The goals of the Bilingual Children's Project (B.C.P.) were to help students acquire skills in the English language content area subjects, critical thinking, and problem solving. In its first year, the project served 740 kindergarten through third grade students of limited English proficiency at 12 schools. Participants' native languages were Spanish, Chinese, and Haitian Creole. The program provided resource teachers and an educational assistant who demonstrated materials and consulted with participating schools. The program also arranged puppet shows as an adjunct to teaching and conducted staff development and parent involvement activities. Program objectives were met in English as a Second Language (ESL) at all grade levels, and in staff development. While no parent participation objectives had been set, parent involvement activities were provided. The project also expanded the original proposal to include puppet shows as a means of integrating content areas with ESL instruction. (MSE)
OREA Report

EVALUATION SECTION REPORT

BILINGUAL CHILDREN'S PROJECT
B.C.P.
Grant Number: T003A80168
1988-89

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Office of Educational Research and Improvement
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EVALUATION SECTION REPORT
BILINGUAL CHILDREN'S PROJECT
B.C.P.
Grant Number: T003A80168
1988-89

Prepared by
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Office of Research, Evaluation, and Assessment
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SUMMARY

- The Bilingual Children's Project was fully implemented. The project initiated supplementary services to existing bilingual and English as a Second Language classes. It specialized in puppet shows to integrate language and content area instruction. B.C.P. also implemented curriculum development, staff development, and parental involvement activities.

- The program met all its objectives: English as a Second Language and staff development.

The Bilingual Children's Project (B.C.P.), funded by Title VII of the Elementary and Secondary Education Act (E.S.E.A.), was in its first year of operation. B.C.P.'s goals were to help students acquire skills in the English language content area subjects, critical thinking, and problem-solving. The program served 740 kindergarten through third grade students of limited English proficiency (LEP students) at 12 schools in four boroughs. Participating students' native languages were Spanish, Chinese, and Haitian Creole.

B.C.P. provided resource teachers and an educational assistant who demonstrated materials and consulted with participating schools. The project also arranged puppet shows as an adjunct to teaching and conducted staff development and parent involvement activities.

The Bilingual Children's Project achieved its E.S.L. objective--students in all grades for whom there were data showed improvement on Language Assessment Battery (LAB) scores. B.C.P. met its staff development objective to conduct training workshops for staff to participate in university courses. While no parent activity objective was proposed, such activities were carried on. The project encountered some obstacles, which required substituting new schools for some of those originally targeted. B.C.P. also expanded the original proposal to include puppet shows as a means of integrating content areas with E.S.L. instruction.
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<td>15</td>
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I. INTRODUCTION

This report presents the Office of Research, Evaluation, and Assessment's (OREA's) evaluation of the 1988-89 Bilingual Children's Project (B.C.P.) operated by the Division of Multilingual and Multicultural Education (DOMME) of the New York City Board of Education. The project assisted students of limited English proficiency (LEP students) in kindergarten through second grade to acquire English language and content area skills and develop critical thinking and problem-solving techniques.

HISTORY OF THE PROGRAM

B.C.P. was in its first year. Funded by Title VII of the Elementary and Secondary Education Act (E.S.E.A.). The project resulted from DOMME's experience with Project MASTER, which had provided services to older LEP students in two Community School Districts (C.S.D.s). B.C.P. designed its program to meet the needs of younger children.

SETTING

B.C.P. served in areas with the highest concentrations of the three largest LEP language groups in New York City--Hispanic, Chinese, and Haitian Creole. The program provided services in 12 schools located in six C.S.D.s and four boroughs. (See Table 1.) Each of the C.S.D.s had at least 1,500 LEP students; one (C.S.D. 24) had almost 5,000. Participating students in four of the C.S.D.s (3, 7, 17, and 24) scored below the median on the Metropolitan Achievement Test (MAT) in reading, while those in
### TABLE 1

