Project Reach, serving 390 students of limited English proficiency at William H. Taft high school in New York, was fully implemented in 1988-89. Project Reach endeavored to help students develop their English and native language skills and make academic progress through bilingual content area courses. During the school year, participating students received instruction in English as a Second Language (ESL), Native Language Arts (NLA), and the bilingual content area subjects of mathematics, science, and social studies. A small group of students with severe educational deficiencies received remedial instruction. The project provided staff development, curriculum development, and parental involvement activities. Project Reach met its ESL and content area objectives, and two of its three NLA objectives. The project partially met its staff development objective. It did not meet one of its two parent involvement objectives; the other objective could not be evaluated because of lack of data. (VWL)
EVALUATION

Project Grant Number

19

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Office of Educational Research and Improvement
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PROJECT REACH
1988-89

SUMMARY

Project Reach was fully implemented. During the 1988-89 school year, participating students received instruction in English as a Second Language, Native Language Arts, and the bilingual content area subjects of mathematics, science, and social studies. A small group of students with severe educational deficiencies received remedial instruction. The project provided staff development, curriculum development, and parental involvement activities.

Project Reach met its E.S.L. and content area objectives. The project also met two of its three objectives for N.L.A. It partially met its staff development objective. It did not meet one of its parental involvement objectives; OREA could not evaluate a second parental involvement objective because of lack of data.

Project Reach was an Elementary and Secondary Education Act (E.S.E.A.) Title VII-funded program of instructional and support services. The project served 390 students of limited English proficiency (LEP students) at William H. Taft High School in the Bronx. Project Reach endeavored to help students develop their English and native language skills and make academic progress through the vehicle of bilingual content area courses. Project Reach also provided remedial instruction to a small group of students with severe educational deficiencies in their native language.

Project personnel used scores on the Language Assessment Battery and La Prueba de Lectura for student selection and placement. Students participating in Project Reach received instruction in English as a Second Language (E.S.L.), Native Language Arts (N.L.A.), and the bilingual content area subjects of mathematics, science, and social studies. The program provided students in the special instructional component with remedial-level instruction in E.S.L., N.L.A., mathematics, and music language arts in the fall semester. This class was not offered in spring because of lack of funds. The project offered guidance and counseling, staff and curriculum development, and activities for parental involvement.

To evaluate the program and assess attainment of its objectives, OREA used interviews with the project director and school principal; class observations; school and project records; and demographic, attendance, and achievement data.

Project Reach met its instructional objectives in E.S.L. and content area subjects; it met two of three objectives in N.L.A.
It met the attendance objective, but only partially met its staff development objective. The project did not provide OREA with data to determine whether it met the first of two parental involvement objectives; the project did not meet the second objective.

The school gave the project its full support. While coordination among those who worked with project students was good, the director felt it might have been improved by grouping the teachers in one bilingual education department under one supervisor.

The conclusions, based on the findings of this evaluation, lead to the following recommendation:

- Reexamine strategies for raising the level of parental involvement.
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I. INTRODUCTION

This report documents the Office of Research, Evaluation, and Assessment's (OREA's) evaluation of the Elementary and Secondary Education Act (E.S.E.A.) Title VII-funded program, Project Reach. Project Reach was a transitional bilingual program at William H. Taft High School in the Bronx in the first year of a three-year funding cycle. It provided instructional and support services to students of limited English proficiency (LEP students) and attempted to meet the needs of a small number of students with very limited skills in their native language.

HISTORY OF THE PROGRAM

William H. Taft High School has provided services to LEP students for many years. Over half of its population is Hispanic, over 40 percent is designated as LEP.

SETTING

William H. Taft High School is located in the South Bronx. The surrounding area is impoverished and heavily populated by black and Hispanic families. Of the 2,121 students enrolled in the fall semester, 47.9 percent were Hispanic and 44 percent were black. The area has seen an influx of recent immigrants from the Caribbean and from Central and South America.

PARTICIPATING STUDENTS

Most Project Reach students were from the Dominican Republic and Puerto Rico. Fourteen students formed a remedial sub-group within the program: recent immigrants, they had had little...
education and were illiterate in their native language. All students were from low-income families, as indicated by their eligibility for the federally funded free lunch program. A high percentage of the students was over-age for their grade (see Table 1).

