicators, total model exposure through 1973, and 1972 test scores were independent variables. The multiple regression analysis revealed that 1973 total reading scores were best predicted by 1972 scores on the same test. Participation in the Behavior Analysis model was the next-best predictor, but its contribution was extremely slight. Going beyond the three-variable model yielded no increase in the explained variance.

Quasi-longitudinal findings in general, though usually at a higher level of performance, paralleled the cross-sectional findings reported earlier for 1972-1973, which indicated improved reading performance but noted that second- and third-grade improvement was not as high as that of kindergarten and first grade.

The quasi-longitudinal analysis revealed that higher performance in the Behavior Analysis model was directly related to maximum exposure and/or Head Start experience. Maximum exposure and/or Head Start experience were associated with higher performance in the total project and the Bank Street model in kindergarten and first grade, but not in second and third. The total project, the Behavior Analysis model, and especially the Bank Street model exhibited a progressive lowering of level of performance across the grades.

Longitudinal analysis essentially confirmed the overall superior performance of the Behavior Analysis model, but also documented the trend of lower performance in the project's higher grades.

Objective 2: To improve pupil performance in mathematics skills.

The same analyses as those used for total reading performance were carried out for MAT total mathematics. Tables 3 (cross-sectional) and 4 (quasi-longitudinal) present the major findings. Multiple regression analysis again showed the Behavior Analysis model's performance to be superior.

Conclusions similar to those stated for reading were drawn for mathematics achievement. The highest-performing model was Behavior Analysis, followed by Bank Street. In these two models, mathematics scores did not decline so sharply as reading in higher grades. However, the pattern of lower improvement as pupils progressed in grade level persisted in both reading and mathematics.

In general, mathematics performance was somewhat better than reading. Head Start along with maximum exposure had the most positive effect, and maximum exposure within the grade also had significant impact.

Objective 3: To improve pupil performance in language skills.

Specific language subtests do not appear in the MAT until second grade, where a spelling section is introduced. A short, broader language subtest is included at the third-grade level. Because of this, the extensive quasi-longitudinal and longitudinal analyses conducted for total reading and total mathematics were not performed for language skills. However, limited studies made from available information showed improvement in language skills.

In spelling, the Behavior Analysis model again performed higher than each other model and the total project; Bank Street also achieved superior scores. The effect of maximum exposure was positive, but Head Start experience did not heighten language performance in these models.

as in reading and mathematics, longitudinal analysis showed that for spelling--the subtest having the highest multiple regression R-square (.62)--the best predictor of 1973 score was 1972 score, followed by Behavior Analysis participation.

Objective 4: To provide an effective level of parent involvement.

Parent involvement continued to be one of the strong points in the Philadelphia Follow Through project. One school, which had no Parent Advisory Committee (PAC) last year, established one during 1973-1974. The model-management concept has now been introduced in all seven models, giving parents a voice in all decisions affecting the project. The concept essentially involves regular decision-making sessions, with parents, principals, and project staff alternating in organizing agendas and chairing meetings.

According to responses of PAC chairmen and principals on the brief recording form distributed by the local evaluation team, an average of 25 (range from 10 to 60) parents attended open PAC meetings. Within a range from 20% to 100%, the median percentage of homes visited at least once during the school year by project staff was 68%. The percentage of parents who attended at least one meeting during the school year ranged from 4% to 80%; 50% was the median.

The objective of gaining parent involvement in the project seemed to be successfully met in some respects. There was evidence of effort to attain parent involvement in all phases of the project. However, future data are needed to substantiate the effect of these efforts.

Objective 5: To provide an effective form of medical service.

In addition to School District services, all project schools received medical services from an outside agency, which regularly provided (a) medical histories, (b) X rays, and (c) laboratory screening--hemoglobin, hematocrit, tuberculin, urinalysis, lead poisoning, and sickle cell tests.

Responses on the brief recording forms indicated that in at least half the schools 100% of the Follow Through children were screened by a school nurse. Most other schools screened at least 90%, and only one school screened less than half its pupils (32%). Of the children referred for treatment to an outside agency, 12% to 100% actually received treatment. The median was 88%.

Although some schools still evidenced lack of effective medical provisions, this objective was met overall.

Objective 6: To provide an effective form of dental service.

Usually, special dental services were also provided by an outside agency, but there was occasional reliance on a private dentist. Services regularly included dental examination, charting, extractions, fluoride treatment, X rays, fillings, and prophylaxis.

Responses on the brief recording forms indicated that approximately one third of the schools had 100% screening, while another third provided screening for 60% to 90% of the Follow Through pupils. Only two schools were below 50% (47% and 36%). The ratio of number of children treated to number referred ranged from 11% to 100%, with 82% as the median.

This objective was generally attained, but not to the extent of the medical-services objective. Some schools still appeared deficient in providing an effective form of dental service.

Objective 7: To provide an effective form of psychological service.

Most schools used outside agencies to provide special psychological services. However, the Behavior Analysis model (3 schools) departed from this procedure because special attention to psychological factors was an integral part of its instructional model, and because there was difficulty in finding professionals adequately trained in the application of Behavior Analysis principles.

Psychological services reported on the brief recording forms included individual testing, individual observation in the classroom setting, staff consultation, parent consultation, home visits, and therapy. Only one school reported that less than 100% of pupils referred were examined (78%). Of the pupils examined, 55% to 100% were treated; 87% was the median.

According to the limited data available, this objective was met, and there was evidence of increasing concern on the part of a number of schools. However, further upgrading of psychological services was judged to be desirable.

Objective 8: To provide an effective form of social service.

Specific Follow Through school-community coordinators were on the staff of each school except the smallest one. The coordinators were paraprofessionals who received special training at the University of Pennsylvania School of Social Work. A certified social worker supervised their work in half the Follow Through schools.

Two schools were not included in evaluation figures; one had no special community coordinator, and the other had no coordinator until April. The percentage of families visited by coordinators at least once during the school year ranged from 41% to 100%; 73% was the median. The number of families with whom a coordinator engaged in on-going casework efforts ranged from three to 25, with 15 as the median.

Most schools seemed to meet the social service objective, and most had improved considerably over past performance. However, this was probably the area most in need of further strengthening.

Objective 9: To insure that pupil-retention rates are sufficiently high to allow for the program's longitudinal effect.

It was impossible to report on this objective in terms of the 1973-1974 school year, because the final update of the School District's pupil directory including the Follow Through pupil file, was not yet available.

A prior report, based on a minimum of five months' exposure in any given year, indicated that over the first four years of the project (1968-1969 to 1971-1972) there was an overall pupil continuance rate of slightly more than 70%. This four-year span included the first group of pupils to enter the project in kindergarten and continue through to "graduation" after completing third grade. The second wave of pupils, (those entering kindergarten in 1969-1970 and completing third grade in 1972-1973) showed a slightly reduced continuance rate, 65%. In both groups, retention rates of pupils with Head Start or equivalent experience were approximately three percentage points higher. The Behavior Analysis, Bank Street, and Parent Implemented models ranked highest in retention; the Bilingual model ranked last.

Although the pupil-retention rate had dropped, the evaluators believed that it was still sufficiently high to allow for the project's longitudinal effect. The relatively high retention rate permitted the majority of Follow Through pupils to be exposed to the project's planned long-range benefits.

Objective 10: To insure that teacher-retention rates are sufficiently high to allow for continuity of treatment within the program.

Sufficient data were collected to permit some general conclusions regarding the 1973-1974 school year.

Through the first four years, 1968-1969 to 1971-1972, 74% of the teachers remained in the project. In the second four-year wave, 1969-1970 to 1972-1973, 65% of the teachers ever assigned to the project remained. In the most recent four-year span, 1970-1971 to 1973-1974, 60% remained. The Philadelphia Process and Behavior Analysis models appeared to be highest in retention; the Florida Parent model was the lowest.

Any attempt to explain the decrease over each four-year span should take into account the teachers' strike in 1972-1973, a general decline in enrollment in schools, and administrative reassignments. Also, such factors as marriage, family moves, and retirement affected the teacher-retention rate. However, the retention rate seemed to be sufficiently high to conclude that the objective, continuity of treatment within the project, was met.

SUMMARY AND CONCLUSIONS

The overall implementation of major project elements was successful in the 1973-1974 school year. The parent-involvement component was very well implemented, and was further complemented by universal introduction of the model-management concept.

The instructional component received more consistent attention from sponsors, but the support of some sponsors, especially in the Behavior Analysis model, seemed to have decreased in the latter half of the year, possibly due to concern over funding. Each model's attempts to concentrate on better implementation of the instructional component in second and third grades cannot be judged until Spring 1974 test results become available.

There was also overall improvement in the implementation of the special supportive-services component, particularly in providing pupil transportation to service sources. However, the supportive-services component was still in need of development.

Because 1974 test results were not yet available for the assessment of pupil performance in reading, mathematics, and language skills, 1972 and 1973 Metropolitan Achievement Test results, not previously analyzed, formed the basis of this report.

Regarding reading, both quasi-longitudinal and longitudinal data supported findings previously reported from a cross-sectional perspective. The levels of achievement in kindergarten and first grade were not maintained through second and third grades. However, under quasi-longitudinal analysis, higher project exposure and/or Head Start experience was associated with higher performance within each grade. Combined Head Start experience and maximum exposure produced the highest level of performance in the total project in kindergarten and first grade, but this effect was not found in the two upper grades. Behavior Analysis and Bank Street were the highest achieving among the seven models in Philadelphia.

In mathematics, performance was almost identical with what was noted for reading, except that overall project performance was higher than in reading, and the combined effect of Head Start experience and maximum exposure seemed to persist across all four grade levels.

The extensive analyses made for reading and mathematics were not repeatable in all respects for language. However, it was determined that the Behavior Analysis and Bank Street models excelled in this area, particularly the former model in spelling. Higher project exposure was related to higher general performance in language skills.

Some initial data for 1973-1974 were available for reporting on attainment of the objectives related to parent involvement and to medical, dental, psychological, and social services. The parent-involvement objective was attained, as evidenced by attendance at open PAC meetings and general school meetings, and the percentage of homes visited at least once.

The medical services objective also was attained: extensive services were provided, a very high percentage of pupils were screened, and a high percentage of needed treatment was provided. Though not quite on par with the medical services, extensive dental services were provided, screening was carried out well, and effective treatment was provided.

The psychological and social service objectives were also considered attained. Extensive psychological services were provided, a high percentage of referred pupils were examined, and a high percentage of treatment was given when examination proved a need. Social services were in need of additional strengthening; however, a high percentage of homes were visited by school coordinators, and there was evidence of ongoing work with families. The project schools seemed to be increasing their efforts to improve social services.

Data on pupil-retention rates were not yet available through 1973-1974, but previously unavailable 1972-1973 data were analyzed. Despite a slight drop in continuance rates (from 70% to 65%), pupil retention seemed to be consistently high, allowing for the project's planned longitudinal effects. Head Start experience continued to be associated with higher continuance rates.

Preliminary analysis of teacher-retention rates through 1973-1974 revealed that the objective for this area was also met. However, there was a progressive decline (from 74% to 60%) in teacher retention over the first three four-year spans.

As a whole, in 1973-1974 the project functioned very well and continued to meet its objectives.

TABLE 1

NATIONAL PERCENTILE RANKS CORRESPONDING TO MEAN SCORES ON MAT TOTAL READING SUBTEST, SPRING 1973

Grade	Non-Follow-Through (NF)	Total Follow Through (FT)	Bank Street Model (BS)	Behavior Analysis Model (BA)
K	46	54	72	64
1	32	36	40	56
2	23	23	23	34
3	22	20	14	28

TABLE 2

NATIONAL PERCENTILE RANKS CORRESPONDING TO MEAN SCORES ON MAT TOTAL READING SUBTEST, SPRING 1973, OF MAXIMUM-EXPOSURE PUPILS WITH (HS) AND WITHOUT (NHS) HEAD START OR EQUIVALENT EXPERIENCE

Grade	Total Follow Through (FT)		Bank Street Model (BS)		Behavior Analysis Model (BA)	
	HS	NHS	HS	NHS	HS	NHS
K	64	46	80	54	72	64
1	42	40	46	40	66	60
2	23	23	23	23	34	38
3	22	20	16	14	36	28

TABLE 3 .

NATIONAL PERCENTILE RANKS CORRESPONDING TO MEAN SCORES ON MAT TOTAL MATHEMATICS SUBTEST, SPRING 1973

Grade	Non-Follow-Through (NF)	Total Follow Through (FT)	Bank Street Model (BS)	Behavior Analysis Model (BA)
K	38	52	56	70
1	42	48	50	62
2	28	34	38	50
3	20	18	23	32

TABLE 4

NATIONAL PERCENTILE RANKS CORRESPONDING TO MEAN SCORES ON MAT TOTAL MATHEMATICS SUBTEST, SPRING 1973, OF MAXIMUM-EXPOSURE PUPILS WITH (HS) AND WITHOUT (NHS) HEAD START OR EQUIVALENT EXPERIENCE

Grade	Total Follow Through (FT)		Bank Street Model (BS)		Behavior Analysis Model (BA)	
	HS	NHS	HS	NHS	HS	NHS
K	56	46	66	46	76	66
1	52	50	54	50	66	66
2	38	38	44	38	50	58
3	20	20	26	23	38	32

INSTITUTIONS FOR NEGLECTED AND DELINQUENT CHILDREN

This Title I project consists of the separate programs of 11 different custodial care institutions.

THE PROJECT

RATIONALE

Many target pupils under the care of institutions participating in this project are from culturally deprived backgrounds; their basic skills in reading, mathematics, and other subjects lag far behind the national norms for their ages and grade levels. Therefore, institutionalized pupils who either attend school within the institution or attend public schools need additional reading and mathematics instruction and cultural experiences which are seldom provided in regular school programs.

EXPECTED OUTCOMES

Each institution provides special and unique services for its children. Through these services, it is expected that the children will improve their attitudes toward themselves and toward others, improve in reading, mathematics and vocational skills, and improve in social skills to facilitate acceptable interaction with adults and peers.

MODE OF OPERATION

There is no single mode of operation for the institutions; each of them generates its own program. The various modes of operation for the 1973-1974 school year are described briefly in the following paragraphs.

Association for Jewish Children. This program for 30 pupils is intended to provide diagnosis and treatment in specific areas of academic weakness. A staff psychiatrist works with the children. To meet special academic needs of the children, volunteer tutors help pupils after school, four days a week.

Baptist Children's House. This program is intended to provide after-school tutoring for 86 pupils by a staff of three reading specialists. Recreational and arts-and-crafts supervision also are provided. The program operates after school, four days a week.

Children's Aid Society. This program is intended as a tutorial reading program for 36 pupils. Depending on their needs, pupils are tutored individually once or twice per week by reading specialists. After-school tutoring is conducted on an individual basis.

Children and Family Service of Episcopal Community Service. This program is intended to enhance the cultural opportunities of those pupils housed in the service's two residences. The recreation leaders organize visits to various cultural, sports, and other public events during the school year.

Diagnostic Center of the Sisters of the Good Shepherd. This program provides the 48 residential pupils with instruction in English, reading, mathematics, and foreign language, and with cultural and arts-and-crafts activities during the regular school day. The agency provides four faculty members and instructional materials, and arranges trips to cultural and other events.

Discovery School (formerly Claver School for Girls). This program provides 55 pupils at the agency's school with on-site instruction regarding drug abuse and sexual behavior by providing instructional materials, part-time instructors, and guest speakers during the regular school day.

Girard College. The intent of this program for 394 pupils in three-fold: (a) to equip and staff a science room in the agency's lower school (Grades 1-6) and a science laboratory in the upper school (Grades 7-12), (b) to provide on-campus cultural events for the pupils by hiring an English/dramatics instructor who would also provide instruction in the literary arts, and (c) to offer off-campus trips to educational events and sites.

Methodist Home for Children. This program provides tutorial assistance to 60 pupils after school through the use of volunteer tutors recruited from nearby colleges and coordinated by a staff member. Pupils are offered tutorial help in homework assignments as well as in skill areas and hobbies, four days a week during the school year.

Southern Home for Children. This program provides after-school tutoring to pupils in any areas of special need. The program has two components: an ongoing in-service training program for student tutors, and a youth-serving-youth program with approximately 10 of the eldest and academically most able project children serving as tutors to an equal number of younger and academically less able pupils. In-service training and supervision of the youth-serving-youth program are the responsibility of a supervising teacher, who also tutors three of the lowest-achieving children. A second teacher assists the supervising teacher.

Youth Services, Inc. This program provides after-school, small-group instruction in reading and language arts to selected pupils. Two teachers provide services to groups of approximately five pupils. In all, 20 children receive instruction for 45 minutes three times per week. In addition, two volunteer tutors from the University of Pennsylvania Community Work-Study Program tutor pupils in mathematics and in other subjects.

Youth Study Center. The intent of this program is to present a series of after-school activities, including tutoring, sewing, crafts, and hobbies, for the pupils at the Youth Study Center. Pupil participation is voluntary. The nature and the numbers of activities are determined by pupil interest. Eighteen members of the YSC's 20-member faculty are sponsors. Activities are scheduled five days a week; each activity is open to all pupils at YSC.

PREVIOUS FINDINGS

Past evaluations (1968-1973) showed that the contracted services were being provided by the institutions receiving funds.

THE 1973-1974 EVALUATION

Evaluation of the Institutions for Neglected and Delinquent Children project during 1973-1974 focused on the respective processes and accomplishments of the 11 participating institutions' programs.

IMPLEMENTATION

A unique set of services designed to meet the assessed needs of participating pupils was planned and implemented by each of the institutions in this project. The services provided by each institution are described in the "Attainment of Objectives" section of this report. Most of the programs were not implemented until January or February 1974. Therefore, four or five months of expected impact were lost.

ATTAINMENT OF OBJECTIVES

Although most of the objectives of the institutions varied, there were several which were emphasized by many of the programs: improvement of reading skills, improvement of mathematics skills, expansion of cultural experiences, and development of acceptable social relationships.

The attainment of the objectives was assessed from records of pupils' test scores and task accomplishments sent to the evaluators by the institutions.

The implementation and attainment of objectives of each institution in the project are described in the following paragraphs.

Association for Jewish Children

The program at the Association for Jewish Children provided diagnosis using tests and consultation services provided by the agency's staff psychiatrist.

Approximately 30 children were tutored by volunteers in areas of academic weakness. These tutorial efforts were coordinated and supervised by the agency's psychologist. Curriculum materials were purchased as needed. Metropolitan Achievement Tests were administered in the areas of mathematics and reading.

Objective: To raise the level of competence in reading, English, language arts, the physical sciences (chemistry, biology, physics), foreign languages (French, Spanish, German), history, and social studies, and to bring the children up to grade level in these subjects.

A majority of the pupils improved their competence in the various skill areas. Progress was made by many of the children; it was unrealistic to expect children who have psychological and social problems to reach grade level.

Baptist Children's House

The program at the Baptist Children's House provided after-school tutoring in reading for 45 to 50 pupils per month. Because of the pupils' needs in mathematics, the program was altered to provide mathematics tutoring for 35 to 40 other pupils per month. Although the focus of the program was on academic skills, some arts-and-crafts activities were also provided. Reading skills were measured with informal reading inventories.

Objective 1: The remedial reading aspect of the program will seek to increase the individual's vocabulary, comprehension, and independent work-study skills. The 7-12 grade group will also study appreciation of literature and use of the library.

This objective was attained. More than 55 children received services. Of these children, 35 were administered informal reading inventories and phonics inventory pretests and posttests during the year. In all cases but two, gains were reported on informal reading inventories. Similarly, on the phonics inventory, gains in score were reported in all but two cases.

Objective 2: The aim of the recreational portion of the program is to improve the child's self-image through a better understanding of rules of team and individual sports, and through subsequent participation in these activities.

This objective was attained. The recreational portion of the program was implemented. Observations and records indicated strong pupil participation.

Objective 3: The arts-and-crafts program will enable the children, with proper materials and proper settings, to express themselves in a more creative way.

This objective was attained. Observations indicated many creative products.

Children and Family Service of Episcopal Community Services

This program was not implemented during 1973-1974.

Children's Aid Society

The program at the Children's Aid Society provided individual tutoring and instruction for 36 pupils: 14 pupils in Grades 3-7 were tutored in reading; 22 other pupils received instruction in reading, mathematics, science, and social science by staff members. Tutoring was on a revolving basis with individual pupils receiving tutoring in different parts of the school year. Some pupils received tutoring less than once a week even during their period of involvement. Needed curriculum materials were purchased.

Objective: The major objective is to increase the reading proficiency of each child by at least one grade during the course of the regular school year. Basic phonics will be stressed at every level. Indirectly, it is expected that this individual instruction will stimulate the child's interest in acquiring information from printed materials.

The 14 children involved in the remedial reading program initiated in October 1973 were tested. Pretest and posttest results of a standardized test, an IRI, phonics inventories, and the Daniels Word Recognition Test were compared. In all but one case, excellent gains were made. In all but two cases, more than 10 months of growth were noted.

Diagnostic Center of the Sisters of the Good Shepherd

This institution provided programs and supplies in reading, English, mathematics, physical education, music, art, foreign language, and consumer education. The Gates MacGinitie Reading Test and the Wide Range Achievement Test were used diagnostically. The center is primarily a placement center for girls after their problems have been diagnosed. The program is designed to fit the four-to-six-week stay of each child.

Objective 1: Upgrading the achievement level in English, reading, and mathematics for girls who test below grade level.

Because this institution's main purpose was the diagnosis of each girl's problems and placement into other agencies or institutions, upgrading of achievement levels was an unrealistic goal. However, the program was very successful in helping the girls to adjust to this environment, and helped them maintain and improve their skills.

During the 1973-1974 school year, the Diagnostic Center administered the Gates-MacGinitie Reading Test and the Wide Range Achievement Test in mathematics to 154 pupils. In addition, eight hours of instruction were provided weekly in reading and mathematics to all pupils enrolled at the center.

Objective 2: Providing self-study units in foreign languages, science, and social studies so as to meet the varied needs of individual pupils.

On-site observations revealed that self-study units in foreign languages, science, and social studies had been purchased with Title I funds. Time was scheduled for the pupils' use of such equipment under the direction of the professional staff.

Objective 3: Making available opportunities for these young students to learn worthwhile cultural activities in arts and crafts, home arts, music, sports, games, and dancing.

This objective was attained. All pupils received instruction in consumer education, science, physical education, health, and family counseling. These classes were conducted one to two hours per week. In addition, guitar lessons were offered.

Discovery School (formerly Claver School for Girls)

The Title I program provided instructional programs, outside speakers, and instructional materials for 55 pupils regarding drug abuse, and acceptable social and sexual behavior. In addition, part-time instruction was provided in general home nursing for most of the 55 pupils.

Objectives 1-5: To aid pupils in gaining an awareness of and sensibility to their emotions and emotional behavior, and the effects of this on their responsibility to themselves and their community; to introduce, define, and explore the nine drug categories and their effects and symptoms of physical dependence, mental dependence, and organic damage as caused by them; to help young people in their adjustment to sexual maturity and its social implications; to provide information concerning venereal disease; and to aid pupils in becoming aware of basic bodily needs and functions, and the interplay between a healthy body and mind.

All objectives were attained. The program provided instruction in self-understanding, sex education, and drug-abuse education through learning materials, films, and lectures by visiting instructors from local nursing schools, hospitals, and social agencies. The program also addressed the pupils' need for awareness of their emotional behavior and their bodily needs and functions through provision of home nursing and health instruction in both the physical and psychological domains of health. On-site observations revealed that the program was being received by the pupils in a mature way and that the instructional staff taught in a candid and forthright manner.

Girard College

This program was not implemented in 1973-1974.

Methodist Home for Children

This program provided for recruitment, scheduling, training, and supervision of volunteer tutors by a coordinator of volunteer services. The volunteers gave all pupils at the Methodist Home small-group and individual assistance in basic skills, arts and crafts, and homework assignments. Each tutor worked at least one hour per week during the program's scheduled study hour (6-7 p.m., Monday through Thursday). Many tutors stayed later to help with recreation activities planned for the children.

Objectives: The objectives in Grades 1-3 are to help children learn to count, to learn the basic number skills, to increase written skills, and to use creative techniques. The objectives for Grades 4-6 are to make children curious so that they will be motivated to learn on their own, and to reinforce earlier positive learning. The objectives for Grades 7-11 are to expose teenagers to other young people who are preparing for vocations, to provide them with specific homework help, and to develop new interests.

All the objectives were implemented. As of May 1974, all 53 resident pupils of the Methodist Home were receiving tutorial help for one hour Monday through Thursday evenings during the school term. A total of 37 tutors (18 the first semester and 19 the second semester) participated, with an average of five tutors scheduled for any given night. Absenteeism for each tutor averaged between two and three sessions during the entire program year, an unusually low rate for a voluntary program such as this. In addition, the coordinator of volunteer services reported that many tutors spent time after regular tutoring hours to provide additional staff help. On-site observations revealed a high degree of pupil interest during the program and dedication on the part of the tutors. Observations and interviews revealed that tutors assisted pupils with homework assignments and with school studies, and offered arts-and-crafts activities to the pupils.

Southern Home for Children

This institution provided an after-school program for 22 pupils. The older, more able pupils tutored the younger and less able pupils in basic skills, homework assignments, and arts and crafts. The program was conducted on Tuesday, Wednesday, and Thursday evenings during the school year for 60 to 90 minutes. Two teachers supervised the activities: one was present two evenings a week; both were present one evening a week.

Objectives: To provide a wider and more meaningful background of experience; to help close the gap between actual reading ability and potential reading ability; to help develop a better and more favorable attitude toward teachers and the learning experience; to provide the child with the opportunity to keep up with his classmates through individual tutorial help; to provide all children and especially the adolescents with a meaningful motivational experience around the learning situation; and to heighten the self-image of the children, and help reduce anxiety and frustration levels toward learning.

The program provided a youth-serving-youth tutorial program under the direction of an adult supervisor. During an average week, approximately eight children were employed to tutor approximately nine other children. The tutors were paid $1.25 per hour. However, the attainment of these objectives was unascertainable because no tests were administered to determine such attainment.

Youth Services, Inc.

This program provided group and individual tutorial services in reading. Three nights a week, a teacher tutored up to 10 girls individually for a total of two hours, while a second teacher tutored a group of approximately 10 boys for the same period. Pupil participation was voluntary. Informal reading inventories were administered to 27 pupils to assess reading skills.

Objectives: To improve reading skill and comprehension, and to arouse interest in learning and confidence in the ability to learn.

On-site visitations, interviews with pupils, and perusal of program records revealed that 27 pupils were tutored and 20 of these were administered diagnostic informal reading inventories at least once during the year. However, the attainment of these objectives could not be determined from the data made available.

Youth Study Center

This Title I program was implemented as a series of after-school activities conducted by 18 members of the school's regular faculty. Activities included tutoring in reading and mathematics skills, homemaking, arts and crafts, and rap sessions where pupils talked about problems. Activities were scheduled five days a week and serviced those children at the Youth Study Center who volunteered to participate. Many of the children remained at the center for approximately a month before being sent home or to another agency.

Objective 1: To improve performance in the language-arts skill areas.

Progress was inconclusive. During the sample months of April and May, an average of 79 pupils per month received remedial reading instruction. Of these

pupils, 47 were administered standardized achievement tests to diagnose their disabilities.

Objective 2: To improve classroom performance in the arithmetic skill areas.

During the sample month of April 1974, 10 pupils were involved in remedial mathematics work. The five pupils who were given pretests and posttests of the Philadelphia Fundamentals of Arithmetic Test showed gains.

Objective 3: To reduce the rate and severity of disciplinary problems for children participating in the program.

The program as observed appeared to meet this objective.

Objective 4: To improve the emotional and social stability of pupils involved in the program.

The program as observed appeared to meet this objective.

Objective 5: To help youngsters who have dropped out of "regular school" to work toward a High School Equivalency diploma.

Remedial reading and mathematics helped pupils work toward attainment of this objective.

Objective 6: To improve the children's skills and dexterity in the area of physical education.

During the sample month of April 1974, 19 pupils were in health or physical education classes under this program. Information on drug abuse was also disseminated.

Objective 7: To develop a greater appreciation and interest in art and music.

During the sample month, 12 pupils were engaged in a program of music performance and appreciation which also provided some reading instruction.

Objective 8: To improve the nutritional health of the girls in the homemaking program.

Progress toward this objective was indeterminate. Ten pupils were enrolled in April in a homemaking group; the activities were largely oriented toward sewing and dressmaking.

Objective 9: To help the girls develop greater skill in areas of sewing and dressmaking.

This objective was achieved. All 10 pupils in the homemaking group worked on and/or completed sewing projects during April. Furthermore, it was reported that the nine pupils in the cosmetology group also worked on sewing project.

Objective 10: To encourage the children to learn and practice good grooming habits.

Nine girls were enrolled in a cosmetology group during the sample month. Their instructor reported progress in specific skills (facial, skin, and hair care) and improved attitudes for all pupils.

Objective 11: To improve the skills of the children in the area of woodworking and, in so doing, to help them learn the rudiments of a vocation or a creative hobby.

This objective was met. Ten pupils were enrolled in the sample month, and all worked on an/or completed one or more projects. All but one pupil exhibited acceptable shop behavior and exercised maturity about equipment and tools. Only one boy needed simplified projects because of lack of progress on his part.

Objective 12: To provide opportunities for the older boys to acquire proficiency in household and small appliance repairs and thus develop salable skills.

This objective was not realized.

Objective 13: To raise the occupational and educational goals and self-image of the children.

At least two groups were active: a ceramics group was formed, as well as a vocational arts group. While both ceramics and vocational arts focused on hobby aspects, all 19 pupils in these projects worked on and/or completed projects during the sample month.

Objective 14: To change the attitudes of the girls and boys who have had difficulties with school, with authorities and parents, with personal health problems, or with families and finances.

A group of 10 pupils was formed for group counseling. Activities mainly consisted of "rap" sessions during which problems relevant to the pupils were discussed.

SUMMARY AND CONCLUSIONS

The Title I project of Institutions for Neglected and Delinquent Children was established to meet the needs of institutionalized children who, by reason of neglect and/or delinquency, have severe deficits in basic academic skills, social skills, and cultural experiences. Because of these deficits, nearly all of these children are performing below grade level in most aspects of school work. Their history of neglect and/or delinquency usually has involved antisocial behavior in the school setting. These burdens provide academic frustration and make learning particularly difficult.

The institutions caring for these children have a two-fold role: they must socialize the child so that his general behavior is socially acceptable, and provide extra remedial work in cognitive skills so that the child can gain the skills needed to function in society.

Title I funds, as used in the project for Institutions for Neglected and Delinquent Children, attempt to serve both these needs. Many of the institutions use allotted funds to provide tutorial assistance in academic skill areas. Funds are used also to serve the socialization needs of the pupils, which, while not directly academic, are nevertheless essential to children who are deprived of adequate parental guidance. These socialization needs can be divided into two parts: (a) human services, psychological counseling, psychotherapy, drug-abuse education, and information regarding sexual behavior (for upper grades), and (b) cultural growth, arts and crafts, and experiences with museums, musical events, drama, and cultural trips.

The efforts of the 11 institutions providing different programs for their pupils were synthesized under the title, Institutions for Neglected and Delinquent Children. Each institution assessed the needs of its children and developed a program addressed to those needs.

This year, the attempt was to directly address each institution's objectives as stated in the institution's proposal. Where academic skills were to be treated, the evaluation team attempted, by examination of test scores and pupil records, to determine whether increases had been registered. In the areas of human services and cultural growth, the team attempted, by use of project records, interviews, and on-site observations, to determine to what extent contracted services were being carried out.

The majority of institutions contracting for Title I funds this year implemented their programs as stated in their proposals. The evaluation team found the directors to have a firm understanding and control of aspects of their programs.

While a summary statement covering all objectives of the programs is difficult, some general observations can be stated. In the area of skill building, those programs which attempted to attain objectives in cognitive skills have been successful in increasing pupils' scores on standardized tests. While most children also received instruction in the public school system, it is quite likely that some of their gains were attributable to the effect of the program at their particular institutions. Moreover, those programs which used individual or small-group tutorials which pupils were required to attend seemed to achieve the best results. The effectiveness of the programs based on voluntary attendance was less clear.

In the case of human service and cultural growth, results were difficult to measure. Cultural growth activities were implemented by taking pupils on trips which included films and musical events.

Human service objectives were often implemented through counseling sessions, psychotherapy, or guidance counseling, the outcomes of which were not immediately demonstrable.

It is recommended that programs striving for cultural growth provide evidence that experiences offered to their children be evaluated objectively, either by testing or by pupils demonstrating desired behavior.

The Institutions for Neglected and Delinquent Children project is providing three interrelated but distinct services for the youth it serves: academic skill remediation, human services, and cultural growth. The need for such services is great. The majority of institutions involved in this Title I project are meeting the needs of the children by implementing programs to improve cognitive skills, encourage acceptable behavior, and develop cultural understandings.

INSTRUCTIONAL MANAGEMENT

The Instructional Management project is an individualized educational program designed to ensure that each student masters basic school objectives for the particular grade. After diagnosis of each student's educational needs and learning characteristics, a computer-management system prescribes appropriate instructional materials.

THE PROJECT

RATIONALE

The importance of individual differences in learning has long been recognized by educators and psychologists. When target students' learning differences are recognized, their educational needs can be more effectively met. The predominant group-oriented approach often neglects the individual student's needs. The Instructional Management project enables schools to meet these needs through its systematic program of individualized instruction.

EXPECTED OUTCOMES

The overall goal of the project is to bring all middle school and junior high school students to specified levels of mastery in mathematics, communication arts, science, and social studies.

MODE OF OPERATION

The project has three main components: an evaluation system, a curriculum bank, and a computer-management system.

Prior to the student's entrance into the project, an evaluation is made of his learning characteristics (reading level, organizational style, learning modality, and cognitive style) and of his mastery of stated content and skill objectives. On the basis of this evaluation, a sequence of instructional objectives is established for each student.

A curriculum bank of individualized learning packets is developed to meet the specific needs of the participating schools. The packets are sequenced and coded according to each school's objectives and student learning characteristics. As more schools participate in the project, new packets are developed to meet their highest-priority objectives. Generally, the objectives center on practical skills and behaviors such as reading and completing application forms. Effective social behavior, learning strategy, personal responsibility, and critical and creative thinking also are emphasized.

The computer-management system matches the student's diagnosed needs and learning characteristics with appropriate learning activities. The student receives a prescription on the computer terminal which specifies the next packet in a sequence leading toward the attainment of a specific objective. Frequent progress tests, which indicate the student's degree of mastery within the sequence, facilitate modification of the learning activities to better meet the student's needs. Upon the student's completion of the sequence of packets for an objective, his degree of mastery is assessed and recorded at the computer terminal. Then a new objective is assigned or the required remediation is specified.

PREVIOUS FINDINGS

In the initial years of the project's operation, formative evaluations showed that the project was successfully implemented at six schools and that students had attained a mastery rate of 90% in 12 of the highest-priority objectives.

Intensive studies conducted at one school indicated superior achievement in nine of 12 objectives for participating students when they were compared with other students.

THE 1973-1974 EVALUATION

The current evaluation of the Instructional Management project focused on the effectiveness of the various instructional sequences. Formative evaluation continued to provide information on project operation and modifications.

IMPLEMENTATION

The degree to which project implementation followed the intended mode of operation was determined through evaluators' interviews with center teachers and project staff, and by their observations in the IMP centers in the four schools. The interviews and observations indicated that the project's three components (evaluation system, curriculum bank, and computer-management system) operated as intended within the four schools, and that the necessary ongoing support to the centers (e.g., writing additional curriculum, revising criterion-referenced tests, and staff development) was provided.

Five IMP centers in four schools served approximately 2,100 pupils. Classes of 30-35 pupils came to the centers two or three times per week. The participating pupils' learning characteristics (reading level, organizational style, learning modality, and cognitive style) and their mastery of selected content and skill objectives were measured before they entered the project. Each pupil's unique priority sequence of instructional objectives, established through this evaluation by the computer-management system, was presented to the pupil on the computer terminal in an

interactive dialogue. Pupils selected an instructional unit (termed an "objective" by the project) from this list of personal priority objectives.

During 17 observations (45 minutes each) in the IMP centers pupils spent an average of 18% of the time receiving their priority sequences and/or individual prescriptions, or recording the results of the criterion-referenced tests. Teachers assisted pupils or updated pupil files at the terminal approximately one third of the time. Aides assisted pupils and used the terminal approximately 17% of the time.

Once pupils had their individual assignments, they obtained the necessary instructional materials which included "packets" written by the IMP staff, commercially prepared materials, and audiovisual aids. On the average, pupils spent 15% of their time independently obtaining these instructional materials. Teachers and aides spent approximately 13% and 15% of their time respectively in assisting pupils to obtain the instructional materials, and an average of 30% of their time tutoring individual pupils who had difficulty mastering the instructional units. Working on the self-paced instructional units and the progress or criterion-referenced tests accounted for an average of 36% of the pupils' time. The pupils were observed either seeking and receiving or waiting for assistance with the instructional units 18% of the class time. Scoring the progress and criterion-referenced tests required an average of 38% of the aides' time and 20% of the teachers' time. Pupils were judged to have engaged in non-IMP-center activities 13% of the time.

