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ABSTRACT

Project Data Tech targeted Spanish- and Haitian-speaking students of limited English proficiency at a high school in Brooklyn. Students who were admitted scored at or below the 40th percentile on the Language Assessment Battery, were new arrivals into the country, and wanted to join the computer-aided drafting (CAD) or cosmetology programs. Students received instruction in English as a Second Language, native language arts (NLA), and bilingual content area subjects. The design included non-instructional services such as guidance, job placement, extracurricular activities, and family assistance. The project served 78 male and 97 female students, with gender not reported for 5. Evaluation under Title VII of the Elementary and Secondary Education Act indicated that, for the most part, the project carried out the activities proposed in its design. Computer training was effective; and tutoring was available in English, NLA, and mathematics. A Parent Advisory Council breakfast meeting was held monthly for parents of project students. Objectives were met in most areas, but objectives for English and career placement were not met. Recommendations are made for program improvement. Appendix A describes data collection and analysis, and Appendix B describes instructional materials. (SLD)

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OREA Report

Project Data Tech
Transitional Bilingual Education Grant T003A9019391
1991-92

FINAL EVALUATION PROFILE

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Project Data Tech
Transitional Bilingual Education Grant T003A9019391
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FINAL EVALUATION PROFILE



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7/7/92

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FOREWORD

The body of this report is preceded by an Extract which presents an overview of salient points of the project: funding cycle; enrollment figures; background of students served; admission criteria; and programming features, strengths, and limitations, including the outcome of all objectives. The extract also presents the conclusions drawn by the Office of Research, Evaluation, and Assessment (OREA) about the program and its recommendations for program improvement.

The extract is followed by the body of the report, titled Program Assessment. This includes such information as staffing, program implementation, and outcome and implementation objectives. Instructional objectives are presented first, followed by noninstructional objectives. The report then addresses those aspects of programming mandated by Title VII regulations that do not have specifically stated objectives. This may be information on attendance and dropout rate, grade retention, mainstreaming, referrals out of the program to meet special needs of the students, and withdrawals. A case history concludes the report.

Data for this profile were collected and analyzed using a variety of procedures, which are described in Appendix A following the text.

Office of Research, Evaluation, and Assessment
New York City Public Schools
E.S.E.A. Title VII Evaluation Report
Project Data Tech

Transitional Bilingual Education Grant T003A9019391
1991-92

EXTRACT

PROJECT DIRECTOR: Mrs. Alba DelValle

FUNDING CYCLE: Year 3 of 3

SITES

<u>High School</u>	<u>Borough</u>	<u>Grade Levels</u>	<u>Enrollment*</u>	
			<i>(fall)</i>	<i>(spring)</i>
Sarah J. Hale	Brooklyn	9-12	165	160

*The project enrolled 180 students (10 less than in the previous year), serving 165 in the fall and 160 in the spring. Male students numbered 78, female 97; gender was not reported for 5.

STUDENT BACKGROUND

<u>Native Language</u>	<u>Number of Students</u>	<u>Countries of Origin</u>	<u>Number of Students</u>
Haitian	102	Haiti	102
Spanish	78	Dominican Republic	40
		Puerto Rico	12
		Nicaragua	5
		El Salvador	4
		Mexico	4
		Panama	4
		Colombia	3
		Honduras	3
		Bolivia	1
		Costa Rica	1

Median Years of Education in Native Country: 8.0; in the United States: 2.0

Percentage of Students Eligible for Free Lunch Program: 91.7

ADMISSION CRITERIA

The project admitted students who scored at or below the 40th percentile on the Language Assessment Battery (LAB), were new arrivals into the country, and wanted to join the computer-aided drafting (CAD) or cosmetology programs.

PROGRAMMING

Design Features

Project Data Tech targeted Spanish- and Haitian-speaking students of limited English proficiency (LEP) at Sarah J. Hale High School in Brooklyn. Participating students majored in either CAD or cosmetology while receiving instruction in English as a Second Language (E.S.L.), Native Language Arts (N.L.A.), and bilingual content area subjects. The design included non-instructional services such as guidance, job placement, extracurricular activities, guidance, and family assistance.

Capacity building. In the next year, tax levy funds will support the position of the paraprofessional. When Title VII funding ends, tax levy funds will also assume support of the curriculum specialist and the project director so that program services will be maintained.

Strengths and Limitations

For the most part, Project Data Tech carried out those activities proposed in its design. Students were effectively trained in the use of computers and used computer-aided instruction across the curriculum. Tutoring in E.S.L., N.L.A., and mathematics was available both before and after school. Project students participated in such extracurricular activities as soccer, baseball, and an executive internship program. A Parent Advisory Council (PAC) meeting and breakfast was held monthly for parents of project students.

