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ABSTRACT

Project CABE (Content Area Bilingual Education) offered instruction in English as a Second Language (ESL) and Native Language Arts (NLA) to 823 limited English proficient Spanish-Speaking students in grades 1 through 9 in 34 schools in Manhattan, Brooklyn, and Queens (New York). All students were two or more years below level in mathematics and reading. Language skills development was provided through the content area subjects of mathematics, science and social studies. Career and vocational subjects were infused into the ESL, NLA, and content area curricula. Project CABE also provided resources to encourage staff development and parental involvement. Seventy-two percent of the students for whom pre- and post-test data on the Language Assessment Battery were available showed a gain in scores, indicating that the project fulfilled its English-as-a-Second-Language goals. The program's three components--classroom support services, Second Language Acquisition Centers and other staff development/parental participation activities were successfully implemented. Principals and teachers expressed satisfaction with the program. It was concluded that, based on findings of the evaluation, the project should investigate modifying objectives so that they are pertinent to the target population and can be easily evaluated. (Author/JL)

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# OREA Report

## EVALUATION SECTION REPORT

CONTENT AREA BILINGUAL EDUCATION  
PROJECT CABE  
Grant Number G008635463

1988-89

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EVALUATION SECTION REPORT

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PROJECT CABE  
Grant Number G008635463

1988-89

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CONTENT AREA BILINGUAL EDUCATION  
(PROJECT CABE)  
1988-89

SUMMARY

- Project CABE was fully implemented. In the 1988-89 school year, special education students of limited English proficiency received instruction in English as a Second Language and Native Language Arts through the content areas. The program infused career and vocational education into the content areas. Project CABE also provided classroom teachers with staff development activities and training in techniques for use with its target population. It provided parents with information and workshops.
- Project CABE met its objectives in English as a Second Language, parental involvement, and staff development. OREA could not assess the Native Language Arts objective because of inadequate data. It could not assess the content area or career/vocational objectives because teachers did not assign the requisite number of courses proposed in the objectives.

Content Area Bilingual Education (Project CABE) completed its third year of an Elementary and Secondary Education Act (E.S.E.A.) Title VII funding cycle. It served 823 Spanish-speaking students of limited English proficiency (LEP) in bilingual special education classes, grades one through nine. This represented an increase of 109 students over the previous year. The project functioned in 34 schools located in 16 Community School Districts (C.S.D.s) in Manhattan, Brooklyn, and Queens.

Project CABE offered instruction in English as a Second Language (E.S.L.) and Native Language Arts (N.L.A.). It provided development of language skills through the content area subjects of mathematics, science, and social studies. As a prerequisite for enrollment, all students were two or more years below grade level in mathematics and reading. Project CABE also provided activities for staff development and parental involvement and supplied Second Language Acquisition Centers with materials to assist students and teachers.

Seventy-two percent of the students for whom there were pre- and posttest data on the same level of the Language Assessment Battery showed a gain in scores. Project CABE, therefore, met its E.S.L. objective, as it had in previous years. Although the project submitted scores for all the student population, matching scores on pretest/posttest performance on the Comprehensive Test of Basic Skills--Español were available for only 67 students, of whom 57 percent showed a gain. OREA could

not evaluate the content area or career/vocational education objectives because of their non-applicability to the student population.

Project CABE provided workshops which were attended by all bilingual special education teachers, thereby meeting its staff development objectives. The project provided materials to parents and invited them to workshops; project staff reported that parents had increased their participation and involvement, with an attendance of over 600 at the workshops. Project CABE met its three parental involvement objectives.

The project's three components--classroom support services, Second Language Acquisition Centers and other staff development, and parent participation activities, were successfully implemented. Principals and teachers expressed satisfaction with the program. The project's main weakness lay in the inappropriate instructional objectives for its student population.

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

- The project should investigate modifying the objectives so they are pertinent to the target population and can be adequately evaluated.

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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 project, Content Area Bilingual Education (Project CABE). The Office of Bilingual Services (O.B.S.) of the Division of Special Education (D.S.E.) administered the project. The project was in the last year of a three-year funding cycle. It served Spanish-speaking students of limited English proficiency (LEP) who were also in special education classes at 34 schools in 16 Community School Districts (C.S.D.s) in Manhattan, Brooklyn, and Queens. Project CABE fostered English and Spanish language development, using a content-based learning approach. Project CABE had three components: classroom support services (including demonstration classes, consultation with teachers, and dissemination of classroom materials to meet individual student's needs), Second Language Acquisition Centers and staff development activities, (including the provision of materials at special resource centers), and activities to support parents' involvement in their children's education.

