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ABSTRACT

Described as one of 34 booklets in a series of promising programs on childhood education, the report presents information on the Boston Public Schools Learning Laboratories (Massachusetts). The special approach for slow learners and gifted students in grades two through four is discussed in terms of purpose and structure, population served, specific materials and facilities, financial aspects, and future plans. Additional sources of information on the program are also provided. (RD)

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# Model Programs

## Childhood Education

Boston Public Schools
Learning Laboratories

Boston, Massachusetts

NATIONAL CENTER FOR EDUCATIONAL COMMUNICATION

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OE-20153

# Model Programs

## Childhood Education

**Boston Public Schools Learning Laboratories**

Boston, Massachusetts

*A special approach for slow learners and gifted students in grades two through four*

**U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE**
Elliot L. Richardson, *Secretary*
**Office of Education**
Terrel H. Bell, *Acting Commissioner of Education*
**OFFICE OF ECONOMIC OPPORTUNITY**
Donald Rumsfeld, *Director*

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## FOREWORD

This booklet is one of 34 in a series of promising programs on childhood education prepared for the White House Conference on Children, December 1970. The series was written under contract by the American Institutes for Research for the Office of Economic Opportunity, and the Office of Child Development and the Office of Education, U.S. Department of Health, Education, and Welfare.

Within the broad area of childhood education the series includes descriptions of programs on reading and language development, the disadvantaged, preschool education, and special education. In describing a program, each booklet provides details about the purpose; the children reached; specific materials, facilities, and staff involved; and other special features such as community services, parental involvement, and finances. Sources of further information on the programs are also provided.

In many elementary school classrooms, activities are planned for "average" children--the majority. Too often this means that the slow learner is frustrated: he cannot master concepts as quickly as other students, and often views himself as a failure. He stops trying, misbehaves in the classroom, and stays home from school as frequently as possible. Similarly, the gifted student often finds that he too does not fit into the regular classroom. He learns quickly and is bored by the repetition necessary for the other students. He ignores much of the instruction, spending his time bothering other students or daydreaming.

A few years ago when the elementary school teachers in Charlestown, Mass., were asked what problems they faced in teaching, the problem of challenging and helping slow learners and gifted students was cited repeatedly. To help meet this need, a Learning Laboratories Project to stem the "talent loss" suffered when these children are allowed to remain unproductive was designed and subsequently funded under title III of the Elementary and Secondary Education Act. Developed by the John F. Kennedy Family Services Center in cooperation with the Boston Public Schools and other agencies, the project included a comprehensive program of neighborhood services for the Charlestown area, a segment of which dealt with a program for slow learners and gifted students.

## FACILITIES

The facilities for the project are two learning laboratories--mobile units equipped with books and audiovisual materials. The focus of the program is language arts, and all materials and equipment are selected to offer instruction in this field. Originally the two mobile units were transported daily to the various Charlestown schools; however, during the 1969-70 school year the units were permanently established at Warren Prescott School. Students are referred to the program on the bases of test scores and random selection. Though the title III ESEA grant has expired, the Boston school system is now paying program expenses.



## SPECIAL NEEDS OF CHARLESTOWN STUDENTS

Located across the Charles River from Boston, Charlestown is an industrial city which has undergone many changes in the past 10 years. An extensive urban renewal project was begun in 1960, uprooting many families and causing hostility that erupted in riots. Nearly half the population has left the area, a large percentage consisting of younger members and middle-class families. The population is now about 13,000. Most workers are laborers on the waterfront or in the trucking industries, and the deteriorating docks and unstable economic conditions have resulted in lower incomes. Charlestown has a housing project that is the second largest in the Commonwealth of Massachusetts; 60 to 70 percent of

the families in the project depend on welfare. Most Charlestown families have an annual income of $5,000 or less, and many have five children or more.

The Learning Laboratories Project draws its students from approximately 2,400 children, grades 1 through 6, in eight Charlestown schools--five public schools and three parochial schools. About half of Charlestown's children attend Catholic schools; the town is predominantly Irish and Italian in origin with only 1 percent nonwhite.

Residents of the Charlestown community have a real sense of identity. Most are long-time residents who do not intend to move. The children tend to lack experience with the world outside their own homes; knowing no alternatives, many have aspirations to be like their parents. Because of this, one of the goals of the Learning Laboratories Project is to extend the knowledge and experience of the children.



