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ABSTRACT

Project Data-Tech was an Elementary and Secondary Education Act Title VII-funded project in its fifth and last year of operation at a high school in Brooklyn (New York). The program served a total of 131 Haitian- and Spanish-speaking students, most of whom were of limited English proficiency, 54 fewer than in the previous year. Participating students received instruction in English as a Second Language (ESL); native language arts; the content areas of mathematics, science, and social studies; and computer-aided drafting and design. Project staff attended staff development workshops on bilingual and ESL methodologies. Parental involvement activities included workshops and meetings of advisory councils. Project Data-Tech met its native language arts objectives for Haitian and Spanish, the content area objective for computer-assisted design, one of two staff development objectives, and the objective for parent involvement. No recommendations are offered since the project is in its last year. Five tables present evaluation findings, and two appendixes describe instructional materials and class schedules. (Author/SLD)

4D

OER Report

Project Data-Tech
Transitional Bilingual Education Grant T003A90193-93
FINAL EVALUATION REPORT
1993-1994

Project Data-Tech
Transitional Bilingual Education Grant T003A90193-93
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1993-1994

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EXECUTIVE SUMMARY

Project Data-Tech was an Elementary and Secondary Education Act (E.S.E.A.) Title VII-funded project in its fifth and last year of operation at Sarah J. Hale High School in Brooklyn.

Project Data-Tech served a total of 131 Haitian- and Spanish-speaking students, almost all of whom were of limited English proficiency (LEP), 54 less than the previous year. These students were predominantly newly arrived immigrants who had experienced gaps in their education or whose former education was inadequate.

Participating students received instruction in English as a second language (E.S.L.); native language arts (N.L.A.); the content areas of mathematics, science, and social studies; and computer-aided drafting and design (CAD).

Project staff took courses at institutions of higher learning and attended workshops on teaching content area courses with bilingual and/or E.S.L. methodologies.

Parental involvement activities included project-conducted workshops, monthly activities and meetings of the Parent-Teacher Association (P.T.A.), Parents' Advisory Council (PAC), and the Bilingual Parents Advisory Council (BPAC).

Project Data-Tech met its N.L.A. objective (for Haitian and Spanish), the content area subject objective for CAD, the attendance objective, one of two objectives for staff development, and the objective for parental involvement.

Since this is the Project Data-Tech's last year, the Office of Educational Research (OER) offers no recommendations for future implementation.

ACKNOWLEDGEMENTS

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I. INTRODUCTION

This report documents the Office of Educational Research's (OER's) evaluation of the Elementary and Secondary Education Act (E.S.E.A.) Title VII project, Data-Tech.

PROJECT CONTEXT

The project in its fifth and final year in 1993-94, operating at Sarah J. Hale High School in south Brooklyn. The surrounding community was composed primarily of African Americans and Latinos.

All demographic data in this interim report are from 1992-1993, the last year for which data are available.

The population of the school was similar to that of the surrounding community. Of the 1,813 students registered in the school 81.7 percent were African American, 17.8 percent were Latino, 0.3 percent were Asian-American, and 0.3 percent were European American.* Of these students, 10 percent were of limited English proficiency (LEP) and 20 percent came from low-income families, as evidenced by their eligibility for the free-lunch program.

Sarah J. Hale is housed in an large building which was built in 1930. Many classrooms were spacious and well lit, while others were seemingly not intended for use as classrooms and were quite dilapidated. Student work was displayed on bulletin boards throughout the school. Numerous students congregated in the halls which were very noisy. Security personnel were on constant patrol.

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*Percentages do no equal 100 do to rounding.

STUDENT CHARACTERISTICS

Project Data-Tech served a total of 131 LEP students in grades nine through twelve. In the ninth grade, there were 36 students; in the tenth, there were 29; in the eleventh, there were 36; and in the twelfth, there were 30 students. LEP status was determined by Language Assessment Battery (LAB) scores at or below the 40th percentile. Of the participating students, 49.6 percent had Haitian as their native language and 50.4 percent had Spanish.

Half of the project participants were born in Haiti. The remainder came from a number of Spanish-speaking countries. (See Table 1 for countries of origin.) Almost all (89.3 percent) of the participants came from low-income families.