### HISTORY OF THE PROGRAM

LEP special education students have been traditionally underserved in the educational system. A detailed history of Project CABE, as well as a description of its implementation and outcomes in previous years, can be found in the final evaluation reports of 1986-87 and 1987-88.



## SETTING

The 34 schools participating in Project CABE represented a decrease of two over the previous year's number. The project selected schools for participation on the basis of their high proportion of LEP special education students. Additional factors in selecting schools included the number of new students, students' reading and mathematics scores, and the need of teachers for support in meeting the requirements of this special population.

## PARTICIPATING STUDENTS

Project CABE served 823 Spanish-dominant LEP special education students in first through ninth grades. The age of the target population ranged from five to 17. The majority of students (88 percent) were aged nine to 15. More than 95 percent of the students qualified for the federally assisted free lunch program, an indication of family income at the poverty level. All students were two or more years below grade level in mathematics and reading.

Students' exposure to English prior to participation in Project CABE varied, but tended to be limited. About 90 percent of the students were illiterate in their native language.

## STAFF

Project CABE's staff consisted of a project coordinator and four resource teachers. All were bilingual, had a minimum of eight years of experience, and held master's degrees. The Director of O.B.S. supervised project staff.

Each resource teacher served a different region: Brooklyn East, Brooklyn West, Manhattan, and Queens. Each worked with at least eight classroom teachers on a weekly basis. Resource teachers' responsibilities included planning lessons, developing Spanish and English objectives for content areas, introducing curriculum materials, giving demonstration lessons, working on staff development and parent training activities, and facilitating maximum use of the regional Second Language Acquisition Centers\* by teachers, paraprofessionals, and parents.

## DELIVERY OF SERVICES

Project CABE provided support services in three areas: instructional services, staff development, and parental involvement. Instructional efforts focused on E.S.L. and N.L.A., both of which emphasized developing language skills through content areas. The staff development component consisted of tuition assistance for teachers and paraprofessionals and technical assistance provided by the Second Language Acquisition Center. Parent workshops explored topics of interest to the

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\*These Centers offered technical assistance with classroom instructional materials, new teaching techniques, and reviews of current research in second-language acquisition and content area instruction.

parents of participating students, encouraging involvement in their children's education.

#### REPORT FORMAT

This report is organized as follows: Chapter II presents the evaluation methodology; Chapter III describes the implementation and qualitative findings of the evaluation; Chapter IV gives student evaluation outcome data; and Chapter V offers conclusions and recommendations based upon 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 skills as proposed?
- Did the project implement the instructional activities for developing native language skills as proposed?
- Did the project implement the instructional activities for developing content area skills as proposed?
- How many teachers and paraprofessionals enrolled in university courses?
- What was the extent of parent participation in project activities?

#### Outcome

- What was the average gain on the Language Assessment Battery?
- What percentage of students demonstrated gains in native language proficiency?
- What percentage of participating students acquired ten new skills in science and social studies?
- What percentage of participating students acquired ten new skills in mathematics?
- What percentage of participating students acquired ten new skills in career and vocational education?

## EVALUATION PROCEDURES

### Sample

An OREA field consultant visited two participating schools. He interviewed the project coordinator, the principals of P.S. 75 and P.S. 377, and observed four classes. OREA provided a student data form for every participating student; Project CABE returned 823 completed forms to OREA.

### Instruments

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

### Data Collection

Interviews and observations took place in June. OREA gave the student data forms to the program director in March and collected the completed forms in June.

### Data Analysis

OREA used the Language Assessment Battery (LAB)\* to assess improvement in English proficiency. Project CABE students were tested at grade level each spring.

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\*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.

To assess the significance of students' achievement in English, OREA computed a correlated t-test on LAB raw 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 attended classes for at least 100 days. OREA extrapolated to estimate full-year scores of late-arriving and early-exiting students.

OREA evaluated improvement in Spanish proficiency by comparing performance on the Comprehensive Test of Basic Skills (C.T.B.S.)--Español\* at the beginning of the fall semester (October) and at the end of the spring semester (May).

### Limitations

Students certified for special education receive special services commensurate with their Individualized Educational Programs (I.E.P.s). In addition, all LEP students are entitled to receive bilingual and E.S.L. services. Therefore, it was impossible to select an appropriate control group. However, the use of two sets of data, as outlined above, served in lieu of a control group.

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\*Comprehensive Test of Basic Skills, Monterey, Ca: McGraw-Hill/CTB, 1982.

