

DOCUMENT RESUME

ED 319 252

FL 018 545

AUTHOR Berney, Tomi D.; Plotkin, Donna  
 TITLE Methodologies of Bilingual Instruction in Literacy Education. Project Mobile, 1988-89. OREA Report.  
 INSTITUTION New York City Board of Education, Brooklyn, NY. Office of Research, Evaluation, and Assessment.  
 SPONS AGENCY Department of Education, Washington, DC.  
 PUB DATE Apr 90  
 GRANT G008710403  
 NOTE 31p.  
 PUB TYPE Reports - Evaluative/Feasibility (142)

EDRS PRICE MF01/PC02 Plus Postage.  
 DESCRIPTORS Adult Basic Education; \*Bilingual Education Programs; Computer Assisted Instruction; \*Computer Literacy; Curriculum Development; \*English (Second Language); Federal Programs; Haitian Creole; Limited English Speaking; \*Literacy Education; \*Native Language Instruction; Parent Participation; Postsecondary Education; Program Evaluation; Secondary Education; Second Language Instruction; Spanish Speaking; Staff Development; Student Placement; Teaching Methods; Uncommonly Taught Languages  
 IDENTIFIERS Content Area Teaching; \*Project Mobile NY

ABSTRACT

In its second year, Methodologies of Bilingual Instruction in Literacy Education (Project MOBILE) provided 373 students of limited English proficiency, native speakers of Spanish and Haitian Creole, with supplementary English as a Second Language (ESL), native language arts (NLA), and content-area instruction. Project MOBILE stressed the acquisition of English and development of mathematics and computer skills through computer use. The project also provided staff and curriculum development activities and basic skills courses for parents, and met its objectives in ESL, computer science, and curriculum development. It met one staff development objective, and partially met content area objectives. Lack of data made assessment of objectives impossible in the areas of Spanish NLA, attendance, grade retention, referral to remedial programs and special education, staff awareness of pupil problems and needs, placement in programs for the gifted and talented and in postsecondary institutions, and parent involvement. Recommendations for program improvement include allocation of appropriate space for a resource and computer center at one site, and continued efforts to increase parental understanding and involvement in the program, offering activities of interest to parents such as ESL and/or basic skills. (MSE)

\*\*\*\*\*  
 \* Reproductions supplied by EDRS are the best that can be made \*  
 \* from the original document. \*  
 \*\*\*\*\*



# OREA Report

## EVALUATION SECTION REPORT

METHODOLOGIES OF BILINGUAL INSTRUCTION  
IN LITERACY EDUCATION  
PROJECT MOBILE  
Grant Number G008710403

1988-89

U.S. DEPARTMENT OF EDUCATION  
Office of Educational Research and Improvement  
EDUCATIONAL RESOURCES INFORMATION  
CENTER (ERIC)

This document has been reproduced as received from the person or organization originating it.

Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

"PERMISSION TO REPRODUCE THIS  
MATERIAL HAS BEEN GRANTED BY

R. Tobias

TO THE EDUCATIONAL RESOURCES  
INFORMATION CENTER (ERIC)."

EVALUATION SECTION  
John E. Schoener, Chief Administrator  
April 1990

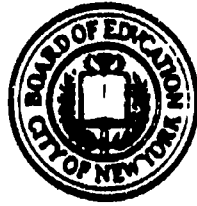
EVALUATION SECTION REPORT

METHODOLOGIES OF BILINGUAL INSTRUCTION  
IN LITERACY EDUCATION  
PROJECT MOBILE  
Grant Number G008710403

1988-89

Prepared by  
The Multicultural/Bilingual Education Evaluation Unit  
Tomi Deutsch Berney, Evaluation Manager  
Donna Plotkin, Evaluation Consultant

New York City Board of Education  
Office of Research, Evaluation, and Assessment  
Robert Tobias, Director



## **NEW YORK CITY BOARD OF EDUCATION**

**Robert F. Wagner, Jr.**  
President

**Irene H. Impellizzeri**  
Vice President

**Gwendolyn C. Baker**  
**Amalia V. Betanzos**  
**Stephen R. Franse**  
**James F. Regan**  
**Edward L. Sadowsky**  
Members

**Joseph A. Fernandez**  
Chancellor

---

It is the policy of the New York City Board of Education not to discriminate on the basis of race, color, creed, religion, national origin, age, handicapping condition, marital status, sexual orientation, or sex in its educational programs, activities, and employment policies, as required by law. Any person who believes he or she has been discriminated against should contact his or her Local Equal Opportunity Coordinator. Inquiries regarding compliance with appropriate laws may also be directed to Mercedes A. Nestfeld, Director, Office of Equal Opportunity, 110 Livingston Street, Room 601, Brooklyn, New York 11201; or to the Director, Office for Civil Rights, United States Department of Education, 26 Federal Plaza, Room 33-130, New York, New York 10278.