TABLE 1

Students' Countries of Origin

Country	Number of Students
Haiti	66
Dominican Republic	43
Puerto Rico	9
El Salvador	3
Colombia	2
Ecuador	2
Mexico	2
Guatemala	1
Honduras	1
Nicaragua	1
Venezuela	1
Total	131

Project Data-Tech served a total of 131 students, 93 percent of whom were LEP. LEP status was determined by Language Assessment Battery (LAB) scores at or below the 40th percentile. Additional criteria for project participation included personal interviews, teacher recommendations, and school records.

Needs Assessment

A needs assessment taken by the project revealed that Haitian- and Spanish-speaking LEP students needed instruction in English as a second language (E.S.L.) and native language arts (N.L.A.). They were also in need of services which would facilitate their transition into American mainstream society.

PROJECT OBJECTIVES

Student Objectives

- As a result of participating in the program, the target students will demonstrate an appropriate increase in English language proficiency as indicated by statistical significant gains at the .05 level.
- At least 70 percent of the participating students will show significant gains in native language arts s indicated by the results of final course grades.
- 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.
- 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 will score at or above the passing criterion of 65.
- Some of the students who have participated in the program will be placed in a Computer Aided Drafting/Design oriented field.

- The program will offer twelfth graders the advanced techniques of Computer Aided Drafting/Design by introducing a unit on robotics.

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

- The program will organize at least one conference for students in which representatives of business and technology will present information on CAD and skill requirements.

- Participants in the bilingual program will have an overall higher attendance rate than mainstream students at Sarah J. Hale High School.

Staff Development Objectives

- Program staff will participate in teacher training conferences and workshops.

- Some members of the program staff will enroll in at least one university course each semester.

Parental Involvement Objectives

- The program will offer workshops to parents of the target population.

PROJECT IMPLEMENTATION

During the 1993-1994 school year, Project Data-Tech provided instructional and support services to 131 Haitian- or Spanish- speaking students and their families. The main goal of the project was to increase English language proficiency while developing knowledge in the content areas of mathematics, science, and social studies. In addition, the project emphasized the career area of computer aided drafting/design (CAD). Project Data-Tech provided support services to students, including tutoring before and after school, as well as parental involvement and staff development activities.

Materials, Methods, and Techniques

Teachers of Project Data-Tech students used a wide array of strategies and techniques, including student presentations and the whole language approach. Content area classes were taught almost exclusively in Haitian or Spanish at the lower levels, with a greater emphasis on English in advanced courses as students' language proficiency increased. The project provided tutoring in N.L.A. and mathematics, and opportunities for students to become involved in community service.

Capacity Building

This was the last year of Title VII funding and Project Data-Tech planned to use tax-levy funds to serve students in the future.

Staff Qualifications

Title VII Staff. The project's Title VII staff included the project director and a resource specialist. For a description of degrees held and language proficiency (teaching or communicative*), see Table 2.

The project director's responsibilities included supervising and coordinating the project's activities, maintaining project records, administering tests, and collecting information needed for the evaluation. The resource specialist's responsibilities included designing examinations in CAD and teaching courses.

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*Teaching proficiency (TP) is defined as the ability to use LEP students' native language in teaching language arts or other academic subjects. Communicative proficiency(CP) is defined as the ability to have conversational capability in LEP students' native language. NS = Native Speaker.

TABLE 2

Project Staff Qualifications

Position Title	Degree(s)	Language Proficiency
Project Director	P.D.	Spanish (TP) French (CP)
Resource Specialist	M.D.	Haitian (TP) French (TP)

Other Staff. Funds from tax levy, Chapter 1, and Pupils with Compensatory Educational Needs (P.C.E.N.) paid the salaries of 15 classroom teachers, a trilingual (French, Spanish, English) guidance counselor, and two paraprofessionals. (See Table 3.) All teachers held high school certification for the subject area they taught.

Staff Development

Teachers received tuition assistance toward coursework in E.S.L. or bilingual education. One Title VII staff member completed eight credits at City College of the City University of New York (CUNY). One teacher completed eight credits and graduated. The project did not provide the Office of Educational Research with complete information concerning workshops and conferences attended by staff.

Instructional Time Spent on Particular Tasks

See Appendix B for examples of class schedules.

TABLE 3

Qualifications of Non-Title VII Staff

Position Title	Degrees	Certification	Language Proficiency
15 Teachers	*	3 E.S.L. 3 Mathematics 2 French 2 English 2 Spanish 2 Social Studies 1 Haitian Creole 1 Industrial Arts	*
2 Paraprofessionals	*	*	*
1 Guidance Counselor	*	*	French CP Spanish CP English CP

*Information was not provided.