Overall, the IMP centers functioned smoothly. As in any individualized instruction program, organization and storage of the instructional materials for easy access by the pupils is necessary. That approximately 15% of their class time was spent by the pupils, teachers, and aides in getting materials indicated a need to reconsider either the organization and storage of instructional materials or the complex coding system used to assign the materials. Additional pupil training for functioning effectively in an independent learning environment may be required to reduce pupil time in obtaining materials. That a third of the teachers' time, 17% of the aides' time, and 18% of the pupils' time were spent in activities involving operation of the computer terminal reinforced the need for the modification of the interactive dialogue which was completed during this school year. The 13% of the pupils' time reported in non-IMP-center activities primarily reflected pupil behavior-control problems within only one center.

Support of the IMP centers included staff development by the project curriculum specialists. In one school with teachers new to the project, six sessions were conducted during faculty-meeting time while two sessions were provided for each of the other three schools. Topics included development of a priority sequence of instructional units (objectives) for each school, introduction to additions and

revisions in the curriculum bank with emphasis on a recreational reading sequence, and terminal dialogue and operation. On-site support was also provided in the centers on a daily basis during the first month of school and weekly thereafter.

Project staff also evaluated and, where necessary, revised the project's three major components. Item analyses of criterion-referenced tests of 13 high-priority instructional units revealed reliability coefficients (KR-20) ranging from .51 to .90. Within the criterion-referenced tests each item's degree of difficulty and ability to differentiate between low- and high-scoring pupils were determined, as well as the effectiveness of each item's distractors. Items in three of the tests were being rewritten on the basis of this evaluation.

The curriculum bank was enlarged through the addition of 394 new instructional packets. In addition, 215 existing packets were revised on the basis of feedback on pupil performance from the schools and from computer reports, and by inspection of the instructional units in view of current needs of the pupils. A "Segment Synopsis" was written for each instructional unit, summarizing the content within each subunit (or "segment") for convenient reference by the center teachers.

The effectiveness of the subunits (segments) within selected instructional units in providing pupils with those facts, relationships, and skills necessary to attain 80% mastery was determined through "Segment Distribution" studies. The procedure involved comparing the proportion of students not meeting the mastery criterion for each subunit on the pretest ("Diagnostic Test") with the posttest ("Final Measure") using the same form of the criterion-referenced test. Five high-priority mathematics instructional units (Addition and Subtraction, Multiplication and Division, Fractions, Measurement, and Percentage) were revised on the basis of these analyses.

The computer-management subsystem was modified to permit on-line recovery of pupil tutoring information indicating whether the pupil received much, little, or no tutoring in working toward a specific objective. A new terminal dialogue was developed to facilitate pupil interaction with the computer. Computer scoring of pretests (Diagnostic), progress tests, and posttests (Final Measure) can free the center teacher and aide from this clerical task. It is anticipated by the project staff that these modifications will greatly reduce the amount of class time required to assist pupils at the terminal and to evaluate pupil progress.

ATTAINMENT OF OBJECTIVES

Objective: To provide a systematic basic education program of individualized instruction specifically designed to bring pupils to defined levels of mastery (80% on the appropriate criterion-referenced test) in the specific educational objectives addressed.

The project's success in attaining its objective was documented in three ways:

1. Computer-generated reports were summarized for seven high-priority instructional units (termed "objectives" by the project) to determine the percentage of pupils attaining mastery in terms of the number of pupils completing the units. The criterion-referenced tests used to measure pupil mastery had reliabilities (KR-20) ranging from .65 to .90. The tests were taken by the pupils upon completion of the units. In Table 1 the percentage of pupils attaining mastery ranges from 92% in The Animal Kingdom unit to 100% in the Basic Human Needs unit, indicating that the project was successful in bringing most pupils to the 80% mastery level in a variety of subject areas.

2. Five high-priority instructional units were selected to compare the achievement of pupils who completed the units with pupils who did not take the units but did participate in the project. High-priority units were selected to insure sufficient sample sizes. Pupils were selected at random from the list of pupils diagnosed as needing instruction in the respective units and were either assigned and encouraged to take a unit of instruction or prevented from taking instruction through an artificial "pass" on the computer file. (These pupils' files were corrected following the study, when this was explained to the pupils.) The criterion-referenced tests for the instructional units which ranged in reliability (KR-20) from .51 to .90 were used as pretests and posttests. Pupils were administered the pretests by project staff as part of the initial assessment testing during Spring 1973. The posttests were taken individually by pupils who completed the instructional units, and then were administered by project staff to the pupils who did not take instruction in a group. Analysis of covariance was used to test for differences between the comparison groups for each instructional unit with the pretest serving as the covariate.

As shown in Table 2, pupils who completed instruction had significantly greater achievement ($p < .05$) than pupils who did not take instruction; this was true for all five units. This result indicated that participation in the project generally raised the participating pupils' level of achievement over what would normally be expected in several subject areas as measured by the project's tests.

3. Four instructional units, which the project staff determined contained content similar to that measured by certain CAT-70 subtests, were selected to compare the standardized test scores of pupils who attained mastery in the units with pupils who did not take the units of instruction but did participate in the project. Computer printouts for each instructional unit were used to match two groups of pupils who had failed the pretest (project's initial assessment)--pupils who had attained mastery in the instructional units and pupils who did not take the unit instruction. Matches were made primarily on the basis of reading level assigned to each pupil by the project. The reading level was collected by project

staff from Spring 1972 ITBS Reading subscores from school records. The reading levels, by which pupils were matched for the study, were coded into the computer file as 0 (grade-equivalent scores below 2.9), 1 (2.9 to 5.9), 2 (6.0 and up), or 4 (no scores found). That this procedure resulted in the majority of pupils in the project being coded "1" with a large range of scores within (three grade-equivalent levels) was a limitation to the matching of the two groups. Pupils in the two groups were also matched on learning modality (auditory preference, visual preference, or no preference) and cognitive style (concrete, abstract, or no preference).

The two groups were compared on the selected subscores of the California Achievement Test (1970 edition) administered by the advisory teachers in Spring 1974. Grade-equivalent scores were collected from the files of the Office of Research and Evaluation by the evaluation team. The significance of the differences in means between the groups was determined through t tests. A correlated t test was not selected because of the wide range in scores covered by the "1" reading level.

The results in Table 3 of five t tests on four instructional units (three mathematics and one grammar) show that the pupils who attained mastery in the units did significantly better ($p < .01$) than the pupils who participated in the project but did not take the units. In view of the uncertainty of the matches between pupils in the two groups, caution must be taken in interpreting these results. Replication with increased control over the matching would permit a more confident statement of the impact of the project on standardized test scores.

SUMMARY AND CONCLUSIONS

In the Instructional Management project, a computer-management system prescribed appropriate instructional materials based on individual pupil's basic skill needs and learning characteristics. The systematic program of individualized instruction enabled most pupils to attain desired levels of achievement in basic skills.

This evaluation documented operation of the IMP centers, modification of the project's three components (evaluation system, curriculum bank, and computer-management system), and cognitive gains in certain basic skills made by pupils who did not take those instruction units.

An observational checklist and interviews of center teachers and project staff provided information on project operation. Anticipated project outcomes were evaluated by the project's own criterion-referenced tests and a standardized achievement test (CAT-70).

Observations in the five centers in four schools revealed that the project's evaluation system (measurement of pupils' learning characteristics and mastery of content and skill objectives), curriculum bank, and computer-management system were operational. Project staff conducted staff-development sessions and provided on-site support in the centers. Item analyses allowed revision of items in three criterion-referenced tests. The curriculum bank was enlarged through the addition of 394 new instructional packets. "Segment Distribution" studies permitted project staff to identify ineffective subunits ("segments") within instructional units ("objectives"). A new computer dialogue was completed which will facilitate pupil-computer interaction.

The project's objective in terms of pupil achievement was attained. Computer reports of the criterion-referenced tests' results showed that from 92% to 100% of the pupils completing seven high-priority instructional units attained 80% mastery. On five of the project's high-priority instructional units, pupils who completed the units had significantly greater achievement on criterion-referenced tests than project pupils who did not take those units. On CAT-70 subtests with items related to four of the project's instructional units, pupils who attained mastery in the instructional units were matched on reading level, learning style, and cognitive style with pupils who participated in the project but did not take the instructional units. In all four instructional units, pupils who attained mastery had significantly higher scores on the CAT subtests than the pupils not taking the instructional units.

That more pupils were able to attain 80% mastery of certain basic skills than would normally be expected in the participating schools is evident from this summary. However, relatively few pupils were able to complete the units of instruction, for two reasons. First, pupils generally came to the centers two or three times per week for a 40-45 minute period. Because of the time required for pupils to obtain instructional materials, review their past instruction, and clean up, time afforded to actual instructional activities was reduced. Secondly, pupils were permitted to select from more than 70 content and skill "objectives", thereby limiting the number of pupils working on any one instructional unit. Specifying high-priority objectives in the basic skill areas has raised the number of pupils working on these units.

The number of pupils completing the high-priority basic skill objectives might be increased if pupils either came to centers on a daily basis or had double periods two or three times per week. Additional centers in the schools may be required to serve the large numbers of pupils diagnosed as needing these basic skill instructional units. Focusing the project's efforts even more on basic skills could further increase the number of pupils completing the desired instructional units. Rethinking organizational patterns within the centers could lead to increased efficiency in pupils obtaining and returning instructional materials. The training of pupils to operate in an independent study environment also could increase pupil effectiveness in mastering the selected basic skills.

TABLE 1

INSTRUCTIONAL MANAGEMENT PROJECT (IMP) PUPILS ATTAINING 80% MASTERY ON CRITERION-REFERENCED TESTS

Instructional Unit	Number of Pupils Completing Unit	Percentage Attaining Mastery
Addition and Subtraction	158	97%
Multiplication and Division	38	97%
Fractions	51	96%
English Grammar	89	98%
Basic Human Needs	36	100%
Where I Live	164	98%
The Animal Kingdom	212	92%

TABLE 2

MEAN RAW-SCORE GAINS ON CRITERION-REFERENCED TESTS FROM PRETEST TO POSTTEST OF IMP PUPILS WHO FAILED UNIT PRETESTS

Instructional Unit	Unit Instruction Not Taken		Unit Instruction Completed	
	Number of Pupils	Mean Score Gain	Number of Pupils	Mean Score Gain
Addition and Subtraction	28	1.2	31	3.7**
Multiplication and Division	14	2.2	16	7.2*
English Grammar	28	1.0	32	3.3***
Science	25	0.5	24	2.2***
Where I Live	25	1.6	28	5.1***

*Difference from noninstructed pupils' gain was significant at the .05 level (analysis of covariance).

**Difference significant at the .02 level.

***Difference significant at the .01 level.

TABLE 3

MEAN GRADE-EQUIVALENT SCORES ON CAT-70 SUBTESTS OF IMP PUPILS WHO FAILED UNIT PRETESTS

Instructional Unit	CAT-70 Subtest	Unit Instruction Not Taken		Unit Mastery Attained	
		Number of Pupils	Mean GE Score	Number of Pupils	Mean GE Score
Addition and Subtraction	Computation	126	5.9	126	6.9**
	Concepts	126	5.7	126	6.3*
Multiplication and Division	Computation	31	6.0	31	7.7*
Fractions	Computation	44	6.8	44	9.4**
English Grammar	Mechanics	83	6.5	83	7.8**

*Difference from pupils without instruction was significant at the .01 level (t test).

**Difference significant at the .001 level.

INTENSIVE LEARNING CENTER

The Intensive Learning Center is an experimental, alternative school for children in kindergarten through Grade 4. It is divided into two multiple-graded house plans and is operated in large, open spaces. Team teaching, individualized instruction for basic skills, and student-inquiry processes are emphasized. The project focuses on proficiency in basic skills of reading, writing, and mathematics.

THE PROJECT

RATIONALE

The project has three major emphases: (a) a sequential, structured basic skill program in reading and mathematics, (b) an experiential, open education model of learning in child-oriented problem-solving situations, and (c) a parent-involvement program. These emphases have been demonstrated to be effective in improving the performance of pupils in the lower grades, and they also fit the competencies of the center's staff.

Last year, the project was found to have an inadequate conceptual base, staff problems, and inadequate pupil achievement. For the two-year period 1973-1975, emphasis is being placed on generating a valid conceptual base and on making personnel and organizational changes to implement that conception.

EXPECTED OUTCOMES

Reading and mathematics achievement has always been an important goal of the ILC. Whereas pupils in inner-city schools tend to show decreases in achievement during the third and fourth grades, ILC's emphasis on the skill development of third- and fourth-grade pupils should enable these pupils to continue the academic growth they had begun in Grades 1 and 2.

Although all project participants are bussed, they should attend school at a better rate than pupils who attend the project's four feeder schools.

Last year the project's parent-involvement program included only Lower House parents; with inclusion of both Lower and Middle House parents in the program in 1973-1974, a doubling of parent contacts is expected.

MODE OF OPERATION

The Intensive Learning Center is an innovative school aiming at exemplary instruction for elementary-age pupils, at curriculum development, and at staff development. The school is located on the sixth floor of a converted factory building at Fifth and Luzerne Streets. With the partial exception of a small

group of the youngest and least mature pupils (the Entry Class), team teaching, nongradedness, and individualization are the rule. "Flexible teaching space" (60' x 60' rooms) and large groups of pupils (approximately 100) also are common to the two "houses" within the ILC. Each house is staffed with teachers and aides.

Following the 1972-1973 evaluation, several changes were initiated for 1973-1974. These included (a) increased emphasis by teachers on small-group skill instruction, (b) reassignment of reading teachers to classrooms, (c) increased organic skill teaching with de-emphasis of programmed, individually prescribed instruction and computerized reading, (d) establishment of "the Center" (a spacious, open area for pupils to work with teachers, materials, and equipment in experiential, self-directed learning situations), (e) elimination of Grades 5 and 6 from the project, (f) increased emphasis on reading and mathematics in Grades 3 and 4, and (g) expansion of the parent-involvement program.

ILC's parent-involvement program (patterned after the Florida Model of the Follow-Through Program) was begun in the 1972-1973 school year. Parents are paid to visit other parents at home and train them to use school-related games and activities with their children.

PREVIOUS FINDINGS

With a new administration at ILC, 1972-1973 was a year of evaluating project assumptions, structures, techniques, and rationale. That year's evaluation indicated that ILC pupils tended to be academically weaker than pupils in the feeder schools. (As a result of that finding, a new selection system is being developed to insure a balanced pupil population.) Pupil attendance at ILC was slightly lower in 1972-1973 than in the preceding year, possibly reflecting the impact of the teacher strikes.

The 1972-1973 Metropolitan Achievement Tests and Iowa Tests of Basic Skills indicated a decrease in reading and mathematics achievement for project pupils. However, on the Individual Reading Inventory the pupils compared favorably with local norms.

THE 1973-1974 EVALUATION

As a result of the project's modifications, the evaluation of the Intensive Learning Center project for this year has focused upon the performance of third and fourth graders in relation to their first- and second-grade performance, attendance in comparison with that of feeder schools, and parent exposure to the parent-involvement program.

IMPLEMENTATION

Direct observations of the ILC, made on a daily basis throughout the 1973-1974 school year, indicated that pupils were divided into two houses for skills instruction. Grades K-2 were in Lower House and Grades 3-4 were in Middle House; however, some pupils were placed according to their strengths and weaknesses rather than grade level.

Each house used a team approach to instruction in basic skills. Lower House maintained an already successful program. Middle House, more structured than in the past, was able to generate a program that intensified instruction for shorter periods of time. For 50% of the morning instruction time, half the pupils remained in the house and half went to the "center" for self-directed, inquiry-oriented activities. This allowed teachers in Middle House to provide a more favorable teacher-pupil ratio for skills development.

The "center" was observed daily. Pupils were provided with a wide range of choice activities in this large, open-spaced room. Eight staff members provided varied activities that included art projects, musical experiences, woodworking, recreation, projects, science, cooking, newspaper, library work, and expressive arts programs. Pupils were able to select activities and staff with which to work. In a survey of the entire staff (teachers, counselor, administrators), the "center" was considered (a) a successful major change in the ILC program, (b) extremely helpful to most pupils, and (c) worthy of continuation.

In a survey of all parents receiving services from the Parent Involvement Program, 95% indicated that the program was excellent and helpful to them. All parents asked that the program continue, and suggestions indicated that all parents wanted even more help in the homes. The major observations from parents indicated that the program made them more aware of their child's behaviors and helped their child's school work.

ATTAINMENT OF OBJECTIVES

Objective 1: Achievement growth scores in reading and mathematics (Grades 3 and 4) will be significantly greater than that of the previous year.

California Achievement Tests were administered to all pupils in Grades 3 and 4 in October 1973 as a pretest. Midyear tests were administered as part of the citywide testing program, as was the posttest in May 1974. Results indicated that pupils in Grade 3 increased an average of 0.8 year in reading and 0.5 year in mathematics. Grade 4 pupils increased 0.2 year in both reading and mathematics. Together, 68% of the third and fourth graders showed increases in reading achievement from October until May.

Informal Reading Inventory (IRI) results were analyzed for Grades 3 and 4. Normal progress would be two book levels per year; 48% of the pupils gained at least two book levels. There was a continuing decrease in the number of third and fourth graders who were reading at the Book 1 level: 48% in 1972, 36% in 1973, and 32% in 1974. In the same two-year period, the number of pupils reading above the fourth-grade level increased from 2% to 16%.

Pupils in Grade 3 showed greater increase in reading achievement than did those in Grade 4. This possibly indicated a beginning of reversing the difficulties noted for pupils in Grades 3 and 4 after success in the primary grades. At ILC, Grades 1 and 2 showed marked improvement this year as well as Grade 3. The IRI results continued to reflect growth in comparison with total Philadelphia norms, whereas the comparisons with national norms on the CAT were less favorable.

Objective 2: Attendance at ILC will be better than the four (4) feeder schools.

The average daily attendance (ADA) reports from ILC and its four feeder schools were computed, with the following results:

ILC	90.1%
Wright	87.9%
Peirce	86.2%
Bethune	83.8%
Potter-Thomas	83.8%.

ILC exceeded the four feeder schools' combined ADA by 4.6 percentage points even though all children at ILC were bussed from the feeder schools each day.

Objective 3: Parent contacts in Parent Involvement Program will increase 100% from the previous year.

In the 1972-1973 school year, 45 children's parents received service from the Parent Involvement Program. For the 1973-1974 school year, 102 children's parents received aid in their homes. This increase of 113% exceeded the expected increase of 100%.

SUMMARY AND CONCLUSIONS

ILC is an experimental, alternative school for children in Grades K-4 which emphasizes team teaching, individualized instruction in basic skills, and inquiry-based education toward the development of reading and mathematics competencies.

The 1972-1973 evaluation had indicated a need for some dramatic changes in the ILC program. Such changes were made during 1973-1974 in an attempt to

increase the basic skills development by emphasizing the quality of instruction to pupils, reducing the time spent in formal reading instruction, and providing the "center"--a self-directed, highly experiential learning environment.

The reading-test results showed a noticeable reduction in the number of pupils reading at the Primer level in Grades 3 and 4 even though the pupil population entering ILC was found to be increasingly deficient in the basic educational skills. Attendance at ILC was significantly better than at the four feeder schools even though all ILC students were hindered by bussing. The Parent Involvement Program offered services to parents of pupils in both Lower and Middle Houses with success in helping parents work with their children in the homes. All ILC objectives for 1973-1974 were attained.

The year 1973-1974 was one of transition and development at ILC. The success of the project during this period suggests that funding should continue and that pupil growth should be examined over several years to determine the project's impact on pupils.

ITINERANT HEARING SERVICE

The Itinerant Hearing Service project provides auditory and visual training, tutorial assistance, and counseling to hearing-impaired pupils who experience difficulty while in school. Hearing therapists visit the schools and work with these children on a scheduled one-to-one basis.

THE PROJECT

RATIONALE

This project serves target children with varying types and levels of hearing impairment. Their problems prevent them from receiving all possible benefits from their classroom experience.

These pupils need specially trained teachers to diagnose their problems, counsel them, and give them remedial help in basic reading skills, speech patterns, lipreading, and proper use of hearing aids. Direct, individual interaction with the specialist is required because of the severity of the children's hearing deficiencies.

EXPECTED OUTCOMES

Pupils are expected to improve in their areas of diagnosed weakness, such as speech patterns, use of the hearing aid, lipreading ability, linguistic skills, and decoding skills. Although these weaknesses are found generally in the total group of children, individual needs are unique and specific.

MODE OF OPERATION

Pupils referred to the project and diagnosed as needing its services meet with hearing therapists for half-hour sessions at least twice weekly. Each therapy session is held in a small room on a one-to-one basis. Content and materials used are chosen to meet the specific needs of each pupil. The hearing therapist maintains communication with the regular classroom teacher and with parents so that each child's weaknesses can be understood and strengthened both in the regular classroom and at home.

PREVIOUS FINDINGS

The 1971-1972 evaluation revealed that some children needed resource-room support in their schools. Services provided most frequently by the hearing therapists included speech therapy, lipreading instruction, tutoring, and counseling.

In 1972-1973, the ratio of speech therapists to pupils was one to 12.

THE 1973-1974 EVALUATION

The current evaluation of the Itinerant Hearing Service project was designed to assess the most serious pupil needs, to determine levels of attainment, and to interpret results of appropriate tests. Hearing therapists were observed and their reports of pupil progress were analyzed. On questionnaires, teachers described the pupils' classroom behavior and evaluated their own communications with the hearing therapists. Also on questionnaires, parents indicated their perceptions of the project's impact.

IMPLEMENTATION

The Itinerant Hearing Service project was planned to meet the individual needs of hearing-handicapped youngsters who were able to function in a regular school setting but who needed additional remedial support.

Therapists met with children twice a week for 30 minutes each meeting. The children expecting their therapy lessons and were excused from their regular classes. The specialists were prepared with activities for the children, and had records of each child's progress, clinical reports, and lessons. Therapy was conducted in small rooms on an individual basis. When pupils were absent or unavailable, therapists remained in the school and used the half-hour period to consult with teachers and counselors, to plan, or to update pupil files.

Ten hearing therapists, working under the direction of a manager, taught 134 pupils located in approximately 75 schools in the various districts of the city. Therapists were able to serve approximately five pupils per day. Each therapist was assigned 13 or 14 pupils attending schools in a given geographical area of the city. Therapists drove to the various schools to meet with their children and to provide services. Records kept by the itinerant hearing therapists indicated that there was an ongoing process of pupil diagnosis and assessment. All but four of the 134 pupils were given pretests and posttests in their areas of weakness.

Teachers responding to questionnaires indicated that they were contacted an average of once every two weeks by the therapists. Forty-five of the 60 parents responding to questionnaires indicated that they had met or were contacted by the therapist regarding their child's progress. Observations, interviews, and questionnaires indicated that this project was implemented according to the model suggested in the proposal.

ATTAINMENT OF OBJECTIVES

Objective 1: To increase the communication skills of hearing-handicapped pupils. One or more of the following skills are involved: (a) better use of residual hearing; (b) optimization of hearing-aid usage; (c) learn or improve speech-reading skills; (d) develop needed vocabulary related to pupils' experiences; (e) improve speech pattern (voice quality, articulation, vocabulary, syntax).

Improvement or gains in these skills were evaluated using three techniques: observations of the therapists' activities, analysis of data collected from tests administered by the therapist, and analysis of responses made by the elementary teachers of participating pupils on a questionnaire.

The results of tests given to the hearing-handicapped pupils in this project were analyzed using a statistical procedure called the Sign Test. Test scores at the beginning and at the end of the year were compared.

The Sign Test provided a means to determine if actual changes occurred by chance or because of the lessons and treatments provided. A gain in scores was indicated by a plus, a decrease was indicated by a minus, and no change was indicated by a zero. If the project had no effect, we should expect an equal number of gains and losses. The results indicated that there were more gains than losses. The Sign Test helped to determine if the number of pupils making gains was significant. In the procedure used, pupils showing no change were excluded from the calculations.

The hearing specialists used various tests of auditory discrimination which included the Wepman, the Goldman-Fristoe-Woodcock, the Larson, and Carter-Buck. Pretests and posttests indicated that more than half of the cases made gains (86 of 151). The Sign Test revealed that the number of gains was significant. Improvement of auditory discrimination was attained. It is not possible to make conclusions about the 32 pupils who showed no change in their scores, as this may have occurred due to a variety of reasons. Improvement of auditory discrimination was attained. Results of auditory-discrimination tests are shown in Table 1.

The importance of the use of the hearing aid was emphasized in the project. Peer pressure and other factors often discourage children from wearing the hearing aid. Therapists and parents of pupils wearing hearing aids were able to help the pupils deal with these social factors which are obstacles for them to overcome.

Teacher and parent questionnaires asked respondents about the pupils' use of hearing aids. Almost half the teachers (19 of 42) and the majority of parents (33 of 41) responding indicated an improvement of hearing-aid usage by the pupils in the project.

Pupils improved in speech-reading skills. Comparison of pretest and posttest scores on both the Myklebust Lip Reading Test and the Utley Lip Reading Test revealed that the pupils made a significant number of gains as analyzed by the Sign Test. Results of these tests are shown in Table 2.

Pupils improved their vocabulary skills. The Peabody Picture Vocabulary Test was used to measure changes in these skills. The number of gains in vocabulary made by the pupils was significant as analyzed by the Sign Test and indicated that the efforts of the therapists and classroom teachers were effective. Results of the vocabulary test are shown in Table 3.

The speech patterns of the pupils (voice quality, articulation, vocabulary, syntax) were impaired. The Templin-Darley Test of Articulation was used to measure the articulation skills of 50% of the children tested. The results revealed that the participants made a significant number of gains as analyzed by the Sign Test. Results of this test are shown in Table 4.

Objective 2: To help classroom teachers or other professional staff to recognize the hearing difficulties some pupils may be experiencing and how they (the teachers) develop ways to improve (their) communication with the pupils.

The classroom teachers of the elementary pupils receiving services from an itinerant hearing teacher were sent a questionnaire utilizing a five-point forced-choice scale. The key section of the survey requested the teacher perception of the pupils' improvement in eight skills or behaviors (e.g., classroom behavior, quality of class work, reading skills, mathematics skills, ability to express ideas of questions, attention span, use of hearing aid, and speech patterns). Of the 106 teachers who received the survey, 58 (54%) responded.

The three areas in which greatest improvement were reported were reading skills, use of hearing aid, and mathematics skills in that order. Teachers reported that they noted improvement in the behaviors listed in more than 50% of their pupils. (Refer to Table 5.)

Data from the teacher questionnaire provided answers to the implementation questions raised:

Did hearing therapists provide consultation to teachers?

Yes; teachers indicated that they were contacted or met with the hearing therapists approximately once every two weeks.

How did teachers change their classroom techniques for these children?

Teachers' comments reflected a sensitivity to the general aspects of the hearing problems faced by their pupils. They indicated that they spoke more slowly, faced the pupil, and tried to be more patient.

What were the perceptions of teachers regarding the impact of the project on their youngsters?

Teacher perceptions were quite positive. Teachers indicated "much improved" or "improved" for most pupils in the behaviors listed. (Teachers' responses are indicated in Table 5.)

A questionnaire was also mailed to the parents of the 134 participating pupils. This questionnaire asked parents to report their perceptions of their child's performance in six areas. Responses were recorded on a six-point scale: "much

improved", "improved", "no change", "worse", "much worse", "don't know". Sixty-five (48%) of the 134 parents responded.

Data from the parent questionnaire provided responses to the implementation question raised:

Did hearing therapists communicate with parents?

Forty of 65 (61%) of the parents indicated meeting with the therapist; 45 of 65 (69%) indicated communicating with the therapist.

What were the perceptions of parents regarding the impact of the project on their youngsters?

Seventy-five percent or more of the responding parents indicated improvement of their children in the following areas: school behavior, school work, ability to speak, ability to understand when spoken to, use of hearing aid, and child's opinion of his hearing specialist teacher. (Parents' responses are indicated in Table 6.)

SUMMARY AND CONCLUSIONS

The Itinerant Hearing Service project was intended to provide individualized remedial services to hearing-impaired youngsters which would enable them to make continued academic progress in a regular school setting.

The 10 therapists emphasized improving pupils' skills in the use of residual hearing, optimization of hearing-aid use, speech-reading skills (lipreading), vocabulary, and speech patterns. The current year's evaluation attempted to assess the therapists' efforts by surveying the perceptions of parents and classroom teachers regarding the skills attained by the pupils, and by examining standardized pretest and posttest results. Data revealed that all the project objectives were attained.

The pupils' residual hearing improved as indicated on tests measuring auditory discrimination, and hearing-aid usage improved, as reflected on both the teacher and parent surveys. A dramatic improvement was seen in the pupils' lipreading abilities. Standardized test scores indicated improvement in the pupils' vocabulary usage and recognition. Improvement was noted in the pupils' speech patterns in the area of articulation, as indicated on the Templin-Darley Test.

The teacher survey showed that more than half the respondents judged the speech of their hearing-impaired pupils to be "improved" or "much improved". The parent survey responses showed an overwhelming number of the respondents perceived their children as "improved" or "much improved" in their use of speech. The project also made progress toward helping classroom teachers understand the difficulties faced by hearing-handicapped pupils. The teacher survey revealed that continued and regular contact between the itinerant therapists and classroom

teachers was established. This contact apparently influenced changes in teacher behavior toward hearing-impaired pupils: the responding teachers commented that they had made specific changes in their classroom procedure when deemed necessary for their hearing-handicapped pupils.

Of special note are the open-ended responses obtained on the parent survey. Sixty-three of the 65 parents included a comment. Of these comments, 37 (more than half) expressed positive attitudes toward the Itinerant Hearing Service project, only three expressed dissatisfaction, and 23 comments were deemed neutral in attitude or informational. The evaluators feel that these voluntary responses were testimony to the conviction of the parents that the project was concerned with their inputs, responsive to the needs of their children, and provided a valuable service to their children.

TABLE 1

PROGRESS OF ITINERANT-HEARING-SERVICE PUPILS
ON TESTS OF AUDITORY DISCRIMINATION

Item	Wepman Test	G-F-W Test	Larson Test	Carter-Buck Test
Number Tested	66	53	22	10
Number Gaining	41**	25*	12	8**
Number Losing	12	11	10	0
Number Unchanged	13	17	0	2

*Statistically significant beyond the .05 level.
**Statistically significant beyond the .01 level.

TABLE 2

PROGRESS OF ITINERANT-HEARING-SERVICE PUPILS
ON TESTS OF LIPREADING

Item	Myklebust Test	Utley Test
Number Tested	6	82
Number Gaining	5**	59**
Number Losing	0	6
Number Unchanged	1	17

**Statistically significant beyond the .01 level.

TABLE 3

PROGRESS OF ITINERANT-HEARING-SERVICE PUPILS
ON A PICTURE VOCABULARY TEST

Item	Peabody Test
Number Tested	86**
Number Gaining	56
Number Losing	17
Number Unchanged	13

**Statistically significant beyond the .01 level.

TABLE 4

PROGRESS OF ITINERANT-HEARING-SERVICE PUPILS
ON TESTS OF ARTICULATION

Item	Templin-Darley Test	McDonald Test	Photo Test	Goldman-Fristoe Test
Number Tested	24	1	19	4
Number Gaining	22**	1	6	0
Number Losing	1	0	6	0
Number Unchanged	1	0	7	4

**Statistically significant beyond the .01 level.

TABLE 5

SUMMARY OF 58 CLASSROOM TEACHERS' RESPONSES TO ITINERANT-HEARING-SERVICE QUESTIONNAIRE

Question and Number of Responses	Yes	No
1. Have you worked with hearing-handicapped children prior to this year?	15	43
2. Is the above-named child still in your class?	58	0

3. Which of the following changes have you noticed related to the child's skills or behavior since hearing therapy was begun?

Behavior	Much Improved	Improved	No Change	Worse	Much Worse	Item Omitted
Classroom behavior	7	27	21	3	0	J
Quality of class work	4	44	8	1	0	1
Reading skills	12	34	11	1	0	0
Math skills	9	30	19	0	0	0
Ability to express ideas or questions	4	30	23	0	1	0
Attention span	7	28	21	2	0	0
Use of hearing aid	7	12	19	3	1	16
Speech patterns	8	24	25	0	0	1

TABLE 6

SUMMARY OF 65 PARENTS' RESPONSES TO ITINERANT-HEARING-SERVICE QUESTIONNAIRE

Question and Number of Responses

	Yes	No
1. Did you ever meet the hearing specialist?	40	25
2. Did the hearing specialist ever write you a note or call you?	45	20

3. Which of the following changes have you noticed about your child this year?

Item	Much Improved	Improved	No Change	Worse	Much Worse	Don't Know	Item Omitted
School behavior	19	27	11	5	1	2	0
School work	21	34	5	3	0	0	2
Ability to speak	29	28	6	2	0	0	0
Ability to understand when spoken to	26	29	7	1	0	2	0
Use of hearing aid if worn	22	16	7	1	0	0	19
Opinion of child toward his hearing-class teacher	31	11	7	2	2	3	9

Respondents tended to agree that the aide was "helpful" or "very helpful" in instructional tasks in assisting the teacher in working with children individually and in small groups. Many felt that it was not the aide's role or function to supervise whole-group instruction. Although five of the 31 teachers felt that it was not the aide's role to read stories aloud to the children, most of the respondents--teachers, principals, and aides--felt that the aide was helpful in this area. Most respondents felt that the aide was "helpful" or "very helpful" in assisting children in the selection and use of learning materials, and in supervising children's games.

Responses to questions about the aide's noninstructional tasks are summarized in Table 2.

The respondents were nearly unanimous in their feelings that the aide was "helpful" or "very helpful" in classroom management, in assisting the teacher with neighborhood walks and bus trips, in supervising children on lines and stairs and during breakfast, and in being available to assist the teacher and/or school in emergency situations. Although such clerical activities as duplicating materials and doing general clerical work were considered important by aides, principals, and teachers, one third of the aides and teachers, and one fifth of the principals, thought the activity of maintaining records and forms was not a part of the aide's role.

All of the interviewed principals reported that they assumed full responsibility for the assignment of aides to teachers. They expressed the feeling that if projects providing aides were eliminated, there would be a disastrous effect on the instructional program. Principals and teachers recommended that an aide be assigned full time to every teacher.

Respondents were in agreement that teachers were actually receiving all the aide service assigned to them. However, two of the seven districts have not had a kindergarten supervisor for the past two years. Among other duties, the kindergarten supervisor makes periodic checks on the proper use of aides and acts as a consultant to principals, teachers, and aides in developing an organization which encourages greater involvement of the kindergarten teaching team.

In several schools, it was observed and reported by other aides and teachers that when the teacher is absent, the aide was assigned to act as a substitute teacher. Although the aide's covering of the class may be less traumatic to the children than having an unfamiliar substitute, it is nevertheless a violation of the Title I guideline that an aide is not to be utilized as a substitute teacher. In four of the 26 classes visited, the aide was left alone in the classroom up to one-third of the observed time. Little variation was observed in the manner in which the project was implemented within each of the schools visited.

In the evaluators' observations of classes, it was noted that only two teachers (8%) from the KA classes used audiovisual equipment, compared with seven teachers (30%) from the non-KA classes. In interviews the teachers indicated that they liked to use A-V materials not only for their educational value but also because they allow a change of pace, retain children's interest, and afford the teacher a degree of respite in her ongoing activities. The presence of an aide, on the other hand, allows more individualization and class flexibility and thereby less reliance by the teacher on A-V equipment and materials.

Aide assignments ranged from one aide working full time with one teacher to one aide working part-time with each of four teachers. The average aide worked with two teachers.

ATTAINMENT OF OBJECTIVES

The evaluation team completed a total of 49 classroom observations in 39 schools. All classes were selected on a random basis. Of the observed kindergarten classes, 26 had aides and 23 did not.

Observations of how the teacher and the aide functioned were recorded on an Observational Checklist. The checklist was developed by the evaluation team and listed 24 classroom activities performed by the teacher alone, the aide alone, or both together. It covered such activities as clerical duties, whole-group instruction, housekeeping tasks, and tutoring of individual pupils. The instrument was field-tested in September 1973 and was revised and adjusted to enhance its validity.

Each observation period lasted 45 minutes. Minutes per observation period spent by teachers and by aides in performing the various activities were recorded and later averaged.

Objective 1: To enable teachers to better implement an individualized and small-group instructional program.

Better implementation was defined as carrying out individualized and small-group instruction to a greater extent as a result of the presence of an aide. Classes with aides were compared with classes without any aide service.

There were significant differences in the amount of time spent on whole-group instruction in KA and in non-KA classes. Nine of the 26 KA teachers (30%) spent no time in whole-group instruction during the observation periods; for the 17 KA teachers who were observed using it, the average time spent in whole-group instruction was 17 of the 45 minutes. Two of the 23 non-KA teachers (8%) did not use whole-group instruction when observed; for the 21 non-KA teachers who were observed using it, the average time spent in whole-group instruction was 20 minutes. Thus the aide's presence reduced the time allotted to whole-group instruction.