The project director reported that a trilingual guidance counselor was necessary to serve the multilingual population of the school. She also felt that the availability of French and Haitian high school level text books was limited, restricting the project students' potential academic progress.

CONCLUSIONS AND RECOMMENDATIONS

As it had done last year, Project Data Tech met its objectives for N.L.A., content area subjects, attendance, and staff and curriculum development. The project met its objective for dropout prevention although it had not done so the previous year. It met its objective for enrollment in post-secondary institutions; last year OREA had been unable to evaluate that objective.

Although students showed a significant increase in English language proficiency, as in the previous year, Project Data Tech failed to meet the objective for E.S.L. The percentage of students showing a gain was greater in the current year than it had been last year. This year, Project Data Tech did not meet the objective for career placement; last year there was no comparable objective.

OREA was unable to evaluate the objectives for content area subjects as assessed by passing rates on Regents exams; there was no comparable objective last year. It was also unable to evaluate the objective for special education referrals, gifted and talented programs, or parental involvement because of a lack of data. In the previous year, the project failed to meet the objective for special education referrals and placement in gifted and talented programs, and met its objective for parental involvement.

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

- Explore ways of enhancing the development of English language skills, possibly with such techniques as small group and individual instruction and peer tutoring.
- Augment the career placement services of the program by compiling a list of contacts in the desired career area, working with students on job application and interview skills, and offering follow-up services so as to maintain good relationships with current and prospective employers.
- Provide all required data so that all objectives can be evaluated.

PROGRAM ASSESSMENT

STAFFING

Title VII Staff (Total 3)

<u>Title</u>	<u>Degree</u>	<u>Language Competencies</u>	<u>Title VII Funding</u>
Project Director	M.A., P.D.	Spanish, French	Full time
Computer Specialist	B.S.	French, Haitian	Full time
Paraprofessional	B.S.	Spanish	Full time

Other Staff Working With Project Students (Total 32) The project did not provide data on the titles, highest educational degrees obtained, language competencies, or teaching/communicative proficiencies* of non-Title VII-funded staff. *

Certification

Guidance	1
French	2
Industrial Arts	1
E.S.L.	3
Spanish	3
Mathematics	4
Social Studies	2
Bilingual Spanish	2
Cosmetology	1

IMPLEMENTATION AND OUTCOMES (Objectives prefaced by ●)

English as a Second Language (E.S.L.)

E.S.L. CLASSES

<u>High School</u>	<u>Level</u>	<u>Periods Weekly</u>	<u>Students Enrolled</u>
Sarah J. Hale	Literacy	5	16
	Beginning	10	15
	Intermediate	5	34
	Advanced	5	30
	Transitional	5	26

E.S.L. teachers used a whole-text, holistic teaching methodology. Students were encouraged to create their own literary works and the CAD teacher instructed students in how to use a word processing program to check English grammar. In addition, audio-lingual instruction was utilized to develop skills of listening and speaking. For a list of instructional materials, see Appendix B.

*Teaching Proficiency (TP): Competent to teach in this language.
Communicative Proficiency (CP): Conversational capability only.

- Eighty-five percent of the target students will demonstrate an appropriate increase in English language proficiency.

Evaluation Instrument: Language Assessment Battery (LAB)*

Pretest: May 1991; posttest: May 1992.

Number of students for whom pre- and posttest data were reported: 113

Percent of students with pretest/posttest gains: 61.9

Mean gain: 7.5 N.C.E.s (s.d.=9.3)

Mean gain is statistically significant ($t=8.54, p<.05$).

Although students showed a sizable and statistically significant mean gain from pretest to posttest on the LAB, less than the projected 85 percent demonstrated an improvement.

Project did not meet E.S.L. objective.

Native Language Arts (N.L.A.)

Students demonstrating lack of native language literacy skills (estimated): 90 percent.

N.L.A. CLASSES (Spanish and Haitian)

<u>High School</u>	<u>Level</u>	<u>Periods Weekly</u>	<u>Students Enrolled</u>
Sarah J. Hale	Beginning	5	Not provided
	Intermediate	5	
	Advanced	5	
	Advanced Placement	5	

N.L.A. teachers used a holistic approach by focusing on instructional topics and materials based on the students' cultural heritage. For a list of instructional materials, see Appendix B.

- As a result of participation in the program 75 percent of the students will demonstrate a significant increase in Haitian Creole language achievement.
- As a result of participating in the program, 75 percent of the students will demonstrate a significant increase in Spanish language achievement.

Evaluation Indicator: final course grades.