Activities to Improve Pre-referral Evaluation Process

Students in need of special education services were referred to the school's guidance team. Students who were having difficulty in classes received remedial instruction either before or after school hours.

Students who were gifted and talented were placed in honors classes and followed closely by a bilingual teacher and a paraprofessional.

PARENT AND COMMUNITY INVOLVEMENT ACTIVITIES

The project sponsored a variety of parental involvement activities. Workshops focused on making parents aware of school operations and requirements; providing information on the social services available from federal, state, and city organizations; and teaching the survival skills needed to function well in this country. The project offered a Bilingual Parents' Advisory Council (BPAC) and also encouraged project parents to attend mainstream parental activities.

II. METHODOLOGY

EVALUATION DESIGN

Project Group's Educational Progress as Compared to That of an Appropriate Non-Project Group

OER used a gap reduction design to evaluate the effect of bilingual language instruction on project students' performance on the standardized tests. Because of the difficulty of finding a valid comparison group, OER used instead the groups on which the tests were 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 21.1. It is assumed that the norm group had a zero gain in N.C.E.s in the absence of supplementary instruction and that participating students' gains could be attributed to project services.

Applicability of Conclusions to All Persons Served by Project

Data were collected from all participating students for whom there were pre- and posttest scores. (There were no posttest data on students who entered the program late, therefore posttest data for them will serve as pretest data for the following year.) Instruments used to measure educational progress were appropriate for the students involved. The LAB is used throughout New York City to assess growth in English skills among students similar to those served by Project Data-Tech.

INSTRUMENTS OF MEASUREMENT

OER compared pre- and posttest scores on the LAB to assess the E.S.L. objective and the ELE to assess the N.L.A. objective. All students were tested at the level that was appropriate for their grade placement.

According to the publisher's test manual, the LAB is valid and reliable. Evidence supporting both content and construct validity is available for the LAB. Content validity is obtained by an item-objective match and includes grade-by-grade item difficulties, correlations between subtests, and the relationship between the performance of students who are native speakers of English and students who are LEP. To demonstrate reliability, KR20 coefficients and standard errors of measurement are reported by grade and form for each subtest and total test. Grade reliability coefficients based on LEP students on the English version ranged from .88 to .96 for individual subtests and from .95 to .98 for the total test.

El Examen de Lectura en Español (ELE) was prepared by New York City educators who were native speakers of Spanish and represented several Latino linguistic and cultural groups. The ELE was administered in two forms to all New York City students who were receiving language arts instruction in Spanish. For both forms, the grade reliability coefficients ranged from .94 to .96. Construct validity is evidenced by grade-to-grade decreases in item difficulty within level. This characteristic reflects the acquisition of increased amounts of the underlying construct (reading proficiency) as students progress through the grades.

OER used final course grades in mathematics, science, and social studies to measure growth in content area subjects, as specified by the content area objective.

DATA COLLECTION

To gather qualitative data, an OER evaluation consultant carried out on-site and telephone interviews of the project director several times during the school year and also observed two classes on each of two visits. The project evaluator collected the data and prepared the final evaluation report in accordance with the New York State E.S.E.A. Title VII Bilingual Education Final Evaluation Report format, which was adapted from a checklist developed by the staff of the Evaluation Assistance Center (EAC) East in consultation with the Office of Bilingual Education and Minority Language Affairs (OBEMLA).

Proper administration of instruments

Qualified personnel received training in testing procedures and administered the tests. Testers followed guidelines in the administration manuals accompanying standardized tests. Time limits for students were adhered to; directions were given exactly as presented in the manuals.

Testing at 12-month intervals

Standardized tests were given at 12-month intervals, following published norming dates.

Data Analysis

Accurate scoring and transcription of results. Scoring, score conversions, and data processing were accomplished electronically by the Scan Center of the Board of

Education of the City of New York. Data provided by the Scan Center were analyzed in the Bilingual, Multicultural, and Early Childhood Evaluation Unit of OER. Data collectors, processors, and analysts were unbiased, with no vested interest in the success of the project.

Use of analyses and reporting procedures appropriate for obtained data. To assess the significance of students' achievement in English and Spanish, OER computed a correlated *t*-test on LAB and ELE 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.