EMPHASIS ON INDIVIDUAL CHILDREN, NOT MATERIALS

Dr. Thomas Gordon, director of the project, says, "Our basic aim is to make learning exciting and meaningful." He emphasizes the attempt to provide instruction that is individual and

experience-centered rather than material-centered. An important facet of the program is the focus on individual responsibility, making each child accountable for his own work. As one of the teachers states, "We could merely extend skills; we want to do more than that."

The project involves two teachers--one for slow learners and one for gifted students. Each program operates in a learning laboratory, the now immobile trailers. Both teachers have two sessions of 2 1/2 hours per day, one in the morning and one in the afternoon, with 10 students in each session. The children are in grades 2 through 4, but they are not grouped according to age. Thus each session includes children from all three grades. Since the students are away from their regular classrooms during the class reading period, their time in the labs is scheduled around language arts. Except for the 2 1/2-hour lab, a child spends the schoolday with the students in his regular classroom. Program personnel believe it is important that these children not be completely isolated, but that they work and play with children of different abilities and interests.

Both laboratory teachers have had special training and experience in working with exceptional children. Because the program

and the approach are somewhat unusual, however, they have had to devise many of their methods. They receive help from the director, who is a psychologist, and from public and parochial elementary school supervisors. Principals from the Charlestown schools have also offered help, and the laboratory teachers work closely with the regular classroom teachers, meeting with them at least once a week to discuss the progress of each student and to coordinate the laboratory and classroom work.



The laboratories are brightly colored and well equipped. At one end is a small teacher's office; the remainder of the space is for the children. Each trailer includes a table and work area equipped with earphones for listening to tapes or records. There are long shelves for materials, and each child has a cubbyhole for his papers and other belongings. Several study carrels for concentrated individual activities are located along the walls, and there are long desks for group activities and group listening. Other equipment and materials include a large chalkboard, film projector, tape-recorder, controlled readers, filmstrips, records, Science Research Associates (SRA) Reading Laboratory kits and Reading for Understanding (RFU) materials, and a variety of textbooks and general reading books.

The children decorate the rooms; and their stories, poems, pictures, and exercises cover the walls. They take pride in the laboratories and often come in after school to show their friends where they work and what they do. "It's a pleasant place to be," the program students say. Their friends regard them with envy and want to work in the laboratories too.

## STUDENT SELECTION AND ORGANIZATION OF THE LABS



Students eligible for the programs are identified on the bases of referrals and test scores. Those children recommended by teachers, principals, or supervisors are given the Wechsler and Binet intelligence tests. From those who qualify, 20 slow learners and 20 gifted students are randomly selected. The slow learners must have IQ's of 80 to 90 and be performing at no more than 2 years below grade level; the gifted students must have IQ's of at least 120 and be achieving at least 1 year above grade level. Parental consent is required for both groups.

Although the programs for slow learners and for gifted students are at different levels, the laboratories have about the same basic equipment and materials for both. The students in the two laboratories share one period of time during each session--the recess period. This is a good experience for both groups, the

teachers say, for invariably the slow learners are better at physical activities than the gifted students. Excelling increases the slow learners' sense of self-worth and helps the gifted students realize that they are not necessarily superior in all endeavors. The students play well together and develop new friendships.

SLOW LEARNER PROGRAM

Basic to the program for slow learners is the premise that a child will succeed in learning a given task to the extent that he spends the amount of time *he needs* to learn it. Each child is considered as an individual with unique needs, and an effort is made to establish personal goals based on his capacity and experiential limitations.



Many of the children have experienced only failure in the regular classroom. To help them change their attitudes about themselves and about school, the teacher establishes a program in which, as she describes it, "Everybody has a chance to excel in something." This does not mean, however, that the children do not have the chance to make mistakes, too.

In this program there is more verbalizing about routines than in a regular classroom. Instead of simply being told, "It is time

for you to watch a filmstrip," the child is told in detail just what to expect. The teacher assumes a very active role, participating in routine matters, offering help, and encouraging individual styles of coping with routines. She helps her students learn to accept their mistakes rather than feel guilty about making them.