Schools and Students Served

<table>
<thead>
<tr>
<th>Borough</th>
<th>C.S.D.</th>
<th>Public School</th>
<th>Native Languages</th>
<th>Number of Students Served</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manhattan</td>
<td>2</td>
<td>42</td>
<td>Spanish</td>
<td>68</td>
</tr>
<tr>
<td></td>
<td></td>
<td>124</td>
<td>Chinese</td>
<td>73</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>185</td>
<td>Spanish</td>
<td>38</td>
</tr>
<tr>
<td>Bronx</td>
<td>7</td>
<td>65</td>
<td>Spanish</td>
<td>53</td>
</tr>
<tr>
<td></td>
<td></td>
<td>154</td>
<td>Spanish</td>
<td>38</td>
</tr>
<tr>
<td>Brooklyn</td>
<td>17</td>
<td>138</td>
<td>Haitian Creole</td>
<td>78</td>
</tr>
<tr>
<td></td>
<td></td>
<td>181</td>
<td>Haitian Creole</td>
<td>56</td>
</tr>
<tr>
<td></td>
<td></td>
<td>249</td>
<td>Haitian Creole and Spanish</td>
<td>55</td>
</tr>
<tr>
<td>Queens</td>
<td>24</td>
<td>89</td>
<td>Chinese and Spanish</td>
<td>84</td>
</tr>
<tr>
<td></td>
<td></td>
<td>199</td>
<td>Spanish</td>
<td>59</td>
</tr>
<tr>
<td></td>
<td>30</td>
<td>149</td>
<td>Spanish</td>
<td>51</td>
</tr>
<tr>
<td></td>
<td></td>
<td>152</td>
<td>Spanish and Chinese</td>
<td>27</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td></td>
<td><strong>680</strong></td>
</tr>
</tbody>
</table>

* Data not available on 60 students.

- Students in four boroughs and six C.S.D.s participated in the project.
- In each participating borough, two to four schools were involved in B.C.P.
three C.S.D.s (3, 7, and 17) were below the median in mathematics.

**PARTICIPATING STUDENTS**

The 740 students served by B.C.P. were designated as LEP by their scores on the Language Assessment Battery (LAB).* Almost one-half of the participating students were in first grade, about one-quarter each in kindergarten and second grade, and a few were in the third grade. Fifty-five percent of the students were native speakers of Spanish, 20 percent spoke Chinese, and 25 percent had Haitian Creole as their home language. About four percent of the students were over-age for their grade placement (see Table 2).

**STAFF**

B.C.P. staff were all bilingual. The project director, one resource specialist, the family/educational assistant, and the secretary were bilingual (Spanish). The two other resource specialists were also bilingual, one in Haitian Creole, the other in Chinese.

The project director supervised the Title VII staff, served as liaison with district superintendents and school

---

*The Board of Education of the City of New York developed the Language Assessment Battery (LAB) to measure the English-language proficiency of non-native speakers of English in order to determine whether their level of English proficiency is sufficient to enable them to 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.*
### TABLE 2

Number of Program Students by Age and Grade

<table>
<thead>
<tr>
<th>Age</th>
<th>Grade K</th>
<th>Grade 1</th>
<th>Grade 2</th>
<th>Grade 3</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>88</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>88</td>
</tr>
<tr>
<td>6</td>
<td>79</td>
<td>151</td>
<td>0</td>
<td>0</td>
<td>230</td>
</tr>
<tr>
<td>7</td>
<td>0</td>
<td>152</td>
<td>80</td>
<td>0</td>
<td>232</td>
</tr>
<tr>
<td>8</td>
<td>0</td>
<td>9</td>
<td>71</td>
<td>0</td>
<td>80</td>
</tr>
<tr>
<td>9</td>
<td>0</td>
<td>1</td>
<td>11</td>
<td>6</td>
<td>18</td>
</tr>
<tr>
<td>10</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>TOTAL</td>
<td>167</td>
<td>313</td>
<td>162</td>
<td>8</td>
<td>650</td>
</tr>
</tbody>
</table>

Note: Numbers in bold area reflect expected age range for grade.

*As of June 1989.

Data were missing or incomplete for 90 students.

- About four percent of students on whom data were provided were overage for grade.

- The largest number of students were in the first grade.
administrators, led pre-service and in-service teacher workshops, and developed and coordinated activities with outside organizations providing services. The three resource teachers provided classroom demonstrations of materials, consulted with participating schools, developed multicultural materials for parents and classroom teachers, led seminars on language and culture, and served as co-instructors for a City University (CUNY) course. The family/educational assistant worked with five teachers in C.S.D. 7.

Three projected staff positions (two educational assistants and a curriculum specialist) were unfilled because they were not funded. The Spanish resource specialist position was not filled until April 1989 because of delays in securing a necessary release.

DELIVERY OF SERVICES

Pre-service organizational activities, including staff recruitment and training and extensive negotiations with school and district personnel, took a major part of the program year. Problems forced B.C.P. to substitute P.S. 185 for two of the originally targeted schools in C.S.D. 3, and P.S. 42 for P.S. 198 in C.S.D. 2. B.C.P. was unable to establish service delivery in C.S.D. 6. Services were not funded for C.S.D.s 1 and 29 owing to pre-existing Title VII programs. These changes required B.C.P. to alter its original plan to serve only self-contained classes by including E.S.L. classes and teachers.
In conjunction with Puppetry in Practice (PIP) of Brooklyn College and the Sia Santa Center of Brazil, B.C.P. presented puppet shows for the participating schools. The three resource specialists and the family/educational assistant linked the puppet show experience with classroom activities, providing teachers with guides for the classroom.