---

1/1/90

LE

METHODOLOGIES OF BILINGUAL INSTRUCTION IN LITERACY EDUCATION  
PROJECT MOBILE  
1988-89

SUMMARY

- Project MOBILE was fully implemented. Students received instruction in English as a Second Language, Native Language Arts, and bilingual content areas. The project provided curriculum development and offered staff development to its personnel and basic skills classes to students' parents.
- The project met its objectives in English as a Second Language, computer science, and curriculum development. It met one of its staff development objectives. It partially met its content area subjects objective. Lack of data made it impossible to evaluate objectives in Spanish Native Language Arts, attendance, grade retention, referral to remedial programs, referral to special education, staff awareness of pupil needs and problems, placement in programs for the gifted and talented and in post-secondary education institutions, and parental involvement. Project MOBILE failed to meet its Haitian Creole Native Language Arts objective.

Methodologies of Bilingual Instruction in Literacy Education (Project MOBILE) completed the second year of a three-year cycle funded by Title VII of the Elementary and Secondary Education Act (E.S.E.A.). The project provided 373 students of limited English proficiency (LEP students) with supplementary English as a Second Language (E.S.L.), Native Language Arts (N.L.A.), and content area instruction. The target population included 141 Spanish-speaking students at Franklin K. Lane High School and 261 Haitian Creole/French speakers at Samuel J. Tilden High School. MOBILE stressed the acquisition of English and the development of mathematics/computer skills through the use of computers housed at the project sites. MOBILE also provided staff and curriculum development activities and basic skills courses for the parents of participating students.

Students showed significant gains on the English Language Assessment Battery (LAB), so the project met its E.S.L. objective. Since the project did not use the test it proposed in the objective it was impossible to assess the Spanish N.L.A. objective. While Project MOBILE came very close to meeting the Haitian Creole N.L.A. objective in the fall, it did not meet it in the spring. Thus the project failed to meet that N.L.A. objective. At least 75 percent of students passed their courses in mathematics, science, and social studies in the spring but 75 percent passed only science in the fall, so MOBILE only partially

met its content area subjects objective. All students for whom data were available in computer science passed their courses, the project met its objective in that area.

Project MOBILE did not provide the data necessary to assess objectives in attendance, referral to remedial programs, grade retention and referral to special education, and placement in programs for the gifted and talented and in post-secondary education institutions.

Project MOBILE met its staff development objective in relation to the demonstration of professional growth. It did not provide the data necessary to assess the objective of increasing staff awareness of pupil needs and problems. Although the project did not develop an instructional guide in N.L.A., it did develop the required eight instructional guides. Project MOBILE, therefore, met its curriculum development objective. The project did not supply the data necessary to evaluate the parental involvement objective.

During the 1988-89 school year, the program had difficulties implementing its resource/computer centers at both schools. The equipment was stolen at Franklin K. Lane High School, and the project did not have a room at Tilden High School.

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

- Allocate appropriate space for the resource/computer center at Samuel F. Tilden High School.
- Continue efforts to increase parental understanding and involvement in the program, offering activities of interest to parents, such as E.S.L., and/or basic skills classes at Franklin K. Lane High School.