There were also significant differences in the amount of time spent on tutoring individual children in KA and non-KA classes. Six of the 26 KA aides (23%) spent an average of 15 minutes tutoring individual children. Three other KA teachers spent an average of 16 minutes in tutoring individual children. For three of the 23 non-KA teachers (12%) who were observed giving individual instruction, the average amount of time spent was three of the 45 minutes. Thus, though not extensive and widespread, the aide program has afforded children the opportunity to receive more individual instruction from either the teacher or the aide.

The greatest impact of this project appeared to be in the area of small-group instruction. Eleven of the 26 KA teachers (42%) performed small-group instruction for an average of 22 minutes, as compared with four of the 23 non-KA teachers (17%) who were observed doing small-group instruction for an average of 11 minutes. Seven of the aides were observed doing small-group instruction for an average of 24 minutes.

Thus, because of the aides, teachers have appreciably increased the amount of time devoted to small-group and individual instruction. This objective, therefore, was fully attained.

Interviews with aides, teachers, and principals supported the same conclusion, namely, that more small-group instruction was taking place throughout the school year because of the aide. Responses to the pertinent interview questions are summarized in Table 3.

Thirty-eight percent of the aides (13 of 34) and one third of the teachers (10 of 31) felt that the presence of the aide allowed teachers to devote more time to whole-group instruction, since it was possible for the aide to discipline or remove the disruptive child without disrupting instruction. Thus, the aide's presence afforded the teacher the opportunity to be more effective in whole-class instruction.

Responses indicated overwhelmingly that the teacher spent more time in small-group instruction than would have been possible without the aide.

Estimates of the percentage of the aide's time that was devoted to instructional tasks are summarized in Table 4. More than 60% of the aides (21 of 34) and teachers (19 of 31) and 45% of the principals (12 of 27) felt that the aide spent at least 50% of her time assisting the teacher in instructional tasks. When engaged in such tasks, the aide usually worked with individuals and small groups of children. Thus, teachers were using aides to "better implement an individualized and small-group instructional program."

The instructional tasks that were observed being performed in the classroom by the aides were compatible with the objectives of this project. In order to implement an individualized and small-group instructional program, teachers utilized their aides in a variety of ways, e.g., acting as a sole resource person while children

were doing independent work, tutoring individual children, doing small-group instruction while the teacher acted as resource person or worked with the rest of the class, or conducting whole-group instruction while the teacher worked with an individual child.

Objective 2: To provide the services of an additional person to assist in classroom management and clerical tasks so that more teacher time can be spent with the children.

For this objective, classroom management was defined as including (a) class control within and outside the classroom (discipline and general behavior control) and (b) housekeeping tasks (cleaning up or preparing the room for children's activities).

KA and non-KA classes were observed and compared in regard to various classroom-management and clerical tasks.

Nineteen of the 26 aides (78%) were observed doing housekeeping tasks for an average of 16 of the 45 minutes. Sixteen of 23 non-KA teachers (70%) did it for an average of seven minutes; seven of the 23 non-KA teachers did none. Therefore, providing an aide for housekeeping tasks did relieve the teacher for at least seven minutes in a 45-minute period. The teacher used such time in individual and small-group instruction.

The aide was extremely useful assisting the teacher in classroom management by dealing with obstreperous and disruptive children. In two thirds of the non-KA classes (15 of 23), teachers were observed disciplining their children for an average of five minutes per observation period. This disrupted the lesson so that the teacher had to recapture the children's attention in order to continue the lesson. Disciplining of children was observed in ten of the 26 observed KA classes (38%) for an average of ten minutes. No KA teacher was observed disciplining the children: usually the aide carried out the discipline in such a manner that the teacher's lesson remained uninterrupted. Thus, the addition of another person has helped the teacher by reducing the number of discipline incidents, saving at least five minutes of class time, and providing instructional continuity throughout the class period. Teachers with aides were utilizing their aides in doing management/control tasks for which the teachers in non-KA classes had to expend valuable class time and psychic energy in doing themselves.

Thirty-one percent of the aides (8 of 26) were observed doing clerical duties for an average of 15 minutes per 45-minute observation period. In nine of the 23 non-KA classes (39%), teachers were observed doing clerical duties for an average of five minutes while the children did independent work or play activity. Such clerical activity consisted primarily of duplicating materials.

Because the aide performed clerical tasks that took the non-KA teacher at least five minutes and management/control tasks that required seven minutes for housekeeping tasks and five minutes for disciplining children, the teacher with an aide was enabled to spend an average of 17 additional minutes per 45-minute class in implementing an individualized and small-group instructional program.

This objective was fully attained in terms of frequency of occurrence in daily class programming and in the amount of time in which the teacher could implement and individual and small-group instructional program.

SUMMARY AND CONCLUSIONS

The KA project was developed to increase the adult/pupil ratio, thereby giving teachers greater opportunities to individualize instruction and to develop better teacher/pupil rapport.

Little variation was observed in the manner in which the project was implemented in each of the schools visited. Aide assignment ranged from one aide working full time with one teacher to one aide working part time with each of four teachers. The average aide worked with two teachers.

Two of the seven Title I districts lacked a kindergarten supervisor. Thus, the intended model of providing back-up consultative help was lacking in these districts. In several schools, it was observed and reported by school personnel that the aide acted as the substitute teacher when the classroom teacher was absent. Such a practice was in direct violation of Title I guidelines and the School District's directions.

This project was found to be more self-contained and more efficiently operating than the Classroom Aides project or other similar projects. This was primarily because kindergarten aides were assigned to only one grade, with minimal problems in deployment or supervision.

Classes with and without aides were observed in order to determine the types and the effectiveness of aide utilization by teachers. Whole-group instruction was observed taking place less often and for briefer periods in KA classes than in non-KA classes. The KA teacher devoted the extra time to individual and small-group instruction.

Tutoring of individual children, though not extensive, was observed occurring more often and for greater periods of time in all KA classes than in non-KA classes.

The greatest impact of this project appeared in the area of small-group instruction. Observations and interviews with school staff supported the conclusion that more small-group instruction was taking place throughout the school year because of the aide's presence.

Thus, the availability and utilization of the aide have fulfilled the project's objective of enabling the teacher "to better implement an individualized and small-group instructional program".

Because of the aide's presence, KA teachers were observed having less frequent discipline incidents in the classroom than non-KA teachers. While the average non-KA teacher had to halt class instruction to handle disruptive children personally, the evaluation team observed aides dealing with such children while the KA teacher continued uninterruptedly with class instruction. Thus, the aide was of invaluable assistance to the teacher in the area of management/control tasks. Aides also relieved KA teachers of housekeeping and clerical duties that were done by non-KA teachers.

Thus, the objective of providing an aide "to assist in classroom management and clerical tasks so that more teacher time can be spent with the children" was fully attained.

This project has been successful in carrying out both of its stated objectives. In every school visited by the evaluator, the intended mode of operation was found to be fully implemented.

The findings of this study are in accord with those of a similar study of the Parent Aides project conducted in nonpublic schools. In the 1973 report, EVALUATION OF TITLE I ESEA PROJECTS, it was noted that parent aides spent 62% of their daily time supervising and/or tutoring individuals of small groups of children, 13% in clerical tasks, and 25% in housekeeping activities, class trips, operation of A-V equipment, and other activities. These percentages could be used as guidelines for administrators, teachers, and aides as objectives are determined for future years of the KA project.

TABLE 1

OPINIONS OF THREE GROUPS REGARDING THE IMPORTANCE OF INSTRUCTIONAL TASKS PERFORMED BY KINDERGARTEN AIDES

Task Performed by Aide	34 Aides Responded			31 Teachers Responded			27 Principals Responded		
	Very Helpful	Helpful	Not Aide's Role	Very Helpful	Helpful	Not Aide's Role	Very Helpful	Helpful	Not Aide's Role
Supervising activities of small groups	28	6	0	29	2	0	24	3	0
Supervising individual children	24	10	0	21	10	0	23	3	1
Supervising whole-class activities	8	16	10	4	16	11	4	12	11
Tutoring individual pupils	23	9	2	24	5	2	20	7	0
Tutoring small groups	19	13	2	24	6	1	19	8	0
Reading story or talking about pictures in books	21	11	2	19	7	5	18	8	1
Helping children select learning materials	18	12	4	14	14	3	13	12	2
Playing or supervising games	14	18	2	18	12	1	16	10	1

TABLE 2

OPINIONS OF THREE GROUPS REGARDING THE IMPORTANCE OF CLASSROOM MANAGEMENT AND CLERICAL TASKS PERFORMED BY KINDERGARTEN AIDES

Task Performed by Aide	34 Aides Responded			31 Teachers Responded			27 Principals Responded		
	Very Helpful	Helpful	Not Aide's Role	Very Helpful	Helpful	Not Aide's Role	Very Helpful	Helpful	Not Aide's Role
General help in classroom management	25	9	0	19	12	0	15	11	1
Supervising children on lines, stairs, breakfast	21	12	1	15	12	4	17	10	0
Playground supervision	19	9	6	18	10	2	16	9	2
Helping on neighborhood walks, bus trips	29	5	0	28	3	0	24	3	0
Operating A-V equipment	8	20	6	12	14	5	13	13	1
Helping in emergency situations	29	5	0	28	3	0	22	5	0
Clerical tasks	7	23	4	11	7	13	11	13	3
Maintaining records and forms	7	15	12	9	10	12	9	12	6
Duplicating materials	18	10	6	14	9	8	15	9	3

TABLE 3

OPINIONS OF THREE GROUPS REGARDING TIME SPENT BY TEACHER IN WHOLE-GROUP AND IN SMALL-GROUP INSTRUCTION BECAUSE OF KINDERGARTEN AIDE

Question	34 Aides Responded		31 Teachers Responded		27 Principals Responded	
	Yes	No	Yes	No	Yes	No
As a result of the presence of an aide, does the teacher spend more time than before						
(a) In whole-group instruction?	13	21	10	21	5	22
(b) In small-group instruction?	33	1	30	1	26	1

TABLE 4

ESTIMATES OF THREE GROUPS REGARDING THE PERCENTAGE OF TIME THE KINDERGARTEN AIDE DEVOTED TO INSTRUCTIONAL TASKS

Percentage of Time	34 Aides Responded	31 Teachers Responded	27 Principals Responded
1 - 25%	2	2	2
26 - 50%	11	10	13
51 - 75%	11	17	9
76% and more	10	2	3

LEARNING CENTERS

The Learning Centers project provides a model of supportive teacher behavior and classroom organization which utilizes an informal, individualized laboratory approach. Through the use of educational aids, activities, and games, pupils are given self-chosen experiences in basic skill areas. Teachers, parents, and administrators from target schools are served in workshops and consultations.

THE PROJECT

RATIONALE

Children from target areas tend to have low self-images, and deficiencies in oral language skills and inquiry techniques. They lack skill in symbolizing and in inductive thinking. The Learning Centers project provides these children with a learning atmosphere structured to correct their deficiencies through an activity-centered approach.

EXPECTED OUTCOMES

It is expected that the learning atmosphere will be warm, caring, and non-punitive. Pupils should improve in basic skills, in oral and written communication, and in physical, motor, and manipulative abilities. They should become contributing members of a group, and develop an understanding of themselves and their relationship to society. The pupils should learn to make choices, to be self-directive in learning and to be independent. Also, their creative and aesthetic expression should increase.

MODE OF OPERATION

The Learning Centers project is comprised of three components: the Learning Center Laboratories, the Teacher-Parent Center, and the Learning Center Headquarters. These components serve the children, teachers, school administrators, and/or parents.

The Learning Center Laboratories are located in ten target schools. They are organized to facilitate discoveries and exploratory activities in mathematics, science, and language arts. The centers are organized by a specially trained teacher who acts as a guide, motivator, and monitor. Children are taught to assist one another.

The Teacher-Parent Center at the Durham School provides whole-day teacher and community workshops on developing educational aids and the learnings they imply. Workshops are provided in mathematics, language arts, early childhood, puppetry, creative writing, recycling, and making classroom furniture and equipment.

Approximately one third of staff time is devoted to providing consultative services to school staffs and parents in their respective schools.

The Learning Center Headquarters, also at the Durham School, provides materials and supportive services to other centers and to target-area administrators. Its staff conducts a number of staff-development sessions at the request of School District personnel. It also assists School District administrators in idea coordination, curriculum writing, and planning for subject-matter enrichment. The headquarters also serves as a demonstration unit for local, national, and international visitors.

All learning-center teachers attend staff-development sessions every Wednesday afternoon. Here, teachers develop ideas and games to be used in their instructional programs. At times, noncenter teachers participate in the staff-development sessions.

PREVIOUS FINDINGS

In 1970-1971, pupils in the Peirce and Waring centers showed substantial progress in prereading, reading, and auditory vocabulary skills.

In 1971-1972, reading-achievement scores of pupils in most grades at the Durham center were found to be higher than the District 2 norms.

In 1972-1973, the Durham center's resources and pupil abilities were found to be superior to those of other District 2 elementary schools. Substantial improvement in reading was shown in four of five grades at the Durham center.

THE 1973-1974 EVALUATION

The 1973-1974 evaluation of the Learning Centers project focused on operation of the Learning Center Laboratories and the Teacher-Parent Center and on pupil achievemnt.

IMPLEMENTATION

The Learning Centers project consisted of three components. Learning Centers Laboratories directly aided 1,890 children on preschool to junior high school levels. The Teacher-Parent Center trained 1,788 faculty members and parents from almost every Title I school. The Learning Centers Headquarters provided planning assistance to more than 50 School District administrators.

Learning Centers Laboratories. LC Laboratories were located in ten target-area schools. In eight centers, LC participants attended labs for two or three hours per week. In the two other centers, LC pupils spent all of their instructional time in self-contained LC labs.

Physically, LC labs were single classrooms structured to service several grades of children. One school contained a LC lab suite, with two classrooms and a parents' room used for parent education and child tutoring. Another school housed three separate LC labs--a mathematics lab, a specially equipped communications and media lab, and a preschool lab for three- to four-year-olds.

LC labs were organized and equipped primarily to instruct pupils in inductive and deductive reasoning through the use of applied mathematics, science, logic, and language arts. Learning aids such as commercial and teacher-made toys, games, and play activities were carefully selected to encourage pupil discoveries. A teacher who had been specially trained in inquiry and problem-solving techniques directed each lab. Local needs of school populations determined the ages of the participants, the frequency of lab visits per week per child, and the emphasis of the subject matter.

In schools for educationally disadvantaged and physically handicapped pupils, LC labs conducted regular half- or full-day sessions for educationally deprived subgroups, to provide individualized and remedial attention not available in larger instructional groups. These two special labs were not included in this evaluation because of the newness of the labs (this was the first operating year) and their unique populations.

Forty-four systematic observations in the LC labs, averaging 90 minutes each, were conducted during the 1973-1974 school year. Observational data were based on the use of a 12-category observational checklist developed by the evaluators. The checklist covered four dimensions--classroom atmosphere, selection of materials, teacher behavior, and pupil behavior.

The physical atmosphere in the LC classrooms was considered comfortable and stimulating in 30 of the 44 observations. A positive emotional atmosphere, evidenced by the teachers' and children's happy physical appearance, was observed during visits. Teacher behavior was generally warm and acceptant of pupils' feelings and ideas.

Pupils and teachers generally shared the responsibility for selecting the learning activities. In the 26 observations where pupils had a choice of instructional materials, they either worked on self-chosen materials within specific areas prescribed by the teacher, or chose freely from the educational materials.

The teaching approach generally observed in the LCs was discovery oriented, involving games and game-like activities. In 32 observations teachers set up structured games for the pupils to play, with a clear, cognitive focus. However, pupil idea development was convergent in most observations, since LC teachers tended to accept only one answer as correct. Teacher behavior in response to unexpected classroom events and pupils' problems was considered flexible, since in almost every observation teachers changed pupil assignments, topics, and/or

teaching approaches in response to the pupils' problems. In 26 observations, pupils worked individually on activities, while in 18 observations they worked in small groups.

In 25 observations, verbal behavior was high but the quality of language was of a lower order (descriptions, designations, simple value judgments with no justification). In the 19 remaining observations, pupils' verbal output was of high quantity and high quality (classifications, definitions, generalizations, and inferences). Time spent by the pupils in listening, initiating, and responding was divided approximately equally between their teachers and other pupils.

On the whole, pupil self-concepts were judged positive. Pupils usually exhibited these high self-concepts by appearing physically happy, active, and well-groomed. They made mostly positive statements about their own personalities, looks, and physical and intellectual abilities. Pupils' self-discipline was also high, as indicated by their cooperative work. Verbal and nonverbal teacher threats and punishments were virtually nonexistent.

Pupil independence (the ability to make decisions and value judgments from personal internal data) and purposefulness (the ability to single-mindedly carry a task to completion) were considered high in 26 observations. However, high independence was combined with low purposefulness in 14 observations; that is, while pupils exhibited independent behaviors, only a minority (0-40%) finished their work.

In one LC Laboratory, which experimented with discovery-oriented, hands-on preschool teaching approaches, evaluators observed a high level of teacher and parent involvement in individualized basic skill instruction. This pilot project, in its second year of operation, was organized to prepare three- and four-year-olds to meet the cognitive demands of formal education through sensory and cognitive experiences provided by novel, engaging educational materials. The classroom was filled with displays, toys, games, records, colorful letter and number cards, and other objects with which the pupils experimented freely. The teacher, assisted by one or more parents, concentrated on individual or small-group instruction of basic environmental information, simple mathematical skills, and elementary concepts of letters and sounds.

Eight preschool pupils participating in the Learning Centers project were given the Stanford Early School Achievement Test. These three- and four-year-olds functioned on the average level of five- and six-year-olds. Their teacher reported that LC pupils became more aware of their environment, followed directions, initiated conversation easily with peers and adults, and sought teacher help freely.

Teacher-Parent Center. The Teacher-Parent (T-P) Center, located at the Durham School, provided teacher-, aide-, and parent-development sessions on released-time and volunteer-time bases. The center conducted whole- and half-day workshops on constructing educational aids and classroom facilities, open

classroom teaching, and tutoring techniques. The main goal of the center was to help participants assume the roles of guide and motivator in providing an exciting, stimulating learning environment for their children. More than 2,500 visits were recorded in the T-P Center; 2,160 of these were made by faculty and parent participants from almost every Title I school. Project staff estimated that the actual number of visits was approximately 20% greater because participants did not always sign the register used to record attendance.

T-P Center workshops were tailored to the professional level and instructional needs of each group of participants, including administrators, supervisors, regular teachers, special subject teachers, student teachers, trainees, aides, and parents. Regularly scheduled workshops were provided for five groups (122 participants) in language skills, five groups (205 participants) in mathematics skills, and 11 groups (299 participants) in language and mathematics skills. Additional special-emphasis workshops were held for 1,159 parents and staff members from Day Care Services, Get-Set Day Care, Early Childhood Education Network, Career Opportunities project, School-Community Coordinators, Follow Through project, Alternative Programs, Checkpoint Centers, Academically Talented project, Elementary Math Resource Teachers, and several target-area schools.

A teacher-parent survey was sent to 150 randomly selected participants, to assess the impact of the T-P Center workshops. Of the 50 respondents, 40 attended released day-time workshops, mainly in the areas of mathematics, language arts, parents as teachers, toys and games, and carpentry. They were instructed in manual skills, like carpentry and power-tool operation, and curriculum skills such as constructing novel instructional materials and redesigning a classroom's physical environment. Participants were also instructed in teaching techniques, including ways to encourage children to choose and physically handle materials according to their individual interests, and to discover basic principles of knowledge through inquiry and exploration.

Participants found the physical environment of the T-P Center and the varied pupil activities which they observed very stimulating and motivating. According to the participants, workshop activity time was spent about equally in total-group, small-group, and individual activities. Most of the time, participants were allowed to select their own activities according to their personal interests. Also, opportunities were provided for sharing ideas, experiences, and information, and for discussing problems with workshop instructors and fellow participants.

Participants found that they acquired new teaching skills and attitudes during the workshop activities, which were viewed as innovative, stimulating, and realistic. The workshop instructors were seen as supportive and receptive to differing viewpoints. Teachers and parents claimed that as a result of the workshops, they used many new activity-oriented teaching approaches, such as individually prescribed seatwork, structured and unstructured group work (without the teacher), role-playing techniques, and creative dramatics. At the

conclusion of the workshops, the participants believed that (a) pupils should have a choice in the selection of learning materials, (b) teachers should use discovery, game-like, or laboratory methods instead of a lecture method of teaching, (c) teachers should encourage pupils to become self-starters, and (d) teachers should emphasize pupil independence.

After initial T-P Center workshop exposure, responding participants made approximately 100 return visits to the center for either released-time or volunteer-time workshops. Twenty-eight respondents stated that they would have visited the workshops more frequently if they were located closer to their homes.

Participating teachers, aides, and parents perceived the workshops as having positive effects on pupil achievement and attitude toward learning in their classrooms and/or homes. Some teachers and aides stated that pupils had begun to explore and investigate educational materials, and make discoveries independently of any direct instruction. Parent participants reported that they shared many of the educational materials and aids with their children, who were eager to make their own aids and games after seeing their parents' creations.

In addition to the regularly scheduled workshops, the T-P Center provided assistance tailored to meet the needs of many specialized groups in the School District. Career Opportunities Program (COP) instructional trainees, their cooperating teachers, and COP resource teachers (200 participants) were involved in ten monthly two-day workshops. Topics included classroom design, community involvement, communication skills, language development, and math-science, music-movement, and games-activities skills.

Other special workshops were attended by school-community coordinators, supervisors, and area coordinators (74 participants). These sessions taught school-community coordinators how to instruct parents through workshops to use the skills, techniques, educational aids, and games of the T-P Center.

Other workshops were conducted at the T-P Center and at the school sites. The parents of Jackson School children were taught to help individual pupils or groups in their weakest basic skill areas. Furniture, decorations, and displays were made by parents participating in the workshops.

Sixty elementary mathematics resource teachers attended 11 math-oriented T-P Center workshops. New teachers, student teachers, and their cooperating teachers from District 2 attended three T-P Center workshops, which included math-lab experiences and observations in the Durham School. Student teachers also attended eight half-day workshops. The T-P Center staff assisted 58 teachers and aides of the Follow Through project through workshops held at the center and various school sites. Project personnel also instructed one Title I school staff in the use of the Bank Street preschool reading program. District 4 reading teachers attended three language-arts development workshops. Two hundred sixty Alternative

Program workers attended staff-development sessions at the center or their schools. The T-P Centers staff also held workshops for parents of children in the John Thomas prekindergarten room in the Douglass School.

Learning Centers Headquarters. Learning Centers Headquarters provided program enrichment, planning help, subject-matter consultation, curriculum writing, idea coordination, and grant-proposal writing assistance for curriculum supervisors, principals, district superintendents, and various Title I project managers.

The LC Headquarters staff trained and supervised all LC project personnel through weekly staff-development sessions and special workshops. The headquarters staff also helped schools by locating, collecting, and/or writing curriculum materials oriented to the urban environment.

The project administrator reported that support was provided to four district superintendents, who requested service in the areas of staff development, curriculum design, organizational problems, parent education, and alternative school planning. Title I project directors received assistance to plan strategies for coordinated, long-range staff-development programs, later implemented through special workshops conducted by the T-P Center. Individually, principals requested and participated in development sessions at the headquarters concerning subjects like strategies of administrative problem solving, alternative school organization, optimal use of personnel, and efficient and aesthetic use of classroom and office space.

ATTAINMENT OF OBJECTIVES

Objective 1: Pupil attendance in the project to rank above the average for the district in which the schools reside.

The attendance in three of eight LC labs equaled or surpassed their district attendance rates. Therefore, the objective that pupil attendance should rank above the average for their respective districts was partially met.

From school files the evaluation team collected attendance data for LC participants, same-school comparison classes matched for achievement level, and the total school. The average daily attendance rates for participating LC classes, comparable nonparticipating classes in the same schools, and districts for the months of October and December 1973 and February 1974 are shown in Table 1.

In comparisons with respective total-school and comparison-class attendance, LC lab attendance was generally greater. Attendance for LC labs in six schools equaled or exceeded attendance rates for comparable nonparticipating classes in the same schools. In seven schools, LC participants achieved attendance rates equaling or exceeding the total school rate. Therefore, although pupil attendance in the project generally ranked below the district in which the schools resided, it was above total-school and same-school comparison classes.

Objective 2: The median (or average) child to rank above the 50th district percentile on the California Achievement Tests--Language Subtest.

The project was partially successful in attaining this objective. Average (mean) scores were used in the evaluation, because percentile ranks for each district were unavailable.

The results may reflect the high variance of achievement levels for pupils served by respective centers. The majority of centers were established primarily to serve pupils experiencing more than average difficulty in mathematics. Others served both high and low achievers, while still other centers augmented the pupils' general education. Exposure to the project also varied considerably, ranging from less than one hour per week to full-time participation in self-contained LC classes.

The CAT-70 Language subtest was administered to all pupils as part of the citywide testing program. Average (mean) subtest scores (national percentile ranks) were calculated for all LC classes, and district averages (national percentile ranks) were obtained from the School District's Division of Testing Services.

In Table 2 the Language scores of LC and corresponding grade pupils in the district are compared. The average for the LC pupils exceeded the district average in six of the 15 comparisons. All six instances of LC superiority were in Grades 1-4.

Results of further investigation, shown in Table 3, revealed that the pupils in the two self-contained third-grade Learning Centers obtained national percentile ranks above their respective districts on the Language subtest. Although the number of pupils was small, this result was considered meaningful since pupils were selected for the project at random, and therfore were considered representative of the corresponding grade in the district populations.

The project was able to attain partial success in having LC pupils exceed the corresponding grade in the district averages, despite the participants' limited exposure to LC instruction and their generally lower achievement levels. The project was able to more fully attain the objective where pupils received greater exposure in the self-contained LCs.

Objective 3: The median (or average) child to rank above the 50th district percentile on the California Achievement Tests--Mathematics Subtest.

The project was partially successful in attaining this objective. The evaluation procedure was the same as that described for Objective 2.

Comparisons between the results of the Mathematics subtest for LC pupils and the corresponding grade in the district are reported in Table 4. The average for the LC pupils exceeded the district average in five of the 15 comparisons. All five instances of LC superiority were in Grades 2-4.

The results of further investigation, shown in Table 3, indicated that the pupils in the two self-contained LCs obtained national percentile ranks above their corresponding grades in the districts on the Mathematics subtest. This result paralleled the finding for Objective 2: when pupils received greater exposure in self-contained Learning Centers, the project was able to fully attain the objective.

Objective 4: The median (or average) child to rank above the 50th district percentile on the California Achievement Tests--Reading Subtest.

The project was partially successful in achieving this objective. The procedures followed were the same as those described for Objective 2.

Comparisons of the results of the Reading subtest for LC pupils and the corresponding grade in the district are reported in Table 5. The average for the LC pupils exceeded the district average in seven of the 15 comparisons. All seven instances of LC superiority were in Grades 1-3.

The results shown in Table 3 again indicated that greater exposure, received by pupils in the self-contained LCs, produced average pupil scores that ranked above the average district scores for the respective grades thereby fully attaining the objective.

SUMMARY AND CONCLUSIONS

The Learning Centers project provided target-area pupils with a learning atmosphere structured to correct their deficiencies in oral language, reading, and mathematics skills through an activity-centered inquiry approach. In addition to providing an operational model, the project instructed teachers and administrators in the implementation of LC approaches in their classrooms and schools.

The 1973-1974 evaluation process included on-site monitoring, teacher-parent questionnaires, conferences with the project director, compilation of school and districtwide attendance records, and descriptive analysis of the spring CAT-70 Language, Mathematics, and Reading subtests.

On-site observations and teacher-parent questionnaires indicated that the Learning Centers project successfully implemented its three components. LC Laboratories provided direct services to 1,890 children from preschool to junior high school levels, the Teacher-Parent Center provided training for 1,788 faculty members and parents of almost every Title I school, and the LC Headquarters assisted more than 50 administrators in planning and organizational activities.

The project's first objective, to have pupil attendance in the LC Laboratories rank above the average for their respective districts, was met in three of eight observations in October and December 1973 and February 1974. In an additional

study, LC Laboratory attendance was found on the average to be greater than both total-school attendance and attendance of selected same-school comparison groups.

On the Language, Mathematics, and Reading subtests of the CAT-70, the project's objective for the typical LC pupil to exceed the respective district average scores was met in 18 of 45 comparisons. Further investigation revealed that pupils in the two self-contained LC Laboratories exceeded the district average in every comparison.

Although based on the results of a relatively small number of pupils, the success of the two self-contained LC Laboratories indicated that pupil achievement increased with greater exposure to the LC approach. More intensive exposure to the project by more pupils is needed to confirm these tentative findings.

The large number of teachers, parents, and administrators who voluntarily sought assistance in the Teacher-Parent Center or the Learning Centers Headquarters, and the positive responses to the Teacher-Parent Center survey, were interpreted as an indication of the success of these project components. Although teachers reported that they were able to implement new strategies in their classrooms as a result of participation in the T-P Center, more intensive study of the change in both teacher behavior and classroom structure is needed.

TABLE 1

AVERAGE DAILY ATTENDANCE RATES DURING OCTOBER 1973, DECEMBER 1973, AND FEBRUARY 1974

School	District	LC Pupils	Matched Non-LC Pupils	Total School (Gr 1-6)	Total District
McMichael	1	88%	87%	85%	89%
Rhoads	1	86	87	87	89
Douglass	2	84	78	83	88
W. S. Peirce	2	84	78	83	88
Jackson	3	84	80	84	87
T. M. Peirce	4	94	91	86	89
R. R. Wright	4	85	85	89	89
Clymer	5	86	85	84	85

TABLE 2

NATIONAL PERCENTILE RANKS CORRESPONDING TO MEAN SCORES ON CAT-70 LANGUAGE SUBTEST: LEARNING CENTERS (LC) AND THEIR DISTRICTS (D)

District	Grade 1		Grade 2		Grade 3		Grade 4		Grade 5		Grade 6	
	LC	D	LC	D	LC	D	LC	D	LC	D	LC	D
1									15	31	13	28
2	48	43	42	33	42	24	3	23	3	33	15	28
3			47	47	65	37						
4	38	53	24	44	25	35						
5					33	25	25	21				

TABLE 3

NATIONAL PERCENTILE RANKS CORRESPONDING TO MEAN SCORES ON CAT-70 SUBTESTS: TWO SELF-CONTAINED LEARNING-CENTERS LABORATORIES (LC) AND THEIR DISTRICTS (D)

School and LC Class	Language		Mathematics		Reading	
	LC	D	LC	D	LC	D
Jackson (Dist. 3)						
Grade 2 (N=6)	47	47	58	47	49	43
Grade 3 (N=22)	65	37	56	39	47	39
Peirce (Dist. 4)						
Grade 3 (N=8)	54	35	45	37	51	43

TABLE 4

NATIONAL PERCENTILE RANKS CORRESPONDING TO MEAN SCORES ON CAT-70 MATHEMATICS SUBTEST: LEARNING CENTERS (LC) AND THEIR DISTRICTS (D)

District	Grade 1		Grade 2		Grade 3		Grade 4		Grade 5		Grade 6	
	LC	D	LC	D	LC	D	LC	D	LC	D	LC	D
1									16	26	14	22
2	47	50	67	34	35	27	2	18	1	27	10	25
3			58	47	56	39						
4	51	62	40	45	26	37						
5					28	29	24	18				

TABLE 5

NATIONAL PERCENTILE RANKS CORRESPONDING TO MEAN SCORES ON CAT-70 READING SUBTEST: LEARNING CENTERS (LC) AND THEIR DISTRICTS (D)

District	Grade 1		Grade 2		Grade 3		Grade 4		Grade 5		Grade 6	
	LC	D	LC	D	LC	D	LC	D	LC	D	LC	D
1									15	27	14	26
2	59	46	60	35	96	30	3	27	3	28	13	26
3			49	43	47	39						
4	66	63	41	45	26	43						
5					41	30	25	25				

MOTIVATION (Component "A")

The Motivation project offers 10th-, 11th-, and 12th-grade students a wide variety of cultural enrichment, curriculum enrichment, and tutoring experiences designed to motivate them to seek post-high school education, particularly in a college.

THE PROJECT

RATIONALE

The Motivation project seeks to remedy seven educational needs of target-area children, which are noted in the Guidelines for Title I projects: (a) improvement of basic skills, (b) knowledge for living in modern American society, (c) experiences which motivate learning, (d) standard English speech, (e) heightened aspiration and motivation, (f) an understanding of the purposes of education, and (g) teachers who understand their pupils' problems.

The Guidelines note also that "a greater proportion of educationally deprived youngsters in low-income areas [should] not only be given a better chance of getting to college but also be equipped psychologically and educationally for success in college." The Motivation project is the only Title I project in Philadelphia whose primary goal is preparing students for college.

EXPECTED OUTCOMES

It is expected that students will gain entrance into college and will have a sufficiently solid academic foundation to succeed in college.

MODE OF OPERATION

The project aims to strengthen students academically, to expose them to cultural events, to involve their parents in the learning process, and generally to introduce them to new academic and cultural experiences not provided by the regular school program. Although its implementation varies at the 10 sites, the project usually gives students five extra class periods per week where teachers provide enrichment material (e.g., advanced work) or remedial help, such as tutoring. Tutoring is offered also before and after the regular school day. Project students have their own counselor who is trained to handle their special problems. Students attend after-school cultural events such as plays, movies, operas, ballets, and lectures. Some attend late afternoon and Saturday classes in remedial or college-level courses at nearby colleges.

PREVIOUS FINDINGS

Previous years' evaluations showed desirable results in the following areas: classroom performance, verbal and nonverbal functioning, occupational and educational aspiration levels, expectations of success, basic skills, parental involvement, attitudes toward school and learning, college applications, college acceptances, attendance rates, and retention rates. Motivation students were entering college at rates higher than would be predicted from their standardized test scores.

THE 1973-1974 EVALUATION

The current evaluation of the Motivation project's Component "A" focused on the students' academic progress in high school. It also examined the extent of community and parental participation in the project.

IMPLEMENTATION

Each Motivation site had particular assets, problems, and constraints. One school had to roster students for extra classes before school, another school was located near college campuses, and a third served only Motivation students. Therefore, although its goals were the same everywhere, it was impossible for the project to operate identically at all sites. While all schools adhered to federal guidelines, each school stressed different ways of preparing students for college. Since the project relied on personal relationships to motivate students, the coordinators' and other employees' own beliefs also determined which components of the project were stressed at each school.

In general, Motivation students were block-rostered for English and mathematics classes, and received five extra periods a week in these subjects. Students were provided with a counselor, whose sole responsibility was to Motivation students. Tutoring was also available at each site.

In addition to curriculum enrichment, the project provided students with cultural activities. Students attended out-of-class events such as plays, operas, movies, and lectures. They were also encouraged to watch educational television shows and to participate in individual cultural activities.

The following paragraphs describe some of the specific characteristics of the Motivation project at its various sites.

Bartram. Classes averaged 55 minutes each, and students carried five major subjects. Students were assigned research papers, often graded by both social studies and English teachers. Special schedules, examination booklets, and proctors, simulating a college testing environment, were used for midterm and final examinations.

Students participated in after-school clubs such as dance, fashion, drama, and gospel singing. One special feature of the Bartram component was a series of "Open Fridays". Normal rosters were suspended for one Friday each month. In their place, the day's activities revolved around a theme, such as the arts, communications, sports, college representatives, or student-sponsored activities.

The Bartram component was featured in American Education magazine (May 1974), and in local news media.

Bok. Late in the current year, the decision was made to eliminate Bok as a 1974-1975 Motivation site. Because Bok is a vocational school, the college-oriented Motivation project was not sufficiently supported. Bok had no special Motivation counselor, nor were the students block-rostered. However, in interviews with the evaluator, many Bok students expressed displeasure at losing the project's benefits.

Edison. Although most Motivation classes were held during the regular school day, a few classes were held after school hours. Approximately 60 students failing algebra attended a mathematics minischool on two successive Saturdays in December. Other students attended classes at Haverford College, St. Joseph's College, and Philadelphia College of Pharmacy and Science.

Host visits were provided by a personnel executive, an insurance salesman, a pharmacist, a physician, an educator, and a psychologist. Ten students got summer jobs with the help of the project's cultural organizer. Parents attended project meetings held in the early afternoon and evening. One meeting, directed entirely to parents, described ways to resume their own educations.

Franklin The success of Motivation at Franklin was best assessed when compared with the whole school. The average daily attendance rate (ADA) for the whole school was 62%; for students in the project, the ADA was 92%. Of the 1,501 students at Franklin, only 184 (11.8%) were in the Motivation project; yet, all student association members, three of the four senior class officers, and many student leaders, from yearbook editor to football-team captain, were in the project.

The Franklin project worked with the American Foundation of Negro Affairs (AFNA) and area medical schools to prepare six students for medical careers. Other community organizations working with the Motivation project were Aspira, the Catholic Youth Organization, the American Friends Service Committee, and four commercial businesses. Some extracurricular activities were offered on Saturdays, and Franklin's chess club ranked second in the Scholastic League playoffs. Students and parents met in monthly meetings.

Gratz. During the first half of the year, the Motivation counselor, aided by a computer, concentrated on college selection and vocational choice by juniors and seniors. The cultural organizer invited cast members of current plays, community leaders, foreign visitors, and successful professionals to Gratz. They spoke to Motivation students on a wide variety of topics.