The only possible threat to validity of any of the above instruments might be that LAB norms were based on the performance of English proficient (EP) rather than LEP students. Since OER was examining gains, however, this threat was inconsequential——the norming group would not have affected the existence of gains.

III. FINDINGS

PARTICIPANTS EDUCATIONAL PROGRESS

Project Data-Tech carried out all of the instructional activities specified in its original design.

Participants' Progress in English

Throughout the school year, students were given ample opportunity to develop their English language skills.

An OER evaluation consultant observed a beginning level E.S.L. class. There were posters, maps, seasonal decorations, as well as a great deal of student work displayed on the walls and bulletin board. The classroom was large enough to accommodate the 12 students in attendance.

The classroom discussion centered on a continuing assignment which dealt with health and visits to the doctor. The students were called upon to participate in an exercise out of a book entitled, *Everyday English As A Second Language*. The students participated in dialogues filling in English words as needed. The teacher divided the class into groups to role-play. The groups then presented their dialogues to the class. The class was conducted entirely in English. There was a paraprofessional present who communicated with the students in their native language.

The students were very attentive and participated freely in the class discussion, frequently volunteering responses and asking questions. The teacher was patient with those students who seemed to be experiencing difficulty.

The OER evaluation consultant also observed an intermediate level E.S.L. class. The class took place in the school's computer lab. There were 20 computers, more than enough to accommodate the 15 students present. The walls were barren, with the exception of one educational poster on the rear wall. The classroom facilities--desks, chairs, and computers--were in excellent condition.

The class assignment was to create a sign in honor of the "International Food Festival" being celebrated that day. For those students who did not wish to participate in this assignment, an alternative was to design a greeting card. Most students opted for the first assignment when the teacher announced that the finished product would be displayed in the school cafeteria that day.

At the beginning of the period, the students were extremely rowdy. However, five minutes into the class, they settled into the activity and gave their full attention to the task. No paraprofessional was present; it was the teacher who gave individual attention to each student. The students who finished their assignment early went around the class, helping other students. At the end of the class, the teacher had a difficult time persuading the students to leave, they were so completely immersed in their work.

Project Data-Tech proposed the following objective for E.S.L.:

- As a result of participating in the program, the target students will demonstrate an appropriate increase in English language proficiency as indicated by statistically significant gains at the .05 level .

There were complete pre- and posttest scores on the LAB for 52 students from grades nine through twelve. The average gain of 1.5 N.C.E.s (s.d.=8.7) was not

statistically significant ($p>.05$, $t=1.25$) and was less than the previous year's gain of 3.3 N.C.E.s. The pretest mean was 12.3 N.C.E.s (s.d.=12.8); the posttest mean was 13.8 N.C.E.s (s.d.=11.8).

The project did not meet its objective for E.S.L. Last year it met this objective.

Participants' Progress in Native Language Arts

N.L.A. classes were offered at beginning to advanced levels in both Spanish and Haitian.

The project posed the following objectives for N.L.A.:

- At least 70 percent of the participating students will show significant gains in native language arts as indicated by the results of final course grades.

It was impossible to use the ELE to evaluate gains in Spanish N.L.A. since there were matched pre- and posttest scores for only three students. Examination of final course grades revealed that in both Haitian and Spanish N.L.A. classes over 85 percent of students passed each semester. (See Table 4.)

Project Data-Tech met its N.L.A. objective, as it did last year.

TABLE 4

Final Grades in Native Language Arts, by Language

Language	Fall		Spring	
	Number Enrolled	Percent Passing	Number Enrolled	Percent Passing
Haitian	39	89.7	48	100.0
Spanish	36	100.0	46	97.8

LEP Participants' Academic Achievement

Content area classes were taught bilingually or with an E.S.L. approach to reinforced key concepts in the students' native language.

An OER evaluation consultant observed a bilingual content area class in social studies. The classroom was bright and spacious. The walls were covered with posters, maps, a collage about the Civil War, and student work. There were 18 students present, all in either their junior or senior year. The range of English proficiency was great.

The teacher based the lesson on the textbook, *Exploring Our Nation's History*. The students had been assigned oral presentations on how economic damage, property settlements, and financial issues made it difficult for various countries to establish a lasting peace. Each group of two students was responsible for presenting the views of either Great Britain, France, Italy, or the United States on World War II reparations each country felt Germany owed it. The group which was assigned the role of Germany then countered these views.