## TABLE OF CONTENTS

	<u>PAGE</u>
I. INTRODUCTION .....	1
History of the Program .....	1
Setting .....	1
Participating Students .....	1
Staff .....	2
Delivery of Services .....	4
Report Format .....	5
II. EVALUATION METHODOLOGY.....	6
Evaluation Questions .....	6
Process/Implementation .....	6
Outcome .....	6
Evaluation Procedures .....	6
Sample .....	6
Instruments .....	7
Data Collection .....	7
Data Analysis .....	7
Limitations .....	8
III. EVALUATION FINDINGS: IMPLEMENTATION.....	9
Student Placement and Programming .....	9
Instructional Activities .....	9
English as a Second Language .....	9
Native Language Arts .....	10
Content Area Subjects .....	10
Non-Instructional Activities .....	12
Staff Development .....	13
Curriculum Development .....	14
Parental Involvement .....	14
IV. EVALUATION FINDINGS: OUTCOMES .....	16
Instructional Outcomes .....	16
English as a Second Language .....	16
Native Language Arts .....	16
Content Area Subjects .....	18
Computer Science .....	18
Non-Instructional Outcomes .....	20
Attendance .....	20
Referral to Remedial Programs .....	20
Grade Retention and Referral to Special Education .....	20
Placement in Programs for the Gifted and in Postsecondary Institutions .....	21
V. CONCLUSIONS AND RECOMMENDATIONS .....	22

LIST OF TABLES

	<u>PAGE</u>
TABLE 1: Number of Program Students by Age and Grade .....	3
TABLE 2: Pretest/Posttest N.C.E. Differences on Language Assessment Battery, by Grade and School .....	17
TABLE 3: Passing Rates in Content Area Courses at Samuel J. Tilden High School .....	19



## I. INTRODUCTION

This report documents the Office of Research, Evaluation, and Assessment's (OREA's) evaluation of the second year of the Elementary and Secondary Education Act (E.S.E.A.) Title VII program, Methodologies of Bilingual Instruction in Literacy Education (Project MOBILE). The project served 393 students of limited English proficiency (LEP students) whose native languages were either Spanish or Haitian Creole at Franklin K. Lane and Samuel J. Tilden High Schools. The project's primary objective was to offer LEP students the opportunity to gain proficiency in English while developing reading and writing skills in their native languages.

### HISTORY OF THE PROGRAM

Project MOBILE's evaluation report for 1987-88 presented the historical background of bilingual education at the two participating schools and described the project's first year.

### SETTING

Franklin K. Lane High School is located on the Brooklyn/Queens border in a deteriorated, low-income community. Samuel J. Tilden High School is situated in a residential neighborhood of single-family homes in Brooklyn.

### PARTICIPATING STUDENTS

Project MOBILE served 393 students, 250 at Samuel J. Tilden High School and 143 at Franklin K. Lane High School. Approximately 61 percent of the students were from Haiti and 35

percent were from the Dominican Republic. Many were recent immigrants--of the 309 students for whom the project provided data, 44 percent had been in the United States for less than a year and about 95 percent less than two years. At Franklin K. Lane High School, most of the participating students were either looking for jobs or were working part-time. Many lived in single-parent or sibling-headed households. This was not the case at Samuel J. Tilden High School.

Most of the participating students were in the ninth and tenth grades. (See Table 1.) Many (63 percent) were over-age for their grade placement. Students were generally well prepared in the content areas but very limited in English. Although a number of Haitian students had some knowledge of spoken French, most had great difficulty reading and writing that language, preferred as the language of instructions by Haitian families.

#### STAFF

Project MOBILE's Title VII staff included a resource specialist and a paraprofessional at each site.

Both resource specialists had master's degrees and a number of years of experience in bilingual education. At Franklin K. Lane High School, the resource specialist worked full-time at the resource center. At Samuel J. Tilden High School, the resource specialist taught one class each day.

The paraprofessional at Franklin K. Lane High School worked at the resource center six periods a day, while the paraprofessional at Samuel J. Tilden High School assisted in

TABLE 1

Number of Program Students by Age and Grade\*

Age	Grade 9	Grade 10	Grade 11	Grade 12	Total
13	1	0	0	0	1
14	3	0	0	0	3
15	18	7	1	0	26
16	12	16	7	0	35
17	10	20	7	0	37
18	4	18	6	0	28
19	1	14	4	1	20
20	0	2	7	0	9
21	0	1	0	0	1
TOTAL	49	78	32	1	160

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

\*As of June 30, 1989.

Over-Age Students

Number	27	55	17	1	100
Percent	55.0	70.5	53.1	100.0	62.5

- Most participating students were in the tenth grade.
- The majority (62.5 percent) of program students were over-age for their grade placement.

bilingual classes three periods a day and worked in the project office four periods, tutoring students individually. Both paraprofessionals spoke the native languages of the students they served.

