This is an evaluation of a program designed to improve the reading skills of Title I eligible children in grades 4-6 through the integration of a total art program with a total reading program. A total of 1,176 New York City school children were served by the program, which was conducted by the Board of Education in association with five city museums. Presented in this evaluation are a brief description of program activities and achievement objectives, as well as the results of the California Achievement Test (pre and post) and the Wisconsin Design Skill Development Test, both of which were administered to participating students. Based on these results it is concluded that the Title I "Learning to Read Through the Arts" project was a success. Recommendations are offered regarding: (1) the expansion of the program within New York City and as a nationwide resource center; (2) expansion of the student population served to include special education students, bilingual students, and students younger than 4th grade; (3) expansion of evaluation procedures to focus on other than reading skills; and (4) the continued allocation of funds for the development of training materials. (GC)
TITLE I CHILDREN'S PROGRAM: LEARNING TO READ THROUGH THE ARTS

DEVELOPER/DEMONSTRATOR PROJECT, NATIONAL DIFFUSION NETWORK

UNITED STATES OFFICE OF EDUCATION

EVALUATION REPORT 1978-79

PROJECT #5009 - 98721

NEW YORK CITY BOARD OF EDUCATION

OFFICE OF EDUCATIONAL EVALUATION

DR. ALAN S. BLUMNER
Director (Acting)
TITLE I CHILDREN'S PROGRAM: LEARNING TO READ THROUGH THE ARTS
DEVELOPER/Demonstrator Project, National Diffusion Network
United States Office of Education

Evaluation Report 1978-79
Project #5009-98721
Prepared By

John E. Schoener
Evaluation Manager for Curriculum and Instruction Programs
Office of Educational Evaluation

Istar Schwager
Evaluation Consultant for the Office of Educational Evaluation

Board of Education of the City of New York
Office of Educational Evaluation

Alan S. Blumner Ph.D.
Director (Acting)
Title I Children's Program: Learning to Read Through the Arts
The Board of Education of the City of New York
Developer/Demonstrator Project, National Diffusion Network
United States Office of Education

EVALUATION REPORT 1978 - 1979

Table of Contents

Program Description ............................................. 1
Evaluation Objectives and Criterion of Success .................. 3
Summary of Results-Norm Referenced Test ....................... 4
Report of Evaluation Results-Norm Referenced Test ............... 5
Table-California Achievement Test NCE Pretest/Postest Means .. 7
Table-Frequency Distribution of NCE Scores on Pretest/Postest .. 8
Summary of Results-Criterion Referenced Test ................... 9
Report of Evaluation Results-Criterion Referenced Test ........ 10
Discussion of Results ............................................ 11
Recommendations ............................................... 12
Title I Children's Program: Learning to Read Through the Arts
The Board of Education of the City of New York
Developer/Demonstrator Project, National Diffusion Network
United States Office of Education

Bernadette C. O'Brien
Citywide Coordinator

PROGRAM DESCRIPTION

In school year 1978-1979, the Board of Education of the City of New York offered two twenty-eight-week program cycles from October 1978 through June 1979. The program was associated with the Queens Museum, Staten Island Children's Museum, The Bronx Museum of the Arts, New York Aquarium, and the Brooklyn Museum. This Title I ESEA program was scheduled to service a total of 1,176 children (grades 4-6) performing at least one year below grade level in reading, in the five boroughs in New York City, Manhattan, Staten Island, Queens, Brooklyn and the Bronx. The program serviced 250 Title I eligible children (grades 4-6) at each site except Staten Island which serviced 176 children.

One hundred and twenty-five (125) children participated in the program on Mondays and Tuesdays from October 16, 1978 through June 5, 1979 and a different 125 children participated on Wednesdays and Thursdays, October 18, 1978 through June 6, 1979, at each site. In Staten Island 88 children participated on Mondays and Tuesdays and a different 88 participated on Wednesdays and Thursdays. The program took place from 12:30 p.m. to 4:30 p.m. at the Manhattan, Queens, Brooklyn and Bronx sites, and from 11:30 a.m. to 3:30 p.m. at the Staten Island site.