Gratz Motivation students won various awards during the year. They scored second in a citywide mathematics test. One student won first prize in a statewide essay contest, and another was elected president of the citywide student association. Plans were made to teach basic units earlier in tenth-grade English and mathematics classes, to fill gaps in students' previous knowledge.

Kensington. Because no counselor was specifically assigned to Motivation students, the regular counseling staff helped them. Counselors set up meetings between students and college representatives, encouraged students to take college-admission tests, and accompanied students on trips to area colleges. The counseling staff also helped to recruit students for the summer Upward Bound project.

Some Kensington students attended a Saturday morning college-credit course in chemistry. The project staff went to feeder junior high schools to explain the Motivation project. Visits to the schools included slide presentations describing the project, and informal lectures by a Motivation student who attended that junior high.

Penn. The Motivation coordinator tried unsuccessfully to schedule extra mathematics and English classes during the regular school day. As a result, the William Penn project was hampered by the students' inability to attend extra classes. All five classes observed by the evaluator contained fewer than 20 students. The school's anticipated move to a new, larger building in 1974-1975 was expected to alleviate the project's scheduling problems.

South Philadelphia. The Motivation project was located outside the high school, on the third floor of a nearby elementary school. When certain factions in the community tried to send the project back to the high school, students, parents, and faculty united along with other community leaders to keep the project at the elementary school. Eight hundred people attended one meeting intended for the parents of the 351 Motivation students. Their successful defense of the project resulted in its increased strength.

Operating on a modular schedule of classes, the project was more flexible than conventionally-rostered schools. Ecology, drama, and photography clubs were offered. Tutoring was available in 10 subjects. The students worked with the

community in various ways: they portrayed Santa Claus and the Christmas characters at a local hospital, aided ward leaders and legislative representatives, met with religious leaders in the community to learn about different beliefs, and participated in various charity drives.

University City. Motivation students were block-rostered, and attended extra English and mathematics classes. After-school tutoring was offered in all subjects. Students also participated in clubs; their electronics club worked on building a laser. Some students attended classes at St. Joseph's College, the University of Pennsylvania, and Drexel University.

Classroom visitors at University City included foreign students from International House, law students from Villanova University, and representatives of the Philadelphia Marriage Council. Various community leaders spoke at each parents' meeting: an assistant district attorney lectured on drug abuse, and lawyers and accountants showed parents how to complete scholarship applications. Students visited other homes in the community; visits were made to the homes of an artist, a journalist, exchange students, a pianist, and a physician.

West Philadelphia. Motivation students were block-rostered for English, mathematics, social studies, and science classes. In addition, the project offered a typing club and tutoring in physics and algebra. Each month, students and parents attended an evening meeting featuring guest speakers or student entertainment. In addition to the standard cultural enrichment, some students participated in a lecture series at two local colleges.

The Motivation counselor used computer printouts, group and individual conferences, and college trips to encourage students to apply to colleges. The staff used rigid selection procedures for Motivation students. While strictly adhering to School District guidelines, the staff avoided using previous teacher-given grades in its decisions. As a result, the Motivation project at West Philadelphia selected some students with very poor school records and provided them with an opportunity for success.

ATTAINMENT OF OBJECTIVES

Objective 1: Forty percent of the parents of Motivation students will participate in the project each month. Participation is defined as attending school meetings, chaperoning Motivation trips, tutoring Motivation students, or working on Motivation committees.

The objective was partially attained. Attendance at some schools' meetings for parents exceeded 40%; at other schools, attendance was considerably less. The 40%

target figure may have been unrealistically high for some schools. All schools, however, had a parents' component, and in some cases it was stronger than that school's Home and School Association. Attendance at parents' meetings is summarized in Table 1.

Parents were involved in other activities in addition to meetings at the individual schools. Some schools had parents' executive boards. Parents chaperoned trips, and worked on committees.

When funding was threatened, for either individual schools or the whole project, parents supported Motivation. In June, parents and students filled a room usually used for Board of Education meetings. There are usually enough seats at meetings open to parents of the quarter-million students who attend Philadelphia schools, but at the Motivation meeting, parents and students sat in the audience, in the chairs of the board members, and on the conference table, window sills, and floors.

Although not all schools reached the target level of 40% participation, the parents of each school's Motivation students were actively involved in their children's education. After interviews with individual schools' Motivation coordinators, it was the opinion of the evaluator that the desired average of 40% of the parents might have attended meetings if there had been fewer scheduled.

Objective 2: At least 80% of Motivation students will participate in out-of-class cultural or cultural/educational activities each month.

Coordinators' reports sent to the project director showed that students attended an average of 10 out-of-class cultural or cultural/educational events during the year--more than one event per month during a nine-month period. Attendance at such events is summarized in Table 2.

Objective 3: The community will participate an average of 20 times each month in cultural, career, and academic activities at each school. Participation is defined as chaperoning, tutoring, hosting students, acting as "Dons", supplying ticket discounts, and supplying scholarships or grants.

Records at six schools showed that the community participated in the project a total of 1,095 times--an average of 23 times per month--during an eight-month period. Therefore, the objective was met. Community participation is summarized in Table 3.

Objective 4: Students will achieve significantly better in reading tests than a comparable group of students who were chosen for the project but will attend a school not eligible for Title I funds during FY 1973-1974.

Students who had taken the Verbal subtest of the Cooperative School and College Ability Tests (SCAT) in Grade 9 were used in this comparison. A stratified random sample of 95 students participating in fully-developed Motivation programs was compared with the 95 SCAT-tested students whose schools became ineligible for Title I funds in the 1973-1974 school year. National percentile ranks corresponding to their average scores on SCAT in Grade 9 (1973), and their average grade-equivalent scores on the Reading subtest of the California Achievement Tests (CAT) in Grade 10 (1974) are shown in Table 4.

Although the Motivation students had scored significantly lower ($p<.10$) than the comparison group on SCAT in Grade 9 (national 28th percentile vs. 32nd), after one year in the project they scored significantly higher ($p<.05$) than the comparison group on CAT (10.1 GE vs. 9.6). Therefore, the stated objective was attained.

Long-Range Objective

Although it was not formally recited as a project objective in the 1973-1974 evaluation plan, the Motivation project's major long-range goal is to have more high school seniors apply and be accepted for admission to college than would do so if the project did not exist.

College acceptance rates for project schools are shown in Table 5. In 1973, 73% of Motivation seniors at current Motivation schools were accepted for admission to a college or university. As of June 7, 1974, the number of accepted Motivation seniors was 79%.

This was in marked contrast to the trend at the four schools that became ineligible for continuation of the project in September 1973. Their trend is shown in Table 6. At those four schools, 85% of the Motivation seniors had applied to college by May 1973; 73% were accepted for admission. As of May 1974, only 64% of the seniors who would have been in the project applied to college, and 44% were accepted. This marked decrease has been attributed to the discontinuance of the Motivation project at those schools.

SUMMARY AND CONCLUSIONS

The emphasis of the current evaluation was on investigation of Motivation students' progress in basic skills. Besides involving parents and the community, and exposing students to varied cultural and cultural/educational experiences, the project successfully raised students' reading scores a half-year above those of a comparable group of non-Motivation students.

Students attended an average of more than one cultural event each month. In four of the schools, the number of parents attending Motivation meetings was greater than 40% of the number of Motivation students. The community participated an

average of 23 times per month in each school. A group of 95 Motivation students with slightly lower initial scores on the Cooperative School and College Ability Tests achieved significantly higher end-of-year scores on the CAT reading test than an equal number of comparable nonproject students.

The project continued its record of placing students in college. This year, 79% of the seniors in Motivation were accepted at a college or university. Records at four schools which became ineligible for Title I funding of the project in September 1973 showed that their rate of college acceptances dropped from 73% in 1972-1973 to 44% in 1973-1974.

TABLE 1

AVERAGE ATTENDANCE AT MOTIVATION PARENTS' MEETINGS

School	Number of Meetings	Average Attendance	Attendance as Percentage of Project Enrollment
Bartram	4	94	31%
Bok	4	37	18
Edison	4	105	65
Franklin	8	80	43
Gratz	7	94	34
Kensington	3	85	44
Penn	6	19	7
South Philadelphia	6	222	60
University City	4	93	27
West Philadelphia	8	*	*

*Data not available.

TABLE 2

SUMMARY OF ATTENDANCE AT OUT-OF-CLASS EVENTS
AT SEVEN MOTIVATION SCHOOLS

School	Number of Motivation Students	Number of Events	Average Attendance per Event	Average Number of Events Each Student Attended
Bartram	306	112	29	10.5
Edison	162	49	19	5.7
Franklin	185	87	32	15.1
Gratz	277	*	*	12.8
Kensington	192	73	40	15.3
South Philadelphia	368	134	24	8.6
University City	340	101	24	7.2
Total	1,830	---	28	10.0

*Data not available.

TABLE 3

COMMUNITY PARTICIPATION AT SIX MOTIVATION SCHOOLS

School	Number of Times Community Participated
Bartram	254
Edison	127
Franklin	171
Kensington	149
South Philadelphia	214
University City	180
Total	1,095

TABLE 4

AVERAGE SCORES OF TENTH-GRADE STUDENTS WHO WERE SELECTED FOR MOTIVATION PROJECT WHILE IN NINTH GRADE

School	N	SCAT Verbal Percentile Rank (June 1973)	CAT Reading GE Score (May 1974)
Project Continued:			
Edison	15	19	9.8
Franklin (Sample)	20	23	10.1
Gratz (Sample)	20	28	10.0
South Philadelphia (Sample)	20	31	9.5
University City (Sample)	20	41	11.1
Total Motivation Sample	95	28	10.1
Project Discontinued after Student Selection:			
Frankford	37	33	10.2
Germantown	15	34	9.3
Olney	29	32	9.0
Overbrook	14	29	9.8
Total Comparison Group	95	32	9.6

TABLE 5

MOTIVATION SENIORS ACCEPTED BY A COLLEGE OR UNIVERSITY

School	1973		June 7, 1974	
	In Project	Accepted	In Project	Accepted
Bartram	76	76 (100%)	85	78 (92%)
Bok	63	51 (81%)	49	39 (80%)
Edison	37	20 (54%)	43	34 (79%)
Franklin	52	34 (65%)	59	55 (93%)
Gratz	109	95 (87%)	91	85 (93%)
Kensington	34	34 (100%)	29	24 (83%)
Penn	97	39 (40%)	101	49 (49%)
South Philadelphia	43	25 (58%)	50	34 (68%)
University City	0	0	73	53 (73%)
West Philadelphia	68	50 (74%)	70	60 (86%)
Total	578	424 (73%)	650	511 (79%)

TABLE 6

SENIORS AT FOUR SCHOOLS LOSING MOTIVATION PROJECT IN SEPTEMBER 1973:
PERCENTAGES APPLYING TO, AND ACCEPTED BY, COLLEGES

School	May 1973 with Project			May 1974 without Project			Percentage-Pt. Change	
	N	Applied	Accepted	N	Applied	Accepted	Applied	Accepted
Frankford	29	76%	55%	33	30%	21%	-46	-34
Germantown	69	70%	55%	97	64%	43%	- 6	-12
Olney	91	90%	77%	92	85%	49%	- 5	-28
Overbrook	105	93%	86%	110	57%	48%	-36	-38
Total	294	85%	73%	332	64%	44%	-21	-29

Component "B" of the Motivation project provides tutorial and other remedial help in basic skills for underachieving ninth- and tenth-grade students.

THE PROJECT

RATIONALE

On standardized tests of basic skills, target-area students tend to score below national norms, particularly in the areas of reading and mathematics. They have difficulty in coping with the demands of high school curricula and tend to develop patterns of chronic underachievement. This project was established to provide aid in basic skill areas for these students at the beginning of their high school education.

EXPECTED OUTCOMES

Through participation in small tutorial groups, underachieving high school freshmen and sophomores are expected to improve their reading and mathematics skills.

MODE OF OPERATION

Parent aides under faculty supervision provide remedial and tutorial services to selected ninth- and tenth-grade underachievers for a minimum of three hours per week. The aides and students work in small groups. Remedial services are given according to individual student needs and are supplementary to the regular classroom instruction.

PREVIOUS FINDINGS

For the 1971-1972 school year, 1,130 ninth- and tenth-grade students were selected for participation on the basis of low elementary and junior high school achievement. Three students dropped out of the program and several returned to their regular classes.

Observational data for the 1972-1973 school year indicated that all six participating schools were providing remedial help in reading; however, the form of the remedial services varied from school to school. Results of the Gates-Maginitie Reading Test available from two of the participating schools indicated an acceptable gain in reading-comprehension level for ninth-grade students but no change for tenth-grade students.

THE 1973-1974 EVALUATION

Previous evaluations of the Motivation project (Component "B") focused on delivery of services to project students. The current year's evaluation assessed participants' gains in reading level measured by out-of-level standardized tests, and the progress made by students in their regular mathematics classes after exposure to the project.

IMPLEMENTATION

During the current school year, the Motivation project's Component "B" provided remedial and tutorial services to ninth- and tenth-grade students in reading (in three schools) and in mathematics (in one school only).

Though the basic purpose in each of the schools was to improve the students' basic skills, implementation of the reading program varied from school to school. In one school, tutoring was available on a daily basis primarily to ninth graders, and for those selected on the basis of eighth-grade placement-test scores, enrollment in the program was compulsory during the first semester and optional during the second semester. In another school, enrollment was voluntary and tutorial services were provided to tenth graders for three to five sessions over an eight-day period. In the third school, enrollment was compulsory for students at both grade levels, with tenth graders attending three to four reading sessions per week and ninth graders attending five sessions per week (daily). For all the schools, a session was approximately 40 minutes in length.

In each school, an aide was responsible for approximately 35 students grouped in classes of four and five. In two schools the aides provided services to the students on an individualized basis and were supervised by reading specialists. In the third school, the aides attended a workshop with a reading teacher (at the beginning of the year) and were responsible for the tutorial services provided during the year. All students received reading or English instruction in addition to the services provided by the project.

A general mathematics test was administered for placement purposes at the end of the first eight-week session to 98 ninth graders registered in mathematics classes. The results were used to divide the students into four groups based on ability and subject content. Students recommended for individual tutorials met with an aide for approximately 40 minutes a day in groups of five or six students based on their specific needs.

At intervals of approximately four weeks, the students were evaluated by the mathematics teacher to determine whether they could be returned to their regular classes. As the need arose during the year, students were taken out of their regular classes and tutored individually.

ATTAINMENT OF OBJECTIVES

Objective 1: To increase the reading achievement of underachieving high-school freshman and sophomore students, to the extent that 80% of them will make one year's gain in grade-equivalent (GE) scores per academic year on the Reading Comprehension and Vocabulary subtests of the Comprehensive Tests of Basic Skills.

The Reading Comprehension and Vocabulary subtests of the Comprehensive Tests of Basic Skills (S2, S3, and S4) were administered in November 1973 and again in May 1974 to 144 freshman and sophomore students.

In the November administration, the grade-equivalent scores on the Vocabulary subtest ranged from 2.5 to 12.9 with a mean of 8.5; on the Comprehension subtest they ranged from 2.0 to 12.9 with a mean of 8.3. In the May administration, the Vocabulary scores ranged from 4.7 to 12.9 with a mean of 9.3, and Comprehension scores ranged from 4.3 to 13.6 with a mean of 9.1. Because the time between test administrations spanned 0.6 year instead of a full year, the criterion of 0.6 year's gain in GE scores was used rather than a full year's gain.

Gains made by individual students from November until May are summarized in Table 1 (Vocabulary) and Table 2 (Comprehension). Although the objective of 80% was not attained, 60% of the students achieved the criterion gain of 0.6 on the Vocabulary subtest and 60% did so on the Comprehension subtest. In fact, during the six-month period 43% achieved at least a 10-month gain in GE score on Vocabulary and 50% did so on Comprehension.

Objective 2: For those students in Motivation "B" mathematics programs, to improve the students' basic computational and algebraic skills to the extent that 90% of the project students are returned to their regular mathematics classes by the end of the school year.

During the year, 14 students from the two least-advanced sections of the mathematics classes received special tutoring. The tutored group included only eight of the 40 students who had scored below passing on the mathematics placement test. The 14 students received aid for short periods of time as the need arose. By the end of the school year, all 14 students had been returned to their regular classes. Marks received following their return to their regular classes indicated that 10 of the 14 students had received passing marks for the year. (Three students' marks were not available from the mathematics teacher; the other's mark was a failure). Thus the tutorials appeared to be effective in that the limited number of students who received special help were returned to their regular classes and the majority received passing grades for the year.

SUMMARY AND CONCLUSIONS

Although the expected 80% did not achieve the anticipated gain, 60% of the 144 students who took the Vocabulary and Reading Comprehension subtests of the Comprehensive Tests of Basic Skills achieved at least the desired gain of 0.6 year in their GE scores between November and May. In addition, 43% of the students exceeded the expected gain to the extent of achieving at least a full year's gain in GE scores during the six-month period.

Of the 14 students who received special tutoring in mathematics, all returned to their regular classes by the end of the school year, and the majority received passing grades for the year.

Overall, the tutorials appeared to be effective in aiding project students in improving their skills in reading and mathematics.

TABLE 1

COMPREHENSIVE TESTS OF BASIC SKILLS: VOCABULARY GAINS
BY STUDENTS IN MOTIVATION COMPONENT "B"

Gain in GE Score	Number of Students	Percentage
2.1 or more	21	14%
1.6 - 2.0	11	8
1.0 - 1.5	30	21
0.6 - 0.9	24	17
Less than 0.6	58	40
Total	144	100%

TABLE 2

COMPREHENSIVE TESTS OF BASIC SKILLS: COMPREHENSION GAINS
BY STUDENTS IN MOTIVATION COMPONENT "B"

Gain in GE Score	Number of Students	Percentage
2.1 or more	23	16%
1.6 - 2.0	22	15
1.0 - 1.5	27	19
0.6 - 0.9	15	10
Less than 0.6	57	40
Total	144	100%

MULTIMEDIA CENTER

The Multimedia Center is a clearinghouse and service center providing teachers and students in target-area schools with curriculum-related audiovisual and other instructional materials.

THE PROJECT

RATIONALE

Regular classroom instruction in target-area schools must be supplemented by meaningful sensory experiences. Research has shown that target children need instruction which appeals to their immediate concerns, utilizes concrete rather than abstract examples, and involves their direct participation.

The Multimedia Center meets the children's needs by providing teachers with various audiovisual and other instructional materials to be used in a multisensory approach to learning.

EXPECTED OUTCOMES

The Multimedia Center is expected to provide students and teachers in target-area schools with materials meeting their specific curricular needs. In addition, the center will provide in-service training in the use and maintenance of audiovisual equipment.

MODE OF OPERATION

The Multimedia Center serves as a clearinghouse for audiovisual and instructional materials such as films, filmstrips, records, tapes, pictures, transparencies, games, and books. These materials relate to such subject areas as reading, language arts, mathematics, history, and art.

Catalogs of available materials and equipment are distributed to participating schools. Teachers request materials which relate to their instructional units. These materials are provided to the schools for varying periods of time.

The center also provides maintenance service for equipment housed in participating schools, and in-service training of teacher aides and students in the use of the equipment.

PREVIOUS FINDINGS

During the project's initial years of operation, the center was organized, equipment-lending procedures were established, and preliminary in-service courses were begun. Utilization records indicated that audiovisual and other educational materials had been integrated into the classroom curriculum.

On surveys, participating school personnel indicated highly favorable attitudes regarding all aspects of the center's operation.

THE 1973-1974 EVALUATION

The current year's evaluation of the Multimedia Center project focused on (a) the operation of the center and (b) the extent to which materials provided by the center were integrated into ongoing classroom activities.

IMPLEMENTATION

The project was found to be fully implemented in accord with its intended mode of operation.

The Multimedia Center had available for circulation during the current year 1,719 audiovisual and instructional materials such as films, filmstrips, records, tapes, games, transparencies, and learning kits. Additionally, 1,828 pieces of equipment such as 3M Secretaries, record players, typewriters, cassette player/recorders, and Language Masters were permanently housed in individual schoools.

Through an audiovisual coordinator in each school, teachers were able to request materials on a weekly basis. In order to circumvent the possibility of requested materials not being available, teachers also were able to list an alternate choice for each request. The Multimedia Center received 16,231 requests for materials during the year. Approximately half (8,806) were filled as the materials became available. Materials were delivered weekly to the 48 participating schools. Loan periods for Multimedia Center materials ranged from a week to a semester.

Between October 2 and December 6, 1973, 107 boys from 26 schools received two to three hours of in-service training in the theoretical principles and the practical operation of various pieces of audiovisual equipment.

ATTAINMENT OF OBJECTIVES

Objective 1: To establish a clearinghouse of audiovisual and instructional materials that are related to the curricular needs of the pupils and teachers served in the target-area schools.

This objective of the project was attained.

The Multimedia Center Survey was distributed to all teachers in the 48 participating schools in March 1974 to assess the project in terms of (a) the type and number of materials requested and circulated by the center, (b) the extent of use of materials in the schools, and (c) the integration of the materials into the curriculum.

Three hundred sixty-six teachers of Grades K-10 and of special education and supportive subjects reported use of 11,256 materials between September 1973 and March 1974. The relative use of materials by teachers of various groups is shown in Table 1. Of the four groups of teachers, teachers of Grades K-3 made most use (37%) of materials from the center; they were followed by teachers of Grades 4-6 (31%) and 7-10 (28%). In general, films (25%), filmstrips (24%), and cassette tapes (20%) were the most widely circulated items.

Multimedia Center records indicated circulation of 7,679 materials for the same period of time as that covered by the survey of teachers (September 1973 to March 1974). The apparent discrepancy between the center's records and the teachers' reports was attributed to the use of the materials by several teachers in the same school.

Frequency-of-use figures indicated that 207 (56%) of the 366 teachers utilized audiovisual materials in their regular classroom instruction on a weekly basis; 84 other teachers (23%) reported monthly use of materials, and 69 (19%) less frequent use. One teacher reported daily use, two indicated no use at all, and five did not respond to the survey. Despite the varying frequency of use, 97% of the teachers regarded the materials as helpful in regular classroom instruction.

In order to determine the purposes for which materials were used in the classroom, teachers were asked on the survey to list any five materials used during the school year and to indicate the purpose for which each was used. In total, 1,229 examples were reported. They are summarized in Table 2. Reading accounted for nearly half the examples provided by the teachers; Social studies, Guidance, Science, and Mathematics accounted for most of the remainder. In general, the materials were used to reinforce, stress, or clarify previously presented lessons.

Objective 2: To provide teachers, paraprofessional aides, and students with in-service training in the use of audiovisual hardware and software in order to insure their effective and efficient use.

This objective was partially attained. Although no training of teachers was reported, 50 aides at two schools received training at one-day workshops.

In-service training was provided by Multimedia Center personnel to 107 fifth-, sixth-, and seventh-grade boys in 26 schools for a minimum of two hours each. In

24 of the 26 schools, at least four boys were trained in the use of audiovisual equipment. In 23 of the schools the training was a continuation of the Cadet Corps program from previous years. Principals or audiovisual coordinators at 23 of the 26 schools expressed satisfaction with the boys' training.

SUMMARY AND CONCLUSIONS

The Multimedia Center was designed to provide audiovisual and other instructional materials and support services to Title I schools. During the 1973-1974 school year, materials actually were provided to the participating schools and were integrated into ongoing classroom instruction.

The records of the Multimedia Center indicated that the center had 1,719 materials available for circulation. With that available supply, it was able to fill 8,806 of the 16,231 requests received during the school year. Records of circulation to schools and utilization reported indicated that the materials had also been circulated among teachers within individual schools.

The project has attained its objective of serving as a clearinghouse for curriculum-related materials, and students and aides have been trained to operate the related equipment. The available materials have been fully utilized in the participating schools. More timely integration of such materials with classroom instruction might be facilitated by an increase in the quantity of the center's most frequently requested materials.

TABLE 1

CIRCULATION OF MULTIMEDIA CENTER MATERIALS

Teachers Served		Total Uses	Type of Materials						
Grade	Number		Films	Filmstrips	Cassettes	Records	Learning Kits	Trans-parencies	Games
K-3	131	4,106	1,144	938	762	452	301	222	287
4-6	133	3,502	857	972	661	210	320	322	160
7-10	84	3,160	713	671	732	376	280	302	86
Special Education and Supportive	18	488	83	150	52	48	48	66	41
Total	366	11,256	2,797	2,731	2,207	1,086	949	912	574
Percentage of Uses		100%	25%	24%	20%	10%	8%	8%	5%

TABLE 2

CLASSROOM USE OF MULTIMEDIA CENTER MATERIALS

Purpose	Subject Area							
	Reading	Social Studies or Guidance	Science	Mathematics	Art or Music	PE or HE	Foreign Language	All Areas
Introduce	59	41	27	13	39	2		181
Inform	115	81	51	20	9	6	1	283
Enrich	81	23	8	2	7		2	123
Supplement	58	29	19	24	12	2		144
Review	22	10	8	2				42
Reinforce, Stress, Clarify	229	54	61	105	5	2		456
Total	564	238	174	166	72	12	3	1,229
Percentage	46%	19%	14%	13%	6%	1%	1%	100%

MUSIC SPECIALIST TEACHERS

The Music Specialist Teachers project provides instructors who teach music appreciation in target-area elementary schools.

THE PROJECT

RATIONALE

The Music Specialist Teachers project was designed to give target children a varied musical experience. Frequently, these fourth-, fifth-, and sixth-grade pupils do not have the experiences that give them an understanding of music in the cultural and ethnic sense, nor do they have access to various instruments on which to learn performance skills.

These pupils need an environment where they can study and use various kinds of musical equipment by taking apart and reassembling the equipment and performing experiments to better understand the properties of music and sound. The specialist teacher provides the child with a musical experience that enriches his life by heightening his aesthetic awareness.

EXPECTED OUTCOMES

It is expected that, as a result of the carefully planned project, the children in Grades 4, 5, and 6 will be provided with the skills necessary for future instrumental and vocal studies. By teaching elementary musical skills, note reading, and group and individual singing, and by utilizing exercises in rhythm via simple instruments, the MST should provide the children with services unavailable in the regular classroom.

It is also expected that these musical experiences will foster development of eye, ear, and hand coordination, social participation, and self-confidence.

This project can have a positive effect on children who usually do not receive positive reinforcement from other scholastic experiences. It is expected that the MST project can motivate, stimulate, and reinforce a child's sense of his own worth, and ultimately bring many target children into the mainstream of education.

MODE OF OPERATION

Music specialist teachers are assigned to 37 public and eight nonpublic elementary schools in target areas. On the average, one teacher is assigned to two public schools and works with target children in Grades 4, 5, and 6. (The specialist teacher's instruction supplements the regular classroom teacher's 30 minutes of music instruction per week.) Nonpublic Title I schools receive

similar services for a minimum of one day per week. Classes are organized on a laboratory-instrument study basis rather than on a traditional general music class basis, in the hope that pupil-initiated or teacher-directed learning through discovery will take place.

The Title I schools are furnished with a structured and creative laboratory-instrumental approach to the study of music. This approach is more intensive and concentrated than the usual Philadelphia general music approach in that (a) classrooms are equipped with musical instruments in larger quantities than usually found in the classroom, and (b) an electronic music laboratory in each school is equipped with a microphone, a tape recorder, an oscilloscope, and musical instruments. The oscilloscope is used to show pupils the differences in sound waves generated by various musical instruments. In addition, the linear properties of sound, especially electronic sound is demonstrated by use of concepts developed in science, mathematics, and physics.

The music laboratories are also equipped with an electric organ, a piano, a tape recorder, xylophones, melody bells, chromatic bar bells, autoharps, melody flutes, percussion instruments, and guitars.

The project also provides contact between performing artists and the children through the Young Audiences program. This ancillary program is complementary to the MST project. The program is devoted to aiding children in understanding how music is created and to stimulating the children's desire to learn performance skills on instruments or in singing.

Once a year, at a 45-minute assembly, project children observe a performance by performing artists. Children are encouraged to interact with the performers via questions and answers.

PREVIOUS FINDINGS

Previous year's evaluations revealed that pupils served by music specialist teachers showed greater ability than other pupils to read music, to deal with musical concepts, and to perform on musical instruments. Classes served by MSTs performed better than other classes in group singing, high/low tonal discrimination, and complex note-grouping identification. MST classes showed higher aural-discrimination ability and, in lower grades, greater preference for group singing. On the (Colwell) Music Achievement Test, children with MSTs scored slightly higher than other children. Vocal performance of children taught by MSTs was rated higher than the vocal performance of children taught by regular classroom teachers. Grade teachers in schools with MSTs tended to spend more class time on music than those in schools without MSTs, and their pupils tended to choose musical activities over nonmusical activities to a greater extent than pupils without a special music teacher. The average MST-serviced school made use of 16 of the 19 kinds of instruments listed on the Equipment Use Survey.

THE 1973-1974 EVALUATION

The current evaluation focused on (a) whether the MSTs devoted a minimum of 45 minutes per week to instructing only Grades 4, 5, and 6, and whether the classroom teacher provided an additional 30 minutes per week of music instruction, (b) the availability and use of electronic music laboratories, and (c) the availability of musical instruments in target schools.

Systematic classroom observation using an observational checklist was used to evaluate the nature of classroom music activities. Interviews with the MSTs, classroom teachers, and principals provided supplementary information related to the project's objectives.

IMPLEMENTATION

The evaluation team completed a total of 48 interviews and observations. Twelve principals, 12 MSTs, and 10 classroom teachers were interviewed, and 14 classrooms were observed during lessons taught by MSTs.

The observations made with the aid of a Title I Observational Checklist are summarized in Table 1.

During all visits, students were observed engaging in a variety of music activities, including singing and playing instruments. The materials used during the lessons (e.g., tape recorders, charts, textbooks, and musical instruments) were available in sufficient quantity during all observations.

Some activities listed in the project proposal were not in evidence. Not all classes developed instrumental performance ensembles, nor did students in conjunction with such ensembles present multimedia programs. Teachers did not participate as a group in any kind of special orientation sessions or workshops with the project administrator, the teacher in charge, or the District Music Supervisors. Classes were not organized on a laboratory-instrument study basis. Classes tended to be organized on the traditional general music-classroom and/or auditorium plan rather than on the laboratory-instrument basis as intended for the project. At no time during any of the observation visits was direct attention given to music appreciation, study of music and musicians, or understanding the physical properties of music. Children were not observed creating or improvising music with instruments, microphones, or tape recorders. Thus, the stipulated intended model was not actually being fully implemented.

Pupil attitudes with respect to cooperation, interest, and involvement were rated satisfactory or better during every one of the 14 observations. The interviewed principals unanimously expressed the feeling that the music program should be expanded to encompass all grades.

The ancillary Young Audiences program did enable the children to come into contact with professional musicians through 45-minute demonstrations by performing artists.

ATTAINMENT OF OBJECTIVES

Objective 1: To provide fourth-, fifth-, and sixth-grade children with 45 minutes of music instruction per week, in addition to the 30 minutes of regular music instruction by their classroom teacher.

The MST taught an average of 45 minutes per week per class. However, in eight of the 12 schools visited by the evaluation team, the MST taught other grades in addition to the specified Grades 4, 5, and 6. Thus the stipulation of this objective limiting instruction by the MST to Grades 4-6 was violated.

The classroom teacher did not remain during the music lesson. As a result, although half the classroom teachers reported that they did engage in an additional 30 minutes per week of music instruction, that instruction probably was not a follow-up activity or a lesson based upon the one presented by the MST.

Thus, Objective 1 was only partially attained.

Objective 2: To provide musical instruments in larger quantities than are found in regular fourth-, fifth-, and sixth-grade music classrooms.

A survey to ascertain the number of musical instruments was sent to principals of all 35 Title I schools that had MSTs and to a sample of 75 principals of schools not in the MST project. Results of the survey are shown in Table 2. On average, the schools participating in this project had fewer instruments than the other schools. Thus, Objective 2 was not attained.

Objective 3: To provide an electronic music laboratory in each Title I school.

None of the elementary schools was found to have an oscilloscope, nor was any of the 12 interviewed principals aware of what was termed an "electronic music laboratory." No evidence was found to indicate that the Music Department had any intention of purchasing and delivering such equipment, nor had the MSTs been apprised of the special curriculum that they were expected to carry out for this objective. Thus, Objective 3 was not attained.

Objective 4: Project students will score significantly higher in a test of musical achievement than nonproject students.

As a result of continuous needs assessment, the Title I funding of this project was to be terminated June 30, 1974. For this reason, and because previous years' evaluations had already found that children exposed to a music teacher did score higher on a music achievement test than children not exposed to any music teacher, the project was not reevaluated in regard to this objective during the current year.

SUMMARY AND CONCLUSIONS

Although the MST did teach 45 minutes per week, the regular classroom teacher did not appear to provide, on a regular basis, the expected additional 30 minutes per week of music instruction. Furthermore, in two thirds of the schools visited by the evaluation team, MSTs taught other classes in addition to the stipulated Grades 4-6. Thus, a major portion of the project's objective of providing 75 minutes of music instruction to Grades 4-6 was not being implemented.

The project's second objective of providing an electronic music laboratory for each school was not achieved in any of the schools, nor were principals or MSTs found aware of this objective.

Likewise, the objective of having more instruments in Title I schools than in other schools was not attained.

Thus, the project's three major objectives were not fulfilled.

The ancillary Young Audiences program did, however, enable children to come into contact with performing artists through a once-a-year 45-minute assembly program.

In reassessing the current needs of target children, the School District decided to phase out the Title I funding of this project as of June 30, 1974.

TABLE 1

SUMMARY OF OBSERVATIONS MADE IN 14 VISITS TO MST PROJECT
November 1973 - May 1974

Desired Condition	Number of Observation Visits	
	Condition Present	Condition Lacking
Materials and equipment were sufficient in quantity.	14	0
Materials were appropriate for grade level.	14	0
School had an electronic laboratory.	0	14
Teachers were using equipment from Music Department.	4	10
Students were playing musical instruments.	7	7
Classroom teacher was present.	1	13

TABLE 2

MUSICAL INSTRUMENTS IN MST AND NON-MST SCHOOLS

School Classification	Schools Responding to Survey	Number of Instruments Reported	Number of Instruments per School
Schools with Title I MSTs	35	1,296	37
Schools without Title I MSTs	61	2,488	40

OUT-OF-SCHOOL SEQUENCED SCIENCE EXPERIENCES

From paired schools, sixth graders from various racial, religious, ethnic, or socioeconomic backgrounds are brought to the Franklin Institute one day per week for a six-week cycle of discovery-oriented workshops, lecture/demonstrations, and discussions on physical and biological science conducted by the Institute staff.

THE PROJECT

RATIONALE

There is a recognized need to expose urban school children to intercultural learning experiences. Currently the opportunities for interaction between children of different cultures are limited. Standardized tests have shown that Philadelphia's pupils are deficient in science knowledge as well as in basic skills. Often, elementary school teachers have had little training in science teaching and have only limited equipment and materials for teaching science in their classrooms.

One method of meeting the children's needs is to mix culturally different children in an appropriate learning environment such as the Franklin Institute. In the past, intercultural understanding, science learning, and basic skills enrichment have resulted from this approach.

EXPECTED OUTCOMES

It is expected that the project's varied learning activities will broaden and enrich the pupils' knowledge of basic biological and physical science concepts. Also, pupils should develop a greater awareness of the problem of environmental pollution and an understanding of the implications of the world's energy crisis.

Project activities are designed to promote friendly, cooperative work between pupils of different backgrounds, and to give the pupils hands-on experiences using stimulating science materials not readily available in their home schools.

MODE OF OPERATION

A sixth-grade class of black public school children is paired with a sixth-grade class of black nonpublic school children, white public or nonpublic school children, or Spanish-speaking public school children for science experiences at the Franklin Institute. The paired children meet one day per week for a six-week

cycle. The project involves a different pair of schools each weekday, thus involving ten schools per week, or 40 schools (and 40 teachers) in the year's four six-week cycles. Parents are invited and encouraged to participate in project activities.

Each day's session includes an inquiry-based science workshop, a lecture/demonstration with related discussion, completion of language-skill worksheets, lunch, free exploration of the Institute, and a field trip. During each activity, children from the two schools are seated alternately so that maximal social interaction is encouraged.

The pupils take home their handmade working models, which illustrate science principles learned at the Institute. Home-school teachers receive booklets as encouragement to conduct follow-up science lessons reinforcing the pupils' cognitive gains.

PREVIOUS FINDINGS

Evaluations from 1967 through 1973 indicated that achievement scores of project participants showed significant improvement, when measured by the Science Achievement Test given to participants and to a comparison group, and when measured by pretest and posttest given only to participants. Interactions between culturally different pupils were positive, cooperative, and task-oriented, as measured by classroom observational and sociometric instruments. The majority of participating pupils and teachers reported that they considered the project a valuable and enjoyable educational experience.

THE 1973-1974 EVALUATION

This year's evaluation of the Out-of-School Sequenced Science Experiences project focused on cognitive gains (as indicated by the Franklin Institute science pretest and posttest scores) and socialization gains (as compiled on a Social-Interaction Observational Checklist). The presence of certain project-specific enabling conditions was noted by means of another observational checklist. A teacher questionnaire was used to gather home-school teachers' opinions of the extent to which the project's goals were attained.