#### DELIVERY OF SERVICES

Project MOBILE provided the target population with individualized and interdisciplinary bilingual instruction according to their needs, abilities, and career goals. Title VII funds offered supplementary instruction in English as a Second Language (E.S.L.); Native Language Arts (N.L.A.); in native language mathematics, science, and social studies; and in computer science.

A resource specialist and a paraprofessional operated a resource center at Franklin K. Lane High School. While it was open to participating students eight periods a day, students had no free periods and thus had to lose class time in order to visit the center. The resource specialist, in collaboration with classroom teachers, scheduled those program students most in need of remedial services. During the fall semester, project students had access to computer-assisted instruction and learned basic computer literacy and keyboarding. Resource room activities were in Spanish. The computer equipment was stolen during the spring semester and not replaced, therefore all computer-related activities were discontinued.

At Samuel J. Tilden High School, the school administration did not allocate space for a resource center. Instead, the

resource specialist used his office and was available full-time to assist program students. The project's computers were housed in moveable cabinets and kept in a classroom. Classes used this room throughout the day, so the project students could use the computers only after school, a time when staff could provide only limited instruction.

The program at both sites provided students with academic and personal counseling, tutoring, and career and college advisement, and conducted cultural trips. At Samuel J. Tilden High School, the project offered parents basic skills classes, including basic literacy, E.S.L., and high school equivalency (G.E.D.) preparation.

#### 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 relevant objectives; Chapter IV examines the project's attainment of its student performance objectives; and Chapter V gives conclusions and recommendations based on the results of the evaluation.

## II. EVALUATION METHODOLOGY

### EVALUATION QUESTIONS

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

#### Process/Implementation

- Did the program select students for program participation according to specific criteria?
- 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 provide the in-service staff development activities as proposed?
- How many instructional guides did project personnel develop?

#### Outcome

- What was the average Normal Curve Equivalent gain on the Language Assessment Battery?
- What percentage of program students passed their courses in mathematics, science, and social studies?
- What percentage of program students passed their courses in computer science?
- How did the attendance rate of program students compare with that of mainstream students?

### EVALUATION PROCEDURES

#### Sample

An OREA field consultant observed classes in E.S.L., N.L.A., mathematics, and science. The consultant also interviewed

program and school staff, including the school principals, resource specialists, and paraprofessionals. OREA provided the project with student data forms for all participating students in both spring and fall.

### Instruments

OREA developed interview and observation schedules used by the field consultant in her site visits. Project personnel used OREA-developed data retrieval forms to report student demographic, attendance, and achievement data. The project director completed an OREA-developed questionnaire for directors.

### Data collection

The field consultant interviewed school and program staff and observed classes during the spring semester. The project returned student data forms in February and June. The project returned questionnaires at the end of June.

### Data Analysis

OREA used the Language Assessment Battery to assess improvement in English proficiency. Project MOBILE 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

---

\*Raw scores were converted to N.C.E. scores, which are normalized standard scores. They have the advantage of forming an equal interval scale so that scores and gains can be averaged. For the norming population, N.C.E.s have a mean of 50, a standard deviation of approximately 20, and a range from one to 99. Scores can be compared to the norming population.

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.



### III. EVALUATION FINDINGS: IMPLEMENTATION

#### STUDENT PLACEMENT AND PROGRAMMING

Students were eligible for the project if they scored below the twenty-first percentile on the Language Assessment Battery (LAB).<sup>2</sup> Project MOBILE also considered students' scores on teacher-made tests, personal interviews, school records and recommendations when recruiting students for the project. Teacher recommendations, report cards from previous schools, and interviews with the resource specialists determined students' initial placement in E.S.L. courses.

#### INSTRUCTIONAL ACTIVITIES

Project MOBILE provided LEP students with instruction in E.S.L.; N.L.A.; bilingual mathematics, science, and social studies; and computer science.

#### English as a Second Language

Students took E.S.L. reading and writing courses at the beginning, intermediate, and advanced levels at both sites. Samuel J. Tilden High School also provided a pre-literacy level class in order to prepare students for beginning E.S.L.

---

<sup>2</sup>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 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.