The Title I Children's Program: Learning to Read Through the Arts is an intensive, individualized reading program that focuses on the improvement of reading skills through the integration of a total art program with a total reading program. Listening, speaking, writing and reading techniques are stressed in the reading-oriented arts workshops. A diagnostic, prescriptive approach to reading is stressed in the reading workshops. The program involves study of reading-workshops as well as reading-oriented arts workshops of the students' choice, including: Dance, Theater, Music, Painting, Mixed Media, Sculpture, Work on Paper, Graphics, Printmaking, Crafts, and Super-8 Film and Photography.

During the twenty-eight-week program each student participated in two reading-oriented arts workshops. The students received reading instruction in the reading-oriented arts workshops through a listening, speaking, reading, writing approach to reading for five hours of the program each week. Each participating student also met with a reading teacher in small groups, or individually, at least three hours of the total eight workshop-hours per week for the twenty-eight weeks of the program.
One day of each month was set aside for field trips to museums, galleries, artists' studios, arts and educational resources center and libraries. In addition, trips were made to attend theatre, dance, music, and film performances outside the associated museums' facilities. Some of these field trip days were set aside for special events which included live theatre, dance and music performances inside the associated institutions: The Queens Museum, Staten Island Children's Museum, The Bronx Museum of the Arts, New York Aquarium and the Brooklyn Museum. Occasional afternoons were also devoted to film programs. The program entailed the use of the museum's facilities and galleries.

All children attending the program were given introductions to the associated museums' collections and special exhibitions.

SPECIAL DAYS:

At the end of the program the New York City Board of Education and the associated institutions invited parents to attend Performing Arts and Film Festivals at the respective sites. During the program, the "Learning to Read Through the Arts" Exhibition was presented which included examples of the children's work and photographs of the program in action.

PARENTS' WORKSHOPS:

Up to 30 parents at each site participated in a series of parents' workshops for one and a half hours per week for ten weeks for each program on how children learn and family life education. These workshops were led by the social worker and assistant coordinator for the program.
Evaluation Objectives and Criterion of Success

Norm-Referenced Test

On the California Achievement Test Form C (Levels 13-16) pre and post-test student Normal Curve Equivalent scores will reflect a significant Treatment Effect (0). Data will be analyzed using United States Office of Education Model A1.

Criterion-Referenced Test

Seventy percent of the Title I Children's Program: Learning to Read Through the Arts students will demonstrate mastery of at least 5 skills on the Wisconsin Design Skill Development Test (Levels B, C and D, forms P and Q) which they had not mastered when they entered the program.
SUMMARY OF RESULTS

Title I Children's Program: Learning to Read Through the Arts, The Board of Education of the City of New York, Developer/Demonstrator Project.

PROGRAM National Diffusion Network, United States Office of Education

PROGRAM # 5009 PROJECT # 98722 - 98726

EVALUATION INSTRUMENT: California Achievement Test, Form C, Levels 13-16

TYPE OF INSTRUMENT: CRT NRT OMG

TEST DATES: October, 1978 / May-June, 1979

NUMBER OF STUDENTS IN PROGRAM: 1,176

GRADES LEVELS OF STUDENTS: 4-6 grades and/or 9-12 years old.*

NUMBER OF SITES: 5

DATA ANALYSIS PROCEDURES:
Pre/post test data compared using USOE Model A1 via NCES.