B.C.P. conducted staff development meetings to introduce the program to participating teachers. It developed a needs assessment survey to gather information on and meet teachers' needs. Other staff development activities included a puppet workshop, focusing on developing a puppet theater learning center, and a three-credit course conducted by CUNY. B.C.P. staff attended monthly citywide conferences on relevant topics (e.g., E.S.L.). B.C.P. also provided workshops for parents and developed a "Workshop Evaluation Form" for their use.

REPORT FORMAT

This report is organized as follows: Chapter II describes the evaluation methodology; Chapter III analyzes the qualitative findings of the evaluation; Chapter IV looks at the quantitative findings; and Chapter V presents conclusions based on the results of the evaluation.
II. EVALUATION METHODOLOGY

EVALUATION QUESTIONS

The first-year evaluation of B.C.P. focused primarily on implementation. Evaluation questions included the following:

Process/Implementation
- Did the program recruit qualified staff?
- Did the program obtain access to schools as planned?
- Did the program implement instructional activities for developing English language proficiency as planned?
- Did the program develop the assessment instruments it needed?
- Did the program provide staff development activities?
- Did program personnel participate in university level training?

Outcome
- What was the average Normal Curve Equivalent (N.C.E) gain on the LAB?

EVALUATION PROCEDURES

Sample

OREA staff collected qualitative data by interviewing the program director and resource specialists and observing two puppet performances and subsequent classes at two sites. OREA provided a student data form for each of the 720 participating students, and B.C.P. returned 680 of them to OREA.
Instruments

The field consultant used OREA-developed interview and observation schedules. B.C.P. designed a "Teacher Needs Assessment Survey" and a "Workshop Evaluation Form" for parents, as well as guides for teachers to correlate puppet shows with classroom instructions. Project personnel used OREA-developed student data forms to collect demographic and achievement data on the students.

Data Collection

The OREA field consultant conducted interviews and observed classes during May and June. B.C.P. received student data forms in April, completed them on an ongoing basis, and returned them to OREA in June.

Data Analysis

OREA used the Language Assessment Battery to assess improvement in English proficiency. Project B.C.P. students were tested at grade level each spring. Students' raw scores were converted to Normal Curve Equivalent (N.C.E.) scores, which 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 relative 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.

One additional problem was the incomplete data. While
B.C.P. served 40 students, the project submitted LAB data for
only 348, 45 of whom had been in the program less than five
months. There were no data on kindergarten students.
III. EVALUATION FINDINGS: IMPLEMENTATION

The program provided supplementary services to existing bilingual and E.S.L. classes. It arranged for the presentation of puppet plays and established linkages between these performances and E.S.L. and content area subjects. B.C.P. also offered staff development and parental involvement activities.

STUDENT PLACEMENT AND PROGRAMLING

B.C.P. provided services to LEP students in classes selected for participation in the program. Thus, selection was not by individual.

INSTRUCTIONAL ACTIVITIES

English as a Second Language

The three resource specialists provided instructional and curriculum services to schools, including classroom demonstrations of new materials as well as approaches for teaching language skills and follow-up on their implementation. The resource specialists also consulted with school administrators and teachers, served as liaisons with the community, and organized after-school workshops.

In conjunction with Puppetry in Practice (PIP) of Brooklyn College and the Sia Santa Center of Brazil, B.C.P. presented seven performances of the puppet shows "Perez y Martina," a Puerto Rican folktale, and "Peter and the Wolf." The three project resource specialists and the family/educational assistant linked the puppet shows to classroom activities.
While the original proposal had not specified that B.C.P. would present puppet shows, the project director felt they were excellent vehicles for achieving the goal of integrating content areas with E.S.L. instruction. She saw the puppet shows as a means of identifying themes that could then be pursued by classroom teachers in content area instruction.

An OREA field consultant observed one performance of each show. The performance of "Perez y Martina," at P.S. 154 in the Bronx, began with a moderator speaking in Spanish and English; the show itself was solely in English. Audiences sang and clapped in time with the music, clearly enjoying the performance. After the show, the puppeteers went into the audience to demonstrate how to make finger puppets.

The project distributed a teacher's lesson guide based on the show, and the consultant observed a follow-up session in a first grade class. The children enthusiastically made puppets independently and in small groups. Two puppeteers assisted. Spanish was the dominant language in most interactions.

