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ABSTRACT

This booklet describes the program in Harlem (PS 133) which is based upon Dr. Caleb Gattegno's reading and mathematics in color. The program was primarily intended to test the teaching of Gattegno's methods and materials. PS 133 was considered to be a good site for the program because it was stable, pedagogically traditional, and staffed by a large number of experienced teachers and a principal who was known to be a dedicated, competent administrator. In Gattegno's reading program, color is used only for the purpose of introducing words, and once sounds are mastered, color is discarded. The use of color simulates a phonetic language. All groups of letters with the identical sound are represented by the same color. Thus the "o" in "so," "know," and "though" belong to the same group. In the mathematics program, Gattegno used the colored rods of Georges Cuisenaire in order to represent basic mathematical operations as well as fractions. Gattegno claims that students move rapidly from the use of the rods to abstraction and mental computation in order to derive answers to problems. The evaluation of the program used data from the Metropolitan Achievement Test scores; the results tended to indicate general improvement in reading and mathematics among the experimental group. (Author/JW)

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PRS 002

*A Report
by the
Program
Reference
Service*

**Beginning
Reading
and Math
in PS 133**

/ New York City

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Richard Schwartz
Ellen Saxl*

A Publication of the



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The Center for Urban Education is an independent nonprofit corporation founded in 1965 under an absolute charter from the New York State Board of Regents. In June 1966 it was designated a Regional Educational Laboratory under Title IV of the Elementary and Secondary Education Act of 1965. The Center is in part a social research agency, in part an educational institution in the university tradition, in part an engineering laboratory where invented solutions to problems in urban educational form and policy are tested in cooperation with participating educators. Its major goal is to clarify and improve the education necessary to the urban complexes of a pluralistic and democratic society.

Under the direction of its Dissemination Division, the Center publishes a wide variety of reports, monographs, books, and bibliographies. A complete list of those items in print is available on request.

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As a unit of the Dissemination Division, the Program Reference Service identified, examined, and provided information on programs in grades K-6 which deal with the problems of urban school systems. Its reports have been designed to meet the stated needs of school administrators and other educational decision-makers, and are offered as informational aids to effective educational planning. This report was prepared under the direction of Joseph Pincus and completed in September, 1970.

The Program Reference Service wishes to express its thanks to the principal of P.S. 133, Mrs. Dellora Hercules, and her staff for their cooperation in the preparation of this report, to the Schools for the Future staff for their assistance, and to Ruth Dropkin, Senior Editor of CUE, for editorial revision.

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1 Background Information

Since the fall term of 1968, PS 133 in Manhattan's Harlem has been engaged in a program that challenges a number of accepted assumptions about the ways children learn. "Schools for the Future," the project's formal title, is a beginning reading and mathematics program based on the approach and methodology developed by Dr. Caleb Gattegno as Words in Color and Mathematics in Color. As the originator and director of the Schools for the Future Corporation, Dr. Gattegno has had a long record of success in teaching reading and mathematics to children in New York City, in other sections of the United States, and in several foreign countries. In 1967 when Dr. Gattegno's work was brought to the attention of the Center for Urban Education, the Center proposed a joint project with the Schools for the Future Corporation.

Project Aims

The program was primarily designed to test the teaching of reading and mathematics through the use of Gattegno methods and materials. The project's overall aim was to determine if teachers in the primary grades could be helped in one school year to discover what is needed to allow *all* children to demonstrate their capacity for:

- a. mastering the skill of reading with comprehension;
- b. using the written language to express experiences with which they are familiar;
- c. mastering computational operations with numbers of *any* size on *any* base and applying these skills to their everyday experience;
- d. enjoying school work, as evidenced by the volume of free composition produced by the child in English and mathematics.

Background Information

In the fall term of 1968, PS 133 in Harlem has been engaged in a program that challenges a number of traditional assumptions about the ways in which schools should learn. "Schools for the Future," the program's formal title, is a beginning reading and mathematics program developed by Dr. Caleb Gattegno as part of the approach and methodology of the Schools for the Future Corporation, a non-profit organization in New York City. Dr. Gattegno has had a long record of success in teaching reading and mathematics to children in New York City, several foreign countries. In 1968, Dr. Gattegno's work was brought to the attention of the Center for Educational Research, the Center for Educational Research project with the Schools for the Future Corporation.

Project Aims

The program was primarily intended to test the teaching of reading and mathematics through the use of the Gattegno methods and materials. The project's overall aim was to determine if teachers in the primary grades can be helped in one school year to acquire what is needed to allow *all* children to demonstrate their capacity for:

- a. mastering the skill of reading with comprehension;
- b. using the written language to express experiences with which they are familiar;
- c. mastering computational operations with numbers of *any* size and *any* base and applying these skills to their everyday experience;
- d. enjoying school work, as represented by the volume of *free* composition produced by the child in English and mathematics.

The School

PS 133 was considered to be a good site for the program because it was stable, pedagogically traditional, and staffed by a large number of experienced teachers and a principal who was known to be a dedicated and competent administrator. Both the administration and staff of the school were considered to be not only amenable to the introduction of the program but also, once committed, able to fulfill their obligation to devote a year to the implementation of the new methods. It is important to note that PS 133's affiliation with a decentralized demonstration district (IS 201)* facilitated decision-making at the local level. The Governing Board, with its parent members, the IS 201 Educational Research Committee, and the Unit Administrator had created a climate that was favorable to innovation and one which would guarantee the program a sustained hearing.

*The IS 201 demonstration district is now officially designated as the Arthur A. Schomburg IS 201 Educational Complex and is part of District 5.

Preparations

Because the school was not contacted until June 1968, steps had to be taken rapidly in order to acquaint the teachers and parents with the plans for the new program before the end of the school year. The IS 201 Educational Research Committee met to discuss the Gattegno program and to examine its effectiveness in the materials submitted by the Corporation—or original stories and lengthy mathematical equations composed by first grade pupils who had participated in a Schools for the Future program.

The teachers of grades one and two at PS 123 were also approached, and had an opportunity to talk about the materials and methods. They were impressed with the level of work being done by students in schools using the program. According to Mrs. Dellora Hercules, the acting principal, the teachers indicated that the approach was "something really new, rather than a rehash of old methods."

Since the Schools for the Future program emphasizes teaching beginning reading and mathematics, permission was sought to have the kindergarten included. However, because a prior commitment had been made to the Bank Street College of Education for continuation of a previous program in the kindergarten classes, the third grade was fitted into the framework of the proposal.

As soon as Mrs. Hercules made certain that all teachers of the first three grades were willing to use the new system in their classes, the permission of the IS 201 Unit Administrator was requested and obtained. The project was then approved as a one-year experiment, to be funded by the Center for

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