The class was entirely in English. Occasionally, the teacher offered assistance in a students' native language. No paraprofessional was present. For the most part, the teacher used a cooperative learning approach. She allowed each group to present its views and then the remaining groups offered feedback. The students were enthusiastic and attentive throughout the class.

An OER evaluation consultant observed a lower level sequential mathematics class of 11 students. The classroom was somewhat dilapidated, but spacious and

bright. The walls were bare, with the exception of one map of the United States which hung on the wall near the door. There was no evidence of student work.

The focus of the lesson was a review for the R.C.T. The class was conducted primarily in Spanish, and student participation was exclusively Spanish. The teacher began the lesson with a "Do Now" which entailed defining the terms "perimeter" and "area." When the students had completed this task, the teacher moved on to explaining the definitions of rectangles, squares, triangles, and parallelograms. She then distributed a handout to review for the R.C.T. Students put their work on the board and discussed their answers. The teacher gave a detailed explanation for each of her corrections.

There was no paraprofessional present and the teacher was required to spend a significant amount of time giving individual assistance. The class was exceptionally quiet, participating in the class discussion only when called upon.

Project Data-Tech posed the following objectives for content area subjects:

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

In the fall semester, less than 85 percent of project students passed their mathematics and science courses. (See Table 5.) In the spring, over 95 percent passed all content area subject courses.

Project Data-Tech partially met its objective for passing courses in the content area subjects of mathematics, science, and social studies. It fully met its objective for passing CAD. Last year, the project met both objectives.

TABLE 5

Final Grades in Content Area Courses, by Subject

Subject	Fall 1992		Spring 1993	
	Number of students for whom data were reported	Percent Passing	Number of students for whom data were reported	Percent Passing
Mathematics	90	78.9	113	98.2
Science	89	80.9	113	96.5
Social Studies	94	92.6	118	98.3
CAD	12	100.0	17	100.0

The project did not provide any data on whether or not students passed Regents exams.

OER was unable to evaluate the content area subject objective for passing Regents examinations.

FORMER PARTICIPANTS' PROGRESS IN ENGLISH LANGUAGE CLASSROOMS

Last year, no project students were mainstreamed.

OVERALL EDUCATIONAL PROGRESS ACHIEVED THROUGH PROJECT

Mainstreaming

No Project Data-Tach participants were mainstreamed.

Career Development

The project proposed the following objectives for career development:

- The program will offer twelfth graders the advanced techniques of Computer-Aided Drafting by introducing a unit on Robotics.

The project did not inform OER whether a unit on robotics had been developed.

OER was unable to evaluate the career development objective for robotics.

- Some of the students who have participated in the program will be placed in a Computer-Aided Drafting/Design oriented employment.

Sarah J. Hale High School, in cooperation with local companies and N.Y.C. Technical College planned to look for jobs for those students who were advanced in CAD. Project Data-Tech did not inform OER as to whether any students had been placed in CAD-oriented employment.

OER was unable to evaluate the career development objective for CAD-oriented employment.

- The program will organize at least one conference for students in which representative of business and technology will present information on CAD and skill requirements.

The project did not inform OER whether it had organized a career conference for students.

OER was unable to evaluate the career development objective for CAD-oriented employment.

Grade Retention

Project Data-Tech did not propose any objectives for grade retention. During the year under review, two students (1.5 percent) were grade retained. Last year, five students were retained in grade.

Dropout Prevention

Project Data-Tech did not propose an objective for dropout prevention

The project reported that, similar to last year, one student dropped out of school.

Attendance

The posed the following objective for attendance:

- Participants in the bilingual program will have an overall higher attendance rate than mainstream students at Sarah J. Hale High School.

The schoolwide attendance rate was 83.5 percent. The attendance rate for Project Data-Tech students was significantly higher ($p<.05$) at 97.2 percent.

The project met its attendance objective, as it had done the previous year.

Placement in Gifted and Talented Programs

The project did not propose an objective in this area. This year, no project students were placed in the Opportunity to Learn Program for gifted and talented students. In the previous year, six project students were placed in gifted and talented programs.

Enrollment in Postsecondary Education Institutions

Project Data-Tech proposed the following objective for enrollment in postsecondary education institutions:

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

This year 25 graduating students (83 percent) reported that they plan to continue there education in a post-secondary institution.

The project came very close but did not meet its objective for enrollment in postsecondary education institutions.