SUMMARY OF RESULTS:

Treatment Effect = 18.41

4th grade - Treatment Effect = 26.63
5th grade - Treatment Effect = 14.38
6th grade - Treatment Effect = 13.11

WERE THERE OTHER EVALUATION INSTRUMENT(S) USED IN PROGRAM? Yes X No

Wisconsin Design Skill Development Test CRT NRT OMG

There were a few third graders included in the 9-12 year old group.
Report of Evaluation Results—Norm Referenced Test 1978-1979

Students in the Title I Children's Program: Learning to Read Through the Arts, The Board of Education of the City of New York, Developer/Demonstrator Project, National Diffusion Network, United States Office of Education were administered California Achievement Test Pre-tests and Post-tests (Form C, Levels 13-16). The pre-test/post-test data has been analyzed using the USOE Model A1, via NCE (Normal Curve Equivalent) scores in accordance with the evaluation design.

Students in the program were enrolled in grades 4 - 6 and/or were 9-12 years old. The vast majority of the students were in the fourth to sixth grades. Complete pre-test/post-test data was obtained for 882 of the 1176 students in the program. The data and results reported reflect the pre-test/post-test NCE scores for:

- 3 (out of 3) third-graders,
- 308 fourth-graders,
- 370 fifth-graders and
- 201 sixth-graders

The results are presented as pre-test/post-test NCE means for each grade, as well as for the entire program.

It should be noted that Normal Curve Equivalent scores are based on an equal interval scale, with a mean of 50. Unlike percentiles, NCE scores can be aggregated and averaged. According to USOE Model A1, it is expected that, without treatment, the NCE score a student attains on the post-test will remain the same as the score attained on the pre-test. That is to say, under no-treatment conditions, a student is expected to remain in the same position, relative to other students, on both the pre and post-tests.

A program's impact, or treatment effect, is measured by comparing the mean
observed post-treatment performance of a group of students (actual post-test mean NCE) with the expected no-treatment performance. It is assumed that without Title I treatment, the expected post-test NCE mean will be the same as the pre-test NCE mean. When the treatment effect is greater than zero (0), the gain can be attributed to the effectiveness of the program. (ESEA Title I Evaluation and Reporting System, Technical Paper Number 2, Interpreting NCE s, G. Kasten Tallmage, 1976).

The substantial increases in mean NCE scores for the entire program, and at each grade level, can be interpreted as evidence of the effectiveness of Title I Children's Program: Learning to Read Through the Arts in improving the reading levels of students in the program.

### California Achievement Test NCE Pre-test/Post-test Means

<table>
<thead>
<tr>
<th>Group Represented</th>
<th>Number of Students</th>
<th>Mean Pre-test NCE</th>
<th>Mean Post-test NCE</th>
<th>Treatment Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>All students in Title I Children's Program: Learning to Read Through the Arts taking pre/post-test</td>
<td>882</td>
<td>26.47</td>
<td>44.88</td>
<td>18.41</td>
</tr>
<tr>
<td>All third graders taking pre/post-test</td>
<td>3</td>
<td>37.67</td>
<td>51.67</td>
<td>14.00</td>
</tr>
<tr>
<td>All fourth graders taking pre/post-test</td>
<td>308</td>
<td>24.49</td>
<td>51.12</td>
<td>26.63</td>
</tr>
<tr>
<td>All fifth graders taking pre/post-test</td>
<td>370</td>
<td>29.30</td>
<td>43.68</td>
<td>14.38</td>
</tr>
<tr>
<td>All sixth graders taking pre/post-test</td>
<td>201</td>
<td>28.89</td>
<td>42.00</td>
<td>13.11</td>
</tr>
</tbody>
</table>
Title I Children's Program: Learning to Read Through the Arts
The Board of Education of the City of New York
Developer/Demonstrator Program, National Diffusion Network

