A total of 1,922 pupils participated in this Title I Elementary Secondary Education Act Program, which was designed to improve the reading and/or mathematics skills of the students. The program aimed to serve students in special schools or residential treatment centers in New York City who were in kindergarten through grade 12. The majority of these students were enrolled in 18 special day schools for the emotionally disturbed, and the remaining students were enrolled in seven cluster schools, located in residential and day treatment centers and psychiatric hospitals. The project established reading laboratories in 18 special schools, mathematics laboratories in four special schools, and special instruction in reading in seven cluster schools and treatment centers. The majority of objectives in both the reading component and the mathematics component of the program were achieved. (Author/AM)
EVALUATION REPORT

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School District 75

IMPROVING INSTRUCTION AND SERVICES FOR
SOCIALLY MALADJUSTED CHILDREN

Evaluation Period
September, 1974 to June, 1975 inclusive

Prepared by
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An evaluation of a New York City School District educational project funded under Title I of the Elementary and Secondary Education Act of 1965 (PL 89-10) performed for the Board of Education of the City of New York for the 1974-75 school year.

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CHAPTER I: THE PROGRAM

This program was designed to serve 2,038 students in special schools or residential treatment centers, who were in Kindergarten through Grade 12. The majority of these students were enrolled in 18 special day schools for the emotionally disturbed, and the remaining students were enrolled in seven cluster schools, located in residential and day treatment centers and psychiatric hospitals.

The target population was selected from among approximately 4,500 pupils in attendance at the special schools and met the follow criteria:

--- Qualified as economically deprived, based upon Title I, Elementary and Secondary Education Act, guidelines.

--- Retarded at least two years in reading or mathematics, as measured by the Metropolitan Achievement Test.

--- Recommended for the project by the administration, classroom teachers, guidance personnel, and the project staff.

The purpose of the project was to improve the reading and/or mathematics skills of the target population. Specifically, the project objective was stated: "As a result of participation in the program, the reading grades and mathematics grades of the participants will show a statistically significant difference between the real post-test scores and anticipated post-test scores." The project supplemented the regular tax levy instructional program in mathematics and reading by providing individual and small group instruction in these areas.
The project was operational from September 1, 1974, through June 30, 1975, and provided two 45-minute scheduled periods of special instruction weekly for the participants.

In the 18 special day schools, the program established a reading laboratory, staffed by a reading specialist and two or three paraprofessionals. The laboratory approach utilized was designed principally by the Educational Development Laboratory and emphasized an intensive diagnosis of reading disabilities, together with individualized prescriptive plans to eliminate these disabilities. The laboratories were well equipped with hardware: including Tach-X machines to develop word memory, perception, and eye movement; Controlled Readers to develop reading rate; and Aud-X machines to implement both the audio and visual approaches to reading. In addition, a wide variety of software was utilized in the laboratories: including basal readers, programmed materials, reading kits, and skills-building packets.

In most of the special schools, there was a team approach in the reading laboratory, with the classroom teacher and the New York City tax levy reading teacher working with the project staff, to insure articulation between the laboratory and the regular classroom. In addition, 13 assistant principals were funded by the project to coordinate the reading program throughout the school. The five schools without an assistant principal were paired with adjacent schools and received limited services from the assistant principal in those schools. The nine guidance counselors employed
in the project assisted with the selection, testing, and evaluation of pupils and provided counseling for the target population. The entire program was coordinated by a program coordinator, who provided intensive inservice training for the staff at every level. The program coordinator was very knowledgeable in reading, including the taxonomy of reading, committed to the project, and highly effective in terms of providing strong leadership. She conducted weekly inservice workshops for the entire staff; including the reading teachers, the mathematics teachers, the assistant principals, and the paraprofessional staff. These workshops were evaluated as highly effective by the project staff.

In the seven schools, comprising clusters of residential and day treatment centers and psychiatric hospitals, the program in reading improvement was implemented through individual and small group instruction, utilizing 30 paraprofessionals. These paraprofessionals each worked with approximately 15 to 20 pupils, providing from one to four hours of instruction to each pupil per week, under the supervision and direction of classroom teachers. The material used at most of these sites was software; including reading kits, programmed materials, and language arts materials.