**STAFF**

Title VII-funded staff included the project director, a resource/curriculum specialist, a family assistant/secretary, a guidance counselor, and a paraprofessional. All were full-time personnel. The project director held two master's degrees, one in English as a second language and the other in educational administration. The resource/curriculum specialist and the guidance counselor also held master's degrees; the family assistant/secretary had a high school diploma and college credits. All staff members were competent in Spanish. Assistant principals supervised the teachers in their respective subjects. However, the project director felt that communication and coordination would have been improved if participating teachers had been part of a single bilingual department with one supervisor.

**DELIVERY OF SERVICES**

Program students received instruction in English as a Second Language (E.S.L.), Native Language Arts (N.L.A.), and the content area subjects of mathematics, social studies, and science. For students with severe educational deficiencies, the program
**TABLE 1**

Number of Program Students by Age and Grade

<table>
<thead>
<tr>
<th>Age</th>
<th>Grade 9</th>
<th>Grade 10</th>
<th>Grade 11</th>
<th>Grade 12</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>13</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>14</td>
<td>9</td>
<td>1</td>
<td>0</td>
<td>6</td>
<td>16</td>
</tr>
<tr>
<td>15</td>
<td>26</td>
<td>14</td>
<td>4</td>
<td>3</td>
<td>47</td>
</tr>
<tr>
<td>16</td>
<td>46</td>
<td>14</td>
<td>8</td>
<td>3</td>
<td>71</td>
</tr>
<tr>
<td>17</td>
<td>29</td>
<td>30</td>
<td>26</td>
<td>5</td>
<td>90</td>
</tr>
<tr>
<td>18</td>
<td>17</td>
<td>29</td>
<td>25</td>
<td>8</td>
<td>79</td>
</tr>
<tr>
<td>19</td>
<td>2</td>
<td>11</td>
<td>8</td>
<td>6</td>
<td>27</td>
</tr>
<tr>
<td>20</td>
<td>1</td>
<td>1</td>
<td>6</td>
<td>9</td>
<td>17</td>
</tr>
<tr>
<td>21</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>TOTAL</td>
<td>133</td>
<td>100</td>
<td>78</td>
<td>44</td>
<td>355</td>
</tr>
</tbody>
</table>

**Over-Age Students**

| Number | 95   | 71   | 40   | 16   | 222  |
| Percent| 71.4 | 71.0 | 51.3 | 36.4 | 62.5 |

Note. Framed boxes indicate expected age range for grade.

a As of June 1989.

b Data were missing for eight students.

- Two-thirds of program students were over-age for their grade.
provided special courses in classes in E.S.L., N.L.A., modified bilingual mathematics, and music language arts. Project Reach also provided students with guidance and counseling, undertook staff and curriculum development, and offered activities for parental involvement.

REPORT FORMAT

This report is organized as follows: Chapter II outlines the evaluation methodology; Chapter III describes the project's implementation and evaluates the attainment of its implementation objectives; Chapter IV examines Project Reach's attainment of its student performance objectives; and Chapter V offers conclusions and recommendations based on the results of the evaluation.
II. EVALUATION METHODOLOGY

EVALUATION QUESTIONS

The evaluation assessed two major areas: program implementation and outcomes. Evaluation questions included the following:

Process/Implementation

- Did the project implement the instructional activities for developing English language proficiency as proposed?
- Did the project implement the instructional activities for developing native language skills as proposed?
- How many project staff members enrolled in university courses?
- What proportion of program students' parents attended Open School Day/Evening as compared to mainstream students' parents?
- Did the project offer E.S.L. classes to parents? If so, how many parents attended?

Outcome

- What was the average gain in scores on the English version of the Language Assessment Battery for those students who participated in the program?
- What percentage of students deficient in Spanish passed their E.S.L. courses with at least a 65 percent grade?
- What was the average gain exhibited by students in native language proficiency?
- What percentage of program students passed their N.L.A. courses with at least a 65 percent grade?
- What percentage of program students passed their music language arts classes with at least a 65 percent grade?
What percentage of program students passed bilingual mathematics, science, and social studies with at least a 65 percent grade?

How did the attendance of participating students compare with that of mainstream students?