IMPLEMENTATION

To determine whether the project operated in accord with the intended mode of operation, evaluators interviewed participating home-school teachers and observed the project's activities at the Institute. Data collected from the 10 interviews and 19 observations indicated that most of the project's intended activities took place.

The 10 interviewed teachers reported that during the six-week cycle, almost every aspect of the project operated efficiently and effectively. Participants (pupils)

were picked up promptly at 9 a.m. at their home schools by chartered SEPTA buses and transported to the Institute, where they received a full day of instructional services and had lunch. They returned to their respective schools by 3 p.m.

Interviews with teachers and observational visits made by evaluators confirmed that the five instructional activities (workshops, lectures, demonstrations, free explorations, and field trips) scheduled for each daily session took place as planned.

Teachers reported that most instructional activities planned and implemented by Franklin Institute instructors (particularly the workshops) were interesting, informative, well organized, properly sequenced, and geared to the cognitive levels of the children. However, several teachers felt that two of the field trips (the water-plant and air-pollution-station excursions) were not of great value to their pupils.

The evaluators and most of the teachers found that instructional materials used by the Institute instructors were relevant to the subject matter, available in sufficient quantity, and used in a problem-solving way. During the third and fourth cycles Institute teachers added science worksheets reinforcing language-arts skills such as defining words, describing apparatus and experiments, and conceptualizing science principles. Plans for a computer-based mathematics unit, with pupils operating terminals, also were being developed. The "Franklin Flyer", a six-page compilation of stories and drawings by pupils describing their experiences in the project, was published by Institute teachers and distributed to all project participants.

Home-school teachers and evaluators were in accord that most pupils were attentive during the formal instructional activities and were active participants in the discussion sessions held afterward. However, a few teachers reported some pupil-behavior problems which disrupted instructional activities and were not resolved during the six-week cycle.

Seven of the 10 teachers reported that they received some follow-up materials and utilized them successfully in their own classrooms. All 10 teachers reported that every pupil received all follow-up materials (working models and instructional materials) distributed during the workshops. The evaluators observed pupils receiving follow-up materials at various times during the course of the project.

Teachers' reports and evaluators' observations indicated that very few parents participated in the project. Evaluators observed some parents attending the Institute during three of the 19 observation visits.

Throughout the six-week cycle, pupils from different schools were paired for instructional activities on an irregular basis. Seven teachers reported that pairing took place at all of the science sessions but did not occur during bus trips and free explorations of the Institute. In less than half of their observation visits (8 of 19),

evaluators found pupils seated or working in pairs during instructional activities. Thus, pairing of pupils for the purpose of encouraging social interaction among pupils of diverse ethnic backgrounds was not implemented in all activities of the project.

ATTAINMENT OF OBJECTIVES

Objective 1: To promote improved knowledge and understanding of selected basic concepts of biological and physical science.

A six-category, 27-item, criterion-referenced mastery test was administered to participants before and after their six-week participation in the science project. This was the most recent version of a project-specific test that had been used in evaluating the project in previous years. The coefficient of reliability for the new version was .85 (KR-20).

Pretest and posttest means were 11.0 and 15.7, respectively (out of a possible score of 27). The mean gain of 4.7 points (statistically significant at the .001 level) indicated that this year, as in previous years, the project effectively communicated scientific information. The 4.7-point gain may be considered a conservative estimate of the project's accomplishments because pupils in one of the 10 classes involved in the project spoke and understood only Spanish and consequently may have profited minimally from the instructional sessions conducted in English and may have been unduly penalized by the tests which were given in English.

Pupil achievement was divided into six subtest mastery categories corresponding to the program's six major topics. The mastery criterion for each category was approximately 80% of the items answered correctly. To attain overall test mastery pupils had to answer at least 21 of the 27 items correctly.

In four categories 45% to 64% of the pupils achieved mastery on the posttest: electricity and magnetism; force, motion and energy; water pressure and water cycle; and ecology and the microscope. In the two other categories (light and color, and air pressure and pollution) the posttest mastery rate was below 30%; however, only 5% of the pupils had shown mastery in these two categories on the pretest. The increases in the percentage of pupils achieving mastery in the six categories ranged from 17 to 36 percentage points. To this extent, therefore, the project was attaining its objective of improving pupils' knowledge and understanding of basic biological and physical science concepts.

In interpreting the findings, the reader should note that (a) pupils attended only six once-a-week sessions, (b) several classes missed one or two sessions because of inclement weather, and (c) the scores of the Spanish-speaking pupils were included in the data.

Objective 2: To promote the active interchange of ideas and the attitude of cooperative work relationships between classmates of different ethnic backgrounds.

Data were gathered by means of two locally developed instruments: an observational checklist on social interaction and a teacher questionnaire. The checklist was used by the evaluators during their 19 observation visits. Evaluators randomly selected 25 pupils and observed each of them for five minutes. Verbal and nonverbal interactions of these selected pupils with pupils from other schools were recorded on the checklist. Results are summarized in Table 1.

Evaluators found that 20 of the 25 observed pupils interacted with pupils from the paired school and that most of these interactions were positive. In 17 of the 18 verbal interactions and in 19 of the 20 nonverbal interactions, evaluators observed the pupils working cooperatively, openly expressing their feelings, and accepting the feelings of others.

The seven-page teacher questionnaire was distributed to the 10 home-school teachers. Teacher responses to questions pertaining to pupil involvement and interaction in project activities generally agreed with the evaluators' findings from the observational checklist. Most teachers reported that most of their pupils consistently worked on project activities with pupils from other schools in a cooperative fashion and actively sought to share ideas and experiences.

Thus the project's objective of bringing about an interchange of ideas and an attitude of cooperation between pupils of different ethnic backgrounds was attained.

Objective 3: To provide firsthand experience with science facilities and materials not readily available at the home school.

Survey responses from the teachers indicated that their children received unique experiences at the Institute. In their Institute classroom they used electrical and mechanical apparatus, high-powered microscopes, and liquid-nitrogen displays. The Institute's planetarium, simulated weather-condition exhibit, airplane and spaceship models, and centrifugal force "Twirlabout" demonstration also were made available to the pupils. Most of the equipment was not available in the schools, and many of the Institute's displays and demonstrations were the only ones of their kind in Philadelphia.

Thus the project's objective of providing experiences "not readily available at the home school" was attained.

SUMMARY AND CONCLUSIONS

The Out-of-School Sequenced Science Experiences project conducted at the Franklin Institute provided intercultural learning experiences for sixth-grade pupils who were deficient in knowledge and understanding of basic scientific concepts.

Each of four six-week cycles involved pupils from 10 schools. The current evaluation, based on the year's third cycle, focused on the instructional services and intercultural activities provided by the Institute staff and on the specific cognitive and affective outcomes achieved by pupils.

Information about the project was gathered by means of a locally developed achievement test, a teacher questionnaire, and two observational checklists.

The 10 home-school teachers and the evaluators all perceived that the project was implemented according to its intended mode of operation. Teachers described the project as well organized and exciting. Visits to the Institute by the evaluators confirmed the teachers' reports.

All three of the project's objectives were attained. On the 27-item science achievement test given before and after the cycle, pupils increased their average score by 4.7 points. Evaluators' observations with the social interaction checklist showed that pupils from varied racial, ethnic, and religious backgrounds worked and played together in a friendly and cooperative way during the intercultural learning activities. The teacher questionnaire indicated that pupils received first-hand experience with highly sophisticated scientific apparatus and materials.

All teachers reported that the project adequately met their expectations. Suggestions made by some of the teachers to improve the project's operation included (a) establishing procedures for handling disruptive children so that less instructional time would be spent on such interruptions; and (b) modifying, eliminating, or replacing some of the selected field-trip sites to stimulate greater pupil interest in the trips. Another suggestion might be the implementation of a richer follow-up science program in the home schools.

TABLE 1

INTERACTIONS OF 25 PUPILS WITH PUPILS FROM PAIRED SCHOOL DURING RESPECTIVE FIVE-MINUTE OBSERVATION PERIODS

Type of Interaction	Primarily Positive	Primarily Negative	No Interaction
Verbal	17	1	7
Nonverbal	19	1	5

PARENT SCHOOL AIDES

The Parent School Aides project introduces large numbers of paraprofessional aides into schools to give teachers assistance in overcrowded inner-city classrooms. Teachers are enabled to spend more time attending to the individual needs of their pupils.

THE PROJECT

RATIONALE

The introduction of large numbers of trained parent aides into urban classrooms represents a major structural change in American education. The project has profound implications for classroom organization, for pupil learning, for school-community relations, and for the changing role of the teaching profession. With respect to classroom organization, the addition of another adult can allow greater flexibility in grouping procedures and in differentiation of levels of instruction. The expected increase in individualized instruction can improve pupil achievement. The need for increased communication between the community and the school can be satisfied through the direct involvement of parents from the community in the educational program. Parent assistance has had positive effects on both career and role satisfaction of the classroom teacher.

EXPECTED OUTCOMES

By increasing the amount of individualized instruction, the teacher can alleviate the pupils' diagnosed reading and mathematics weaknesses.

MODE OF OPERATION

Initially the parents are trained extensively in the use of individualized instructional materials for reading and mathematics. Later they are assigned to classroom teachers who direct them in working with small groups or individual pupils in skill areas diagnosed as weak.

For reading instruction, the parent aides monitor and direct reading games, supervise the completion of assigned activities, score worksheets, act as models in the reading of stories, help in language-arts drills, and assist in the development of appropriate manipulatives.

For mathematics instruction, the parent aides work with the Individually Prescribed Instruction (IPI) mathematics program under the auspices of Research for Better Schools, Incorporated. Their duties include marking, scoring, graphing, and summarizing pupil progress. In non-IPI mathematics classes,

the aides supervise small groups and individual pupils, score papers, and prepare manipulatives and worksheets.

PREVIOUS FINDINGS

Evaluations from 1968 until the current school year have consisted primarily of questionnaires, rating scales, and interviews administered to teachers, principals, and/or the aides. Each year, the results were generally positive. In 1968-1969, pupil progress was demonstrated in reading and language arts as a result of aide assistance, and the project was perceived as influencing parent interest in school problems. In 1970-1971, principal's ratings of aides revealed that aides were performing their tasks well and were of great benefit to the instructional program. In 1971-1972, survey responses by principals revealed that aides were performing those tasks which were expected to extend the instructional services of the classroom teachers. In 1972-1973, formal interviews with classroom teachers and their parent aides indicated that paraprofessional assistance was valuable in individualizing instruction.

THE 1973-1974 EVALUATION

The current year's evaluation of the Parent School Aides project included (a) extensive classroom observations to determine the degree of individualization of instructional practices, and (b) a study of the relationship between parent aide assistance and the frequency of classroom problems, as perceived by classroom teachers receiving aide assistance for the first time in their teaching careers.

IMPLEMENTATION

A total of 253 parents were provided with initial and continuing training in the use of individualized learning programs in reading (and some minimal training in mathematics) during the 1973-1974 school year. Seventy-four aides were new to the program; 179 aides had participated in the past. The three project coordinators, who served at modest cost to Title I, conducted 47 training sessions lasting approximately two hours each. A summary of the in-service training program is shown in Table 1. Additional in-service training (which is not noted in the table) was provided for new aides throughout the school year. Moreover, aides involved with special curricula (IPI, DISTAR) were provided with in-service training from outside consultants.

The results of a brief questionnaire completed by classroom teachers who had the assistance of parent school aides showed that (a) 35% of the classroom teachers received assistance from paid paraprofessionals for the first time in their teaching careers, (b) 65% of the teachers had a continuation of the aide service received during the 1972-1973 school year, (c) 15% of the aides spent all of their assigned time in the classrooms, (d) 45% of the aides were assigned to specially prepared classrooms or locations, (e) 17.5% of the aides were assigned to specified classrooms

most of the time and were assigned outside these classrooms only part of the time, and (f) 22.5% of the aides would be assigned to specified classrooms part of the time and outside these classrooms most of the time.

Classroom observations of 34 classes in 12 randomly selected schools were conducted. The results of the observations are shown in Tables 2-6. Regardless of location, the classes in the project generally could be described as follows: (a) the class organization consisted primarily of two or more groups of pupils; (b) each group was engaged in a different activity or assignment; (c) the teachers served as presenters of information to a group or groups, interacting with the group in the learning process; (d) the parent aides supervised or assisted small or medium-sized groups; (e) the pupils were primarily involved in group learning activities.

In observations, differences were noted between the aides' service in regular classrooms and aides' service in a special room in the building. When the aide provided service in the regular classroom, the teachers appeared to assume a less active role by guiding and assisting groups or individuals and the parent aides devoted more time to supervising or assisting individual pupils; when the aides provided service in another room in the building, the teachers devoted nearly all of their time to presenting information to groups.

ATTAINMENT OF OBJECTIVES

The project's Objectives 1 and 2 are parallel: Objective 1 deals with reading and language arts; Objective 2 deals with mathematics. Because of their similarity these objectives will be treated as one in this report.

Objective 1: To facilitate small-group and individualized instruction in reading and other language arts, that would otherwise not be possible, by providing paraprofessional assistance for the classroom teacher in the implementation of her instructional program.

Objective 2: To facilitate small-group and individualized instruction in mathematics, that would otherwise not be possible, by providing paraprofessional assistance for the classroom teacher in the implementation of her instructional program.

It is expected that project classes will devote 60% of the observed time to individual and/or small group work (2-10 children), and 30% of the observed time to medium-sized group work (11-20 children).

With respect to the level of instructional differentiation, almost every pupil will be observed working on the same assignment in 30% of the observations, four or more pupils will be observed working on different materials in 40% of the observations, and four or more pupils will be observed working on different pages of the same book in 35% of the observations.

Because of the limited service which the parent aides provided for mathematics classes in the target schools, the observational data from reading, lanaguage arts, and mathematics classes were combined for these objectives. The descriptive method of evaluation was used. The purpose of the descriptive method is to systematically describe the facts and characteristics of a given situation

The design specified a series of observations of classes in randomly selected schools receiving parent aide service. An observational instrument, the Learning Environment Checklist, was developed to provide the most accurate description of all characteristics of the observed classroom. The following six major characteristics were included for observation: organization (individuals to whole class), level of instructional differentiation (individuals on different assignments to the total class on the same assignment), role of the teacher (availability for assistance upon request to directing or lecturing the entire class), parent aide activities (unstructured time to supervising a large group), pupil activities (individual activity, group activity, waiting for assistance, etc.), and pupil attitudes (appears enthusiastic to appears bored). The 40-minutes observation time was divided into five-minute intervals. During each interval, judgments for each of the six characteristics were recorded. A composite of the eight sets of records was used to describe the environment for that 40-minute observation time. A summary for all observations was then used to describe any environment having the services of a parent school aide.

Twelve (25%) of the 48 schools receiving parent aide service were randomly selected for observation. In all, 34 classes were observed. In 20 classes the aide worked with the children in special rooms in the building; in the remaining 14 classes the aide worked with the children in the same classroom as the teacher.

The observational findings with respect to the grouping structure of classes receiving parent aide assistance are summarized in Table 7. During observations, individual and small-group activities occurred 60% of the time; medium-sized group activities occurred 31% of the time. In each case, the minimum expectations were attained.

The observational findings with respect to the level of instructional differentiation in classes receiving parent aide assistance are summarized in Table 8. During observations, four or more pupils worked on different materials 71% of the time; almost every pupil worked on the same assignment only 9% of the observed time. The observation procedures did not enable the evaluators to distinguish the number of pupils who were working on different pages of the same book. However the large amount of observed time devoted to working on different materials (71%) precluded the necessity to observe similar categories of the same characteristic. The minimum expectations for each category were attained.

The observations showed that by providing paraprofessional assistance for the classroom teacher in implementing her instructional program, small-group and individualized instruction in reading, language arts, and mathematics were facilitated.

Objective 3: To lessen the frequency of perceived classroom problems by teachers with a minimum of two years of previous teaching experience having paraprofessional assistance in their classrooms for the first time in their teaching careers, as measured by the Major Classroom Problems Checklist.

A modification of the one-group pretest/posttest design (referred to as the "retrospective pretest") was used to determine whether the availability of parent aides would significantly reduce the number of classroom problems perceived by teachers receiving aide service. The teachers were asked to respond to the instrument according to their attitudes or behaviors at the present time. The validity of this procedure can be documented in educational research literature.

Fifty-nine teachers had accumulated at least two years of teaching experience (excluding the current school year) and had paraprofessional assistance in their classrooms for the first time in their teaching careers. These teachers were asked to respond to the Major Classroom Problems Checklist.

The Checklist was developed by Martin (1965) from a study with inner-city teachers in Flint, Michigan. The items include such problems as negative attitudes, discipline, attendance, individualization of instruction, and conflict of culture. The five response options ranged from "very much a problem" to "never a problem". A weighted score was assigned to each response option and the sum of the weighted scores from the 17 items provided a total score for each respondent. The scores from the retrospective pretest and the posttest were compared using a t test for correlated samples at the .05 level of significance.

Forty-six of the 59 teachers returned their completed checklists. Two of these teachers indicated their past and present teaching experiences differed to the extent that a comparison of perceived problems with respect to the services of their parent aide would be unfair. When compared, the scores of the remaining 44 teachers showed that 28 teachers indicated that the number of perceived problems in classes with parent aide service was less than that in classes without parent aide service, 10 teachers indicated that the number of perceived problems in classes with parent aide services was greater than that in classes without parent aide service, and six teachers indicated that there were no differences between classes with or without parent aide assistance.

The comparison of scores on the retrospective pretest and posttest yielded no significant differences. Consequently, the objective was not attained. Although teachers perceived fewer classroom problems when they had the services of a paraprofessional than in situations where such services were not available, the degree of this difference was not significant.

SUMMARY AND CONCLUSIONS

The Parent School Aides project was created to give teachers assistance in overcrowded inner-city classrooms, thereby enabling teachers to utilize their professional training in attending to the individual needs of their pupils. The current year's evaluation focused on the degree of individualization of instructional practices in classes with parent aides, and on the relationship between parent aide assistance and the frequency of classroom problems, as perceived by teachers receiving aide assistance for the first time in their teaching careers.

The project was effectively implemented according to the intended mode of operation. The role of the parent aide was well defined. Generally, each aide was assigned to no more than two teachers. The aides were trained and supervised by experienced coordinators who served the project at modest cost to Title I. The in-service training program was well organized and seemed to be comprehensive.

Extensive observations of classes with parent aide service revealed that teachers were, in fact, able to attend to the individual needs of their pupils by individualizing their classroom instructional practices. However, the presence of paraprofessional service did not significantly lessen the frequency of classroom problems as perceived by teachers receiving such service for the first time in their teaching careers.

All relevant information collected shows that the Parent School Aides project continues to provide necessary and meaningful service to the classroom teacher, to the school, and to the community proper.

TABLE 1

SUMMARY OF IN-SERVICE TRAINING FOR PARENT SCHOOL AIDES

Clientele	No. of Sessions	Month Given	Purpose or Description
65 aides with 4 or more years' experience	1	September	Specific training in curricular areas (penmanship, phonics, reading)
39 aides with 2 or 3 years' experience	3	September	Same as for aides with 4 years' experience, plus general orientation, procedures, payroll, historical information, legal guidelines
64 aides with 0 or 1 year of experience	8	September	Same as for aides with 2 or 3 years' experience
21 aides designated to work with Sullivan	1	September	Orientation to the Sullivan Reading Series
40 aides with previous experience	8	September	Presentations by outside consultants on specific subject-matter concerns
40 aides designated to work with mathematics	1	September	Orientation to work with mathematics programs
11 aides in special schools	1	September	Training for work in special schools (handicapped children)
4 aides in schools new to project	4	Oct.-Nov.	General orientation to project

TABLE 1 (Continued)

SUMMARY OF IN-SERVICE TRAINING FOR PARENT SCHOOL AIDES

Clientele	No. of Sessions	Month Given	Purpose or Description
75 aides	1	November	Classroom management
45 aides	1	December	Mathematics and reading
53 new aides	--	October	Visits to all schools with new aides, by the coordinators
55 aides in the North Philadelphia group	1	January	Presentation on reading for speed and comprehension Presentation on use of functional phonics
49 aides	1	January	Definition of purpose of oral reading and its place in the curriculum
65 aides in the West Philadelphia group	2	January	The impetus aides give to a school
40 aides who assist in Grades 6, 7, and 8	1	January	Presentation of lessons in mathematics and reading
24 new aides	2	February	General directions
3 new aides	2	February	Demonstration and explanation of Sullivan program
12 aides in three schools	1	February	St. Elizabeth - listening skills

TABLE 1 (Continued)

SUMMARY OF IN-SERVICE TRAINING FOR PARENT SCHOOL AIDES

Clientele	No. of Sessions	Month Given	Purpose or Description
3 new aides	1	February	Observation of Sullivan program in operation
30 aides in the West Philadelphia group	1	February	Listening skills put into practice
25 aides in the West Philadelphia group	1	February	St. Agatha - listening skills put into practice
5 new aides	1	February	Orientation session explanation of program, guidelines
3 aides new to small-group work	1	February	Explanation of plan book (aides formerly I.P.I.)
75 aides in the West Philadelphia group	1	April	Language and color lotto demonstrated and explained
75 aides in the South Philadelphia group	1	April	The importance of phonics in the reading program
40 aides who assist in Grades 6, 7, and 8	1	May	Presentation of lesson on decimals and percentage; presentation of lesson in phonetic analysis and vocabulary development
253 (all) aides (48 schools)	--	May	Individual in-service given in each school re: inventory

TABLE 2

ORGANIZATION OF CLASSES HAVING
PARENT SCHOOL AIDES

Class Organization	Percentage of Time		
	Aide in Regular Classroom	Aide in Special Room	Regardless of Aide's Location
Whole class	1%	1%	1%
Two groups	28	23	26
More than two groups	47	54	50
Group(s) and individuals	20	22	21
Individuals	4	0	2
Undetermined	0	0	0
Total	100%	100%	100%

TABLE 3

INDIVIDUALIZATION OF INSTRUCTION IN CLASSES
HAVING PARENT SCHOOL AIDES

Degree of Individualization	Percentage of Time		
	Aide in Regular Classroom	Aide in Special Room	Regardless of Aide's Location
Total class, same activity	1%	1%	1%
Two or more groups with different assignments	70	80	74
One or more groups plus individuals, each with different assignments	25	19	22
Individuals with different assignments	4	0	3
Total	100%	100%	100%

TABLE 4

ROLE OF TEACHER IN CLASSES HAVING
PARENT SCHOOL AIDES

Role	Percentage of Time		
	Aide in Regular Classroom	Aide in Special Room	Regardless of Aide's Location
Passive, available for guidance	8%	0%	5%
Actively guiding/assisting groups or individuals	37	1	25
Presenting information to groups with interaction	54	97	68
Directing or lecturing whole class	1	1	1
Performing administrative tasks	0	1	1
Not available	0	0	0
Total	100%	100%	100%

TABLE 5

ACTIVITIES OF PARENT SCHOOL AIDES

Activity	Percentage of Time		
	Aide in Regular Classroom	Aide in Special Room	Regardless of Aide's Location
Supervising/assisting large group (more than 20)	0%	0%	0%
Supervising/assisting small or medium-sized group	72	99	82
Supervising/assisting individual	25	0	16
Performing clerical/ administrative tasks	2	0	1
Not available	1	1	1
Total	100%	100%	100%

TABLE 6

ACTIVITIES OF PUPILS IN CLASSES
HAVING PARENT SCHOOL AIDES

Activity	Percentage of Time		
	Aide in Regular Classroom	Aide in Special Room	Regardless of Aide's Location
Inappropriate behavior/no apparent task	1%	2%	1%
Waiting	2	1	2
Getting materials	4	1	3
Group learning activity	85	92	87
Individual learning activity	8	4	7
Total	100%	100%	100%

TABLE 7

GROUPING STRUCTURE IN CLASSES HAVING
PARENT SCHOOL AIDES

Structure	Percentage of Time		
	Aide in Regular Classroom	Aide in Special Room	Regardless of Aide's Location
Large-group (more than 20 pupils)	15%	4%	9%
Medium-group (11-20 pupils)	22	42	31
Small-group and individual	63	54	60
Total	100%	100%	100%

TABLE 8

DEGREE OF INSTRUCTIONAL DIFFERENTIATION IN CLASSES HAVING PARENT SCHOOL AIDES

Degree of Differentiation	Percentage of Time		
	Aide in Regular Classroom	Aide in Special Room	Regardless of Aide's Location
Almost every pupil on same assignment	14%	5%	9%
Four or more pupils on different materials	57	80	71
Undetermined	29	15	20
Total	100%	100%	100%

PENNSYLVANIA ADVANCEMENT SCHOOL--EXTERNAL PROGRAM

The PAS External Program supports minischools in six junior high schools and one elementary school. Each of these schools is provided with a PAS facilitator (teacher trainer) who works with the minischool teachers.

THE PROJECT

RATIONALE

The External Program offers team teaching and the minischool concepts as alternatives to the traditional junior high school organization. Students receive a better, more personalized academic program because they have the same group of teachers with whom they plan and share ideas.

EXPECTED OUTCOMES

Administrators in PAS-associated schools are expected to spend an increasing amount of time over a four-year period in teacher supervision and in conducting minischool teacher meetings.

It is expected that students in the External Program will perform better in reading and in mathematics than comparison populations from their school on city-wide California Achievement Tests.

It is expected that participating students' attendance will be better than attendance for the school as a whole. Because PAS has developed methods to help teachers handle their own discipline problems, it is expected that handling of problems will be characterized by parent involvement, a team approach to finding a solution, and internal handling of problems before a child is sent to a counselor or vice principal.

It is also expected that more small-group instruction will occur in PAS classrooms than in comparison classrooms.

MODE OF OPERATION

The External Program schools--six junior high schools and one elementary school in Districts 1, 4, 5, 6, and 7--include Bethune, Penn Treaty, Pickett, Roosevelt, Shoemaker, Stetson, and Sulzberger. PAS sponsors a minischool within each school. In the minischools, teams of teachers and their students are expected to function much as the teams do in the Internal Program at PAS. The project provides a facilitator (an experienced specialist in team teaching) for each school to help the team(s) operate more efficiently and effectively. The External Program involves approximately 65 teachers, 2,000 students, and at least one administrator in each school.

PREVIOUS FINDINGS

The results of the 1972-1973 achievement tests showed that External Program students' work equaled that of the comparison population in the same school. Thus, the minischool classes were found at least as effective as the other classes within the school.

The 1972-1973 attendance rate of the total minischool population exceeded that of students from the regular schools by 5%. Principals reported fewer student dismissals than they had in previous years. This lower rate was due to the way discipline problems were handled by minischool teams: teachers made an effort to help students and their parents resolve difficult situations.

Some External Program teams showed variation in their arrangements of classrooms. The teachers seemed to be using more small-group and individualized instruction than was evident in previous years.

THE 1973-1974 EVALUATION

On the basis of recommendations from Title I advisers, the PAS External Program evaluation was altered for 1973-1974 to include assessment of the support provided for the teams by each school's administrative staff. As in 1972-1973, basic skill development, attendance, the handling of discipline problems, and student grouping for instruction were examined.

IMPLEMENTATION

The PAS External program was located in six junior high schools and one elementary school. Instructional teams occupied rooms near one another, usually on a single floor, and pupils moved from room to room for instruction. Teachers were to meet as a group to discuss progress and to plan for pupils.

The External program did not receive the support from participating schools that was intended by the program guidelines. Administrative support was slight in most programs; it was difficult to get administrators to attend team meetings, and only one of the administrators indicated that the program would be continued when the PAS facilitator eventually departs. Contrary to the goals, only 20% of the teachers on teams were voluntary. In many cases, PAS minischools had rostering that did not allow for intended team meetings with the facilitator. In most classes, the curriculum was observed not to be different from that of the regular junior high. Team trips and activities planned by the facilitators were generally the children's concept of the major value of participation in the program.

ATTAINMENT OF OBJECTIVES

Objective 1: External administrators will be involved in at least 25% of the External team meetings.

The PAS facilitator kept attendance at team meetings. The school counselor assigned to service the students within the minischool attended an average of 83% of the team meetings. An administrator attended an average of only 18% of the team meetings. Although counselors could be assumed to be the designated administrators, they lacked the power and decision-making capabilities. This goal may be seen as attained; however, the original aim to have administrators directly involved in the minischools in anticipation of eventual individual school takeover of the program was not accomplished.

Objective 2: The External program students will perform at or better than comparison populations (external Title I schools) in reading and mathematics.

California Achievement Tests were administered to all pupils in the External program as part of the citywide testing program in May 1974. Mean scores of classes in the External program were compared with those of randomly selected classes from the same schools. The comparisons are shown in Table 1. In each comparison, analysis of variance indicated a statistically significant difference ($p < .10$) in favor of the project participants. This evidence that the External program made a difference in the reading and mathematics achievement of pupils indicated that the objective was attained.

Objective 3: The handling of discipline problems will be characterized by (a) parent involvement in the solution, (b) team approach to the problem, (c) teachers handling problems internally, and (d) facilitators counseling teams and mediating problems.

Each facilitator made periodic reports concerning the handling of discipline problems within the minischool as compared with the total school in which it was located. In 70% of the teams, discipline problems were handled with parent involvement, teams rather than individual teachers solved the problems, teams handled problems internally before sending most severe problems to the counselor or facilitator, and facilitators counseled the teams and mediated problems before a school administrator was involved. Facilitators indicated that many internal problems were solved without pupils' being suspended; therefore, it was assumed that the suspension rate of minischool pupils was below that which might have occurred without this approach to handling discipline problems.

Objective 4: External attendance will exceed comparison (whole school) attendance by 5%.

The average daily attendance (ADA) reports from the External program indicated that the overall minischool ADA for 1973-1974 was 81% and the overall comparison ADA was 76%. Because the attendance of PAS-associated pupils was 5% greater than that of the school as a whole, the objective was attained.

Objective 5: Children in the External program will work individually and in small groups over 50% of observed instructional time, whereas the comparison populations may be characterized by whole-group instruction more than 50% of the time.

Observations were made daily by the External facilitators. Their reports indicated that on the minischool teams, 32% of the instructional time was spent in small-group and individual instruction. The percentages ranged from 0 to 100% spent in small-group and individualized instruction. Whole-group instruction was observed 68% of the time. Corresponding percentages for the school as a whole were almost identical; thus the instructional-grouping objective was not attained for the PAS External program.

SUMMARY AND CONCLUSIONS

The PAS External program provided a means for helping Title I junior high schools to develop minischools within their buildings. PAS provided a facilitator (teacher trainer) and an aide to work with teams of teachers.

The data for 1973-1974 indicated that some of the External program's operational goals were not being met. External administrators were not as supportive as had been expected, and the way instructional time was spent in whole-group or small-group instruction indicated little commitment for change on the part of the project's teachers (little difference from comparison teachers in the regular school). On the positive side, however, the discipline problems were handled constructively, attendance rates exceeded those of comparison pupils, and project pupils were substantially better than comparison groups in achievement in reading and mathematics.

In mid-July, PAS was informed that it would have a reduction in Title I funds for the 1974-1975 school year. A decision had to be made regarding where the funding would be used. In consideration of the observed difficulties noted within the External schools and the fact that the External operational objectives were only marginally met, it was determined that the External program should not continue in the new year. Accordingly, PAS should remove the facilitator and aide from the External schools, should encourage administrators to continue independently with the minischool concept, and should provide in-service staff training and technical advice if the schools desire such assistance.

TABLE 1

MEAN SCALED SCORES (AND CORRESPONDING INDIVIDUAL PERCENTILES) ON CALIFORNIA ACHIEVEMENT TESTS, MAY 1974

Grade and CAT Subtest	PAS External Program Classes	Comparison Classes
Grade 7:	33 Classes	14 Classes
Total Reading	420 (17)	409 (14)
Total Mathematics	406 (17)	394 (13)
Grade 8:	40 Classes	11 Classes
Total Reading	466 (23)	427 (12)
Total Mathematics	428 (15)	407 (10)

PENNSYLVANIA ADVANCEMENT SCHOOL--INTERNAL PROGRAM

PAS is an alternative, experimental middle school (Grades 5-8) whose major focus is the improvement of basic skill development (reading, writing, and mathematics) through team teaching, open education, and individualized instruction.

THE PROJECT

RATIONALE

The PAS team-based approach assumes that the middle school should be a transition between the personal, secure elementary or lower school and the less personal, large urban high school. The PAS curriculum is designed to be responsive to the needs of the early adolescent child. Team teaching and small-group instruction are emphasized, providing for individualization of instruction by accommodating different rates and styles of learning. PAS emphasizes reading and mathematics skills development and also provides a multiple enrichment program for its students. The program as a whole is designed to maximize interaction between teachers, students, and parents.

EXPECTED OUTCOMES

It is expected that students in the PAS Internal Program will perform better than comparable students in external Title I schools on achievement tests in reading and mathematics.

The average daily attendance at PAS is expected to exceed the attendance at Cooke and Stetson Junior Highs, the two major feeder schools to PAS.

MODE OF OPERATION

In the 1973-1974 school year, PAS was almost like a new school. In the fall of 1973, while the total PAS pupil population doubled, the Internal Program's population quadrupled to 810 students. This influx of students (intended to help relieve overcrowding at Stetson and Cooke Junior Highs) necessitated an expansion from two to three floors of open space and an increase from three to 11 internal teaching teams. Because the new staff members had no summer orientation, staff development has been emphasized during the current year.

PAS has changed from a one-year motivational experience for students to a full middle school experience covering Grades 5-8. It has moved into vertical grouping of students with three or four grades on one team. The decision that PAS was to be a completely team-based organization resulted from the project's experience during the previous five years.

In the classroom, students are organized for small-group or individual instruction more than for whole-group instruction. The handling of discipline problems is characterized by parent involvement, a team approach to finding a solution, and internal handling of problems by the team before a child is sent to a counselor or floor supervisor.

PREVIOUS FINDINGS

From the inception of PAS in 1967 until June 1972, most of the evaluations were formative, without controlled studies of pupil achievement. During the 1972-1973 school year, a greater emphasis on reading and mathematics achievement was noted. Students in the Internal Program had an average daily attendance 12% higher than that of comparison groups. The handling of discipline problems was characterized by a problem-solving approach on the part of teachers, students, and parents. Teachers in the Internal Program used a wide variety of grouping arrangements in their classes.

THE 1973-1974 EVALUATION

As in 1972-1973, the current year's evaluation of the PAS Internal Program focused on basic skill development, student attendance, the handling of discipline problems, and student grouping for instruction. Since the program more than doubled its student population and staff, the plan for the 1973-1974 evaluation was to reexamine in detail those variables studied the previous year.

IMPLEMENTATION

The PAS Internal program faced a trying year organizationally--three floors of open space instead of two, 11 teams instead of three, 720 students new to the team and open-space concepts, and two thirds of the staff new. In interviews, all teams described the first several months as difficult: reduced supplies were available, furniture had not arrived, books and materials were at a minimum, and all 11 teams were new. Teams had only two days to arrange space, move furniture, develop plans, and prepare for the 70 students they were to teach. With the new staff, multiple age groupings, and flexible rostering, the beginning was difficult.

By February, staff evaluations indicated that the teams were beginning to function: they were grouping around individual needs of students; basic skill development was being emphasized with PAS offering more hours of reading, writing, and mathematics instruction than a regular junior high school; more diversified grouping was beginning: open education was being practiced in various forms. Teams also felt some sense of autonomy in ordering necessary materials, making some curricular decisions, and having control over their own rostering.

Interviews and observations conducted during May and June revealed that PAS teams had become fully functioning; most teams had worked out problems of organization, curriculum, classroom management, and basic skill development for beginning the 1974-1975 school year. In effect, 1973-1974 was an organizational year for an essentially new school, in which the quantitative results were perhaps limited by the disarray of a new school even though all the objectives were accomplished.

ATTAINMENT OF OBJECTIVES

Objective 1: The experimental PAS Internal and Residential programs will perform at or better than the comparison population (external Title I schools) in reading and mathematics.

California Achievement Tests were administered to all students in the Internal and Residential programs and to the comparison students as part of the citywide testing program in December and May. Class mean scores on the posttest are summarized in Table 1. Comparisons of class means indicated that PAS students performed as well as the comparison students in total reading and mathematics at the seventh- and eighth-grade levels.

Individual student growth was tabulated for 456 Internal program students who had taken both the pretest and the posttest. Results are summarized in Table 2. Between testings 68% of the students increased their national percentile rank in reading and 70% increased in mathematics. Although the table does not show it, at all grade levels (Grades 5-8) the number of students scoring below the national 16th percentile decreased by 7% between testings.

The Informal Reading Inventory was administered to all PAS students in October and May. Of the 629 students tested, 57% showed improvement, 11% showed a decrease, and 32% showed no change in reading level. Seventy-five percent of the teams had students improve in reading sufficiently to match their grade-level placement.

Objective 2: The handling of discipline problems will be characterized by parent involvement in the solution, team approach to the problem, teachers handling problems internally, and teachers and counselors mediating with parents, teachers, and children.

The process of handling discipline problems in the Internal and Residential programs was observed daily through the 1973-1974 school year. When a problem occurred, the following process occurred 95% of the time: a teacher discovered the problem and talked to the child; the whole team of teachers discussed the problem; the parent was called to help solve the problem (sometimes was asked to come to

school to talk to teachers); the problem was referred to the counselor; only in the most extreme cases or when lack of cooperation was apparent would administrative involvement be used. This objective was achieved as the approach to discipline problems was characterized by parent involvement in the solution, a team approach to the problem, and teachers handling problems internally before sending to the counselor or administrator for help; when help was sought through a counselor, the method was a mediating process rather than expulsion from school as a solution.