Much of the work is done individually or in small groups. Every day a student in this program must complete writing exercises, SRA activities, and oral reading with the teacher. He makes out his own daily schedule to include these as well as other activities of his choosing. The other activities must also be related to language arts and may include working with the controlled readers, viewing filmstrips and doing written work related to them, completing workbook exercises, or reading. The child works at his own pace, but the teacher gives moral support at all times. She approves the daily schedule, makes suggestions if she feels a particular activity is needed, keeps track of each student as he works, keeps a chart on each student, and posts it so that both she and the child are aware of his progress.

The teacher tries to extend children's horizons by making them more aware of people and events in their city. She urges them to

discuss things in the laboratory, using these as a basis for learning activities. The children's intense interest in sports has led to reading lessons on the sports pages of Boston newspapers and to writing assignments about the Boston Bruins and the children's hero, hockey star Bobby Orr.

One of the outstanding characteristics of the slow learners' laboratory is the interaction among the students: they often work together and tutor each other. This helps them not only learn but also get along with others and gain confidence in their abilities.



For the 1970-71 school year, a formal evaluation will be made of the Learning Laboratories Project, using a control group and tests administered at the beginning and end of the school year. Because this was not done for 1969-70 there are no test data to indicate the effectiveness of the slow learner program.

There are other indications of success, however. At the beginning of the 1969-70 school year, the laboratory teacher had the students fill out a self-appraisal questionnaire, answering such questions as "What do you want to be?" She gave them the same questions at the end of the year. The children's first answers showed that they had poor self-images, thinking of themselves

merely as projections of others--their mothers and fathers in particular. At the end of the year their answers showed more individuality and increased feelings of self-worth; they had more definite goals for themselves and had higher aspirations.

The skills of the children improved, also. As the year progressed, teachers in the regular classes reported that the children did better work and were better behaved. Although many had had poor attendance in previous years, they now missed school only when they were ill.



**GIFTED STUDENT PROGRAM**

There are three fundamental aims for the gifted students program: the development of strong and worthwhile interests in reading; the development of fundamental skills leading to independence, such as word recognition and word perception; and the development of comprehension and analytical and critical skills. The focus is on reading, but the program attempts to do more than improve skills.

The larger focus is reflected in a statement by the teacher: "I want this to be an opportunity for children to learn to love to learn." To do this she has organized the program around each

student's interests and skills. She begins a session with the entire group, spending about 15 minutes on spelling and vocabulary. In one session she gave each student a piece of lime-flavored candy. "How would you describe it?" she asked. The students then suggested words about the smell, texture, appearance, sound, and taste of the candy; and the teacher wrote their responses on the overhead projector. This led into work on vocabulary and spelling.

Most of the remainder of the session is spent in individual work. At the beginning of each week, the student draws up a plan of activities for the week to be used as a daily guide. He may choose from a wide variety of materials, equipment, and activities but is required to complete three controlled-reader lessons, two SRA activities, two RFU lessons, and one creative activity. He budgets his own time and keeps a chart evaluating his own work as *excellent, very good, fair,* or *poor.* Many of the students need to learn that it is all right to make mistakes--that one learns from mistakes. Assuming responsibility and making self-evaluations enable the children to see that they can profit from mistakes. They are also encouraged to try activities or projects in which they are not guaranteed success, thus increasing their interests.

*Fostering creativity*--Fostering creativity is one of the main goals of the program for gifted students. The teacher encourages the children to ask questions. She shows respect for unusual ideas and stimulates creative thinking through problem-solving exercises and discussions. She allows students time and freedom to investigate new ideas.

Students' interests lead them to a wide range of activities. One boy, the youngest in the class, developed a filmstrip projector using a long cardboard box, a magnifying glass, and a high-intensity lamp. He then drew his own pictures for projection. A girl developed a word game based on words associated with autumn, and she delighted in showing it on the overhead projector to her classmates. Last year members of the class wanted to publish a newspaper. By themselves they organized and printed *The Sentinel*, which included articles, pictures, poems, and fables they had written.

The gifted student program, like the program for slow learners, seeks to make the children more aware of their community and to explore their environment. In 1969-70 the students studied their community--the new housing project and a fire station, for example. Reports and drawings by the class were shared.

*Positive Results for Gifted Children*--The gifted students have shown improvements in self-concept, behavior, and attendance; and their changed attitudes have made them better students in their regular classes. When they took achievement tests at the end of a year in the laboratory program, their scores were at the top of the range of scores made by gifted students in the entire Boston area. For the 1970-71 school year their work will be compared with that of 20 gifted students in a control group.