EVALUATION PROCEDURES

Sample

An OREA field consultant interviewed the project director and the principal of William H. Taft High School. The consultant observed two classes, one in E.S.L. and one in mathematics. OREA provided a student data form for each project participant in both the fall and spring. Project REACH returned 363 of these forms to OREA.

Instruments

OREA developed interview and observation schedules for use by the field consultant. Project personnel used OREA-developed data retrieval forms to report student demographic, attendance, and achievement data.

Data Analysis

OREA used the Language Assessment Battery* to assess improvement in English proficiency. Students were tested at grade level each spring. Raw scores were converted to Normal

*The Language Assessment Battery (LAB) was developed by the Board of Education of the City of New York to measure the English-language proficiency of non-native speakers of English in order to determine whether they can participate effectively in classes taught in English. Students scoring below the twenty-first percentile on the LAB are entitled to bilingual and E.S.L. services.
Curve Equivalent (N.C.E.) scores for those students who were not remedial students. N.C.E. scores have multiple advantages over other scoring methods. They are standard, normalized, and form an equal interval scale. ("Standard" indicates that the unit of measurement is a fraction of the standard deviation of the original distribution of raw scores; "normalized" refers to the fact that the scale is adjusted for the norm group so that its distribution has the shape of a normal distribution; and "equal interval scales" allow for legitimate aggregation or averaging of scores.) Project students' N.C.E.s indicated their standing in relation to the national average of 50.

To assess the significance of students' achievement in English, OREA computed a correlated t-test on LAB N.C.E. scores. The t-test determined whether the difference between the pre- and posttest scores was significantly greater than would be expected by chance variation alone.

To insure representative achievement data, OREA included only those students who had been in the program for at least five months and had attended classes for at least 100 school days. OREA extrapolated to estimate full-year scores of late-arriving and early-exiting students.
Limitations

Since all LEP students are entitled to receive bilingual and E.S.L. services, OREA was unable to select an equivalent control group. However, the use of two sets of data, as outlined above, served in lieu of a control group.
III. EVALUATION FINDINGS: IMPLEMENTATION

Project REACH provided LEP students with E.S.L.; N.L.A.; and bilingual mathematics, science, and social studies instruction. The project provided a small number (14) of LEP students who had severe educational deficiencies with instruction in remedial E.S.L. and N.L.A., adapted mathematics, and music language arts. The project also offered guidance and counseling, curriculum and staff development, and activities for parental involvement.

STUDENT PLACEMENT AND PROGRAMMING

Project staff used LAB scores to determine eligibility for the program and La Prueba de Lectura* scores to determine which students were severely deficient in Spanish skills.

INSTRUCTIONAL ACTIVITIES

English as a Second Language

The school offered E.S.L. classes at elementary, intermediate, advanced, and transitional levels. Elementary level students attended three classes per day; students at other levels attended two. Severely limited students received two daily periods of remedial E.S.L.

The OREA field consultant observed an intermediate-level E.S.L. class of 26 students in which students were working on reading comprehension and verbal expression. The teacher distributed copies of a short story to read and a list of

questions for students to answer in their notebooks. When they had finished, the teacher led a discussion on the subject of the story. He then made up a similar story and students acted it out. The teacher conducted the class entirely in English.

Native Language Arts

Project students took one period a day in Spanish N.L.A. at the beginning, intermediate, or advanced level. Remedial students took two periods of intensive Spanish reading and writing practice per day as well as music language arts in the fall only; the latter course was cancelled in the spring for lack of funds.

Content Area Subjects

Bilingual mathematics classes included Regents Competency Test (R.C.T.) practice, consumer mathematics, fundamentals of mathematics, and advanced sequential mathematics. The project offered an adapted mathematics class to remedial students.

Bilingual science included general science and human biology. Bilingual social studies subjects were global history, American history, and economics.

The OREA field consultant observed an elementary-level mathematics class of 11 pupils. Students worked independently, following individual lesson plans created by the teacher. The instructional process was very personal and focused on each student's needs. Most communication was in Spanish.
NON-INSTRUCTIONAL ACTIVITIES

Staff Development

The program objective for staff development stated that:

- Five program staff members will enroll in at least one university course each semester.