### III. EVALUATION FINDINGS: IMPLEMENTATION

Project CABE provided LEP special education students with E.S.L. and N.L.A. instruction while integrating language development into the content areas. The project's noninstructional component included staff development and parental involvement.

#### STUDENT PLACEMENT AND PROGRAMMING

Project participants were LEP students whose primary language was Spanish and who were certified by the Committee on Special Education (C.S.E.) as having a handicap that interfered with their ability to achieve in a mainstream general education class.

Project CABE programmed students into two tracks, Bilingual Instructional Services (BIS) I or II. When appropriate, classroom teachers initiated mainstreaming of participating students. The School Based Support Team (S.B.S.T.) then recommended, and the C.S.E. approved, mainstreaming into bilingual or English-only general education classes.

#### INSTRUCTIONAL ACTIVITIES

Project CABE carried out instructional activities in E.S.L., N.L.A., content area subjects, and career and vocational education.

### English as a Second Language

The OREA field consultant observed an E.S.L. class of five students at P.S. 377. The teacher had students write class news focusing on the weather into their copybooks. Afterwards, they painted pictures. The teacher conducted the class in English. A paraprofessional was present and assisted the students.

The field consultant also observed an E.S.L. class at P.S. 75, at which eight students were present. The lesson was a review of possessive verb forms. The teacher wrote sentences on the board, and students filled in the missing words. At the end of the class, the teacher summarized what they had done. The teacher conducted the class in English; no paraprofessional was present.

At P.S. 75, the consultant observed two E.S.L. classes that had combined to rehearse a song for graduation exercises. There were two teachers and 16 students present in the classroom. One of the teachers played the guitar as the other pointed out the lyrics on the board for the students to follow.

### Native Language Arts

Students studied N.L.A. in accordance with their I.E.P. objectives. A student's score on the C.T.B.S. determined the level of these objectives as well as the number of periods the student studied N.L.A. each day. Participating students worked on grammar, reading, and writing, as well as Hispanic culture, history, and literature.



### Content Area Subjects

Students' content area objectives varied with their I.E.P.s, but were in accordance with state curriculum requirements for a specific grade level. Students were grouped functionally, by grade levels and language skills, and used Spanish until they were advanced into English content area classes.

### Career and Vocational Education

Career and vocational subjects projected in students' I.E.P.s were infused into the E.S.L., N.L.A., and content area curricula. Activities in this area included visiting various workplaces, reading and writing about different careers, and interviewing people in specific occupations.

### NONINSTRUCTIONAL ACTIVITIES

Project CAFE proposed noninstructional implementation objectives in staff development and parental involvement.

### Staff Development

The program objectives for staff development were:

- All of the classroom bilingual teachers participating in Project CAFE will have participated in workshops on the development of different skill areas using the transitional bilingual special education instructional model.
- All of the classroom bilingual special education teachers participating in Project CAFE will have participated in workshops in techniques and the preparation of materials and lessons appropriate for use with LEP special education students.

The project coordinator reported that staff development was one of the most important components of the project.

Training workshops addressed the development of different skill areas, using the transitional bilingual special education instructional model, as well as the preparation of materials and lessons appropriate for LEP special education students. Second Language Acquisition Centers, located in four of the regional resource libraries, offered workshops, seminars, and lectures to teachers. The Centers afforded classroom teachers the opportunity to see demonstrations of new teaching techniques and to review and discuss supplemental instructional materials, resources, and research in second language acquisition and content area instruction. The project coordinator reported that all classroom bilingual teachers attended workshops as proposed.

Project CABE resource teachers regularly provided direct instructional support to classroom special education teachers. The project also provided tuition assistance for professional and paraprofessional staff to enhance their expertise in the fields of bilingual and special education.

Project CABE met both of its staff development objectives.

### Parental Involvement

The program objectives for parental involvement were:

- All parents of students participating in Project CABE will have received materials and other resources on bilingual special education and will have been invited to workshops on policies, procedures of transitional bilingual education, assessment procedures, the parent's role in a child's education, and community resources.
- Due to the greater understanding the parents will have of their role in the educational process, there will be greater parent participation and involvement.

- A minimum of 50 percent of the parents of students participating in Project CABE will have received workshops acquainting them with the policies and procedures of the school and the Division of Special Education.

The project provided materials and workshops on resources available to parents as well as on techniques to help their children at home. Approximately 300 parents participated in the Special Education Multicultural Parents' Conference, a one-day conference focusing on minority students with disabilities.

The Multicultural Arts Festival was held at the beginning of June. It provided parents and students with an opportunity to broaden awareness of the art forms of many cultures.

