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ABSTRACT

The Bilingual Academic and Technical Education for Youth Program (BATEY) provides English as a second language (ESL) and bilingual instruction with a vocational focus to foreign born (98 percent of them Hispanic) students at Adlai E. Stevenson High School, Bronx, New York. Under the program, Title VII funds support administrative and support services as well as paraprofessional staff, while instructional services are provided by other sources, including Chapter 720. Program activities include: (1) the development of curriculum materials; (2) bilingual personal and vocational counseling; (3) staff development efforts; and (4) parent involvement activities. Quantitative analysis of student achievement in 1981-82, the program's second year, indicates that students in ESL classes surpassed program objectives by mastering more than one Criterion Referenced English Syntax Test (CREST) objective per month. In addition, participating students surpassed program objectives by passing bilingual industrial arts and business education classes at an equal or better rate than students in regular and vocational education and industrial arts classes. Data are not available to determine the English and Spanish reading achievement of participants. (GC)

O.E.E. Evaluation Report

February, 1983

Grant Number: G00-800-6765

ADLAI E. STEVENSON HIGH SCHOOL

BILINGUAL ACADEMIC AND TECHNICAL EDUCATION FOR YOUTH PROGRAM (BATEY)

1981-1982

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A SUMMARY OF THE EVALUATION
OF THE BILINGUAL ACADEMIC AND TECHNICAL
EDUCATION FOR YOUTH PROGRAM
ADLAI E. STEVENSON HIGH SCHOOL
1981-1982

This program, in its second year of funding, continued to provide E.S.L. and bilingual instruction with a vocational focus to 281 students, 98 percent of whom were Hispanic. Eighty-nine percent of program students were foreign-born, almost half of these in Puerto Rico. The students varied in English-language proficiency, ability in their native language, and overall academic preparedness.

The report concentrated on those areas of the program where changes had occurred and where information needed to be updated since the 1980-1981 evaluation. Those areas which remained essentially the same were described in less detail and the reader was referred to the 1980-1981 report for a more complete description.

Title VII funds supported administrative, support services, and paraprofessional staff. All instructional services were provided by a combination of tax-levy, P.S.E.N., and Chapter 720 funds. Curriculum materials were developed to supplement the bookkeeping text and the LADO text used in E.S.L. classes. Supportive services to program students were provided by a bilingual program counselor who handled both personal and vocational counseling in addition to making outside referrals. Two major areas of concern were the increasing number of special education referrals and continuing truancy among program students. Staff development activities focused primarily on curriculum development and were supplemented by monthly department meetings and attendance at university courses. Parents of participating students were involved in a parent/student/community advisory committee, although this committee did not meet on a regular basis. Parents attended other school-wide and program activities, parent conferences, and responded to phone contacts from program staff.

Students were assessed in English-language development (Criterion Referenced English Syntax Test and the P.S.E.N. Reading Test); growth in their mastery of Spanish (Interamerican Series, La Prueba de Lectura); industrial arts and business education (teacher-made tests); and attendance (school and program records). Chapter 720 students were additionally assessed in mathematics (program-developed test) and attendance (school and program records). Quantitative analysis of student achievement indicates that:

--Students tested on CREST Level I and II mastered an average of 1.4 to 2.2 objectives per month during the fall and spring semesters. Students tested on Level III mastered an average of 0.7 (fall) and 0.9 (spring) CREST objectives per month.

--Of the 34 students tested on the P.S.E.N. Reading Test, only three ninth-grade students showed a gain. The remainder tested showed little or no gains by the end of the school year.

--In native-language reading ability, ninth- and tenth-grade students showed gains on the Prueba de Lectura which were highly significant statistically and educationally. The improvement made by a small group of eleventh graders was educationally but not statistically significant.

--The overall passing rate for students who took teacher-made final examinations in industrial arts in the spring was 90 percents. The overall passing rates in business education courses were 73 percent (fall) and 90 percent (spring).

--The average attendance rates of program students were significantly higher than the school-wide attendance rates in both the fall and spring semesters.

--Chapter 720 students who took a program-developed test of basic mathmatics skills showed statistically significant gains which were of low educational significance.

--The average attendance rates of Chapter 720 students were significantly higher than the school-wide attendance rates in both the fall and spring semesters.