The consultant also observed a performance of "Peter and the Wolf" at P.S. 124 in Chinatown. The children enjoyed the show, and the puppeteers were responsive to their reactions. Again, the puppeteers showed the audience how to make puppets and distributed a guide to the teachers. The afternoon classroom session focused on making puppets.
NON-INSTRUCTIONAL ACTIVITIES

Staff Development

The program objectives for staff development were:

- Educational assistants and classroom teachers will participate in staff development training workshops.
- Project personnel will participate in university level training, and will be expected to achieve passing grades.

B.C.P. conducted two staff development sessions that introduced the program and gathered information, using the "Teacher Needs Assessment Survey" developed by the project. In conjunction with PIP, the project offered a weekend puppet workshop focusing on how to develop a puppet theater learning center. In addition, B.C.P. staff attended monthly citywide conferences on relevant topics, such as E.S.L.

Twenty-three teachers, representing 11 of the 12 participating schools, attended the first staff development session. Twenty-four teachers from 10 participating and 3 non-participating schools attended the second conference. Project staff were present at both meetings.

Twenty-six staff members from participating schools attended the first day of a weekend workshop. Attendance the second day was 17. Teachers from all except one of the participating schools attended at least one day of the workshop. Project staff and personnel from three non-participating schools also attended. B.C.P. met its first staff development objective.

B.C.P. arranged a three-credit course conducted by the City University of New York over three weekends. The course focused
on methods of integrating students' cultures into lessons and integrating science and mathematics into E.S.L. instruction. According to the project director, 26 staff members and teachers attended the course, and all received passing grades. Thus, B.C.P. met its second staff development objective.

**Parental Involvement**

Although it posed no objectives for parental involvement, B.C.P. provided a parents' workshop at two schools, focusing on helping children become better learners. Five parents attended the first workshop, and ten attended the second. These parents completed a project-designed "Workshop Evaluation Form." These indicated a high level of satisfaction with the workshops, particularly with the materials provided, which they could use with their own children.
IV. EVALUATION FINDINGS: OUTCOMES

Most of the project's outcome objectives were for its second or third year of operation. There was only one first-year outcome objective, in English as a Second Language.

INSTRUCTIONAL ACTIVITIES

English as a Second Language

The evaluation objective for English language development was:

- As a result of participating in the program, LEP children will make statistically significant gains in English language proficiency, as measured by the LAB.

The project supplied complete LAB pretest and posttest N.C.E. scores for 348 students. OREA analyzed data for 303 students who had been in the program for at least five months and had taken the pretest prior to February 1989.* (See Table 3.)

Students achieved a mean gain of 13.6 N.C.E.s (s.d.=19.1). The mean gain as well as the gain obtained in each grade was statistically significant (p < .05). B.C.P. achieved its proposed E.S.L. objective.

---

*The 45 students who were in the program for less than five months achieved about one-half the mean gain of those analyzed in Table 3.
TABLE 3

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</th>
<th>Posttest</th>
<th>Difference</th>
<th>t Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Mean</td>
<td>S.D.</td>
<td>Mean</td>
<td>S.D.</td>
</tr>
<tr>
<td>1</td>
<td>206</td>
<td>9.5</td>
<td>12.8</td>
<td>23.5</td>
<td>17.1</td>
</tr>
<tr>
<td>2</td>
<td>90</td>
<td>13.1</td>
<td>12.8</td>
<td>25.0</td>
<td>17.8</td>
</tr>
<tr>
<td>3</td>
<td>7</td>
<td>7.7</td>
<td>11.2</td>
<td>28.3</td>
<td>9.0</td>
</tr>
<tr>
<td>TOTAL</td>
<td>303</td>
<td>10.6</td>
<td>12.8</td>
<td>24.2</td>
<td>17.1</td>
</tr>
</tbody>
</table>

* (p < .05)

Students in all grades for whom there were pre- and posttest scores on the LAB showed significant gains.
V. CONCLUSIONS

During its first year, the Bilingual Children's Project carried out tasks necessary to implement its program, in some instances having to substitute new schools for those originally targeted. It was unable to initiate services at all in one target district. The program developed some materials for parents and classroom teachers. The director felt that had the project received funds to enable it to fill the curriculum specialist position, it would have developed more.

B.C.P. offered instructional and curriculum services to participating schools and presented puppet shows as a means of integrating content areas with E.S.L. instruction. The children reacted enthusiastically to these shows.

B.C.P. met its objectives for staff development activities. While there was no parental involvement objective, B.C.P. conducted parent workshops. Although attendance was low, those parents who attended rated these sessions positively.

The project met its E.S.L. objective as measured by pretest/posttest gains on the LAB. Students measured at all grade levels achieved statistically significant gains.

B.C.P.'s use of puppet shows motivated LEP students and may have enabled them to experience growth in their English language skills. This was an innovative way to approach the problem of teaching English to very young students of limited English proficiency.