Objective 3: Internal attendance will exceed attendance at comparison Title I feeder schools to PAS by 5%. Residential attendance will exceed External attendance at the same school by 5%.

The objective was attained. The average daily attendance (ADA) reports, collected monthly, indicated that the PAS Internal program (86.7%) exceeded the Title I feeder schools (Stetson and Cooke, 73.3%) by 13.4 percentage points; the Stetson Residential program (85.8%) exceeded the Stetson External program (78.7%) by 7.1 points. (Stetson's total-school ADA was 70.0%.) Thus, the average attendance rate in the Internal program exceeded that in the comparison schools by more than the 5% projected in this objective; the Residential program's attendance also exceeded that of the External program by more than the targeted 5%.

Objective 4: Children in the Internal and Residential programs will work individually and in small groups over 50% of observed instructional time whereas the comparison populations may be characterized by whole-group instruction greater than 50% of the time.

This objective was attained. Repeated random observations were made in the Internal and Residential programs throughout the 1973-1974 school year. The portion of time spent in small-group and individual instruction was 90% for the Internal program and 88% for the Residential. In the comparison population (in schools having the PAS External program) only 32% of the instructional time was spent in small-group or individualized work. In both the Internal and Residential programs, teams began the year with more whole-group instruction and increased the small-group and individual work as it became appropriate for them and their students.

SUMMARY AND CONCLUSIONS

PAS is an alternative middle school that uses team teaching, open education, and individualized instruction to meet the needs of the early adolescent child. The emphases of PAS are skills development and problem-solving abilities taught and learned in interesting and exciting ways.

For its first seven years, PAS was a small school. In 1973-1974, it grew to more than 800 students, 11 teams, and essentially a new staff. Although there were organizational problems, teams were able to offer quality education to the students.

On the California Achievement Tests, students showed growth in both reading and mathematics with 7% fewer students scoring below the 16th percentile in May than in December, and with overall increases in achievement levels. Discipline problems were handled by involving parents, teachers, and students and attempting to solve problems without eliminating children from the school. Attendance was significantly better at PAS than in the feeder schools. Students received primarily small-group and individual instruction. Data from writing samples, Informal Reading Inventories, and student interviews also indicated substantial student growth during the 1973-1974 school year.

Even with the difficulties of being essentially a new school, the PAS Internal program probably had in 1973-1974 the most successful year in its history. The program and staff have undoubtedly worked out many of the difficulties impeding the expansion of its exemplary program. It seems appropriate that PAS should be used in the future to provide in-service staff training for schools that wish to explore open education, skill-development teams, and group-process education for inner-city children.

TABLE 1

MEAN SCALED SCORES (AND CORRESPONDING INDIVIDUAL PERCENTILES) ON CALIFORNIA ACHIEVEMENT TESTS, MAY 1974

Grade and CAT Subtest	PAS Internal and Residential Students	Comparison Students
Grade 7:	10 Classes	14 Classes
Total Reading	408 (14)	409 (14)
Total Mathematics	395 (13)	394 (13)
Grade 8:	5 Classes	11 Classes
Total Reading	426 (12)	427 (12)
Total Mathematics	397 (9)	407 (10)

TABLE 2

SUMMARY OF CHANGES IN NATIONAL PERCENTILE RANK
BETWEEN DECEMBER 1973 AND MAY 1974
BY STUDENTS IN PAS INTERNAL PROGRAM

Grade and CAT Subtest	Students Gaining	Students Not Changing	Students Losing
Grade 5:			
Reading	45	1	19
Mathematics	48	2	16
Grade 6:			
Reading	30	4	20
Mathematics	38	3	12
Grade 7:			
Reading	186	6	76
Mathematics	170	6	82
Grade 8:			
Reading	35	2	21
Mathematics	32	4	17
Total School:			
Reading	296	13	147
Mathematics	288	15	127

SCHOOL-COMMUNITY COORDINATOR

The project employs community residents as school-community coordinators to work with parents and school personnel in transmitting information, facilitating mutual understanding, and encouraging participation between the school and the community.

THE PROJECT

RATIONALE

This project attempts to increase communication between target-area schools and the communities they serve. Because the coordinator visits students' homes, many school problems that affect individual children's academic standing and school morale can be obviated. Discipline problems, patterns of poor student attendance that are not handled by an attendance officer, and facilitation of parent conferences with principals, teachers, or counselors are problems usually resolved through the coordinator's personal contact with the student's home.

EXPECTED OUTCOMES

It is expected that the school-community coordinator will facilitate improved communication and understanding between the school and the community, as well as increased participation by school personnel and parents in school-community activities.

MODE OF OPERATION

School-community coordinators are assigned to 153 elementary and secondary schools in target areas (approximately one or two school-community coordinators for every 1,000 to 3,000 students). One coordinator is assigned to each elementary school, and two are assigned to each junior or senior high school.

The coordinators' flexible work hours permit them to work various times of the day as well as on weekends. Their most important function is that of liaison between the school and the community, keeping each group informed of the other's activities, and visiting students' homes to gain information which will enable the school to operate with greater awareness of the community. In addition, the coordinators work with community agencies (e.g., mental health centers), providing a coordinated exchange of information.

The project administrators include the project director, three supervisors (professionally trained in guidance and social work), and 12 area coordinators (promoted from the position of coordinator). This staff is responsible for the supervision and professional development of the coordinators.

PREVIOUS FINDINGS

Previous SCC evaluations indicated that community residents who received visits by the coordinators were more knowledgeable about the school and participated in more school activities than those community residents who did not receive visits.

The 1972-1973 evaluation indicated that in target schools with a lunch program, the SCCs spent one fifth to one third of their time supervising the program, soliciting parent volunteers for the program, or working as aides in the program. Thus, attainment of the project's major goals was being hampered.

THE 1973-1974 EVALUATION

The current year's evaluation of the School-Community Coordinator project focused on (a) the specific role and function of the SCC and the area coordinator, (b) school personnel's perception of the SCC's usefulness to the school, the faculty, and the community, and (c) the extent to which the average SCC carried out the newly implemented SCC behavioral standards.

IMPLEMENTATION

School-staff perceptions of the SCC. To determine the perceptions of school and project personnel regarding the roles, functions and impacts of SCCs and their area coordinators, the evaluation team visited 59 schools and interviewed 51 principals, 52 SCCs, 59 counselors, 38 randomly chosen classroom teachers, and 12 area coordinators. Each of the 212 interviews consisted of two parts: (a) specific questions eliciting description of the role and function of the SCC, and (b) specific questions eliciting the respondent's subjective evaluation of the impact that the SCC and the project's area coordinator had had upon the school, the faculty, and the community.

The extent of services rendered by the SCCs to the school as perceived by school-staff members is summarized in Table 1. The corresponding perceptions by the project-staff members are summarized in Table 2. The SCCs were found by all responding groups to be operating in accord with the intended design of the project, with the SCCs providing services in three areas: (a) reacting to requests from the staff and principal, (b) developing and strengthening communication ties between the community and staff, and (c) providing orientation and information to parents in regard to the school and its ancillary services.

Respondents were in substantial agreement (approximately 80%) that the SCC frequently makes home visits, gets parents to conferences with counselor/principal/-teacher, meets parents at school, attends school meetings, disseminates school information to community, and strengthens the Home and School Association as adviser/-participant and public relations person.

Although only 68% of the teachers and 75% of the counselors stated that the SCC welcomed new families "frequently" or "occasionally", more than 90% of the principals, SCCs, and area coordinators indicated that the SCC carried out this activity. Similarly, there was divergence of opinion in regard to the SCC canvassing the community for preschool and kindergarten-class enrollments. Whereas only 38% of the counselors and 50% of the teachers stated that the SCC did such canvassing, more than 75% of the principals, SCCs, and area coordinators said that the SCC performed this activity.

The SCCs, principals, and counselors were in agreement that the SCC frequently follows up with the principal, teacher, and counselor after making a home visit, and frequently attends community meetings.

The SCCs, principals, and area coordinators agreed that the SCC frequently interprets to parents the availability of health and other school services.

In general, the SCCs' responses were more like those of the principals than like those of the area coordinators; the latter obviously would have less direct knowledge of the SCC's daily schedule of activities than the principal whose school the SCC was serving. Area coordinators spend a great deal of time with novice and transferred SCCs and make only occasional visits to experienced SCCs.

The percentages of interviewed school- and project-staff members that expressed satisfaction with the services provided by the SCC are noted in Table 3. There was widespread satisfaction with the SCC by respondents. They stated that the SCC had been helpful not only to the respondents themselves but generally to the school staff, community, and parents. Overall, respondents' perceptions were that the SCC project was highly successful, and that the SCCs were successful in facilitating understanding between the school and the community. They indicated that the SCC met an urgent need in interpreting the overall and local school program to the average parent and in concomitantly transmitting parent and community concerns to the principal and his staff. Most respondents felt that the SCCs were not only committed to their jobs, meeting their responsibilities, but quite a number went beyond the call of duty.

This satisfaction indicated a great deal of progress from earlier years when the SCC had to struggle to be accepted as a member of the school staff. During the current year, the SCC was invited to faculty meetings, was allowed to use the faculty lounge, and was called upon by school staff to make home visitations. Despite this progress over the years, there have been some problems that the project administrator and the SCCs have confronted without finding satisfactory alternatives and/or solutions. One of the long-range goals of the SCC project was to encourage the school staff to become more involved in after-school community activities. There has been extremely slow progress in this area. Teachers are concerned with the safety factor where crime is a major problem in target-area communities, especially during evening hours. Furthermore, the most recent PFT contract clearly spells out teacher responsibilities and requires additional payment for after-school activities.

Although project administrators have clearly defined the role and function of the SCC in relation to other school personnel and have met with other ancillary services to explain the SCC project, some counselors and home-and-school visitors view the SCC as impinging somewhat on their areas of responsibility. Meetings by the project director with supervisory personnel from the counseling office have corrected many of the causes of these feelings.

In some schools, principals had not yet accepted the concept that the SCC should initiate home contacts in order to greet new families and orient them with school and community services. Several principals still felt uncomfortable with respect to the SCC's calling of cluster meetings of parents at various homes for the purpose of keeping the community informed about the school's program without the presence of the principal.

School-staff perceptions of the AC. The supervisory staff required area coordinators to submit a monthly log of their major activities. The evaluation team tabulated and summarized these logs for December 1973 through March 1974. This summary is shown in Table 4. Each area coordinator was responsible for an average of 15 SCCs and schools and was actively involved with school/community activities. In turn, the ACs report to their supervisor twice a month and receive guidance and direction from the director and supervisors at biweekly staff meetings. They address various community and school groups two to three times per month and are involved in other conferences with community leaders and parents on the average of 28.5 conferences per month.

In the same interview conducted with school and project staff, evaluators asked respondents' impressions of the effectiveness of the area coordinators. The perceptions of school staff toward the 12 area coordinators (ACs) are summarized in Table 5. The AC was viewed by most SCCs as being very helpful and willing to assist whenever such help was sought. They assisted the SCCs in (a) planning schedules and keeping records, (b) teaching the techniques of conducting conferences, discussions, and meetings, (c) acting as resource persons, and (d) providing feedback and positive reinforcement.

Many of the experienced SCCs noted that they really did not have need for the ACs in helping them to develop skills necessary for their job. However, they expressed satisfaction with the services of the ACs. The latter, by being available not only to act as a resource person but also to provide positive reinforcement and to act as a sounding board, frequently encouraged the SCC to act decisively, purposefully, and forcefully in an atmosphere requiring such action.

Half of the interviewed principals indicated that they were not fully aware of the role and function of the area coordinator. Furthermore, the average principal indicated that he did not know what the area coordinator and the SCC would discuss.

Community perceptions of SCC project. In order to ascertain the feelings and impressions of key community people representing various organizations in regard to the SCC project, a telephone interview survey was conducted in May 1974.

The area coordinators and supervisors submitted a list of 52 community organizations and key community people for whom they provided services during the 1973-1974 school year. An introductory letter was sent to each of the organizations informing them of a forthcoming telephone interview that was to be conducted by the evaluation team. Eventually, 36 telephone interviews were conducted with key community leaders representing 35 organizations.

Most of the respondents were unaware of the difference between the school-community coordinators and area coordinators. All of the community people were able to recall by name the SCC and/or the AC with whom they had had dealings. Respondents were queried in regard to three basic questions.

In response to the question, "How has the SCC and/or the AC served you and your organization in the last few months?" 32 community leaders said that the SCC and/or AC had acted as a liaison between the organization and the home, school, and/or community. Twenty-six indicated that the SCC and/or AC had disseminated and communicated to the home and school the availability of services that the organization provided; 25 felt that the SCC and/or AC had acted as an invaluable resource person enabling the community organization to function more efficiently; and 25 pointed out that the SCC and/or AC took an active role as a member or officer of the organization. All respondents expressed positive feelings toward the SCC and/or the AC.

Two persons could not cite any specific ways in which the SCC and/or AC had benefited the community organization.

In response to the question, "From your perspective, how could the SCC project be improved in view of your community organization?" 19 respondents indicated that they were satisfied with the status quo; seven felt that the SCC should be more independent of the principal; and five persons felt that they were not in a position to evaluate the project or its personnel.

Those community people who had a close working relationship with the SCC viewed the latter as an extension of and/or spokesman for the principal and the school. Although various key community persons viewed the coordinator's service as responsive to community needs, they felt that the coordinator could be more effective if she truly represented the community and acted more autonomously. However, they recognized that the coordinator was being paid by the School District and thus was accountable for her activities to the school's principal.

SCCs' reports of their community involvement. In order to obtain further information regarding the SCC, a survey was conducted among SCCs to ascertain the organizations to which they belonged, the positions they had held, and any awards or recognitions they had received for services rendered. Results of the survey are summarized in Table 6.

The 114 respondents represented a better-than-50% response from the 202 SCCs who received the Community Activity Inventory. SCCs were officers in more organizations before assuming their positions than after doing so, but they became members of additional local community organizations after their respective appointments.

Most of the 75% of the SCCs receiving awards or recognitions received them from the local community for participation in community activities. School or educational awards were second in frequency. Of the 78 religious awards received by SCCs, 49 were given by the Chapel of Four Chaplains for outstanding community service. Two or more awards were received by 61% of the respondents; 74% of the respondents received at least one award.

ATTAINMENT OF OBJECTIVES

In October 1973, the project administrator and his supervisory staff met with the 202 coordinators to train them in keeping weekly logs of their activities. The coordinators were to summarize such data into monthly logs that were required to be mailed to the project administrator each month. The monthly log was kept from November 1973 to June 1974. The number of coordinators who actually mailed the logs each month varied from 152 to 194.

The evaluators tabulated data from the coordinators' monthly logs and derived the mean and standard deviation for the eight months for each item related to the objectives. This provided a series of monthly averages of the coordinators' reported figures, which, in turn, were collapsed into a yearly average regarding each objective. The yearly standard deviations, similarly derived, provided a measure of the diversity among the figures reported by the various coordinators.

Objective 1: To conduct no less than 50 home visits per month for school-related purposes (other than attendance).

This objective was attained. The 202 SCCs conducted an average of 50.7 such visits per month per coordinator. However, there was wide variation from coordinator to coordinator (Standard deviation = 20.4).

Objective 2: To contact the families of at least 25 students monthly who are beginning to show attendance problems, in order to discuss various methods of remediation.

This objective was attained. The average SCC made 25.1 attendance contacts per month. However, there was wide variation among SCCs (S.D. = 16.4).

Objective 3: To sponsor no less than one parents' meeting per month so that parents may have the opportunity to become involved in their children's education.

The objective was attained. The average number of parents' meetings per month per coordinator was 1.7. The larger standard deviation (1.8) reflected the fact that some SCCs sponsored a considerable number of such meetings while other SCCs sponsored none at all.

Objective 4: To attend all faculty meetings during the school year, and to discuss, at not less than two of these meetings, the needs of children whose parents live in the school community.

SCCs and principals reported that the SCCs attended all faculty meetings. On average, 2.3 presentations per year were made by SCCs. Therefore, Objective 4 was attained.

Objective 5: To review all Lunch Program applications to determine the names of children eligible for free and for reduced-price lunches in each school.

As a result of 1972-1973 evaluation, the SCC had been relieved of direct aid duty in the school-lunch program. However, the SCC did perform an important service for the principal in screening children for possible participation in that program. Therefore, this process objective was fully implemented and attained.

In its attainment, this objective introduced a feature that was considered deleterious to the overall project. If principals continued to require community SCCs to review and to determine which children were entitled to a free or reduced-price lunch, then parents could continue to view the SCC as an extension of the principal. Parents expressed resentment that another layman, the SCC, was reviewing their financial status and was making decisions that would affect their children. Thus this objective itself was seen to undermine the efficacy of the coordinator as an intermediary between the school and the home.

Objective 6: To attend no less than two community meetings per month in order to keep abreast of community needs.

On average, 4.5 meetings per month were attended by the SCCs. Therefore, this objective was attained.

Objective 7: To develop and disseminate at least one communication per month informing the community about and/or encouraging their participation in school activities.

The average SCC developed 1.8 written communications per month that were distributed to the community. Therefore, this objective was achieved.

SUMMARY AND CONCLUSIONS

The school-community coordinator provides a sorely needed service to the School District by acting as the communication link and interpreter between the school and the home. During the current school year, the SCC project was fully implemented and all of its stated objectives were achieved. On average, 75 home visits per month were conducted by each of the 202 coordinators assigned to 153 Title I schools. A large variation among coordinators in achieving each of the project's stated objectives was noted. This variation indicated, in part, that, although the average SCC has more than met minimal stated standards, there were coordinators who went above and beyond the call of duty.

The average coordinator sponsored at least one cluster meeting per month for parents, attended all faculty meetings and discussed the needs of the children and of the community in at least two of these meetings, attended at least two community meetings per month to keep abreast of community needs, and developed at least one written communication per month informing the community about and/or encouraging community participation in school activities.

The SCC was also required to review and evaluate all lunch-program applications to determine the names of children eligible for free or reduced-price lunches in the school. The SCC also assisted those parents who requested help in filling out the proper application form.

By and large, school personnel considered the coordinator a valuable contributor and team member in bridging the gap between the school and the home or community. The functions of the SCC were numerous and diverse; there were wide variations in the coordinator's services from school to school. Twelve area coordinators served as guides and consultants to the coordinators in providing new skills to novice coordinators. Although there were distinct differences between the area coordinator's view of the SCC's role and the views held by the SCC and her principal, the typical SCC expressed very positive feelings for the services provided by the area coordinator.

Community leaders and workers representing 36 different organizations reported very positive feelings toward this project. They believed that the SCCs and the area coordinators were indeed responsive to community and school needs and functioned well as liaisons between the home, the school, and the community.

TABLE 1

SCHOOL-STAFF PERCEPTIONS OF SCC's SERVICES TO SCHOOL

Type of Service	Percentage of Interviewed Persons Indicating SCC Renders Service					
	51 Principals		59 Counselors		38 Teachers	
	Frequently	Occasionally	Frequently	Occasionally	Frequently	Occasionally
Home visits	100%	0%	97%	3%	92%	8%
Parent contact re: discipline problems	67	23	51	29	55	32
Parent contact re: begin attendance probs.	75	24	71	24	66	18
Parent conferences with staff arranged	82	14	75	24	71	24
Parents met at school	90	8	70	25	71	18
Recruit parent volunteers	84	12	68	22	36	24
Canvass community re: presch./kgn. enrollmt.	49	28	19	19	34	16
Staff follow-up after home visit	98	2	88	7	79	3
Publicity/school releases	59	35	37	27	42	39
Welcome new families	77	14	51	24	42	26
Health/school services interpreted to parents	94	4	78	10	79	3
Programs involving parents	77	20	53	29	58	29
Neighborhood group meetings re: school issues	41	49	31	27	40	32
Teas, socials for staff, school programs	29	61	41	37	50	34
Speakers for programs	16	65	14	41	13	58
Community meetings as school representative	88	12	85	9	76	5
Disseminate school info.	98	2	80	14	84	11
Attend school meetings	89	11	88	8	84	13
Report to school staff re: community status	55	45	59	27	45	45
Strengthen H/S Assoc.	82	10	71	12	74	16
Liaison for H/S Assoc. and staff	71	18	71	20	68	21

TABLE 2

PROJECT-STAFF PERCEPTIONS OF SCC's SERVICES TO SCHOOL

Type of Service	Percentage of Interviewed Persons Indicating SCC Renders Service			
	52 SCCs		12 Area Coordinators	
	Frequently	Occasionally	Frequently	Occasionally
Home visits	98%	2%	83%	8%
Parent contact re: discipline problems	71	23	50	17
Parent contact re: begin attendance probs.	83	12	83	0
Parent conferences with staff arranged	89	10	83	0
Parents met at school	85	15	83	17
Recruit parent volunteers	85	14	92	8
Canvass community re: presch./kgn. enrollmt.	51	35	75	17
Staff follow-up after home visit	98	0	75	8
Publicity/school releases	67	29	42	39
Welcome new families	89	8	92	0
Health/school services interpreted to parents	90	8	100	0
Programs involving parents	79	19	100	0
Neighborhood group meetings re: school issues	56	39	92	0
Teas, socials for staff, school programs	25	54	25	67
Speakers for programs	35	52	83	17
Community meetings as school representative	96	4	75	25
Disseminate school info.	83	14	91	9
Attend school meetings	94	6	82	18
Report to school staff re: community status	62	37	92	0
Strengthen H/S Assoc.	89	10	92	8
Liaison for H/S Assoc. and staff	71	17	75	8

TABLE 3

SATISFACTION OF SCHOOL STAFF WITH SERVICES OF SCC

Item	Percentage of Interviewed Persons Expressing Satisfaction				
	45 Principals	50 Counselors	39 Teachers	12 SCCs	13 Area Coordinators
1. SCC has been helpful to me.	96%	88%	88%	--	70%
2. SCC has been helpful to school.	95%	94%	92%	100%	100%
3. SCC has been helpful to community.	95%	84%	87%	100%	93%
4. SCC keeps staff informed re: community needs, family problems.	91%	84%	77%	100%	93%
5. SCC keeps community informed re: school program.	93%	84%	74%	92%	93%
6. SCC has good rapport with most teachers/school.	100%	92%	92%	100%	100%
7. SCC has good rapport with most people/community.	98%	86%	87%	100%	92%

TABLE 4

ACTIVITIES OF THE 12 AREA COORDINATORS IN SCC PROJECT

Activity	Monthly Average per AC					
	Dec.	Jan.	Feb.	Mar.	Four Months	Standard Deviation
1. SCCs assigned to AC	13.7	14	16.2	15.9	15	4.2
2. SCCs visited by AC	12	11.6	15	13.5	13.5	3.7
3. Visits (all types) by AC	25	26.3	27	28.2	26.7	9.0
4. Community meetings attended	4.5	6.7	5.7	7.7	6.2	3.8
5. School meetings attended	5.0	4.1	5.7	4.2	4.7	3.2
6. Personal conferences with supervisors	1.9	3.0	2.0	3.2	2.6	2.1
7. Telephone conferences with supervisors	3.3	3.8	3.3	3.4	3.4	2.6
8. Other conferences	21.1	27.3	32.3	31.9	28.5	22.1
9. Talks to groups	2.5	3.4	2.5	2.1	2.6	2.5
10. Staff meetings	*	2.0	1.7	1.5	1.7	0.7

*Data not reported.

TABLE 5

SATISFACTION OF SCCs AND PRINCIPALS WITH SERVICES OF ARE.. COORDINATORS

Item	Percentage of Interviewed Persons Expressing Satisfaction	
	50 SCCs	43 Principals
1. Preparing and maintaining accurate records	86%	58%
2. Planning daily and weekly schedule	56	42
3. Technique in leading an individual conference	72	42
4. Technique in leading a group discussion	70	37
5. Planning their programs	68	49
6. Acting as resource person	82	75
7. Keeping SCC informed of community resources/aims/availability	76	72
8. Attending meetings to lend support and provide feedback to SCC	82	54
9. Acting as speaker or resource person for group/organization	54	37
10. Making home visits in certain conditions	40	17
11. Skill in using school and School District services	76	54
12. Rapport with people in community	83	53

TABLE 6

RESPONSES BY SCCs IN COMMUNITY ACTIVITY SURVEY

Question	No. of Respondents	Average Response	Type of Organization					Involvement		
			Religious	National	Local Community	Educ. or School	Other	Officer	Member Only	Average Years Membership
1. Belonged to how many organizations before SCC appointment?	114	4.4	110	55	242	76	14	310	187	10.3
2. Joined how many organizations since SCC appointment?	110	5.0	31	18	398	72	10	235	304	4.0
3. Involved in how many other community activities?	85	3.1	18	30	175	43	9	--	--	--
4. Received how many awards or recognitions?	85	3.7	78	38	123	80	20	--	--	--

SPEECH AND HEARING

The Speech and Hearing project is designed to enable children with speech and hearing problems to function more effectively in the regular classroom.

THE PROJECT

RATIONALE

Many target children have speech and hearing handicaps which prevent them from achieving expected outcomes in the regular school environment. Speech and hearing defects cause learning deficiencies as well as difficulties in interpersonal communication, personality development, and social adjustment. Because family and existing school resources are not sufficient to correct these defects, a specialized therapy resource is crucial.

EXPECTED OUTCOMES

The broad goal of the project is to improve the speech and hearing of pupils who have moderate to severe handicaps.

MODE OF OPERATION

Speech and hearing therapists are responsible for providing services to a specified number of eligible schools. From each school population, the therapists select children for inclusion in their case loads using the following order of priority: (a) older and more severe cases, (b) younger children with unintelligible speech, (c) children with organic disorders such as cleft palate, hearing loss, and central nervous system disorders.

Each therapist's case load is approximately 100 children. In groups of four or five, these children meet for therapy once or twice weekly for approximately 30 minutes per session.

The hearing therapist was a new addition to the project this year.

PREVIOUS FINDINGS

In 1969-1970 and 1970-1971, evaluations were conducted by the Coordinator of Nonpublic School Projects. Evaluations by the Office of Research and Evaluation began with the 1971-1972 school year.

In 1971-1972 and 1972-1973, pretest and posttest scores on the Templin-Darley Screening Test of Articulation provided data which suggested that the project was successful in correcting the articulatory speech defects of participating children.

In 1971-1972, 1,111 children were treated in a total of 20,175 therapy sessions. As a result of therapy, 14% of the defective articulation cases were corrected and 4% were dismissed as improved; 12% of the stuttering cases were corrected.

In 1972-1973, 1,251 children were treated in a total of 25,753 therapy sessions. As a result of therapy, 23% of the defective articulation cases were corrected and 5% were dismissed as improved; 22% of the stuttering cases were corrected.

THE 1973-1974 EVALUATION

In general, the current year's evaluation of the Speech and Hearing project followed last year's evaluation design. Additional attention was given to (a) general intelligibility aspects of connected speech patterns of speech-handicapped children, and (b) the auditory and lip-reading skills of hearing-handicapped children. The Templin-Darley Diagnostic Test of Articulation was administered to a random sample of each therapist's pupils, to obtain a more precise description of articulatory speech defects than the briefer Templin-Darley Screening Test could provide.

IMPLEMENTATION

Eight qualified speech therapists and one qualified hearing therapist maintained respective case loads in accord with the intended mode of operation of the project (already described). The services provided by the speech therapists to pupils having defective articulation are summarized in Table 1. Services to pupils who stuttered are summarized in Table 2. The case loads of the eight speech therapists (including carryovers from last year) totaled 1,071 defective articulation and 81 stuttering pupils. Of the 1,071 defective articulation pupils, 1,016 received 17,077 treatment sessions for an average of 16.8 sessions per pupil. The 81 stuttering pupils received 1,303 treatment sessions for an average of 16.3 sessions per pupil.

The hearing therapist (in her first year with the project) devoted a great amount of time to client identification in 100 schools. Her case load was not stabilized until mid-December, when 21 children were assigned to therapy.

ATTAINMENT OF OBJECTIVES

Objective 1: To correct the defective sounds of the project children to the extent evidenced by a statistically significant difference in mean pretest and posttest scores on the Templin-Darley Diagnostic Test of Articulation.

The one-group pretest-posttest design was selected to determine whether speech therapy would correct the defective sounds of the participating children. The Templin-Darley Diagnostic Test of Articulation replaced the Templin-Darley Screening Test which had been administered to the children during past years' evaluations of the project. It was felt that the longer diagnostic test would provide a more comprehensive measure of all defective sounds and their correction for each project child. The test was administered to a stratified random sample of all project children in October (pretest) and May (posttest) of the current school year. It was administered individually to each child in the sample by the child's respective therapist. (The size of the sample was determined from the formula and tables presented in the article, "Determining Sample Size for Research Activities," by Robert V. Krejcie and Daryle W. Morgan, in Educational and Psychological Measurement, Autumn 1970.)

A t test for related (correlated) samples was applied to determine the statistical significance of the difference between the obtained mean pretest and posttest scores. Results are shown in Table 3. The gain for each of the eight therapist samples and the gain for the combined sample between the pretest and posttest all were found to be statistically significant at the .05 level. Thus the project attained its objective of correcting defective sounds of project children.

Objective 2: To decrease the severity and/or incidences of stuttering behaviors of all children requiring therapy for stuttering, as indicated by therapists' ratings of "improved" for 70% of the stuttering cases.

Each therapist subjectively rated her respective stuttering pupils on the project's Stuttering Evaluation form at the conclusion of the current school year, using ratings of "improved", "remained the same", or "regressed". The therapists' ratings for the 81 stuttering pupils are summarized in Table 4. Sixty-five (80%) of the 81 pupils were rated "improved". This exceeded the 70% criterion of success for the project. Consequently, it was concluded that the project had attained its objective of decreasing the severity and/or incidences of stuttering behavior.

Objective 3: To dismiss as corrected, 20% of the children with defective sounds and 15% of the stuttering children.

Each therapist subjectively rated her respective defective articulation pupils using the project's Defective Articulation Summary form and her respective stuttering pupils using the project's Stuttering Evaluation form. Possible ratings were "corrected", "dismissed improved", "drop", and "urgent continue". The 1,071 pupils with defective articulation and the 81 stuttering pupils were rated according to these categories.

The individual therapists' ratings for defective articulation pupils are summarized in Table 5. The ratings for stuttering pupils are summarized in Table 6. The 30%

correction rate for defective sounds exceeded the criterion of 20%; the 23% correction rate for stuttering exceeded the criterion of 15%. Thus the project attained both parts of its objective of correcting defective sounds and stuttering.

Objective 4: To improve the general intelligibility aspects of the project children's connected speech patterns as indicated by improved therapist ratings, for 65% of the children, from fall (October) to spring (April) tape recordings of the children's speech.

The delayed receipt of the recording tape to be used for the evaluation of this objective forced a postponement of the procedure until the 1974-1975 school year. The stratified random sample selected for the evaluation regarding the project's Objective 1 was to have been used for this objective as well. Nevertheless, sufficient recording tape was available to implement the evaluation procedure for five randomly selected pupils per therapist, a total of 40 pupils. The prerecordings were collected in January and the postrecordings in May of the current school year. During each recording session the child read or repeated a series of 13 sentences which represented the most critical barriers to effective connected speech.

The completed tapes were collected and cataloged for listening. A panel of eight speech therapists, one hearing therapist, and the project coordinator listened to the recordings using earphones and a listening center. The recordings of each child were played by randomly reversing the order of the prerecording and the postrecording. Each panel member was directed to select the better of the recordings with respect to general intelligibility; if no difference could be noted, the panel member could select the "no difference" option on the evaluation form.

Each panel member's completed evaluation form was collected and analyzed. The ratings were then tallied. The recording receiving the most tallies was considered the better of the two recordings.

Only 33 of the 40 children were included in the final sample, because one therapist's tapes were stolen and another therapist accidentally erased a portion of her tape. The panel selected the postrecording as the better of the two recordings in 25 (78%) of the 33 cases. In only one case did the panel select the prerecording as the better of the two. In five cases the panel selected the "no difference" option and in two cases the tallies were equally distributed. With respect to the sample used in the procedure, the objective of improvement in 65% of the cases was attained: 78% of these children, as a result of only four months of therapy, had improved the general intelligibility aspects of their connected speech.

Objective 5: To improve the auditory skills (and lipreading skills, as needed) of the hearing-handicapped children as indicated by therapist ratings in case-study analyses of each child.

Detailed case studies were completed for each child, including ratings of their auditory skills in December 1973 and May 1974. The rated skills included (a) discrimination of direction, location, and distance, (b) discrimination of individual voices (male/female, etc.), (c) discrimination of speech sounds, and (d) discrimination of words in and out of context. No measurable criterion of success was stated for this objective because the basic cause of the hearing deficiency is a physical condition not likely ever to be removed and because of the lack of consistency from child to child in the amount of time required to improve in these skills. (One child's improvement in one auditory skill may be more significant than another child's improvement in four auditory skills.)

The number of auditory skills judged deficient and the number of auditory skills judged improved for the 21 children receiving hearing therapy are shown in Table 7. Seven of the children improved in all of the skills for which they were judged deficient. Only one child showed no improvement in any of his/her deficient skills. In reviewing these results, the coordinator of the project judged them to be satisfactory. Thus the objective of improvement in the auditory skills of the hearing-handicapped children in the project was attained.

SUMMARY AND CONCLUSIONS

The Speech and Hearing project was created to improve the speech and hearing of pupils who have moderate-to-severe handicaps. These handicaps cause learning deficiencies as well as difficulties in interpersonal communication, personality development, and social adjustment.

During 1973-1974 the project was implemented according to the intended mode of operation and continued to exhibit the success which it had shown since it was organized in 1969. Pretest-posttest comparisons, rating scales, and case studies provided data indicating that all of the project's stated objectives were attained: (a) defective sounds of children assigned for therapy were corrected; (b) the severity and/or incidences of stuttering behavior of pupils requiring therapy was decreased; (c) expected proportions of defectively articulating and stuttering pupils were dismissed as corrected; (d) the general intelligibility aspects of connected speech patterns were improved for pupils receiving therapy; and (e) the auditory skills of the hearing-handicapped pupils improved after therapy.

The continued success of the project and the ever-increasing population of target children requiring therapy for speech and hearing defects suggests the appropriateness of expanding the services of the project in the future.

TABLE 1

SPEECH-AND-HEARING PROJECT SERVICES PROVIDED
TO DEFECTIVE ARTICULATION PUPILS

Therapist	Case Load Including Carryovers from Last Year	Pupils Dismissed Corrected without Further Treatment	Pupils Treated during Current Year	Total Treatment Sessions	Average Treatment Sessions per Pupil
A	130	0	130	2,289	17.5
B	106	2	104	2,292	22.0
C	136	0	136	2,364	17.5
D	132	10	122	2,318	19.0
E	151	4	149	2,289	15.4
F	210	41	169	1,856	11.0
G	86	0	86	1,589	18.5
H	120	0	120	2,080	17.3
All Therapists	1,071	57	1,016	17,077	16.8

TABLE 2

SPEECH-AND-HEARING PROJECT SERVICES PROVIDED TO STUTTERING PUPILS

Therapist	Case Load Including Carryovers from Last Year	Pupils Dismissed Corrected without Further Treatment	Pupils Treated during Current Year	Total Treatment Sessions	Average Treatment Sessions per Pupil
A	8	0	8	124	15.5
B	13	0	13	217	16.7
C	9	0	9	140	15.6
D	5	0	5	98	19.6
E	24	0	24	342	14.3
F	0	0	0	0	0
G	16	0	16	273	17.1
H	6	0	6	109	18.2
All Therapists	81	0	81	1,303	16.3

TABLE 3

GAINS ON TEMPLIN-DARLEY DIAGNOSTIC TEST OF ARTICULATION BY SPEECH-AND-HEARING PROJECT PUPILS

Therapist	Assigned Case Load	Cases Sampled	Pretest Mean Score	Posttest Mean Score	Gain
A	130	28	154.8	171.7	16.9*
B	106	20	140.3	150.7	10.4*
C	136	32	140.9	165.5	24.6*
D	132	23	135.8	159.4	23.6*
E	151	22	135.6	155.7	20.1*
F	210	26	161.0	180.1	19.1*
G	86	27	146.7	162.0	15.3*
H	120	27	150.4	162.6	12.2*
All Therapists	1,071	205	146.2	164.3	18.1*

*Significant beyond the .05 level.