An OREA field consultant observed a beginning-level E.S.L. class at Franklin K. Lane High School. The teacher began the class by asking each student to complete "Do you have any \_\_\_\_\_?" with a noun. She then reviewed the conjugation of the verbs "to have" and "to do" by having students supply the correct verb form. During the second part of the lesson, the students reviewed prepositions describing location. They wrote sentences using those prepositions on the board, then repeated each of them in unison. During the last part of the class, the teacher read a textbook selection and called for volunteers to repeat it. The teacher asked true/false questions to test students' reading comprehension. All students had an opportunity to participate orally in the class.

#### Native Language Arts

At both Samuel J. Tilden and Franklin K. Lane High Schools, the assistant principal for foreign languages was in charge of N.L.A. instruction. Because of a lack of student interest or demand, Tilden High School did not offer Haitian Creole N.L.A. Instead, it provided program students with four levels of French instruction and two levels of French culture. Franklin K. Lane High School provided program students with four levels of Spanish N.L.A.

#### Content Area Subjects

Both Samuel J. Tilden and Franklin K. Lane High Schools appeared to have an adequate number of bilingual teachers to meet

student needs in all content area subjects. Samuel J. Tilden High School offered program students content area classes in global studies, United States government, general science, biology, chemistry, physical science, and business mathematics. Sequential mathematics classes were taught with an E.S.L. approach, a Haitian Creole-speaker assisting.

At Franklin K. Lane High School, program students took bilingual classes in global studies, fundamentals of mathematics, biology, keyboarding, and stenography.

A field consultant observed Haitian-Creole bilingual global studies and general science classes at Samuel J. Tilden High School and a Spanish bilingual biology class at Franklin K. Lane High School.

Global Studies. At Samuel J. Tilden High School, 15 students were present during a global studies class. The lesson was on drugs. The teacher distributed a handout in Haitian Creole entitled, "What Children Already Know About Drugs." It consisted of two passages written by students on their experiences with drug abusers. The teacher read each passage aloud, asked questions, and wrote new vocabulary on the blackboard. The teacher reported that he presented lessons in Haitian Creole but usually wrote on the board in English. He gave students a choice of languages for classroom tests.

General Science. The OREA consultant also observed a bilingual general science class with 26 students at Samuel J. Tilden High School. A Title VII paraprofessional was present.

The teacher wrote the aim of the lesson, "How can we reduce friction in machines?", on the blackboard in English. To begin the class, the teacher asked the students to do an exercise from their English-language physical science textbooks while a student copied the homework assignment onto the blackboard in French. A discussion of machines followed, the teacher asking for examples of machines used in the students' lives. The teacher reviewed the concepts of actual and ideal mechanical advantage and gave the class a formula for calculating the actual. The paraprofessional circulated, making sure that students worked and translating for students who had difficulty with the English text.

Biology. Twenty-five students were present in the biology class on sexual reproduction at Franklin K. Lane High School. The teacher began by explaining gametes and chromosomes and then dictated notes in Spanish about the process of meiosis. She wrote several questions about meiosis on the board and provided answers by means of lecture, notes, and drawings. Students were not encouraged to comment or ask questions about the content of the lesson.

#### NON-INSTRUCTIONAL ACTIVITIES

The project proposed non-instructional implementation objectives in staff development, curriculum development, and parental involvement.

## Staff Development

The program objectives for staff development were:

- Ninety percent of the program staff will demonstrate professional growth by completing college courses and by attending in-service training sessions.
- Eighty-five percent of the program staff will demonstrate an increase in awareness of pupil needs and problems as indicated by a 5-point scale of problems and needs inventory.

The staff at Franklin K. Lane High School completed a variety of college-level courses. The resource specialist took courses at Southhampton College and six credits of education courses at the Summer Institute for Teaching English to Speakers of Other Languages (TESOL) at C.W. Post College. The paraprofessional at Franklin K. Lane High School took nine credits at Long Island University. Project staff at Franklin K. Lane High School also attended a New York State United Teachers-sponsored conference at Hunter College entitled "Encouraging the Discouraged Learner" and a seminar on relating computers to E.S.L. instruction.

Project staff at Samuel J. Tilden High School attended workshops on technical assistance for evaluation and budget management. None of the staff at Tilden High School took college courses.

All Title VII staff members attended in-service training sessions and two staff members completed college courses. Thus, Project MOBILE met its first staff development objective.

Project MOBILE failed to supply the data necessary for OREA to evaluate the second objective relating to staff awareness of pupil needs and problems.