The following recommendations were aimed at improving the overall effectiveness of the program:

--Focusing vocational and personal counseling on ninth-grade students in order to identify potential drop-out and special education referrals as early as possible;

--Interviewing all students prior to placement in the program in order to minimize the number of students who register and then do not attend classes;

--Assigning a paraprofessional to act as a family worker to follow up on students with attendance problems and to assess such problems in order to develop appropriate strategies to combat them;

--Establishing a peer tutoring program, with twelfth-grade students working individually with ninth graders;

--Increasing the course offerings in the areas of industrial arts and business;

--Developing curricula in mathematics and social studies appropriate to students' reading levels;

--Staff training in the areas of special education during monthly meetings, if a separate time cannot be arranged;

--Establishing liaison relationships with other basic skills programs in the school to facilitate the exchange of information about students and to share resources;

--Establishing liaison relationships with feeder schools to facilitate the early identification of potential special education or truant students;

--Minimizing the problem of missing or incomplete data for determining the attainment of program objectives;

--Pre-testing students on the next higher CREST level, if they demonstrate mastery of 80 percent or more on previous testing.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF TABLES
(continued)

BILINGUAL ACADEMIC AND TECHNICAL EDUCATION FOR YOUTH PROGRAM (BATEY)

ADLAI E. STEVENSON HIGH SCHOOL

Location:	1980 Lafayette Avenue, Bronx, New York 10473
Year of Operation:	1981-1982, second year of funding
Target Language:	Spanish
Number of Students:	281
Principal:	Myrna F. Wohlberg
Project Director:	Alfred Riccardi

INTRODUCTION

In its second year of operation, Project BATEY continues the vocational focus and bilingual educational approaches established in its initial year. While late funding during its first year reduced the total number of courses given, during the past year the project has been able to offer its full complement of instructional offerings. Since the 1980-1981 evaluation report gives an overall picture of program operation, this year's report will concentrate on those areas where changes have occurred and where information needs to be updated. Program aspects which remain essentially the same as last year will be described in less detail than originally and the reader will be referred for a fuller description to the 1980-1981 report.

I. CONTEXT

ENVIRONMENT

Adlai E. Stevenson High School is located in the Soundview area of the Bronx, which is adjacent to the Bruckner Expressway. One side of the school faces recently constructed low- and middle-income housing developments and a shopping center; the other looks out on an area of one- and two-family houses that adjoins a large industrial sector. Residents are predominantly black and Hispanic, the latter primarily recent arrivals from Puerto Rico, but increasingly immigrants from Latin American countries.

Located in Community School District 8 and fed by five junior high and intermediate schools, Stevenson has 4,597 students. A significant number of students live far from the school, many two bus rides away in the Hunts Point section of the Bronx; others get to school by taking a bus and the number six train, the area's public transportation link to Manhattan. The ethnic composition of Stevenson is 55 percent Hispanic, 42 percent non-Hispanic black; and 3 percent other (Asian-American and white): this student make-up represents a slight increase in the Hispanic population and a slight drop in the non-Hispanic black population since last year.

SITE CHARACTERISTICS

Opened in 1970, Stevenson High School is a relatively new, pleasant building. Located on its first floor, the program office consists of a large room with desks clustered in the middle. Off this room are four small ones: for director and secretary, for counselor, for guidance counselor and curriculum developer, and for paraprofessionals. While the evaluator observed students coming and going in the office, security problems had

apparently been sufficiently serious in the fall that the minutes of the October departmental meeting enjoined staff not to let students into the project office for counseling, program changes, or other business unless they first got the "appropriate form" from a teacher.

Although the administrative work of the program is centrally located, students take program classes in all parts of the sprawling building. As a result, their activities are well integrated into those of the larger school community. At the same time, the spread-out nature of the program decreases regular contact among program personnel, with teachers' offices and classrooms located in different parts of the three-story building.

II. STUDENT CHARACTERISTICS

The program's target population consists of 281 students. Whereas five are Chinese students who participate in the English as a second language program (E.S.L.) and use the services of the program guidance counselor, 98 percent of the students in the program are Hispanic. Eighty-nine percent of program students are foreign-born. Table 1 presents a breakdown by country of origin of students for whom this information was reported.

TABLE 1

Number and Percentages of Students by Country of Birth

Country of Birth	N	Percent
Puerto Rico	141	47
Dominican Republic	52	17
United States	34	11
Ecuador	27	9
Honduras	11	4
Colombia	7	2
El Salvador	7	2
Peru	5	2
Hong Kong	5	2
Nicaragua	4	1
Cuba	4	1
Mexico	2	1
Panama	1	less than 1

- Students born in Puerto Rico remain the largest single group. They comprised 45 percent of program students last year; this year they total 47 percent.