*OREA used a gap reduction design to evaluate the effect of supplementary instruction on project students' performance on the LAB. Since all LEP students in New York City are entitled to such instruction, no valid comparison group exists among these students, and OREA used instead the group on which the LAB was normed. Test scores are reported in Normal Curve Equivalents (N.C.E.s), which are normalized standard scores with a mean of 50 and a standard deviation of 21.06. It is assumed that the norm group has a zero gain in N.C.E.s in the absence of supplementary instruction and that participating students' gains are attributable to project services.

PASSING GRADES IN NATIVE LANGUAGE ARTS

<u>Language</u>	<u>Enrollment</u>		<u>Percent Passing</u>	
	<u>Fall</u>	<u>Spring</u>	<u>Fall</u>	<u>Spring</u>
Haitian Creole	57	53	100.0	100.0
Spanish	53	53	100.0	100.0

Project met N.L.A. objective.

Content Area Subjects

Project students took courses in mathematics, science, social studies, and CAD or cosmetology. Courses were taught bilingually or with an E.S.L. approach. Computers, drafting equipment, teacher-made worksheets, transparencies, videotapes, and audiocassettes were used. For a list of instructional materials, see Appendix B.

- Program students will have passing rates on translated versions of the Regents examinations in Spanish, French, and American Studies that are equal to or higher than those of mainstream students.

Evaluation Instrument: New York State Regents Examinations

Project did not provide data on the passing rates of either program or mainstream students.

OREA could not evaluate content area subject Regents exam objective.

- At least 85 percent of the students enrolled in mathematics, science, and social studies will score at or above the passing criterion of 65.
- At least 70 percent of the students enrolled in Computer-Aided Drafting/Design courses will score at or above the passing criterion of 65.

Evaluation Indicator: final course grades.

PASSING GRADES IN CONTENT AREA COURSES

<u>High School</u>	<u>Subject</u>	<u>Fall</u>		<u>Spring</u>	
		<u>Enrollment</u>	<u>Percent Passing</u>	<u>Enrollment</u>	<u>Percent Passing</u>
Sarah J. Hale	Mathematics	155	100.0	150	100.0
	Science	137	100.0	132	100.0
	Social Studies	162	100.0	156	100.0
	Computers/CAD	29	100.0	27	100.0

Project met content area subject objective for mathematics, science, social studies, and CAD/design.

Career Placement

- Seventy-five percent of the students who have participated in the program will be placed in a computer-aided drafting/design oriented placement.

Evaluation Indicator: program records.

The project placed one student in a CAD/design position. Although the project did not meet this objective, it was reported that many of the graduating students planned to further their education.

Project did not meet career placement objective.

5
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Attendance

Family assistants visited the homes of students who were frequently absent. The project was also part of an International House Plan which emphasized good attendance and met with parents to discuss their children's progress.

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

Evaluation Indicator: school records.

ATTENDANCE RATES

<u>High School</u>	<u>Project Students</u>	<u>Mainstream Students</u>	<u>Difference</u>
Sarah J. Hale	96.0	74.9	21.1 *

* $p < .05$

Project met attendance objective.

Dropout Prevention

- The percentage of dropouts for target students will be 10-15 percent less than mainstream dropouts.

Evaluation Indicator: school records.

DROPOUT RATES

<u>High School</u>	<u>Project Students</u>	<u>Mainstream Students</u>	<u>Difference</u>
Sarah J. Hale	0.0	5.9	5.9 *

* $p < .05$

Project met dropout prevention objective.

Special Education Referrals and Grade Retention

- The percentage of student grade retention, referral to, or placement in special education will be 10-15 percent less than the mainstream.

Evaluation Indicator: school records.

No project students were placed in or referred to special education programs. Only two students (1.1 percent of participants) were retained in grade. Referral rate and grade retention figures for mainstream students were not available.

OREA was unable to evaluate special education referrals and grade retention objective because of a lack of data.

Enrollment in Post-secondary Institutions

- At least 85 percent of the students who are graduating will continue post high school training or advancement.

Evaluation Indicator: program records.

Of the 62 students eligible for graduation 54 (87.1 percent) reported that they were interested in post-high school training or continuing their education.

Project met enrollment in post-secondary institutions objective.

Gifted and Talented Programs

Project Data Tech offered students who were considered to be gifted and talented the opportunity to participate in Regents and leadership classes.

- Placement in programs for the gifted and talented will be 10-15 percent greater than mainstream students.

Evaluation Indicator: school records.

No students were referred to gifted and talented programs. Figures for mainstream students were not available.

OREA could not evaluate gifted and talented program objective.

Mainstreaming

Project students who were mainstreamed remained in a bilingual official class. Their records were frequently reviewed by the guidance counselor. No students were mainstreamed in the current year.

The project did not provide any data on the academic achievement of former project students who had been mainstreamed.

Staff Development

- Ninety percent of program staff will demonstrate professional growth by completing course of study.