### Curriculum Development

The program objective for curriculum development was:

- As a result of the program, eight instructional guides will be developed in the areas of mathematics, science, social studies, Native Language Arts, and computer science in the native language.

The program developed Haitian Creole curricula in computer literacy, mathematics, social studies, and business; and Spanish curricula in sequential mathematics and global studies. Although the project did not develop N.L.A. guides, it did develop eight instructional guides. The project therefore accomplished its curriculum development objective.

### Parental Involvement

The program objective for parental involvement was that:

- The attendance of parents of program students at school functions will be ten to 15 percent higher than that of parents of mainstream students.

OREA could not assess the objective as proposed since the project provided no data on the attendance of parents of mainstream students. Program parents' attendance was low, despite attempts by staff to inform and interest them. The program provided basic skills classes for Tilden parents at the neighboring Vandever Catholic Center, deemed a safer location at night. Franklin K. Lane High School did not offer any such courses.

According to information provided by the resource specialists at both sites, fewer than seven parents attended monthly advisory council meetings at each school.

#### IV. EVALUATION FINDINGS: OUTCOMES

##### INSTRUCTIONAL ACTIVITIES

The project proposed instructional objectives in E.S.L., N.L.A., content area subjects, and computer science.

##### English as a Second Language

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

- As a result of participation in the program, program students will make statistically significant gains in English language proficiency.

Complete LAB pretest and posttest scores were available for 210 students. Students in grades nine through eleven made significant ( $p < .05$ ) gains on the LAB. (See Table 2.) There were LAB scores for only eight twelfth-graders. Although the mean gain at Franklin K. Lane High School was not statistically significant, the project met its E.S.L. objective.

##### Native Language Arts

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

- Seventy-five percent of the Spanish-dominant participants will demonstrate a significant increase in Spanish-language achievement as indicated by significant improvement at the .05 level of statistical significance when results of La Prueba de Lectura are analyzed using a correlated  $t$ -test.
- Seventy-five percent of the Haitian Creole-dominant participants will demonstrate a significant increase in native-language achievement as indicated by receiving a grade of at least 65 on a final exam.



TABLE 2

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

Grade	Number of Students	Pretest		Posttest		Difference		t value
		Mean	S.D.	Mean	S.D.	Mean	S.D.	
9	59	7.0	8.7	10.8	9.0	3.8	10.9	2.67*
10	83	9.7	10.8	14.3	11.7	4.5	11.4	3.61*
11	60	13.4	9.4	16.1	12.3	2.7	9.5	2.22*
12	8	14.6	10.5	22.1	14.4	7.5	10.8	1.97
TOTAL	210 <sup>a</sup>	10.2	10.1	14.1	11.5	3.9	10.7	5.30*
<u>School</u>								
Samuel J. Tilden	131	8.7	8.7	13.7	11.0	5.0	9.9	5.80*
Franklin K. Lane	79	12.7	11.8	14.8	12.5	2.1	11.8	1.59

<sup>a</sup>p < .05.

<sup>a</sup>Data were not available for 183 students.

- Overall, N.C.E. scores showed significant increases from pretest to posttest.

Since the project did not use "La Prueba de Lectura", OREA was unable to determine whether Project MOBILE met its Spanish-language N.L.A. objective.

Seventy-four percent of the Haitian students in the fall and 61 percent in the spring achieved the passing criterion of 65. The project came very close to meeting the Haitian Creole N.L.A. objective in the fall, but it failed to meet it in the spring.

### Content Area Subjects

The evaluation objective for content area subjects was:

- Seventy-five percent of program students will achieve a passing grade of 65 or better in mathematics, science, and social studies.

In the fall, 75 percent of students passed their science courses; in the spring, over 75 percent of students passed their courses in mathematics, science, and social studies. (See Table 3.) The project met the objective in the spring term only.

### Computer Science

The evaluation objective for computer science was:

- At least 75 percent of the students enrolled in computer science courses will score at or above the passing criterion of 65 on the final exam.

Data were available for 22 students in computer courses (including typing, keyboarding, word processing, and computer literacy). All students passed their courses. Project MOBILE easily met its computer science objective.

---

\*La Prueba de Lectura. San Antonio, TX: Guidance Testing Associates, 1980.