In four special day schools, the project established a mathematics laboratory, staffed by a teacher and a paraprofessional. The mathematics laboratory provided small group instruction for 180 pupils, who were retarded at least two years in mathematics. Instruction ranged from two to three hours weekly and involved the use of manipulative materials, calculators, and mathematical
games to develop conceptual skills in the area of mathematics.

In summary, the project established reading laboratories in 18 special schools, mathematics laboratories in four special schools, and special instruction in reading in seven cluster schools and treatment centers. Careful records were maintained for each of the 1,922 participants in terms of the diagnosis, prescription, and evaluation of the basic skills and concepts essential in mastering these content areas. A broad range of learning modalities was evident within the project. Overall, the project provided an extensive staff: including a project coordinator, 13 assistant principals, 9 guidance counselors, 6 secretaries, 18 curriculum specialists, and 88 paraprofessionals.
There were two objectives of evaluation, which are listed as follows:

1. To determine whether, as a result of participation in the program, the reading grades and mathematics grades of students will show a statistically significant difference between the real post-test score and the anticipated post-test score.

2. To determine the extent to which the program, as actually carried out, coincided with the program as described in the project proposal.

All participants who enrolled in the program for a minimum of three months were tested. The pre-testing date was September 24, 1974, and the post-testing date was May 6, 1975.

It should be noted that the proposal specified a target population of 2,038 pupils. During the ten months in which the program was in operation, 1,922 participants were served. The length of enrollment in the program ranged from a few weeks for some participants, who entered psychiatric hospital programs for diagnostic purposes, to the entire ten months for the majority. The mean treatment length was nine months. It was impossible to post-test pupils who participated in the program for less than three months. Therefore, complete test data were obtained for 1,557 participants.

The instruments used during both testing periods included the Metropolitan Achievement Tests in reading and mathematics for graded pupils and the Gilmore Reading Test for ungraded pupils.

Historical regression analysis was used to determine the predicted post-test group score, and the correlated t-test was
used to test for significant differences between the group predicted post-test mean and the actual post-test mean of the group, according to content area and grade level.
CHAPTER III: FINDINGS

The first evaluation objective stated: "To determine whether, as a result of participation in the program, the reading grades and mathematics grades of students will show a statistically significant difference between the real post-test score and the anticipated post-test score." Data analysis revealed that, for the 180 pupils enrolled in the mathematics component, the t-ratio was 4.296 (p ≤ .001), based on real and anticipated post-test scores on the Metropolitan Achievement Test in mathematics. For the 1,500 pupils enrolled in the reading component by grade, the t-ratio was 14.67 (p < .001), based on real and anticipated post-test scores on the Metropolitan Achievement Test in reading. For the 57 ungraded pupils, the t-ratio was 5.651 (p ≤ .001), based on pre- and post-test scores on the Gilmore Reading Test.

The second evaluation objective stated: "To determine the extent to which the program, as actually carried out, coincided with the project proposal." The program implementation paralleled the program proposal in terms of the dates of operation, staff, objectives, equipment, activities, and instrumentation. The only deviation from the proposal was in terms of the target population. As discussed in Chapter II, the proposal specified a target population of 2,038 pupils. During the ten months in which the program was in operation, 1,922 participants were served. It is difficult to accurately predict the target population in the treatment centers and the psychiatric hospitals nor to secure pre- and post-test data on pupils whose stay is for a very brief
duration. Therefore, test data included only those participants who were enrolled in the program for three months or more, a total of 1,557 participants or 81 percent of the actual population.

The facilities in the 18 special schools are generally very good. However, the educational facilities in the seven treatment centers and psychiatric hospitals are poor; with very small classrooms, lack of private offices for guidance counselors, and no assigned area for paraprofessionals. The paraprofessionals frequently had to rotate rooms throughout the day or work in hospital corridors. In addition, there was a lack of software and hardware in these seven centers.