Evaluation Indicator: program records.

According to the project director, all program staff demonstrated professional growth by completing inservice and/or college/university courses.

Project met staff development objective.

Curriculum Development

- Courses of study will have been revised and reviewed to meet the needs of Hispanic and Haitian students in the following areas: Applied E.S.L. Levels I and II; N.L.A. skills; New York City Public Schools curriculum in the area of Computer-Aided Drafting/Design in Spanish and Haitian Creole.

Project staff and participating teachers reviewed and revised all proposed courses of study: translated social studies, mathematics, and science materials; and integrated revised and translated materials into the curriculum.

Project met curriculum development objective.

Parental Involvement

- Parents of project students will demonstrate more parental involvement than parents of mainstream students by demonstrating a 10-15 percent higher attendance at school functions.

Evaluation Indicator: program records.

Although it was reported that parents attended monthly PAC meetings and breakfasts and Parent-Teacher Association (P.T.A.) meetings, the project failed to provide any attendance rates.

OREA was unable to evaluate parental involvement objective.

APPENDIX A

DATA COLLECTION AND ANALYSIS

COLLECTION

OREA evaluation consultants visit sites and interview key personnel. The project director gathers data and, with the consultant, completes forms (as shown below) as necessary.

Student Data Form

This one-page form is filled out by staff for each participating and mainstreamed student. OREA gathers data from this form on backgrounds, demographics, academic outcomes, attendance, referrals, and exit from the program.

Project Director's Questionnaire

The Project Director's Questionnaire includes questions on staff qualifications, program implementation, periods of instruction, and instructional materials and techniques.

Project Director's Interview

The interview gathers information on program and student or staff characteristics not supplied by the Project Director's Questionnaire. The interview also allows project staff to offer qualitative data or amplify responses to the questionnaire.

Citywide Test Scores

OREA retrieves scores centrally from the Language Assessment Battery (LAB) and other citywide tests. For evaluation purposes, these test scores are reported in Normal Curve Equivalents (N.C.E.s). N.C.E.s are normalized standard scores with a mean of 50 and a standard deviation (s.d.) of 21.06. They constitute an equal-interval scale in which the distance is the same between any two adjacent scores. A gain of 5 N.C.E.s is the same whether it is at the lower or the higher end of the scale. N.C.E.s can be used in arithmetic computations to indicate group progress. (Percentile scales, although more familiar to many, are unsuitable for such computations since they are not equal-interval.)

Likert-Type Surveys

Likert-type surveys, in which respondents mark their opinions on a scale from one to five, are used in a variety of ways. They examine student attitudes (i.e., toward school and career, native language use, and native and mainstream cultures). They also assess staff and parent attitude and reactions to workshops and other activities.

ANALYSIS

Gap Reduction Evaluation Design

OREA uses a gap reduction design for measuring changes in standardized tests. Since no appropriate non-project comparison group is available in New York City, where all students of limited English proficiency (LEP) are entitled to receive supplementary services, OREA compares the progress of participating students with that of the group on which the test was normed. It is assumed that the norm group would show a zero gain in the absence of instruction, and gains made by project students could be attributed to project services. Scores are reported in Normal Curve Equivalents (N.C.E.s), which are normalized standard scores with a mean of 50 and a standard deviation of 21.06. (See "Citywide Test Scores" above.)

To test whether pre/posttest gains are greater than could be expected by chance alone, OREA uses a *t*-test. To test whether a difference between two proportions (e.g., program and mainstream attendance rates) is

greater than could be expected by chance, OREA uses a z-test and reports the differences between the two proportions. The level of significance is set at .05 for all tests.

Techniques For Minimizing Error

The evaluation procedures minimize error by providing for proper administration of evaluation instruments through a combination of testing at 12-month intervals, appropriate analysis procedures and reporting.

Instruments of measurement include the LAB (see above), the Degrees of Reading Power (D.R.P.) test, the Metropolitan Achievement Test--Mathematics (MAT-Math), El Examen de Lectura en Español (ELE), Likert-type scales (see above), and project-developed tests. Except for Likert scales and project-developed tests, these instruments are scored on a citywide basis at the Scan Center of the New York City Public Schools.

APPENDIX B

INSTRUCTIONAL MATERIALS

E.S.L.

A Conversation Book I

English for a Changing World: Book II

English With a Smile: Book I

Spanish

Unamuno, Miguel de. *Niebla*

Asturas, Miguel Angel. *El Señor Presidente*

Cervantes, Miguel de. *Novelas Ejemplares*

Mathematics

Dressler and Keenan. *Integrated Mathematics Course I*

Science

Lesser. *Life Science*

Marshall and Bunch. *Physical Science*

Social Studies

Comprende Tu Mundo

Su Historia y Culturas