Since all parents received materials and were invited to workshops, Project CABE met the first parental involvement objective. Project staff reported that over 600 parents attended the four workshops offered during the year. Staff also informed the OREA consultant of increased parental participation and involvement. Thus, Project CABE met the other two parental involvement objectives.

#### IV. EVALUATION FINDINGS: OUTCOMES

Project CABA posed outcome objectives in E.S.L., N.L.A., content area subjects, and career and vocational education.

##### ENGLISH AS A SECOND LANGUAGE

The evaluation objective for the development of English language skills was:

- Seventy percent of the participating students will improve in English language skills as measured by the Language Assessment Battery.

LAB pretest data were available for 571 students and posttest data for 481 students, but matching data were available for only 294 students. Pretest and posttest scores must be on the same test level in order to compare raw scores. For the students on whom matching data were available, the pretest mean was 34.4 (s.d.=15.1) and the posttest mean was 44.1 (s.d.=14.9). The mean gain of 9.7 (s.d.=14.5) was statistically significant ( $p < .05$ ). The percentage of students showing a gain in score from pretest to posttest was 72 percent. Project CABA achieved its E.S.L. objective.

##### NATIVE LANGUAGE ARTS

The evaluation objectives for the development of native language skills were:

- A minimum of 70 percent of the students participating in Project CABA will demonstrate an improved ability to read and comprehend their native language as measured by the Comprehensive Test of Basic Skills-Español subtests and teacher-made evaluation tools.

- Students participating in Project CABE will demonstrate improved oral, writing, and listening skills in their native language as measured by teacher-made and program-developed evaluation instruments.

C.T.B.S. pretest data were available for 276 students; posttest data were available for 646 students. Given the special nature of this population, OREA did not convert raw scores to N.C.E.s. In order to compare pretest and posttest, it used only those for which the same level and form of the test had been administered on both occasions. This was the case for only 67 students, whose pretest mean was 31.6 (s.d.=13.6) and posttest mean was 36.0 (s.d.=15.8). Fifty-seven percent of these 67 students showed gains. This figure represented about 10 percent of the population, and OREA does not consider this adequate to assess the objective.

Project staff felt the second objective was really included in the first objective and did not develop the instruments to measure it.

#### CONTENT AREA SUBJECTS

The evaluation objectives for content area subjects were:

- A minimum of 70 percent of the students participating in Project CABE will master a minimum of ten new skills consistent with the student's I.E.P. short term objectives for science and social studies.
- A minimum of 70 percent of the students participating in Project CABE will demonstrate mastery of a minimum of ten new mathematics skills as measured by the Comprehensive Instructional Management System (CIMS) tests.

OREA could not measure either of these objectives. Except for ten students in science classes, teachers did not assign the

requisite ten new skills over the three years that the program operated.

#### CAREER AND VOCATIONAL EDUCATION

The evaluation objective for career and vocational education was:

- A minimum of 70 percent of the students participating in Project CABE will master a minimum of ten new skills consistent with the student's I.E.P. short term objectives for career and vocational education.

Teachers did not assign ten new skills over the three years the project functioned, therefore OREA could not assess this objective.

## V. CONCLUSIONS AND RECOMMENDATION

In its fourth year of implementation, Project CABE served 23 Spanish-speaking LEP special education students in grades one through nine at 34 schools. Principals of these schools voiced appreciation and support for the program. Participating students received instruction in E.S.L. and N.L.A. through the content areas, into which career and vocational education was also infused. Project CABE continued to provide instructional support to bilingual special education teachers, a program component that was enthusiastically received, particularly by teachers new in the field. In addition to staff development through tuition assistance workshops, and the direct assistance of resource teachers on a virtual mentor basis, the project supplied Second Language Acquisition Centers with materials for students, parents, and classroom teachers. Project CABE provided the parents of participating students with information and workshops on services available to them and their children.

Project CABE met its E.S.L. objective, since 72 percent of those students for whom there were matching LAB scores showed gains. The project did not provide sufficient data for OREA to assess the N.L.A. objectives. Because of inappropriate data, OREA could not assess the content area or career/vocational education objectives. The project met both of its staff development objectives, and the director reported that this aspect of the program was one of its most important. The project supplied

information to parents of all participating students and invited them to workshops, thereby meeting one of its parental involvement objectives. Because the project did not provide necessary data, it was not possible for OREA to determine whether Project CABE had met the other two objectives for parental involvement.

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

- The project should investigate modifying the objectives so they are pertinent to the target population and can be adequately evaluated.