The project staffing needs to be reassessed. There is no provision for hiring substitutes if a paraprofessional is absent for an extended period of time, due to personal illness or jury duty, as was the case at several sites. There was widespread recognition of the need to extend the mathematics laboratories beyond the present four sites to include the remaining 21 sites, recognizing that pupil achievement in mathematics is generally well below grade level expectations. Lastly, the 13 assistant principals, who function as team coordinators, are paired with the five special schools which are void of coordinators. The seven treatment centers are also without coordinators. There needs to be some one person at the site who is accountable for coordinating the reading program, meeting with the staff regularly, and insuring that reinforcement takes place in every aspect of the curriculum.
Another aspect of the special schools, which has implications for every phase of the curriculum, is the fact that these schools are not diploma granting institutions. The four special secondary schools, together with the psychiatric hospitals, which service an adolescent population up to 19 years of age, technically terminate at Grade 11.

Recommendations from the 1973-74 evaluation study for the program were as follows:

1. There is need for some screening for learning disabilities among this population. A test, such as the Slingerland Screening Test or similar instruments, might identify children with special needs who do not benefit from traditional remedial efforts in reading.

2. Increased supervision of paraprofessional aides in hospital settings by a certified teacher would be desirable.

3. The tests used to evaluate the progress of students should be uniform and limited to a single objective group test and to a single objectively scored individual test.

These three recommendations were implemented during the 1974-75 evaluative period. All of the youth enrolled in the schools for the socially maladjusted have been thoroughly screened by the Bureau of Child Guidance before admittance. In addition, enrollment in the Title I program insured the diagnosis, prescription, and assessment of the individual participants on an ongoing basis. The paraprofessionals in the hospital settings received continuous supervision from the teacher-in-charge, who assigned individual pupils and provided assistance in terms of the learning modality used. Lastly, there was uniformity in testing in that the
MetroTol tan Achievement Test was used in mathematics and reading for graded pupils and the Gilmore Reading Test was used with ungraded pupils.
CHAPTER IV
SUMMARY OF MAJOR FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

The major evaluation objective was achieved to a significant extent; that is, as a result of participation in the reading and mathematics components of the program, the reading and mathematics grades of students showed a significant difference between the real post-test score and the anticipated post-test score. The program implementation paralleled the program proposal with one exception: the actual number of participants was 1,922 pupils or 94 percent of the proposed population of 2,038. Therefore, based upon the extent to which the evaluation objectives were achieved, it is strongly recommended that the program be recycled.

Site visits to the project pointed out that the program could be strengthened if the following recommendations are considered:

1. There should be provision for hiring substitutes for paraprofessional aides, who are absent for an extended period of time.

2. Each of the 18 special schools should be staffed with an assistant principal or team coordinator, who is responsible for coordinating the reading program, meeting with staff regularly, and insuring that reinforcement takes place in every aspect of the curriculum. At the seven treatment centers it is recommended that two team coordinators be assigned on a rotating basis.
3. The mathematics laboratories should be extended beyond the present four sites to include the remaining 21 sites.

4. The facilities and equipment in the seven treatment centers should be improved to provide adequate staff space and additional software materials, together with mini-laboratories.

5. The four secondary schools and the treatment centers, which service an adolescent population up to 19 years of age, should be diploma granting institutions.
There were 1,310 pupils in this program, whose overall achievement ranged between 16 and 23 months, during the 8 month period between pre- and post-testing. The objective of the reading component of the project was achieved to a significant extent: that is, as a result of participation in the program the reading grades of students showed a statistically significant difference between the real post-test score and the anticipated post-test score. (p≤ .001) Possible reasons for this achievement include the outstanding leadership and intensive inservice education program provided by the project coordinator; careful evaluation, prescription, and assessment of individual pupils in terms of reading disabilities and provision for a wide range of learning modalities commensurate with individual needs; and a team approach within each school, insuring that the reading laboratory approach was reinforced in other aspects of the curriculum.

There were 180 pupils in this program, whose overall achievement was 14 months, during the 8 months between pre- and post-testing. The objective of the mathematics component of the project was achieved to a significant extent: that is, as a result of participation in the program, the mathematics grades of students showed a statistically significant difference between the real and anticipated post-test score. (p≤ .001) Possible reasons are the same as those cited previously.