The project director pointed out that since the program had not started up until October, it was difficult to meet this objective. Even so, four program staff members enrolled in college courses in the fall, so the project came close but failed to meet its objective during that semester. Project staff met the objective in spring.

Curriculum Development

The project did not propose an objective in this area. Staff members visited various schools, publishers, and centers for the development of curriculum materials. They concentrated on developing material for the educationally deprived students, particularly for language arts classes.

Parental Involvement

The project's objectives for parental involvement stated:

- The proportion of program students' parents who participate in Open School Day/Evening will be equal to or greater than the proportion of mainstream students' parents who participate in these activities.

- The program will offer classes in E.S.L. and "Helping Your Child to be a Good Student" to ten parents each semester.

Project Reach did not provide attendance rates for mainstream parents for Open School Day/Evening, so OREA was
unable to evaluate the project's first parental involvement objective.

The project organized a "Parent Center" and invited parents to attend free E.S.L. classes twice weekly. Response was low; during the spring semester no more than five parents attended classes. Project Reach did not meet its second parent involvement objective.

While the project failed to achieve its objectives in this area, project staff made noteworthy attempts to increase parental involvement. In the fall semester, staff organized four meetings to introduce parents to the project and inform them about school procedures, survival skills, employment opportunities, and citizenship. Also, two parents accompanied the Title VII personnel to the Parents' Planning Institute in Albany in January 1989.
IV. EVALUATION FINDINGS: OUTCOMES

INSTRUCTIONAL ACTIVITIES

Project REACH proposed objectives for instructional activities in the areas of E.S.L., N.L.A., and content area subjects.

English as a Second Language

The evaluation objectives for English language development were:

- As a result of participating in the program, E.S.L. students will make statistically significant gains in English language proficiency.
- At least 70 percent of the undereducated students enrolled in E.S.L. classes will score at or above the passing criterion of 65 percent.

Project Reach provided complete LAB pre- and posttest scores for 130 students in grades 9 through 12. Gains for students in grades 9 and 11 were statistically significant ($p < .05$). (See Table 2.) The mean N.C.E. gain was 4.3 ($s.d. = 9.0$). Project students in two out of the four grades made statistically significant gains in English language proficiency. Project Reach met its first E.S.L. objective.

Of the students enrolled in E.S.L. classes, 76 percent in the fall and 67 percent in the spring achieved passing rates of 65 percent or more. Project REACH met its second E.S.L. objective.
TABLE 2

Pretest/Posttest N.C.E. Differences on the Language Assessment Battery, by Grade.

<table>
<thead>
<tr>
<th>Grade</th>
<th>Number of Students</th>
<th>Pretest Mean</th>
<th>Pretest S.D.</th>
<th>Posttest Mean</th>
<th>Posttest S.D.</th>
<th>Difference Mean</th>
<th>Difference S.D.</th>
<th>t Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>46</td>
<td>7.7</td>
<td>9.5</td>
<td>12.0</td>
<td>13.2</td>
<td>4.3</td>
<td>7.7</td>
<td>3.75*</td>
</tr>
<tr>
<td>10</td>
<td>17</td>
<td>6.0</td>
<td>6.8</td>
<td>8.1</td>
<td>8.4</td>
<td>2.1</td>
<td>10.1</td>
<td>0.87</td>
</tr>
<tr>
<td>11</td>
<td>50</td>
<td>9.2</td>
<td>9.8</td>
<td>14.0</td>
<td>12.4</td>
<td>4.8</td>
<td>5.9</td>
<td>5.82*</td>
</tr>
<tr>
<td>12</td>
<td>17</td>
<td>8.9</td>
<td>10.1</td>
<td>14.5</td>
<td>14.1</td>
<td>5.6</td>
<td>14.1</td>
<td>1.64</td>
</tr>
<tr>
<td>TOTAL</td>
<td>130</td>
<td>8.3</td>
<td>9.7</td>
<td>12.6</td>
<td>12.5</td>
<td>4.3</td>
<td>9.0</td>
<td>5.47*</td>
</tr>
</tbody>
</table>

*p<.05

- Overall and in grades 9 and 11, students made statistically significant gains in English language proficiency.
Native Language Arts

The evaluation objectives for the development of native language proficiency in project students were:

- As a result of participating in the program, students will show significant gains in native language achievement.
- At least 70 percent of the undereducated students in N.L.A. courses will score at or above the passing criterion of 65 percent.
- At least 70 percent of the undereducated students enrolled in music language arts will score at or above the passing criterion of 65 percent.