California Achievement Test NCE Pretest/Posttest Means

<table>
<thead>
<tr>
<th>Group Represented</th>
<th>Number of Students</th>
<th>Pretest NCE</th>
<th>Posttest NCE</th>
<th>Treatment Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>All students in Title I Children's Program: Learning to Read Through the Arts taking pre/posttest.</td>
<td>882</td>
<td>26.47</td>
<td>44.88</td>
<td>18.41</td>
</tr>
<tr>
<td>Fourth graders - across all sites</td>
<td>308</td>
<td>24.49</td>
<td>51.12</td>
<td>26.63</td>
</tr>
<tr>
<td>Fifth graders - across all sites</td>
<td>370</td>
<td>29.30</td>
<td>43.68</td>
<td>14.38</td>
</tr>
<tr>
<td>Sixth graders - across all sites</td>
<td>201</td>
<td>28.89</td>
<td>42.00</td>
<td>13.11</td>
</tr>
<tr>
<td>Third graders - across all sites</td>
<td>3</td>
<td>37.67</td>
<td>51.67</td>
<td>14.00</td>
</tr>
</tbody>
</table>
Frequency Distribution of NCE Scores on Pretest/Posttests for the  
Title I Children's Program: Learning to Read Through the Arts

<table>
<thead>
<tr>
<th>Groups Represented</th>
<th>Number of Students</th>
<th>PRETEST DISTRIBUTION by quartile</th>
<th>POSTTEST DISTRIBUTION by quartile</th>
</tr>
</thead>
<tbody>
<tr>
<td>All students in the program taking pre/posttest</td>
<td>882 (100%)</td>
<td>1-25 26-50 51-75 76-99</td>
<td>1-25 26-50 51-70 76-99</td>
</tr>
<tr>
<td></td>
<td>408 (47%)</td>
<td>454 (51%) 20 (2%) -</td>
<td>49 (6%) 583 (66%) 214 (24%) 36 (4%)</td>
</tr>
<tr>
<td>Fourth graders (across all sites)</td>
<td>308 (100%)</td>
<td>179 (58%) 122 (40%) 7 (2%) -</td>
<td>6 (2%) 153 (50%) 122 (40%) 27 (8%)</td>
</tr>
<tr>
<td>Fifth graders (across all sites)</td>
<td>370 (100%)</td>
<td>151 (41%) 211 (57%) 8 (2%) -</td>
<td>27 (8%) 286 (77%) 53 (14%) 4 (1%)</td>
</tr>
<tr>
<td>Sixth graders (across all sites)</td>
<td>201 (100%)</td>
<td>78 (39%) 118 (59%) 5 (2%) -</td>
<td>16 (8%) 143 (70%) 37 (19%) 5 (2%)</td>
</tr>
<tr>
<td>Third graders (across all sites)</td>
<td>3 (100%)</td>
<td>- 3 (39%) - -</td>
<td>- 1 (8%) 2 (19%) -</td>
</tr>
</tbody>
</table>
SUMMARY OF RESULTS
Title I Children's Program: Learning to Read Through the Arts, The Board of Education of the City of New York, Developer/Demonstrator Project, National Diffusion Network, United States Office of Education

PROGRAM # 5009 PROJECT # 98722 - 98726

EVALUATION INSTRUMENT: Wisconsin Design Skill Development Test (Forms P and Q)

TYPE OF INSTRUMENT: CRT X NRT___ OMG___

TEST DATES: Ongoing during program intervention period.

NUMBER OF STUDENTS IN PROGRAM: 1,176

GRADES LEVELS OF STUDENTS: 4-6 grades and/or 9-12 years old.*

NUMBER OF SITES: 5

DATA ANALYSIS PROCEDURES:
Analysis of the percentage of students in the program mastering 5 or more skills which they had not mastered when they entered the program. 70% should master at least 5 skills not mastered at entry.

SUMMARY OF RESULTS:
82% of the students mastered at least 5 skills not mastered at entry.
78% of the students mastered at least 6 skills not mastered at entry.