TABLE 4

PROGRESS BY STUTTERING PUPILS
IN SPEECH AND-HEARING PROJECT

Therapist	Case Load Including Carryovers from Last Year	Pupils Who Improved	Pupils Who Remained the Same	Pupils Who Regressed	Pupils Not Rated
A	8	6	2	0	0
B	13	8	4	0	1
C	9	8	1	0	0
D	5	3	2	0	0
E	24	19	5	0	0
F	0	0	0	0	0
G	16	15	1	0	0
H	6	6	0	0	0
All Therapists	81 (100%)	65 (80%)	15 (19%)	0	1 (1%)

TABLE 5

CORRECTION OF DEFECTIVE ARTICULATION
IN SPEECH-AND-HEARING PROJECT

Therapist	Case Load Including Carryovers from Last Year	Pupils Dismissed Corrected	Pupils Dismissed Improved	Pupils Dropped for Extraneous Reasons	Pupils Continued to Next Year
A	130	15	4	5	106
B	106	29	1	7	69
C	136	56	7	2	71
D	132	47	11	8	66
E	151	53	6	11	81
F	210	67	14	25	104
G	86	27	9	4	46
H	120	23	9	2	86
All Therapists	1,071 (100%)	317 (30%)	61 (6%)	64 (6%)	629 (58%)

TABLE 6

CORRECTION OF STUTTERING IN SPEECH- AND-HEARING PROJECT

Therapist	Case Load Including Carryovers from Last Year	Pupils Dismissed Corrected	Pupils Dropped for Extraneous Reasons	Pupils Continued to Next Year
A	8	1	0	7
B	13	1	4	8
C	9	2	1	6
D	5	2	0	3
E	24	8	2	14
F	0	0	0	0
G	16	3	6	7
H	6	2	2	2
All Therapists	81 (100%)	19 (23%)	15 (19%)	47 (58%)

TABLE 7

IMPROVEMENT IN AUDITORY SKILLS BY PUPILS
IN SPEECH-AND-HEARING PROJECT

Pupil	No. of Skills Judged Deficient (January)	No. of Skills Judged Improved (June)
A	5	2
B	5	1
C	6	4
D	7	4
E	7	[illegible]
F	4	4
G	7	4
H	7	4
I	3	0
J	4	1
K	4	4
L	5	3
M	7	4
N	4	4
O	4	4
P	2	2
Q	6	5
R	3	3
S	6	5
T	4	2
U	2	2

SPEECH-THERAPY CLINICS

The Speech-Therapy Clinics project serves target children with speech problems who are not eligible to receive the services of the Speech and Hearing project. Those children requiring speech therapy who attend schools not involved directly with the Speech and Hearing project receive the services of the therapists in clinics on Saturday mornings.

THE PROJECT

RATIONALE

Some target children manifest speech defects which may result in low academic achievement, physical and psychological withdrawal, or interpersonal noncommunication. Because family and existing school resources are not sufficient to correct the speech defects, special therapy is crucial.

EXPECTED OUTCOMES

The primary goal of the project is to correct the speech defects of the participating children through individual and group therapy and parental consultation.

MODE OF OPERATION

Seven clinics, each staffed by a qualified speech therapist, provide Saturday morning therapy programs in locations throughout the city. The program in each clinic follows a general plan: three one-hour periods between 9 a.m. and 12 noon for homogeneous groups of four students each, one half-hour period from 12 until 12:30 for individual therapy, one half-hour clinical period from 12:30 until 1 p.m., and parent consultations during each period.

A consulting therapist screens applications forwarded from the schools, examines the applicants, and consults with the parents. A list of eligible children is compiled and utilized in filling each clinic.

PREVIOUS FINDINGS

In the 1968-1969 school year, 82 cases were treated for defective articulation and 20 corrections were made. Fifty-five children required more extensive therapy. The average improvement on the Templin-Darley Screening Test was 11 points.

In 1969-1970, the evaluation was conducted by the project director; her report is available from the Coordinator of Nonpublic School Projects. In 1970-1971, 135 children received a total of 2,252 therapy sessions for an average of 16.7 sessions per child.

In 1971-1972, 115 children received a total of 1,817 therapy sessions. Twenty-seven defective articulation cases and three stuttering cases were corrected, and five defective articulation cases were dismissed as improved. The average improvement on the Templin-Darley test was 10.8 points. In 1972-1973, 86 children received an average of 16 therapy sessions. Seven of the 17 stuttering cases were rated as improved; 18 of the 76 defective articulation cases and four of the 10 stuttering cases were rated as corrected. The average improvement on the Templin-Darley test was 10.5 points.

THE 1973-1974 EVALUATION

The current year's evaluation of the Speech-Therapy Clinics followed last year's evaluation design. All relevant data were obtained from therapist ratings of children's progress and from pretest and posttest scores on the Templin-Darley Screening Test of Articulation.

IMPLEMENTATION

Two additional clinics were opened during the current school year. All nine clinics operated in accord with the intended mode of operation. The therapist at one clinic was released for medical reasons at midyear; her case load was absorbed by the therapist from another clinic.

Services provided by the project are summarized in Table 1. The combined case loads at the nine clinics (including carryovers from last year) totaled 98 defective articulation and eight stuttering pupils. Five of the carried-over pupils were dismissed as corrected without further treatment.

ATTAINMENT OF OBJECTIVES

Objective 1: To correct the defective sounds of the project children to the extent evidenced by a statistically significant difference in mean pretest and posttest scores on the Templin-Darley Screening Test of Articulation.

The one-group pretest-posttest design was selected to determine whether or not speech therapy would correct the defective sounds of the project children. The Templin-Darley Screening Test of Articulation was administered individually to all project children by clinic therapists in October 1973 and May 1974. The mean scores for the pretest and posttest were compared using a *t* test for related (correlated) samples.

Results of the Templin-Darley test for 74 of the 98 children are summarized in Table 2. The gain of more than 10 points between pretest and posttest was statistically significant at the .05 level, indicating that the project attained its objective of correcting the defective sounds of project children.

Objective 2: To decrease the severity and/or incidences of stuttering behaviors of all children receiving therapy for stuttering, as indicated by a therapist rating of "improved" for 20% of the cases.

Using the project's own Stuttering Evaluation form, each clinic therapist subjectively rated her respective stuttering pupils at the conclusion of the current school year using ratings of "improved", "remained the same", or "regressed".

The progress of the eight pupils receiving therapy for stuttering is summarized in Table 3. Although the number of cases was small, the 87% improvement rate far exceeded the project's objective of having 20% of the children demonstrate improvement. Thus the project attained its objective of decreasing the severity and/or incidences of stuttering behaviors of all children receiving therapy for stuttering.

Objective 3: To dismiss as corrected, 10% of the defective articulation cases and 5% of the stuttering cases.

Each clinic therapist used the project's own Defective Articulation Summary form to rate her respective defective articulation pupils, and the project's Stuttering Evaluation form to rate her respective stuttering pupils. The ratings included "corrected", "dismissed improved", "drop", and "urgent continue". Ninety-eight defective articulation and eight stuttering pupils were so rated.

The results of the ratings of both types of pupils are shown in Table 4. The combined ratings from all clinic therapists indicated that 38 (39%) of the defective articulation pupils and 2 (25%) of the stuttering pupils were "corrected". These results exceeded the project's objective of correcting 10% of the defective articulation cases and 5% of the stuttering cases.

SUMMARY AND CONCLUSIONS

The Speech-Therapy Clinics project was created to serve target children with moderate-to-severe speech defects who were not eligible to receive the services of the Speech and Hearing project. The target children were served on Saturday mornings to correct those defects which might affect academic performance, self-concept, and interpersonal communication.

The project was implemented according to the intended mode of operation and attained each of its stated objectives: (a) correcting defective sounds, (b) decreasing the severity and/or incidences of stuttering behaviors, and (c) correcting defective articulation and stuttering.

TABLE 1

SERVICES PROVIDED BY SPEECH-THERAPY CLINICS TO DEFECTIVE ARTICULATION (DA) AND STUTTERING (ST) PUPILS

Type of Speech Defect	Combined Case Loads Including Carryovers from Last Year	Pupils Dismissed Corrected without Further Treatment	Pupils Treated during Current Year	Total Treatment Sessions	Average Treatment Sessions per Pupil
DA	98	4	94	1,352	14.4
ST	8	1	7	134	19.1

TABLE 2

GAIN ON TEMPLIN-DARLEY SCREENING TEST OF ARTICULATION BY PUPILS IN SPEECH-THERAPY CLINICS

Combined Case Loads	Cases Sampled	Pretest Mean Score	Posttest Mean Score	Mean Gain
98	74	29.6	40.4	10.8*

*Significant beyond the .05 level.

TABLE 3

PROGRESS BY STUTTERING PUPILS
IN SPEECH-THERAPY CLINICS

Combined Case Loads Including Carryovers from Last Year	Pupils Who Improved	Pupils Who Remained the Same	Pupils Who Regressed
8	7	1	0

TABLE 4

CORRECTION OF DEFECTIVE ARTICULATION (DA) AND
STUTTERING (ST) IN SPEECH-THERAPY CLINICS

Type of Speech Defect	Combined Case Loads Including Carryovers from Last Year	Pupils Dismissed Corrected	Pupils Dismissed Improved	Pupils Dropped for Extraneous Reasons	Pupils Continued to Next Year
DA	98 (100%)	38 (39%)	3	19	38
ST	8 (100%)	2 (25%)	0	1	5

SUMMER SPECIAL EDUCATION

The Summer Special Education project provides instruction and therapy services for emotionally disturbed, visually handicapped, retarded trainable, hearing-handicapped, and orthopedically handicapped students, and job-coordinator service for retarded educable students.

THE PROJECT

RATIONALE

The Summer Special Education project extends the instructional and therapeutic services offered during the regular school year. Continuity and consistency throughout the year is necessary to meet the needs of the students served by the project: (a) emotionally disturbed children require extensive support and direction within a structured, stable learning environment in order to make the socioemotional adjustments necessary for learning; (b) visually handicapped students need a year-round program in order to acquire a large number of special skills, such as orientation and mobility training, in addition to academic proficiency; (c) retarded trainable children need constant reinforcement for the maintenance of acquired training and vocational skills; (d) hearing-handicapped students have concomitant language handicaps which must be systematically met throughout the year in order to avoid regression of communication skills; (e) orthopedically handicapped students need to maintain their prescriptive therapy programs on a full-time basis; and (f) employed retarded educable students need the continuous support and services provided by the job coordinator in making the personal and social adjustments necessary for successful year-round employment.

Many of the participating students have a limited background of experiences. The Summer Special Education project provides an opportunity for them to participate in field trips and other enrichment activities not included in their regular school programs.

EXPECTED OUTCOMES

It is expected that the reinforcement and enrichment experiences which the summer project provides will increase the scope of the regular school-year curriculum and reduce the summer regression that would otherwise occur.

MODE OF OPERATION

Summer Special Education programs are conducted by special education teachers and a job coordinator who are also in contact with the project's students during the regular school year. Eighty students at the Logan School for the visually handicapped, 70 students at the Martin School for hearing-handicapped, 250 retarded trainable students at the Muhr, Brooks, Bartlett, and Spruance Work Training Schools, and 200 orthopedically handicapped students at the Widener Memorial School continue their regular school programs in the summer project. Where possible, enrichment activities are provided (e.g., field trips, sports, and arts and crafts).

In 10 classes for 80 emotionally disturbed students in residential institutions, the educational program and adjustment therapy offered during the regular school year are continued.

The job coordinator makes citywide, on-site visits to the 200 employed retarded educable students and their employers.

PREVIOUS FINDINGS

Descriptive evaluations by the project director, classroom observations, and teacher reports based on individual checklists for students indicated that school services available during the regular year were also provided in the summer project, and that some enrichment activities also were provided.

Average daily attendance rates for the programs ranged between 79% and 90%.

THE 1973-1974 EVALUATION

The evaluation of the 1974 Summer Special Education project examined the activities of the job coordinator and assessed both the project's services and the students' progress.

IMPLEMENTATION

Table 1 contains descriptive information on the project's instructional programs, including projected and actual enrollment, number of classes operational, total days and hours per day the classes were operational, and the average daily attendance. In total, 525 students were enrolled in summer instructional programs. Average daily attendance ranged from 79% to 90%.

The program for retarded trainable students had the largest difference between projected and actual enrollment. A priority for instituting classes based on enrollment was established for the four schools having the program. Assembly

and packaging workshops, the first priority, were opened with enrollments of 35 per school. Muhr, Brooks, Bartlett, and Spruance Schools all operated these workshops. For the next 15 students enrolled in a school, the homemaking and/or custodial shops were opened. These were operated at Muhr and Brooks Schools. If the enrollment demand in a school had exceeded a total of 65, academic programs would have been instituted. However, because of the decreased enrollment, no schools offered a summer academic program. Student achievement in vocational skills was measured using student progress reports completed by the shop teachers. Of the 150 students taking vocational training, 61 (41%) improved in vocational skills and 88 (59%) maintained their levels of achievement; only one student regressed.

The evaluation team developed a classroom observation form which was used in 54 classroom visits to 42 of the 43 operational classes. Classroom activities were identified by skill area.

Table 2 contains information by program on the type and number of activities observed. The evaluator's findings were consistent with the objectives and focus of the programs. In classes for the emotionally disturbed, hearing handicapped, orthopedically handicapped, and visually handicapped, most of the observed activities were in academic areas. All activities observed in classes for retarded trainable students were in vocational training areas. One third of the observed activities at the Widener Memorial School for Orthopedically Handicapped were in physiological therapy.

Several summer programs offered the opportunity for evaluation and orientation of students not participating in the programs during the regular school year. Widener School operated a kindergarten-level orientation and evaluation class for 17 children applying for admittance. During the summer session, each child was evaluated by a physical therapist. Through observation of learning behaviors exibited during the summer program, the classroom teacher was able to assess each child's potential to benefit from the regular program offered at Widener. Based on summer performance, 14 children were approved for admission to the Widener program at the kindergarten level, two were accepted on trial in first grade, and one was not accepted.

Logan School for the Visually Handicapped brought children normally enrolled in the itinerant program into the school for the summer session. This provided an opportunity for reassessment of student needs.

Because the program for retarded trainables offered only vocational skills, many students who had not previously taken vocational training were exposed to it. This allowed teachers to assess the students' potential for further training in these areas.

In the previous year, students who were bussed to instructional sites often arrived late, causing disruption in the implementation of the programs. Responses to evaluators' inquiries at each site confirmed that this problem was minimal during the summer of 1974.

As part of his summer job tasks, the citywide job coordinator completed a report on each employed student for use during the school year by the regularly assigned coordinator. Information on the reports included total wages earned, taxes paid, and comments on the student's job performance. Comprehensive summaries were also compiled on all students employed throughout the summer. These gave breakdowns by school and job category of the number of students employed, wages earned, and taxes paid. The 176 students averaged $570 in summer wages.

While making on-site visits and contacting employees, the job coordinator identified 137 available entry-level jobs--positions which could be filled by nontrained students but offered opportunities for growth.

Information from the coordinator's activity logs indicated that in meeting the objectives of the project and fulfilling auxiliary job responsibilities, it was necessary for him to exceed the hours budgeted for his job tasks by 20%.

ATTAINMENT OF OBJECTIVES

Objective 1 (For visually handicapped, retarded trainable, hearing-handicapped, orthopedically handicapped, and emotionally disturbed pupils): For pupils to maintain or progress in the development of (a) academic skills, (b) social skills, and (c) physiological rehabilitation.

Teacher reports of student progress were used to assess achievement in all of the instructional programs. The evaluation team constructed individual student report forms for each program, which included a list of appropriate academic and social skills. Teachers were instructed to indicate by checkmark whether the student improved, maintained, or regressed in achievement level for each skill applicable to that student. Because many students required individualized instructional programs, each student was not necessarily rated in all possible skill areas. Forms used for the orthopedically handicapped also included questions pertaining to the availability of physiological therapy and progress assessment. Teachers in all 43 special education classes submitted reports. The teacher ratings were totaled by skill area.

Table 3 summarizes teacher ratings of student progress in academic skills. Because the vocational training program for retarded trainables included only vocational shops, its students were not rated academically. Thirty-one children

at kindergarten and K-1 level at Widener School were rated only on their overall achievement on either the kindergarten or first-grade level and were therefore omitted from the table.

Academic skills included reading and mathematics. In each of these areas, 43% of the rated students improved and 57% maintained their achievement levels. Only one student was rated as having regressed (in mathematics).

From information gathered from the student reports, it was concluded that the objective of having students maintain or progress in academic skills was totally achieved.

Table 4 summarizes teacher ratings of progress in social skills for students in all instructional programs. Of 362 students, 156 (43%) improved in social skills, 198 (55%) maintained their level, and eight (2%) regressed. The incidence of regression was highest among the emotionally disturbed (5 of 65). This was not surprising, given the nature of their handicap. Across all programs, the objective of maintaining or progressing in social skills was met.

Of 158 orthopedically handicapped students at the Widener School, 103 (65%) received physiological therapy. The program included physical, functional, and occupational therapy, swimming, and perceptual-motor training. Forty-two students participated in more than one form of therapy. Table 5 summarizes teachers' assessments of student progress in physiological rehabilitation by type of therapy. Of 136 students in therapy, 23 (17%) improved in level of achievement and 113 (83%) maintained their level.

The average amount of time a student spent in therapy ranged from 2 hours to 3 3/4 hours per week.

It was concluded that the objective of student maintenance or progress in physiological rehabilitation was completely achieved.

Objective 2 (For visually handicapped, retarded trainable, hearing-handicapped, orthopedically handicapped, and emotionally disturbed pupils): To involve pupils in various projects and field trips not readily available during the regular school term.

The evaluation team surveyed all participating schools and centers to identify those offering field trips or projects as part of their summer programs. Information was gathered from interviews with administrators and teachers.

Students at the Widener, Martin, and Logan Schools took field trips to places of historical interest in Philadelphia and to the Children's Playhouse, and went for boat rides on the Delaware. The Martin School students met personally with the Mayor of Philadelphia.

Teachers in classes for the emotionally disturbed reported that more flexibility was built into the summer program this year, allowing students to pursue personal interests not covered during the regular term.

The vocational training programs for retarded trainable students did not offer field trips or recreational activities because the programs were structured to resemble actual work environments.

From information gathered from the survey, it was concluded that the programs successfully met the objective of providing projects and field trips not readily available during the regular school year.

Objective 3 (For Job Coordinator): For retarded educable and retarded trainable students to maintain or improve their work relationships by monitoring them at their job sites and advising them or counseling them regarding job-related problems.

An activity log was developed by the evaluation team to monitor the activities of the summer citywide job coordinator. The log gave weekly numerical summaries of activities such as job-site visits to student workers and contacts with employers. The job coordinator kept the log for a six-week period.

In June 1974, the regular school job coordinators reported that 221 students were to be employed for the summer. The summer job coordinator made 159 visits to the various job sites. Verifications by telephone of student employment raised the total number of contacts with employers to 184. Through the job-site visits and telephone verifications, the summer coordinator reported that 176 (80%) of the reported 221 students were employed throughout the summer.

A member of the evaluation team accompanied the coordinator during a day's activities. In addition to preparation of student reports and of the day's itinerary, 12 job-site visits, including 12 employer contacts, were made. At each job site the coordinator verified with the employer the student or students reported as working there and discussed with him the conditions of the work situation. Employers were encouraged to call the job coordinator if problems arose. As job-site visits were unannounced, it was not always possible to see the students. Where possible, the coordinator spoke briefly with the students to ascertain if they had any problems or questions which they needed to discuss with him.

With 80% of the initial 221 retarded educable and retarded trainable students continuing employment through the summer, it was concluded that the objective of maintaining work relationships was achieved.

Information from the job coordinator's activity logs and the evaluator's observations indicated that the coordinator made every effort to adequately monitor

students at their job sites and to advise or counsel them regarding job-related problems. However, it was concluded that the heavy case load carried by the coordinator prevented him from allotting the amount of time to monitoring and counseling students which would be needed to qualitatively improve work relationships.

SUMMARY AND CONCLUSIONS

The Summer Special Education project for emotionally disturbed hearing-handicapped, retarded trainable, orthopedically handicapped, and visually handicapped students extends the instructional and therapeutic services offered during the regular school year. The continuity and consistency thus provided has helped to reduce summer regression. Enrichment activities expanded the scope of the regular school-year curriculum.

Results from student progress reports indicated that at least 98% of all students in the project's instructional programs maintained or improved achievement levels, where applicable, in academic, social, and vocational skills and in physiological therapy. Therefore, it was concluded that all instructional programs successfully met the objective of student maintenance or progress in skill areas.

The demonstrated impact of the summer programs on student achievement and the deficit between projected and actual enrollment within the retarded trainable program suggest that consideration be given to methods of increasing the retarded trainable student enrollment. This would utilize more fully the available resources provided under Title I.

Interviews with program directors and reports from teachers confirmed participation by schools in projects and/or field trips planned as enrichment experiences.

The summer citywide job coordinator has provided continuity in monitoring and counseling student workers and assisting employers during the summer months. In addition, he has been responsible for maintaining the records of the student workers.

TABLE 1

IMPLEMENTATION OF INSTRUCTIONAL PROGRAMS IN SUMMER SPECIAL EDUCATION

Instructional Program	Projected Enrollment	Actual Enrollment	Classes Operational	Days Operational	Hours per Day	Average Daily Attendance
Emotionally Disturbed	80	65	10		3 1/2	86%
Hearing-Handicapped	70	60	7	22	3	90%
Retarded Trainable	250	150	8	20	3	85%
Orthopedically Handicapped	200	160	12	18	5 3/4	79%
Visually Handicapped	80	90	6	20	3	85%
Total	680	525	43	--	--	--

TABLE 2

ACTIVITIES OBSERVED IN SUMMER-SPECIAL-EDUCATION CLASSROOMS

Instructional Program	Classroom Visits	Activities Observed					
		Total	Academic Skill Development	Vocational Skill Development	Social Skill Development	Physiological Therapy	Other
Emotionally Disturbed	10	24	16	2	6	0	0
Hearing-Handicapped	12	29	20	5	4	0	0
Retarded Trainable	8	33	0	33	0	0	0
Orthopedically Handicapped	11	37	22	0	5	10	0
Visually Handicapped	13	29	20	0	0	5	4
Total	54	152	78	40	15	15	4

TABLE 3

SUMMARY OF SUMMER-SPECIAL-EDUCATION TEACHERS' RATINGS OF STUDENT PROGRESS IN ACADEMIC SKILLS

Instructional Program	Reading				Mathematics			
	No. of Students Rated	Students Rated Improved	Students Rated Same	Students Rated Regressed	No. of Students Rated	Students Rated Improved	Students Rated Same	Students Rated Regressed
Emotionally Disturbed	65	26	39	0	64	31	33	0
Hearing-Handicapped	60	36	24	0	45	22	23	0
Orthopedically Handicapped	116	13	103	0	113	14	98	1
Visually Handicapped	90	66	24	0	90	67	23	0
Total	331	141	190	0	312	134	177	1

TABLE 4

SUMMARY OF SUMMER-SPECIAL-EDUCATION TEACHERS' RATINGS OF STUDENT PROGRESS IN SOCIAL SKILLS

Instructional Program	No. of Students Rated	Students Rated Improved	Students Rated Same	Students Rated Regressed
Emotionally Disturbed	65	35	25	5
Hearing-Handicapped	48	25	23	0
Retarded Trainable	61	12	48	1
Orthopedically Handicapped	98	20	76	2
Visually Handicapped	90	64	26	0
Total	362	156	198	8

TABLE 5

SUMMARY OF SUMMER-SPECIAL-EDUCATION TEACHERS' RATINGS OF STUDENT PROGRESS IN PHYSIOLOGICAL REHABILITATION

Type of Therapy	No. of Students Rated	Students Rated Improved	Students Rated Same	Students Rated Regressed
Physical therapy	44	6	38	0
Occupational therapy	45	6	39	0
Functional therapy	9	0	9	0
Swimming	23	3	20	0
Perceptual-Motor Training	15	8	7	0
Total	136	23	113	0

WALNUT CENTER

Walnut Center is an early childhood educational center which provides programs for preschool, kindergarten, and first-grade children and an after-school child-care and enrichment program for school-age children. The children are screened and selected to provide a mix of socioeconomic and ethnic characteristics.

THE PROJECT

RATIONALE

Walnut Center serves children and parents from a wide variety of ethnic and socioeconomic backgrounds. In this environment, the project addresses the community's need for a model school in which pupils' cognitive skills can be developed through discovery and experience and in which their physical, social, and emotional growth can be fostered. The center also serves as a child-care and enrichment center for school-age children who attend neighborhood schools.

EXPECTED OUTCOMES

It is expected that through the project's readiness experiences, preschool children will be well prepared for first grade. It is also expected that when the children are in first grade they will continue to develop physically, socially, and emotionally, and that basic reading, writing, mathematics, science, and social studies skills also will be developed. By the end of first grade, children are expected to reach levels of basic skill development which are equivalent to national norms.

MODE OF OPERATION

Walnut Center offers the community a primary school program and a child-care program. The primary school program provides services for two half-day preschool classes of three- and four-year-olds, two half-day kindergarten classes, and two first-grade classes, Monday through Friday during the regular school year.

The child-care program is organized to provide full-day care for a nursery class, a prekindergarten class, and two kindergarten classes. School-age children attending other elementary schools come to WC before school, during lunch, and after school. Children enrolled in the child-care program receive meals, snacks, and a planned program of educational and recreational activities.

Through an individualized instructional approach, the staff is aware of each child's abilities. A program to foster muscular development, proper nutrition, and early detection and correction of health problems is coupled with class activities directed toward the development of social and emotional growth within a group situation. Exploration, discovery, experimentation, and reinforcement of experience in an open-classroom setting motivate each child to develop his abilities. Teachers use a wide range of methods, materials, and equipment to encourage and expand learning experiences. Trips to various cultural, environmental, and educational sites are a vital aspect of this eclectic approach.

Active project participation by parents, community volunteers, student teachers, and high school volunteers increases the classroom adult/pupil ratio and enhances individualized instruction. Volunteers participate in study-planning-implementation workshops. A parent/staff team (including the school nurse, social workers, the home and school coordinator, secretaries, the custodian, teachers, and aides) helps to provide the analysis, planning, and program to foster the child's total growth.

Seminars, lectures, and workshops keep the staff, community volunteers, parents, and pupils informed of current educational trends. Methods and procedures are constantly reevaluated. Staff meetings are used to evaluate the individual pupil's growth and development and to determine the best approach for helping each child to reach his potential.

PREVIOUS FINDINGS

Past evaluations indicated that WC's goals in both cognitive and social areas have consistently been achieved. In 1968-1969, WC pupils equaled or excelled nonparticipant peers on standardized tests of cognitive skill development.

In 1969-1970, it was found that many persons from the community, particularly parents, were actively involved in WC. A high degree of interaction was observed among pupils from different backgrounds. A follow-up of WC children showed that they were better able than nonparticipants to adjust to second-grade classes in their new schools.

In 1970-1971 it was found that WC pupils in both kindergarten and first grade scored above national reading and arithmetic averages on the Philadelphia Readiness Test and on Continuous Progress Primary (CPP) criterion measures. In almost all cases, upper socioeconomic WC pupils scored higher than their lower socioeconomic WC peers. However, the lower socioeconomic WC pupils tended to obtain academic ratings higher than those for the city as a whole. Attitudes of WC pupils toward school were quite positive, regardless of pupils' socioeconomic backgrounds.

In 1971-1972, WC pupils achieved the set criterion: by April 1972, 95% of WC first-grade pupils attained at least CPP Level 3 in reading; 91% did so in arithmetic; 85% did so in both areas. Also, 85% of the WC first-grade pupils achieved at least Level 4 in reading.

WC is frequently visited as an exemplary learning situation for Philadelphia public school personnel and out-of-state visitors interested in early childhood education.

THE 1973-1974 EVALUATION

The current year's evaluation of the Walnut Center project was based on observations, informal interviews, and pupil scores on a nationally normed achievement test.

IMPLEMENTATION

During the current year the Title I project at the Walnut Center was found to be implemented as stated in its funding proposal. The center continued the practice of providing a full-day educational program for first graders, half-time day care for preschool-age children, and day care for pupils attending other neighborhood schools but whose parents needed child-care service before and/or after regular school hours. Pupils who stayed at the center during the noon hour received a hot, nutritionally complete meal, prepared by a professional cook.

The kindergarten and first-grade program at Walnut Center provided a child-centered, individual-oriented, and innovative instructional program, while keeping within the guidelines of sound educational practice. Kindergarten and first-grade classes were in the open-classroom mode, with instruction most often given in small groups or to individuals. Often pupils assisted one another. Because of the number of teacher aides and volunteers, the ratio of adults to pupils in a class at any given time was high.

Classrooms were especially well equipped for learning with an assortment of audiovisual aids and curricular materials. The teachers and children themselves developed many of the exhibits that were set up. Many of these were natural science exhibits (plants, gerbils, laboratory rats, white mice, tropical fish, etc.); others were maps, photos, drawings, and voting booths. Classrooms were equipped with movable desks and chairs and had comfortable rugs to permit informal use of the floor for reading groups and games.

Teachers at Walnut Center not only used their classroom facilities to the fullest for instructional purposes, but also took an average of one trip per month per class.

These trips were used as an integral part of instruction. Often classes went to sites of natural or cultural interest in the Philadelphia area. Even more frequently than once a month, pupils were taken on walks around the immediate locale of the center to observe and experience neighborhood phenomena of social and educational interest.

The project maintained continual staff awareness of pupil needs and growth. This was achieved partly through the use of two full-time social workers who were able to oversee pupil problems and progress and to articulate needs arising from special home and family backgrounds. When necessary, the school nurse, who normally kept records and charts for all pupils, made clinical referrals and follow-ups. A speech therapist provided diagnostic and remedial treatment. The staff also held monthly staff meetings which were frequently attended by consultants from educational, publishing, and child-service fields.

Over the years, the center has become an articulation point in the community it serves. The Walnut Center staff worked cooperatively with the Community Education Center at 3500 Lancaster Avenue (a publicly funded agency which attempted to provide educational services to the nearby community), with other neighborhood schools (especially those receiving Walnut graduates), and with community groups like the Young Great Society.

The evaluation team found one of the unique features of the center to be the racial and socioeconomic composition of its student body. Situated on the geographic border between the academic community of University City and Mantua, a poor neighborhood of deteriorated housing, the center has attempted to serve the needs of pupils from both communities. Hence, it has been a racially and socioeconomically integrated school. Since its inception in 1967, the center's pupils have been approximately 60% black, 30% white, and 10% oriental.

Socioeconomically, parents of project pupils range from welfare recipients with little formal education to professionals, including faculty members of nearby Drexel University and the University of Pennsylvania. Parents have shown a considerable tendency to become involved with planning and other activities at the center.

ATTAINMENT OF OBJECTIVES

Objective 1: Preschool children will develop readiness skills in reading and arithmetic as evidenced by standardized test results. (The distribution of Stanford Early School Achievement Tests (SESAT) scores will equal national standards).

This objective was attained. Along with being systematically observed by the evaluation team, kindergarten pupils were administered the SESAT in May. The raw

scores of 31 children were averaged for the mathematics and the letters-and-sounds (reading readiness) subtests. On the mathematics subtest, the average score was equivalent to the national 80th percentile; on the letters-and-sounds subtest, the average score was equivalent to the 7 th percentile.

Objective 2: First-grade children will develop basic skills in reading and arithmetic as evidenced by standardized test results. (The distribution of California Achievement Tests (CAT) scores will equal national standards).

This objective was attained. The California Achievement Test (CAT I, Level A) was administered in May to both Walnut Center first-grade classes. For each test, raw scores were averaged and the averages were compared with national norms. Results are shown in Tables 1 (mathematics) and 2 (reading).

In mathematics computation the average score's percentile rank was 81 in one class and 94 in the other. In mathematics concepts the average score's percentile rank was 94 in one class and 95 in the other.

In reading vocabulary the average pupil's percentile rank was 98 in one class and 92 in the other. In reading comprehension the average pupil's percentile rank was 98 in one class and 93 in the other. These results were considered outstanding by the evaluation team.

Corresponding results on the CAT language subtests are shown in Table 3. They suggest that the Walnut Center pupils' high achievement was not limited to the fields of mathematics and reading.

Objective 3: The Center will provide food programs and other services to promote the children's physical development and well-being.

This objective was attained. The center provided a cooked lunch each school day, prepared by a cook on the premises. This lunch, nutritionally designed to give a balanced meal, was available to all children and was free to poverty-level children.

In addition to the lunch program, the center also has contributed a special playground, equipped through community efforts with tricycles, geodesic climbers, monkey bars, and sand box. All the equipment was designed to strengthen the physical development of the center's pupils.

Medical attention also was provided to the pupils. The school nurse kept height and weight charts for all pupils and made necessary referrals for physical and/or dental attention. Referral follow-ups were done by the nurse. In addition, a special therapist was available during the school year for diagnosing speech problems.

Objective 4: The Center will provide an enriched variety of activities designed to promote the exploration of natural phenomena.

This objective was attained. All but two classrooms of the center had one or more live animal specimens, and several classrooms had large collections of fish, gerbils, or snakes. Exhibits in each classroom were available to other classes as well. Approximately once every four weeks, classes had presentations on environmental or natural resource topics. Trips during the 1973-1974 school year included walking and bus tours of the local neighborhood and trips to museums of natural history and the Tinicum Wildlife Preserve.

SUMMARY AND CONCLUSIONS

The Walnut Center was established to meet several key community needs. It provides formal schooling for preschool and first-grade pupils in a racially and socioeconomically mixed setting, provides needed part-day and full-day care for children from the community, and offers enrichment activities and medical and food services to pupils as well.

The center has achieved its primary objectives of developing high levels of skills in reading, reading-readiness for kindergarten pupils, and arithmetic in both preschool and first-grade pupils, as evidenced by CAT and SESAT scores. This finding is consistent with Walnut Center pupils' past performance and with their current performance on the total CAT battery.

The center's other objectives also were met. There was an excellent food-service program. Medical referrals and health monitoring were done by the school nurse, who also followed up referrals to ascertain if the child was actually receiving needed medical or psychological care; speech-pathology diagnosis also was available. The center also provided opportunities for pupils to explore natural phenomena through trips to horticultural exhibits, wildlife preserves, nature centers, and the like, thus expanding pupil experience from the classroom to the "real world" environment.

The impact of this project on its participating pupils has been two-fold: its pupils achieve at a level superior to national norms and have experiences in a socioeconomically and racially mixed setting which they otherwise would not have. The Walnut Center represents a viable, proven model for teaching the young child.

TABLE 1

ACHIEVEMENT OF WALNUT CENTER'S FIRST-GRADE PUPILS
ON CALIFORNIA MATHEMATICS SUBTESTS

Item	Computation	Concepts	Total
Class 1			
Mean Raw Score	34.5	41.5	76
Grade Equivalent	2.4	3.2	2.7
National Percentile	81	94	90
Class 2			
Mean Raw Score	38	42	80
Grade Equivalent	2.8	3.3	3.0
National Percentile	94	95	96

TABLE 2

ACHIEVEMENT OF WALNUT CENTER'S FIRST-GRADE PUPILS
ON CALIFORNIA READING SUBTESTS

Item	Vocabulary	Comprehension	Total
Class 1			
Mean Raw Score	89	21	110
Grade Equivalent	3.6	3.5	3.6
National Percentile	98	98	99
Class 2			
Mean Raw Score	86.5	17.5	104
Grade Equivalent	3.1	2.9	3.0
National Percentile	94	93	94

TABLE 3

ACHIEVEMENT OF WALNUT CENTER'S FIRST-GRADE PUPILS
ON CALIFORNIA LANGUAGE SUBTESTS

Item	Auding	Mechanics	Usage and Structure	Spelling
Class 1				
Mean Raw Score	12.6	31.5	17	16
Grade Equivalent	4.0	3.4	4.0	3.3
National Percentile	90	96	93	98
Class 2				
Mean Raw Score	12.4	24.5	15.5	15
Grade Equivalent	3.8	2.6	2.8	3.1
National Percentile	88	85	78	96

SUMMER COMPONENTS OF TITLE I ESEA PROJECTS

Evaluations of the summer components of Title I projects are reported consecutively in the following order:

College Placement
Comprehensive Mathematics
Comprehensive Reading Project:
- District 1 Reading: Elementary
- District 1 Reading: Secondary
- District 2 Reading
- District 3 Reading
- District 4 Reading
- District 5 Reading
- District 6 Reading
- District 7 Reading

English as a Second Language
Fleisher Special Summer Classes
Follow Through
Itinerant Hearing Service
School-Community Coordinator.

Information regarding these summer components is presented substantially as the respective project administrators and/or district research associates responded to a six-item Summer Evaluation Summary form distributed to them by the Department of Title I Evaluation Services:

1. Name of Project _____

2. List the goals of the summer component of your project.

3. Describe the activities employed to attain these goals.

4. List which goals were attained and cite evidence to support your belief.

5. Describe the goals that were not attained and the reason why.

6. List programmatic changes and recommendations that will aid in the attainment of goals in future years.

COLLEGE PLACEMENT
(Summer Component)

GOALS SET:

1. To place at least 30% of all applicants in colleges or universities.

2. To assist 12th-grade students on "WHEN, WHERE, AND HOW" to get information on colleges.

ACTIVITIES EMPLOYED TO ATTAIN THE GOALS:

1. Personally contacting colleges to seek openings.

2. Additional sites throughout city with interviewers (college students) assisting 12th-grade students.

GOALS ATTAINED:

Both goals were attained.

GOALS NOT ATTAINED:

None.

CHANGES SUGGESTED BY PROJECT ADMINISTRATOR:

None.

COMPREHENSIVE MATHEMATICS
(Summer Component)

GOALS SET:

1. To collect and analyze scores on tests used, in order to assess the effectiveness of the instructional approaches utilized.