The project did not provide data for OREA to assess the first N.L.A. objective.

Students in N.L.A. courses achieved passing rates of 72 percent in the fall and 87 percent in the spring. Project Reach met its second N.L.A. objective.

Seventy-seven percent of the students enrolled in music language arts scored at or above the passing criterion of 65 percent. Thus the project met its third N.L.A. objective.

Content Area Subjects

The evaluation objective for content area subjects was:

- At least 70 percent of the students enrolled in bilingual content area subjects (mathematics, science, and social studies) will score at or above the passing criterion of 65 percent.

During the fall, 79.1 percent of the students passed their content area classes; in the spring, 78.5 percent passed. (See Table 3.) Thus the project met its content area objective.
### TABLE 3

Passing Rates in Content Area Courses

<table>
<thead>
<tr>
<th>Content Area</th>
<th>Fall</th>
<th></th>
<th></th>
<th>Spring</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number of</td>
<td>Percent</td>
<td></td>
<td>Number of</td>
<td>Percent</td>
</tr>
<tr>
<td></td>
<td>Students</td>
<td>Passing</td>
<td></td>
<td>Students</td>
<td>Passing</td>
</tr>
<tr>
<td>Mathematics</td>
<td>183</td>
<td>69.9</td>
<td></td>
<td>207</td>
<td>72.0</td>
</tr>
<tr>
<td>Science</td>
<td>178</td>
<td>75.8</td>
<td></td>
<td>167</td>
<td>82.0</td>
</tr>
<tr>
<td>Social Studies</td>
<td>151</td>
<td>94.0</td>
<td></td>
<td>227</td>
<td>81.9</td>
</tr>
</tbody>
</table>

- At least 70 percent of participating students passed their content area subjects in both the fall and the spring.
NON-INSTRUCTIONAL ACTIVITIES

Project Reach proposed a single non-instructional outcome objective, for student attendance.

Attendance

The evaluation objective for attendance was:

- As a result of participating in the program, students' attendance will be significantly higher than that of the mainstream students.

The project monitored students' performance. Poor attendance or other indications of a potential dropout situation caused the guidance counselor to take immediate action.

The attendance rate of program students was 90.5 percent, while the attendance rate of mainstream students was 71.5 percent. This was a statistically significant difference. The program met its attendance objective.
V. CONCLUSIONS AND RECOMMENDATION

Project Reach served 390 Hispanic LEP students at William H. Taft High School during its first year of a Title VII funding cycle. The program offered E.S.L., N.L.A., and bilingual content area instruction in mathematics, science, and social studies. It also supported staff development, curriculum development, and parental involvement activities.

Project Reach block-programmed a small group of undereducated LEP students, who were given adapted and remedial classes in E.S.L., N.L.A., and mathematics. These students also took one semester of a music language arts class. (This class was discontinued in the spring for lack of funds.) Most of these students were not able to enter regular E.S.L. and bilingual sequence courses after the first semester, as had been anticipated. The project director said that despite efforts made by teachers and support personnel, it was unlikely that they would be able to close the gap quickly between the remedial students and the other students in the program. Nevertheless, the director felt it was worthwhile to continue generating educational materials for this special population and to provide them with customized instruction.

Despite the delay of a month in start-up, Project Reach was successful in its instructional components: students met the objectives for E.S.L., the content areas, and two of the three N.L.A. objectives.
In the non-instructional areas, the project met its staff development objective in the spring but not in the fall. It met one of its parental involvement objectives, but did not provide OREA with data to evaluate the second objective.

The principal of William H. Taft High School supported the program, and participating teachers worked under their respective assistant principals. The project director, however, felt that it would have been more efficient had they been grouped in one bilingual education department.

One of the project's least effective components was its effort to involve parents. The project director attributed the failure to the parents' overriding problems. He also suggested that many parents were illegal aliens and avoided any governmental agency, including the school.

The conclusions, based on the findings of this evaluation, lead to the following recommendation:

- Reexamine strategies for raising the level of parental involvement.