WERE THERE OTHER EVALUATION INSTRUMENT(S) USED IN PROGRAM? Yes X No_____

California Achievement Test CRT___ NRT X OMG___

There were a few third graders included in the 9-12 year old group.
The Wisconsin Design Skill Development Test (Form P, Levels B, C and D) was administered to students entering the program. This test was used to determine each student's mastery of specific reading skills (e.g., phonetic analysis of consonants; comprehension of main ideas). Based on student performance on the Wisconsin Design Skill Development Test, reading teachers were able to diagnose a student's mastery or nonmastery of specific skills. When the reading teacher and student decided that the student was ready to take a mastery post-test (Form Q, Levels B, C and D) in a skill previously not mastered, the test was administered individually to the student. Wisconsin Design Skill Development mastery tests were given on an ongoing basis during the intervention period.

The criterion of success for the program on the Wisconsin Design Skill Development test was that, during the intervention period, 70% of the students master at least 5 skills they had not mastered when they entered the program. In fact, 82% of the students in Title I Children's Program: Learning to Read Through the Arts mastered 5 skills they had not previously mastered. The program exceeded its objective on the criterion referenced test. The majority (78%) of students in the program demonstrated mastery of at least 6 new skills.

Results: 82% of students mastered 5 or more new skills
78% of students mastered 6 or more new skills
Discussion of Results 1978–1979

Results of the norm and criterion-referenced tests indicate that Title I Children’s Program: Learning to Read Through the Arts, The Board of Education of the City of New York has been successful in meeting its objectives for 1978–1979. The Treatment Effect of 18.41 Normal Curve Equivalent (NCES) on the California Achievement Test, reflects impressive gains made by students in the program. The mastering data on the Wisconsin Design Skill Development Test also indicates that students have exceeded program objectives. Eighty-two percent (82%) of the students in the program mastered five or more new skills and 78% of the students mastered 6 or more new skills.

The NC. distribution of students by quartile reflects a dramatic shift in NCE scores for students in the program, especially those whose pre-test NCE scores were in the lowest quartile. Forty-seven percent (47%) of the entering students had scores between 1 and 25. On the post-test 6% of the students were in the 1–25 quartile. The impact of the program on the lowest scoring students is particularly impressive.

The gains made by students in Title I Children’s Program: Learning to Read Through the Arts are sizable. At each grade level students surpassed the criterion for success set in the evaluation design. The gains made by students can be attributed to their participation in Title I Children’s Program: Learning to Read Through the Arts.
Recommendations

The Title I Children's Program: Learning to Read Through the Arts has proven successful in improving the reading skills of Title I students. Based on the evaluation results and conversations with the Citywide Coordinator and program staff:

1) It is recommended that additional sites be added to service Title I Children in the 32 school districts in New York City.

2) It is recommended that the program serve as a Resource Center for the 32 school districts in New York City, as well as school districts in the state and nation. Plug-in and satellite programs should be developed in school districts, with the nationally validated exemplary Title I Children's Program: Learning to Read Through the Arts, The Board of Education of the City of New York, Developer/Demonstrator Project, National Diffusion Network providing training and technical assistance to help maintain the high quality of the delivery system.

3) It is recommended that the program provide service to student populations beyond those presently served, specifically:

   Special Education students could benefit from the intensive, individualized reading instruction combined with an opportunity for self-expression and communication through the arts;

   Bilingual students could benefit from the comprehensive approach to art, culture, language and reading;

   Students younger than the 4th - 6th graders (and/or 9-12 year olds) presently served could benefit from early intervention, possibly preventing the need for later remediation.
4) It is recommended that other aspects of the program, besides reading skills, be evaluated to determine what variables have contributed to the reading improvement of students. Among the variables to examine could be:

- Change in interest and knowledge about the arts.
- Change in attitude toward reading and other academic subjects.
- The relationship between parent participation in workshops and student performance.

If Title I funding is not available for such further evaluation, other funding might be sought for this purpose.

5) It is recommended that money continue to be allocated for developing further training materials. Print materials, and a videotape or film of workshops in progress would facilitate training and technical assistance.