TABLE 3

Passing Rates in Content Area Courses  
at Samuel J. Tilden High School

	Fall		Spring	
	Number of Students	Percent Passing	Number of Students	Percent Passing
Mathematics	99	55.6	158	88.0
Science	140	77.1	158	77.8
Social Studies	124	67.7	156	86.5
Overall Passing Rate	363	68.0	472	84.1

- Overall, Project MOBILE met the objective that 75 percent of the students would achieve a passing grade of 65.

## NON-INSTRUCTIONAL ACTIVITIES

The project proposed non-instructional outcome objectives in attendance, referral to remedial programs, grade retention and referral to special education, and placement in programs for the gifted and talented and in post-secondary education institutions.

### Attendance

The program objective for attendance was:

- As a result of participation in the program, students' attendance will be 10 to 15 percent higher than the attendance of mainstream students.

Of the 164 students for whom the project provided data, 93 percent had perfect attendance and all the students had an attendance rate of over 89 percent. However, attendance data were not provided for Samuel K. Lane High School, and OREA could not assess the attainment of this objective.

### Referral to Remedial Programs

The project objective in this area stipulated:

- The rate of program students referred to special remedial programs will be 10 to 15 percent less than that of mainstream students.

Project MOBILE did not provide any data on the referral of participating students to remedial programs. OREA could not assess the accomplishment of this objective.

### Grade Retention and Referral to Special Education

The program objective for grade retention and referral to special education was:

- Rates of student grade retention or referral to or placement in special education will be 10 to 15 percent lower for program students than for mainstream students.

There was a high rate of grade retention of program students (overall 49 percent). This was particularly pronounced at Samuel F. Tilden High School where the rate of retention was 74 percent (185 of 250 students). At Franklin K. Lane the rate was much lower (4.2 percent, or six of 143 students, were retained). Given the high rate at one of the program schools, it was unlikely that the project met this objective. However, since there were no data on the grade retention of mainstream students, this objective could not be evaluated.

#### Placement in Programs for the Gifted and Talented and in Post-Secondary Education Institutions

The program objective for placement in programs for the gifted and talented and in post-secondary education institutions was:

- As a result of participation in the program, students' placement in programs for the gifted and talented and enrollment in post-secondary education institutions will be 10 to 15 percent greater than that of mainstream students.

Since the project did not provide data related to this objective, it could not be evaluated.

## V. CONCLUSIONS AND RECOMMENDATIONS

During 1988-89, Project MOBILE students took courses in E.S.L., N.L.A., the content areas of mathematics, science, and social studies in their native language, and computer science. A resource center operated at Franklin K. Lane High School during the fall semester but closed after the computers were stolen in the spring. Samuel F. Tilden High School never provided appropriate space for a computer/resource room that could be frequented by students during the school day. The project provided staff and curriculum development activities and courses in basic skills for the parents of participating students at Samuel J. Tilden High School.

As it did the previous year, Project MOBILE met the staff development objective for in-service training and college coursework but did not provide data to assess the objective on staff awareness of pupils needs. The project improved its curriculum development effort. MOBILE failed to meet its objective in 1987-88, but for the year under review the project achieved the curriculum development objective.

Project MOBILE met its E.S.L. objective, met its content area subjects objective in the spring but not in the fall, and met its computer science objective. It came close to meeting its N.L.A. objective for Haitian Creole in the fall, but not in the spring, and did not provide the data for the Spanish language N.L.A. objective. (In 1987-88, the program met its N.L.A. objective in the spring but not in the fall for the students at

Tilden High School, and provided no data for the students at Lane High School.)

Attendance data were provided for students at Tilden High School only, and this lack of data precluded OREA's assessment of this objective. The attendance objective for the previous year had been met, and the high attendance at Tilden High School seemed to indicate that had the data for this year been complete, the project would have met this objective this year.

As in previous years, the project did not provide data for OREA to evaluate the objectives for referral to special education and remedial programs, gifted programs, and post-secondary education.

During 1988-89, Project MOBILE was not successful in its efforts to involve parents in the program. Parent attendance at the advisory council meetings was low, and Franklin K. Lane High School did not offer basic skills classes to parents as did Tilden High School.

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

- Allocate appropriate space for the resource/computer center at Samuel F. Tilden High School.
- Continue efforts to increase parental understanding and involvement in the program, if possible offering activities of interest to parents, such as E.S.L. and/or basic skills classes at Franklin K. Lane High School.