2. To produce a data sheet for each school summarizing growth in instructional levels during the past year.

3. To requisition instructional materials for use by pupils and teachers during the 1974-1975 school year.

4. To prepare the content and format of staff-development programs to serve teachers during the 1974-1975 school year.

5. To balance expenditures of the 1973-1974 school year.

6. To get needed forms (E6A's, E6B's, Report Card Inserts, etc.) to Title I schools for use during the 1974-1975 school year.

ACTIVITIES EMPLOYED TO ATTAIN THE GOALS:

1. Results of tests used in the program during the 1973-1974 school year were analyzed and grade-level summaries of growth in instructional levels were made.

2. Requisitions were prepared for instructional materials to be shipped to schools participating.

3. Arrangements were made for the staff-development program to take place during the 1974-1975 school year.

4. Expenditure reports for the 1973-1974 school year were studied and balanced.

5. Forms for use in the 1974-1975 school year (E6A's, E6B's, Report Card Inserts, etc.) were forwarded to each school participating.

GOALS ATTAINED:

1. Data were collected and submitted to the evaluator for analysis. The results of this analysis were included in the "Attainment of Objectives" portion of the annual report.

2. A data sheet for the Elementary Mathematics Resource Teacher program was prepared, summarizing growth in instructional levels for the 1973-1974 school year. Raw scores and percentages by school and by district were submitted to the evaluator.

3. Requisition sheets for instructional materials were examined by the evaluator.

4. Content and staff-development format are a direct outgrowth of the summer workshop for teachers of retarded children in session August 26-30, 1974, at the Powel Elementary School. The activities seen by the evaluator included teacher generation of charts, graphs, visual aids, etc., to demonstrate correlations of body measurements, teacher presentations, and audiovisual aids used for the instruction of teachers in specific areas. The tentative agenda for the 1974-1975 school year was available from the supervisor. Tentative plans for the Elementary Mathematics Resource Teacher Program are in the possession of the evaluator. They will be firmed during the first session.

5. Computer printouts of purchase-order and encumbrance files were explained to the evaluator. The analyses of these forms were used as the basis for budget revisions.

6. E6A's, E6B's, Report Card Inserts, etc. were ordered; according to the program supervisors, distribution of these supplies was under way when this report was written.

GOALS NOT ATTAINED:

All goals stated in the summer proposal were attained.

CHANGES SUGGESTED BY PROJECT ADMINISTRATOR:

None.

DISTRICT 1 READING: ELEMENTARY
(A Summer Component of the COMPREHENSIVE READING PROJECT)

GOALS SET:

1. To develop and make available to administrators, consultants, language-skills teachers, and classroom teachers those curriculum-resource materials and techniques that will facilitate the implementation of Part B of the Systemwide Goal Statement.

2. To extend and improve diagnostic measures in District 1.

ACTIVITIES EMPLOYED TO ATTAIN THE GOALS:

1. The Reading Team developed practice exercises to improve test-taking competencies for the language section of the CAT.

2. The Reading Team constructed an alphabet check.

GOALS ATTAINED:

Practice-exercise booklets to develop test-taking competencies for the language section of the California Achievement Tests will be distributed in the schools by the end of November. Staff development will be provided by the District 1 Reading Team.

GOALS NOT ATTAINED:

The goals were attained; however, the booklets have not gone to the printer because of difficulties encountered in getting the material typed.

CHANGES SUGGESTED BY PROJECT ADMINISTRATOR:

It is recommended that in future summer programs adequate clerical help be supplied to facilitate the completion of clerical tasks involved.

DISTRICT 1 READING: SECONDARY
(A Summer Component of the COMPREHENSIVE READING PROJECT)

GOALS SET:

This program to extend over two summers, 1974 and 1975:

1. To provide a systematic approach to the teaching of creative reading for the gifted child.

2. To explore and establish strategies for working with reading which are related to the numerous special programs set forth in the rationale.

3. To provide the time, resources, and leadership for staff development for the secondary reading team in order that the team members can provide staff development to those for whose growth and competence they are responsible. This type of service to be based upon the needs of the administrators, reading teachers, and classroom teachers.

4. To formulate methods for collaborating with librarians in the secondary schools in order that students may be encouraged to read for pleasure and lifetime satisfaction.

5. To develop and publish a handbook which will give each person involved in reading a basic resource tool which will provide concise information regarding the teaching of reading skills in all fields.

6. To provide adequate time for proper evaluation of the pretest activities and preparation, and their relationship to the ongoing curriculum.

7. To provide for the compilation of activities based upon the on-site examination of materials developed in the schools and used by skilled teachers.

ACTIVITIES EMPLOYED TO ATTAIN THE GOALS:

The District 1 Reading Team did the following:

1. Accepted Pupil Competencies as the reading curriculum.

2. Thoroughly studied District 1 Reading Program and all school programs.

3. Wrote a philosophy based on the reading program and curriculum, and used the philosophy to evaluate the worth of content.

4. Operated from an adequate research base.

5. Decided upon an organizational pattern after studying many handbooks.

6. Decided upon contents best suited to needs of our pupils and teachers, and based upon our philosophy.

7. Individually, selected topics to research based upon interests and expertise.

8. Decided upon written form to use which would best relate to classroom practices.

9. Finalized format as to topics and means of presentation to best serve teachers and pupils.

10. Individually, presented first draft to other members of the team as a unit for critical analysis and recommendations.

11. Revised first draft after team's input.

12. Presented final draft to the team for further corrections and suggestions.

13. Had final draft edited by someone other than the writer.

14. Aided the artist in selecting appropriate illustrations.

15. Presented the handbook to project manager for approval for printing.

GOALS ATTAINED:

Attainment of Goals 2, 3, 5, and 7 was evidenced by the content and process of the development of the handbook.

GOALS NOT ATTAINED:

Failure to attain Goals 1, 4, and 6 was due to the fact that the project was planned to extend over a two-summer period.

CHANGES SUGGESTED BY PROJECT ADMINISTRATOR:

1. Plan to have additional concrete examples of expressed needs from the language-skills teachers and students.

2. Plan for additional clerical help in advance of summer project.

3. Plan to include additional personnel comprised of classroom and language-skills teachers.

DISTRICT 2 READING
(A Summer Component of the COMPREHENSIVE READING PROJECT)

GOALS SET:

1. To improve reading instruction through continuous in-service training of staff members.

2. To help teachers update their knowledge and techniques related to the reading process through a program which actively involves them in its implementation.

3. To develop instructional leadership ability in each school and to maximize the use of instructional leadership through continuous in-service training of district staff members.

4. To provide, at district level, an instructional plan for the teaching/learning process of reading that is flexible enough to allow for the needs of each school.

ACTIVITIES EMPLOYED TO ATTAIN THE GOALS:

Each day of the workshop one or more presentations were made by persons in various areas of expertise. Following the presentations, one of three kinds of discussions took place:

1. Principals and their reading teachers met for individual school planning sessions.

2. Cluster groups, organized geographically, met to discuss that day's presentation.

3. General question-and-answer session.

GOALS ATTAINED:

Goal 1 cannot be evaluated until the evaluation of student performance for the 1974-1975 school year.

Goal 2: Responding to the evaluation questionnaire, most participants rated the presentations as "very useful" or "useful." Of the 989 ratings (about 76 persons rating each of the 13 presentations), 49% were "very helpful," 38% were "helpful," and only 13% were "of little help." Because each person evaluated the presentations according to his own needs, presentations that were rated "of little help" by some were rated "very helpful" by others.

Goals 3 and 4: According to the evaluation questionnaire, 82% of the participants felt that teachers, leadership personnel, and administrators shared in the reevaluation and redesign of school and district plans during the workshop. When asked to describe the general tone of the workshop as it might apply to a school or district plan, 73% of the respondents said it was "very practical," 24% said "fairly practical," and only 3% said "fairly theoretical."

GOALS NOT ATTAINED:

The one disappointment raised by some participants in the workshop was that not all school administrators were able to attend. This, of course, is not a variable that could be controlled by the district.

CHANGES SUGGESTED BY PROJECT ADMINISTRATOR:

Participants in the 1974 workshop suggested the following:

1. More time to be given for discussion between school principals and their reading teachers.

2. More emphasis to be placed upon demonstration and activity-type presentations.

3. More emphasis on development of teaching techniques.

4. Inclusion of more classroom teachers in future workshops.

DISTRICT 3 READING
(A Summer Component of the COMPREHENSIVE READING PROJECT)

GOALS SET:

The major purpose of the summer program was to prepare for the regular program. Objectives such as the following were pursued:

1. Examine the results of the 1973-1974 Reading project by studying data obtained through the administration of criterion- and norm-referenced tests and other available information.

2. Establish to what degree the 1973-1974 Reading project's objectives were met.

3. Prepare the following materials for the 1974-1975 school year after study of the 1973-1974 results:

   a. Books and supplies;
   b. District 3 Elementary Teachers Reading Handbook;
   c. District 3 Secondary Reading Teachers Handbook;
   d. Appropriate administrative bulletins.

4. Clarify and arrange final details for "Start of Year" (1974-1975) staff-development programs.

ACTIVITIES EMPLOYED TO ATTAIN THE GOALS:

Meetings and work sessions were held between various members of the district staff to accomplish the production and planning of the materials needed for September.

GOALS ATTAINED:

The data, handbooks, and bulletins were prepared. An additional presentation on monitoring was prepared for principals, and a booklet describing techniques for the Dolch Sight Vocabulary objective was produced. Results of criterion-referenced tests and other information were examined.

GOALS NOT ATTAINED:

California Achievement Test results were not available for evaluation of the overall objective because the scanning of the answer sheets was not yet complete.

CHANGES SUGGESTED BY PROJECT ADMINISTRATOR:

No changes were recommended to attain the goals as stated.

DISTRICT 4 READING
(A Summer Component of the COMPREHENSIVE READING PROJECT)

GOALS SET:

The project sought (a) to make library books accessible to pupils in communities where public library facilities are not available and where books are not usually available in the homes, and (b) to provide language-arts activities designed to motivate children to read and to strengthen skills learned in the reading program during the regular school year. Its stated objective was to provide elementary pupils the opportunity for continued growth in language arts through exposure to informal language-arts activities at District Library Reading Centers (in the form of films, filmstrips, storytelling, books, magazines, creative dramatics) to the extent that pupils would exhibit motivation as determined by increased participation in the program and use of the facility.

ACTIVITIES EMPLOYED TO ATTAIN THE GOALS:

Library reading centers were located in areas of the school community where library facilities were not available. They operated for three hours a day for four weeks during the summer under the supervision of a classroom teacher trained in creative dramatics techniques. Children had the opportunity to use and borrow books and to participate in informal language-arts activities such as storytelling, puppet plays (writing and dramatizing), creative dramatics, and literature films and filmstrips.

The IMC assistant was in charge of setting up and storing of equipment, and circulation and return of books to correct shelf position.

The reading aide assisted the teacher with classroom management of several activities occurring at the same time, giving attention on a one-to-one or small-group basis. She also assisted in the collection of books and setting up of equipment.

GOALS ATTAINED:

Approximately 300 District 4 children attended five Summer Library Reading Centers at the Heston, Lehigh, Leidy, Pratt, and Wright Schools. Under the tutelage of teachers skilled in creative dramatics, children participated in language-arts activities designed to motivate them to read and to develop vocabulary and comprehension necessary to the reading process. An informal atmosphere provided the setting for listening to stories read or told by the teacher or on records, dramatization of stories, participation in vocabulary and reading games, viewing of literature films and filmstrips, and creative art activities. Trips to the children's concert at Robin Hood Dell and a children's play at the Playhouse in the Park provided additional food for thought and discussion in reference to books.

Special programs including the presentation of awards, certificates of participation, and approximately 900 free books concluded the summer project.

Motivation was indicated by the continuity in attendance, demonstrated interest, lively discussion, animated play acting, and borrowing of books. Daily attendance at each Summer Library Reading Center was as follows:

Center	Highest	Average
Heston	30	60
Lehigh	35	25
Leidy	35	30
Pratt	125	100
Wright	35	25
Total	310	240

GOALS NOT ATTAINED:

Attendance was not as high as had been hoped because there was little opportunity for notification of schools, recruitment of teachers, communication with the community, or coordination with other programs in operation.

CHANGES SUGGESTED BY PROJECT ADMINISTRATOR:

Early approval of summer programs, so that they may be properly publicized in the community, is critical to this program.

DISTRICT 5 READING
(A Summer Component of the COMPREHENSIVE READING PROJECT)

GOALS SET:

1. To plan reading programs for District 5 students who are not successful in the district's reading activity.

2. To evaluate alternative reading programs.

3. To revise and update the 1974-1975 reading proposal.

4. To produce relevant reports based on spring standardized testing.

ACTIVITIES EMPLOYED TO ATTAIN THE GOALS:

1. Meetings among district reading personnel were held in which various approaches were discussed.

2. Conferences involving reading-team members were held to discuss and review potentially usable materials.

3. The reading manager made revisions in the reading proposal.

4. No activities related to Goal 4 took place because necessary data were not yet available.

GOALS ATTAINED:

Goal 2 was attained. Alternative readiness materials for Grade 1 and Grade 2 students operating below their potential were reviewed. An early diagnosis program was used in five schools. Extension of a criterion-referenced program was considered for the secondary schools.

Goal 3 was attained. The 1974-1975 reading proposal was revised along lines suggested by English Education.

GOALS NOT ATTAINED:

Goal 1 was not attained. No decision was reached; no recommendations came forth.

Goal 4 was not attained. Standardized test information was not available for analysis.

CHANGES SUGGESTED BY PROJECT ADMINISTRATOR:

None.

DISTRICT 6 READING
(A Summer Component of the COMPREHENSIVE READING PROJECT)

GOALS SET:

Part I. Seventy-five low-achieving pupils will gain one level or more in reading achievement as measured by criterion-referenced tests.

Part II. Objectives of the Project Support Staff:

1. To analyze data collected from schools' administration of formal and informal reading tests in order to identify cost-effectiveness of various instructional programs.

2. To evaluate and prepare responses for the detailed reading plan of each school in order to review each plan with the school Reading Task Force in September 1974.

3. To analyze and collate end-of-year reports from each school on successful programs and practices.

4. To make preparations for the following staff-development activities:

   a. Kindergarten-Grade 1 articulation conference;
   b. Paraprofessional training session;
   c. In-service training for newly appointed teachers;
   d. In-service training in leadership strategies for reading teachers;
   e. In-service training for target populations of teachers identified as being in need of supportive services.

ACTIVITIES EMPLOYED TO ATTAIN THE GOALS:

Part I. This part of the summer component was not implemented because approval for a summer program was not received until June 19, 1974. This did not provide enough time to prepare for this component.

Part II. The District Reading Team (project manager, reading supervisors, research associate) have been working together to attain the goals listed above. These activities are being implemented at no cost to Title I.

GOALS ATTAINED:

Part I. None.

Part II. Objectives 2 and 4 were attained:

A Reading Proposal Assessment has been prepared for each school. This assessment reviews the key activities of each school's plan and requires the school to explain whether or not the plan is being implemented.

Written agendas, handbooks, and plans for districtwide staff-development activities have been completed. Written monitoring forms for collecting data on pupil achievement and supportive services have been prepared.

GOALS NOT ATTAINED:

Part I. This activity was not implemented.

Part II. Objectives 1 and 3 were attained during the regular session.

CHANGES SUGGESTED BY PROJECT ADMINISTRATOR:

Preparation for summer program including teacher and pupil recruitment and ordering of materials, should begin in April or May. Therefore, early approval of summer programs is essential.

DISTRICT 7 READING
(A Summer Component of the COMPREHENSIVE RE.'DING PROJECT)

GOALS SET:

1. Plan staff development for district language-arts consultants.

2. Plan staff development for language-skills teachers.

3. Organize and display materials.

4. Plan on-site visits.

ACTIVITIES EMPLOYED TO ATTAIN THE GOALS:

1. Staff programs for the coming year were planned by the reading manager in consultation with other members of the reading team.

2. A display of curriculum materials has been set up at the Horn Curriculum Center.

3. A schedule of visits to schools has been planned.

GOALS ATTAINED:

All goals were attained.

GOALS NOT ATTAINED:

Not applicable.

CHANGES SUGGESTED BY PROJECT ADMINISTRATOR:

A systematic staff development should lead to higher student achievement. A pilot in-service reading program for teachers will take place i three elementary schools. If successful, this activity will be extended to the entire district.

ENGLISH AS A SECOND LANGUAGE
(Summer Component)

GOALS SET:

1. To assess the competencies of students whose native language is not English in terms of their competencies in understanding and producing oral and written English.

2. To develop oral/aural skills in English, to improve reading comprehension in English, and to develop self-expression in English in written form.

3. To participate in learning about the history and culture of the students' backgrounds.

4. To participate in field trips to the zoo, museums, and sites of historical importance in Philadelphia.

ACTIVITIES EMPLOYED TO ATTAIN THE GOALS:

1. ESL screening test was administered.

2. Bilingual teachers taught students from June 26 until August 23, from 9 a.m. to noon, five days a week.

3. An ethnic festival and special activities for Korean and Puerto Rican groups were conducted.

4. Trips were taken to the library, zoo, firehouse, supermarket, art museum, Franklin Institute, and a picnic with parents.

5. In addition to its formal goal-directed activities, the project used its Carino Center for field experiences for teacher trainees of Spanish origin, in a special program jointly planned and implemented by the School District of Philadelphia and Temple University.

GOALS ATTAINED:

All goals were attained, as evidenced by the 80% attendance of pupils, participation of parents, and observations by teachers, administrators, and evaluators. Lunch was provided by the School District of Philadelphia. Specific achievements include the following:

1. Students were placed in groups according to language competency.

2. Teacher evaluation of students indicated whether each student needed ESL during the regular school term. Progress in language competencies was noted by project administrator.

3. Students learned about their ethnic backgrounds and sang their national anthems.

4. Parents participated in pupil activities such as the picnic.

GOALS NOT ATTAINED:

None.

CHANGES SUGGESTED BY PROJECT ADMINISTRATOR:

None.

FLEISHER SPECIAL SUMMER CLASSES

GOALS SET:

To provide educationally deprived children in Grades 5-12, who have been selected by school personnel as having art potential, with the following:

1. The opportunity of receiving an intensive art program for 105 hours during a seven-week summer session in a unique art center (Fleisher Art Memorial).

2. The opportunity of being exposed to a more in-depth study of art media than during the regular school year.

3. The opportunity of making cultural field visits to museums, art schools, and community places of interest for the purpose of enriching their cultural knowledge, aesthetic sensitivities, and background information for production of graphic art projects.

ACTIVITIES EMPLOYED TO ATTAIN THE GOALS:

1. Teachers and leader kept close check on attendance and made phone calls to students' homes to ascertain reasons for absence.

2. Students engaged in activities such as painting and print making, based on ideas gathered from trips to places like the Italian Market and the waterfront. Projects were developed from sketches, through intermediate stages to the finished product.

3. Bussing was used to take children to museums, art schools, and places of community interest. Walking trips to neighborhood points of interest also were utilized.

GOALS ATTAINED:

Goal 1 was partially achieved, in that the average daily attendance was 75%.

Goal 2 was successfully achieved, as evidenced by final exhibition of student work.

Goal 3 was successfully achieved to the limit of funds available.

GOALS NOT ATTAINED:

All goals were realized to limit of resources available.

CHANGES SUGGESTED BY PROJECT ADMINISTRATOR:

1. More planned trips in and around Philadelphia.
2. Visits by guest artists and craftsmen.
3. Expanded opportunities and facilities to include film making.

FOLLOW THROUGH
(Summer Component)

GOALS SET:

1. To improve pupil performance in reading skills.

2. To improve pupil performance in mathematics skills.

3. To provide all organizational and instructional support and assessment procedures which the summer-school staff determined adequate to meet its needs.

ACTIVITIES EMPLOYED TO ATTAIN THE GOALS:

Program activities: Each of six Follow Through models (Bank Street Model, Behavior Analysis Model, Bilingual Model, Educational Development Center Model, Florida Parent Model, and Philadelphia Process Model) employed its characteristic procedures in a five-week program. Two sessions were conducted each day: a morning session of strictly academic instruction focusing on reading and mathematics skills, and an afternoon session of instruction in arts and crafts, music, physical education, and excursions of both recreational and educational value.

Evaluation activities: The reading-skills component involved the administration of criterion-referenced reading tests developed by the Instructional Objectives Exchange (IOX) for both diagnostic and evaluation purposes. At each test level (K-3) a collection of 8 or 10 tests (combining reading-comprehension and word-attack skills) was developed with the advice of local Follow Through teachers. A criterion of mastery was established for each test and a pretest or initial form of the tests was administered early in the program. Diagnosed weaknesses were to be used in the determination of curriculum for the remainder of the program and a posttest administered when the skill area had been taught.

The mathematics-skills component was to be evaluated by a posttest, the Philadelphia Mathematics Levels Test, results of which could be compared with information on the students' pre-program mathematics levels, on file.

The determination of organizational, supportive, and assessment adequacy was effected by an open-ended questionnaire distributed to summer-school staff.

GOALS ATTAINED:

1. Reading skills. For a variety of reasons (e.g., pupil absences, delays in duplication, time constraints) the ideal "pretest and posttest" procedure for all 8 or 10 tests was implemented in only 657 (50.2%) of the cases. For these students,

an average of 49.4% of the tests were mastered in the initial or pretest administration, and an average of 70.7% of the tests were mastered in the final or posttest administration.

To include data from the remaining students who were given fewer than the required number of tests in either the pretest or the posttest, indices were computed from the number of tests passed based on the number of tests given. For the 1,309 students from whom any test results are available, the average initial percentage of tests passed (from those given) was 49.5%; 13.6% of the initial tests were not administered.

A further complication in the data analysis arose from the fact that some students who were not given the pretest were given the posttest. Two measures of final mastery were therefore computed. The first was based on only posttests which could be matched with pretests. The percentage of final mastery computed thus was 75.7%. However, 25.8% of the cases were not included in this computation, because either the pretest or the posttest was not administered. The second measure of final mastery included posttest results for cases which had no pretest, thus decreasing the percentage of cases not included from 25.8% to 17.2%. The percentage of final mastery based on this larger group of test results was slightly lower, 73.3%. Variation among the six models was generally within a seven-point range above and below these percentages. These measures indicated an improvement of about 50% in the reading-comprehension and word-attack skills comprising the tests.

2. Mathematics skills. The delays and problems which affected the administration of the reading tests produced a serious aftereffect on the administration of the Mathematics Levels Tests. Two major problems resulted: (a) it was impossible to assess any specific summer effect because the pretest data regarding math levels which had been collected from feeder schools at the end of the school year were limited to those pupils expected to attend the summer session, a population which proved to be largely different from the actual summer population, and (b) the tests had to be administered under rushed conditions in the very last days of the session, causing teachers' reporting of scores to be inexact and incomplete. The data available for reporting, then, can only be discussed in terms of end-of-program status without any reference to pre-program level of performance. Of the slightly more than 1,300 pupils who attended the summer session, usable math-level data were available for approximately three fourths (971). At the lowest (Level 1, Part I, End of Kindergarten) and the highest levels (Levels 7 and 8, Middle and End of Third Grade) there was very little testing and consequent mastery, 3% and 4% respectively, in the total program. Ninety-three percent of the pupils attained mastery at levels corresponding to first and second grades as follows:

First Grade:

Beginning (Level 1, Part II)	25%
Middle (Level 2)	13%
End (Level 3)	11%

Second Grade:

Beginning (Level 4)	15%
Middle (Level 5)	12%
End (Level 6)	7%

3. Staff reaction. At the conclusion of the summer program, staff members at all levels and at all sites were requested to complete an open-ended questionnaire. They were asked to indicate (a) "two problems which hindered your work," (b) "two things that helped you carry out your duties," (c) "What changes would you recommend to make the summer program more effective?" and (d) additional comments.

A total of 136 respondents returned the questionnaire. (The response rate was 30.0% from the principals and supervisors, 69.2% from the morning teachers, 51.3% for the afternoon teachers, and 36.4% for the aides.) Under the coding system developed by the local evaluation staff, most frequent responses to question "a" were the testing program (cited by 21.3% of the respondents), problems with instructional materials (cited by 17.6%), and late or inaccurate information on students' reading and mathematics levels (cited by 7.4%). The most frequent responses to question "b" were the assistance of fellow staff members (cited by 89.7% of the respondents) and the quantity and quality of materials and supplies (cited by 33.1%). The principal program changes (question "c") suggested were to modify the testing program (cited by 16.7% of the respondents), to modify the schedule of the day (cited by 16.7%), to make parents more aware of the program (cited by 8.8%), and salary changes (cited by 7.4%). The "additional comments" were elaborations of answers to questions a, b, and c, with five times as many instances of helpful features and positive evaluations of the program as of hindrances and negative evaluations.

GOALS NOT ATTAINED:

None.

CHANGES SUGGESTED BY PROJECT ADMINISTRATOR:

Several problems encountered in the 1974 summer program could be minimized by the earliest possible determination of funding. Increased parental awareness of the summer program and the recruitment of students most likely to benefit from the program would be facilitated by such an early mobilization of resources. The 1974 program encountered a shift in student population from an anticipated population of underachieving students to a recruited population of interested students with varying abilities. Subsequent programs could concentrate recruitment efforts better if more time were available.

Delays in duplication of test materials and transmission of students' reading and mathematics levels to the teacher should be minimized. Also, the reading-

testing program could be improved by earlier identification of participants. This would allow pretesting to be completed prior to the initiation of the program or at least very early in the program. The diagnostic value of these tests would seem to be an important consideration in favor of their retention.

The mathematics-testing program should remain as a posttest only, but teachers should be given at least one review session in administration and scoring procedures prior to the program.

ITINERANT HEARING SERVICE
(Summer Component)

GOALS SET:

1. Hiring of Itinerant Hearing Service therapists to fill existing vacancies in the program for the winter term.

2. Assignment of therapists to areas of the city requiring their services for the winter term.

3. Scheduling of program tasks and events for the winter term.

4. Preparation of necessary forms for the winter term.

5. Preparation of evaluation materials for the regular term.

6. Adequate, organized storage of equipment and materials for the program, including summer deliveries.

7. Completion of purchasing records for 1973-1974 and planning of purchases for 1974-1975.

8. Maintenance and updating of audiometric records during the summer.

9. Storage of student records.

10. Reorganization of Hearing program files, including creation of individual files for every hearing-impaired child evaluated by therapists.

11. Appropriate educational placement for recommended hearing-impaired children for the winter term.

12. Organization of materials selected for a program handbook.

13. Coordination of Itinerant Hearing Service project with the Speech Correction program.

ACTIVITIES EMPLOYED TO ATTAIN THE GOALS:

1. The project manager interviewed applicants for five positions left vacant by transfers and resignations.

2. Geographical areas of assignment for all therapists were determined and mailed to them by the second week of August, including Beginning-of-the-Year Procedures.

3. A Calendar of Tasks and Events for 1974-1975 was prepared by the project manager.

4. Forms to be used by all staff were prepared or updated.

5. Envelopes for each therapist, containing meeting agendas, staff names, addresses, and telephone numbers, telephone relay, calendar of tasks and events, printed forms, etc., were prepared for the first meeting in September. The project evaluators met with the project manager to plan a careful evaluation of the project for 1974-1975. A timetable was decided upon with necessary meetings, materials for therapists, etc.

6. Equipment and materials stored in the basement of 1801 Market Street were added to by summer deliveries, organized, and inventoried.

7. Purchase orders were processed as deliveries arrived and inquiries made about incorrect, incomplete, and damaged deliveries.

8. Correspondence, including telephone contact, was made with audiology centers to obtain updated audiograms and other information about children in the program. The request for audiometric records was extended to include preschool children for the coming year. Incoming reports were duplicated for distribution to hearing therapists in the fall.

9. Case information, progress records, case cards, and evaluation forms for all cases were collected from therapists, organized, and stored. Evaluation forms were duplicated for therapists to distribute in the fall.

10. File cabinets were reorganized into alphabetic and functional categories with individual folders for all hearing-impaired children known to the project. Important basic information about each child was included. An alphabetic card file for all cases was constructed, with school and status indicated.

11. The project manager prepared material for children in the project to be transferred to and from resource rooms and a part-time class for hearing-impaired. Instructions and information for parents, requests to districts for transfer of children, and requests for provision of transportation were made. Regular contact with parents was made by mail and telephone. The project manager participated in a July conference at Sulzberger Junior High School to inform teachers and administrators about "mainstreaming" of handicapped children into secondary schools.

12. The project manager selected important materials for the following:

a. A program handbook for therapists;
b. A program handbook for teachers;
c. A program handbook for parents.

Plans were formulated to continue the development of these materials.

13. The project manager contributed statistics about children served in the Hearing program for inclusion in reports to the State and to the University of Pennsylvania. Coordination of Speech and Hearing staff meetings was planned. Careful coordination with Speech and Hearing programs and with Special Education was accomplished through conferences with the Assistant Director for Speech and Hearing Services, the Principal of the Martin School, and the Associate Superintendent for Special Education.

GOALS ATTAINED:

All 13 goals were attained. Evidence of attainment of each goal is available as follows:

Goal 1. Personnel records, Mrs. Axler, Room 104, Administration Building.

Goals 2-5. Beginning-of-Year Materials, Speech and Hearing Office.

Goal 6. Storage closets and vault, 1801 Market Street.

Goal 7. Purchasing records, Hearing Office, 1801 Market Street.

Goals 8-12. Files in Hearing Office, 1801 Market Street.

Goal 13. Contact Mr. Martin Bordman, Assistant Director of Speech and Hearing Program.

GOALS NOT ATTAINED:

All goals were accomplished or were well on their way to completion by the date of this reporting.

CHANGES SUGGESTED BY PROJECT ADMINISTRATOR:

The summer is an excellent time for creating materials and concentrating on preparation for the winter instructional program. Any addition of office and supervisory personnel that would allow further development of program would help to further the provision of improved and increased services to hearing-impaired children. The project manager is aware of goals that are not mentioned here that require additional supervisory personnel to accomplish, e.g., further public relations and further materials created to improve the organization of the program and its instructional goals. Ongoing filing help is needed.

An improvement in the timing of important decisions that affect the program would be helpful, i.e., early approval of the program for the next year, and an early decision related to the assignment of personnel (Title I schools vs. all locations in which there are hearing-impaired children).

SCHOOL-COMMUNITY COORDINATOR
(Summer Component)

GOALS SET:

1. To prepare a written summarization of each school-community coordinator's performance for the past year, leading to recommendations for the continued improvement of each coordinator.

2. To interview a sampling of key School District and community leaders for the purpose of ascertaining their evaluation of the School-Community Coordinator project and getting their recommendations for improved performance.

3. To provide direct supervision to those school-community coordinators employed in the summer Head Start program.

ACTIVITIES EMPLOYED TO ATTAIN THE GOALS:

1. Supervisors reviewed the work performance of the school-community coordinators assigned to them and prepared written evaluations for their coordinators upon special forms.

2. Each supervisor interviewed 15 persons (five district superintendents, their assistants, and/or counseling and attendance supervisors, five community leaders, and five principals) using questionnaires which were developed for the purpose.

3. Supervisors visited, conferred with, and provided supervision for those coordinators of their particular districts working in the summer Head Start programs. A written statement detailing these visits has been prepared by each supervisor.

GOALS ATTAINED.

All three goals of the summer component have been achieved. Written evaluations for each coordinator and completed questionnaires of community and school leaders are on hand, and written summaries of supervisory visits to coordinators working in the summer Head Start program are available.

GOALS NOT ATTAINED:

Not applicable.

CHANGES SUGGESTED BY PROJECT ADMINISTRATOR:

Not applicable.

APPENDIX

PROJECT ADMINISTRATORS AND EVALUATORS

PROJECT ADMINISTRATORS AND EVALUATORS

Evaluation Team	Project	Administrator
Frances Byers	Counseling Services	Albert Bell
Team Leader: Thomas Clark		
Thomas Clark, Ethel Goldberg, Joseph Meade	College Placement	Robert Byrd
Thomas Clark, Ethel Goldberg, Joseph Meade	Computer-Assisted Instruction	Sylvia Charp
Thomas Clark, Robert Bayuk, John Ready, Noma Shaw, Ethel Goldberg, Joseph Meade	Instructional Management	Sylvia Charp
Thomas Clark, Ethel Goldberg, Joseph Meade	Teaching Basic Reading Skills-- A Systems Approach	Sylvia Charp
Ethel Goldberg, Joseph Meade	Learning Centers	Lore Rasmussen
Ethel Goldberg, David Wasserman	Out-of-School Sequenced Science Experiences	Fred Horkin
Joseph Meade	Language Arts Reading Camps	Marjorie Farmer
Cora Coleman	Comprehensive Mathematics	Alexander Tobin
Stephen Davidoff	Episcopal Academy: Summer Enrichment	James Straub

PROJECT ADMINISTRATORS AND EVALUATORS (Continued)

Evaluation Team	Project	Administrator
Team Leader: Arnold Escourt		
Arnold Escourt, Yaakov Kanovsky, Ralph Colflesh	Itinerant Hearing Service	Marechal-Neil Young
Arnold Escourt, Yaakov Kanovsky	Instructional Materials Centers	Lillian Batchelor
Arnold Escourt	Improvement of Reading Skills "A" and "B"	Marjorie Farmer
Robert Epstein, Arnold Escourt	English as a Second Language	Eleanor Sandstrom
Ralph Colflesh	Enrichment Activities for the Deaf and Hard-of-Hearing Pupil	Theresa Chletcos
Ralph Colflesh	Institutions for Neglected and Delinquent Children	Charles Peoples, Jr.
Ralph Colflesh	Walnut Center	Frances Becker
Lisbeth Sorkin	Communications Experiences	Jon Dunn
Lisbeth Sorkin	Education in World Affairs	Margaret Lonzetta
Stuart Hoffman	Action	Rebecca Segal
Stuart Hoffman	Motivation (Component "A")	Rebecca Segal

PROJECT ADMINISTRATORS AND EVALUATORS (Continued)

Evaluation Team	Project	Administrator
Team Leader: Marion Kaplan		
Marion Kaplan, Larry Aniloff, Carrolyn Iwamoto	Bilingual Education	Charles McLaughlin
Marion Kaplan, Larry Aniloff, Carrolyn Iwamoto	Cultural Experiences	Charles McLaughlin
Marion Kaplan, Larry Aniloff, Carrolyn Iwamoto	English as a Second Language--Readiness	Charles McLaughlin
Marion Kaplan, Larry Aniloff, Carrolyn Iwamoto	Improvement of Reading Skills "C"	Charles McLaughlin
Marion Kaplan, Larry Aniloff, Carrolyn Iwamoto	Motivation (Component "B")	Charles McLaughlin
Marion Kaplan, Larry Aniloff, Carrolyn Iwamoto	Operation Individual	Charles McLaughlin
Marion Kaplan, Larry Aniloff, Carrolyn Iwamoto	Primary Reading Skills Centers	Charles McLaughlin
Marion Kaplan, Larry Aniloff, Carrolyn Iwamoto	Reading Improvement through Teacher Education	Charles McLaughlin
Larry Aniloff	Summer Adventures in Learning	Charles McLaughlin
Carrolyn Iwamoto	Multimedia Center	Charles McLaughlin

PROJECT ADMINISTRATORS AND EVALUATORS (Continued)

Evaluation Team	Project	Administrator
Team Leader: William Loue		
William Loue, Judith Leibovitz, Patricia Young	Individualized Education Center	Charles McLaughlin
William Loue, Judith Leibovitz, Patricia Young	Parent School Aides	Charles McLaughlin
William Loue, Judith Leibovitz, Patricia Young	Speech and Hearing	Charles McLaughlin
William Loue, Judith Leibovitz, Patricia Young	Speech-Therapy Clinics	Margaret Reilly
William Loue, Judith Leibovitz, Patricia Young	Summer Reading Readiness	Charles McLaughlin
William Loue, Judith Leibovitz	Alternative Programs	Leonard Finkelstein
Patricia Young	Affective Education	Norman Newberg
Thomas McNamara, Judith Goodwin, Anne Lukshus, James Welsh	Follow Through (ESEA Title I Component)	Leontine Scott
Team Leader: Louis Scheiner		
Louis Scheiner, Camilla Grigsby, Fleta Waters	Classroom Aides	Milton Goldberg
Louis Scheiner, Camilla Grigsby, Fleta Waters	Kindergarten Aides	Frances Becker

PROJECT ADMINISTRATORS AND EVALUATORS (Continued)

Evaluation Team	Project	Administrator
Louis Scheiner, Camilla Grigsby	Counselor Aides	Althea Cousins
Louis Scheiner, Fleta Waters	Art Specialist Teachers	Jack Bookbinder
Louis Scheiner, Fleta Waters	Creative Dramatics	Harriet Ehrlich
Louis Scheiner, Fleta Waters	Music Specialist Teachers	Edwin Heilakka
Louis Scheiner, Fleta Waters	School-Community Coordinator	George Green
Camilla Grigsby	Summer Special Education	Marechal-Neil Young
Fleta Waters	Afro-American Studies	William Green
Jay Yanoff	Intensive Learning Center	James Lytle
Jay Yanoff	Pennsylvania Advancement School--External Program	James Lytle
Jay Yanoff	Pennsylvania Advancement School--Internal Program	James Lytle