CASE STUDY

S. came to the United States from her homeland, Colombia, with her parents and two brothers. Since she has been involved in Project Data-Tech, she has learned to speak the English language quite well and acquired many computer skills. S. was an honor student who was selected to participate in the Opportunity To Learn program, and was a candidate for the bilingual medal of honor in Spanish. S. plans to become an educator.

STAFF DEVELOPMENT OUTCOMES

Project Data-Tech proposed the following objectives for staff development:

- Program staff will participate in teacher-training conferences and workshops.

The project did not provide any information on staff participation in teacher-training conferences and workshops.

OER was unable to evaluate the staff development objective for participation in conferences and workshops because of a lack of data.

- Some members of the program staff will enroll in at least one university course each semester.

At least, one Title VII staff member enrolled in a university course.

As it did last year, Project Data-Tech met its staff development objective for continuing education.

PARENTAL INVOLVEMENT OUTCOMES

Project Data-Tech proposed the following objective for parental involvement:

- The program will offer workshops to parents of the target population.

The project sponsored a variety of parental involvement activities including workshops.

As it did last year, Project Data-Tech met its objective for parental involvement.

IV. SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

ACHIEVEMENT OF OBJECTIVES

Project Data-Tech met its N.L.A. objective (for Haitian and Spanish), the content area subject objective for CAD, the attendance objective, one of two objectives for staff development, and the objective for parental involvement.

Participating students in Project Data-Tech showed academic progress. Of the 131 participating students, 129 were promoted to the next grade or graduated. The students showed gains in English, Spanish, Haitian, and the content areas.

Project services not only benefited the students academically but also increased their awareness of the importance of education. The attendance rate of participating students was significantly higher than that of the population of the school they attended.

Parents were involved in a variety of activities sponsored by the project.

MOST AND LEAST EFFECTIVE COMPONENTS

The native language instructional component was highly effective.

RECOMMENDATION(S) TO ENHANCE PROJECT EFFECTIVENESS

Since this was the last year of the project, OER is not offering any recommendations.

APPENDIX A

Instructional Materials

E.S.L.

Grade	Title
9-12	LADO English

N.L.A.

Grade	Language	Title	Author	Publisher
9	French	Premier Livre	E. Blume	*
10	French	Deuxieme Livre	E. Blume	*
11	French	Quatrieme Livre	E. Blume	*
12	French	Cours Superieur-Literature Haitienne	E. Blume	*

Mathematics

Grade	Language	Title	Author	Publisher
9	Spanish	Repaso Matematico	Allyn and Bacon	*
10	Spanish	Matematicas	Baldor	*

*Information not submitted.

APPENDIX A

Instructional Materials cont'd

Science

Language	Grade	Title	Author	Publisher
Spanish	9	Ciencias de Holt	*	*
Spanish	10	Introduccíon a las ciencias biologicas	Ira Freeman	Diaz-Cubero
Spanish	11	Biología	Garcia Alessio	Minerva Silver/Burdett

Social Studies

Language	Grade	Title	Author	Publisher
Spanish	9,10	Africa, Asia, Japon, China, India, America, Latina	*	Barron's Educational Series
Spanish	11	Libro de Historia Americana	*	Lectorum Publications

*Information not submitted.

APPENDIX B

Class Schedules

Ninth Grade

Days	Period	Subject
M-F	7:36 - 8:16	Extra Help (as needed)
M-F	8:20 - 9:01	E.S.L.
M-F	9:05 - 9:46	E.S.L.
M-F	9:50 - 10:02	Homeroom
M-F	10:06 - 10:47	Physical Education
M-F	10:51 - 11:32	Social Studies
M-F	11:36 - 12:17	Lunch
M-F	12:21 - 1:02	Mathematics
M-F	1:06 - 1:47	N.L.A.
M-F	1:51 - 2:32	Introduction to CAD

Eleventh Grade

Days	Period	Subject
M-F	7:36 - 8:16	Extra Help (as needed)
M-F	8:20 - 9:01	N.L.A.
M-F	9:05 - 9:46	Physical Education
M-F	9:50 - 10:02	Homeroom
M-F	10:06 - 10:47	E.S.L.
M-F	10:51 - 11:32	Social Studies
M-F	11:36 - 12:17	Lunch
M-F	12:21 - 1:02	Science
M-F	1:06 - 1:47	Mathematics
M-F	1:51 - 2:32	CAD