The children's enthusiasm for the program is shared by their parents and classmates. There are many inquiries about the program, and many parents want to enroll their children in it. Using random selection from qualified students has helped both parents and children to accept the procedures for enrollment selection.



## COSTS OF THE LABORATORY PROGRAMS

The biggest expense in establishing the programs was the equipment and the laboratories themselves. For this purpose title III funds were used. The director estimated this cost at approximately $1,000 per child. The main sustaining costs are the salaries for the teachers and replacement of materials but, because there is not a great deal of emphasis on materials, replacement costs are relatively low.

Personnel believe that their program is a success because of the learning atmosphere they have been able to establish. The children have learned to enjoy learning, and they have become aware of new possibilities. They find as much excitement in writing their own stories as in reading one on sophisticated machines. Although the equipment has been a factor in stimulating their interest in the laboratories, it is the learning environment created by the teachers and the attention to each child's special needs that have sustained that interest.



## VISITORS TO THE LABORATORIES

The Learning Laboratories Project helps teachers as well as students in the Charlestown area. The laboratories serve as demonstration centers where many local teachers come to observe the children and activities. Interested educators from other areas also visit the laboratories for ideas for their own programs. Parents of the children also visit the laboratories; an open house is held during the school day so that they can see the program in action.

## FUTURE PLANS

The future of the Learning Laboratories Project will be carefully considered at the end of the 1970-71 school year, with

special attention given to the evaluation data to be completed by that time. Personnel from both the public and parochial schools in the Charlestown area hope that the programs for slow learners and gifted students can be continued, but they would like to include more students. Since they estimate that between 10 and 15 percent of their students would qualify for entrance into one of the two programs, they are especially interested in including a larger number of children. They plan to continue a part-day program. Total isolation from other students of either slow learners or gifted students is a mistake, they feel, and the integration in the present program has been one of its strong points.



**FOR FURTHER INFORMATION**

Further information about the Learning Laboratories Project may be obtained from:

Dr. Thomas Gordon, Director
Learning Laboratories Project
Warren Prescott School
Charlestown, Massachusetts 02129

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MODEL PROGRAMS--Childhood Education

This is one in a series of 34 descriptive booklets on childhood education programs prepared for the White House Conference on Children, December 1970. Following is a list of the programs and their locations:

The Day Nursery Assn. of Cleveland, Ohio
Neighborhood House Child Care Services, Seattle, Wash.
Behavior Analysis Model of a Follow Through Program, Oraibi, Ariz.
Cross-Cultural Family Center, San Francisco, Calif.
NRO Migrant Child Development Center, Pasco, Wash.
Bilingual Early Childhood Program, San Antonio, Tex.
Santa Monica Children's Centers, Calif.
Exemplary Center for Reading Instruction, Salt Lake City, Utah
Dubnoff School for Educational Therapy, North Hollywood, Calif.
Demonstration Nursery Center for Infants and Toddlers, Greensboro, N.C.
Responsive Environment Model of a Follow Through Program, Goldsboro, N.C.
Center for Early Development and Education, Little Rock, Ark.
DOVACK, Monticello, Fla.
Perceptual Development Center Program, Natchez, Miss.
Appalachia Preschool Education Program, Charleston, W. Va.
Foster Grandparent Program, Nashville, Tenn.
Hartford Early Childhood Program, Conn.
Philadelphia Teacher Center, Pa.
Cognitively Oriented Curriculum, Ypsilanti, Mich.
Mothers' Training Program, Urbana, Ill.
The Micro-Social Preschool Learning System, Vineland, N.J.
Project PLAN, Parkersburg, W. Va.
Interdependent Learner Model of a Follow Through Program, New York, N.Y.
San Jose Police Youth Protection Unit, Calif.
Model Observation Kindergarten, Amherst, Mass.
Boston Public Schools Learning Laboratories, Mass.
Martin Luther King Family Center, Chicago, Ill.
Behavior Principles Structural Model of a Follow Through Program, Dayton, Ohio
University of Hawaii Preschool Language Curriculum, Honolulu, Hawaii
Springfield Avenue Community School, Newark, N.J.
Corrective Reading Program, Wichita, Kans.
New Schools Exchange, Santa Barbara, Calif.
Tacoma Public Schools Early Childhood Program, Wash.
Community Cooperative Nursery School, Menlo Park, Calif.

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