- Twelve percent last year, Colombian students make up only 2 percent of program students this year; on the other hand, students from Ecuador have increased in the past year from a single student, to 9 percent of the total number of program students. Despite such fluctuations in relation to students from individual countries, the trend is clearly toward an increasing number of students from Latin American countries.

- An increase of 4 percent has taken place since last year in the number of program students born in the United States.

Students enrolled in the program are unevenly distributed by sex and grade. There are more female than male students, and students in general are more concentrated in grade 9 than any other grade. Table 2 presents students by sex and grade.

TABLE 2

Number and Percentages of Students by Sex and Grade

Grade	Male N	Percent of Grade	Female N	Percent of Grade	Total N	Column Total: Percent of All Students
9	66	49	69	51	135	45
10	34	46	40	54	74	25
11	24	39	37	61	61	20
12	12	39	19	61	31	10
TOTAL	136	45	165	55	301	100

- There are more female than male students in the program as a whole and in each grade.
- Most students (45 percent) are in grade 9.
- Enrollment decreases as grade increases.

Several staff members mentioned problems of students born in the United States that are not shared with other program students. Many graduates of junior high schools or intermediate schools, who could cope academically because classes were conducted in both Spanish and English, do not know enough Spanish to manage in a bilingual program that takes an almost entirely native-language approach. However, these students do not know enough English to function successfully in mainstream classes.

The educational histories of the students as a whole vary, with a number of students having had their schooling interrupted and others having had far fewer years of education than is indicated by their grade level. Both problems have resulted in a certain number of students who are overage for their grade, since students over fourteen are placed in high school regardless of their previous education and their present skill-level. One seventeen-year-old student, for instance, had only three years of schooling in South America; another received less than a 2.0 grade-level rating on a basic skills test. See Table 3 for the distribution of students by age and grade.

A further, and increasing problem in the program involves the students awaiting screening for special education. Since the screening process can take a year or longer due to the shortage of bi[illegible]ual staff to do each psychological evaluation, these students spend a considerable time in an educational environment that is not designed to meet their needs. Prior to screening, teachers a[illegible]mpered in working with a student, since they do not necessarily know whether a specific illiterate or semi-literate student has serious emotional problems or is slightly learning disabled.

TABLE 3

Number of Students by Age and Grade

Age	Grade 9	Grade 10	Grade 11	Grade 12	Total
13	2	1			3
14	23	2			25
15	42	19	4		65
16	40	25	19		84
17	21	20	21	7	69
18	3	4	13	17	37
19	3	2	3	3	11
20				3	3
Total	134	73	60	30	297
Overage Students					
Number	67	26	16	6	115
Percent	50	36	27	20	39

Note: Shaded boxes indicate expected age range.

- Thirty-seven percent of the students are overage. The highest percent of students is in grade 9.
- The percentage of overage students decreases as grade increases. It is likely that overage students tend to drop-out more than students at the expected age for their grade.
- Most program students are 16 years of age. Of these, most are in grade 9.

The consensus among program personnel is that the students are less prepared than in previous years. This concern was strongly expressed in connection with such basic skills as reading and mathematics. Of the illiterate students, six to eight are in special education. Program staff repeatedly expressed concern about both illiterate and semiliterate students. One teacher suggested that these students might be better served in a program that focused only on basic skills; another staff person recommended the establishment of borough-wide centers to work with illiterate students.

Students leaving the program do so mostly at the grade 9 level. It is speculated that although some required transfers to other schools, many eventually drop out as a result of a combination of factors: being overage for their grade, academic difficulties, and economic difficulties in the family. Table 4 presents the number of students reported leaving the program and the reasons given for leaving.

TABLE 4

Number of Students Leaving the Program

Reason For Leaving	Grade 9	Grade 10	Grade 11	Grade 12	Total
Fully mainstreamed	2				2
Discharged/ transferred to altern. program	2	2	2		6
Transferred to another school	4	1	1		6
Graduated				4	4
Returned to native country	5	2			7
Discharge (Reason Unknown)		1			1
Truant	1				1
Dropout			1		1
Other	2		3		5
Total	16	6	7	4	33

.Most students who leave the program are transferred to another school or another program; most of them are in grade 9.

III. ORGANIZATION, STAFFING, AND FUNDING

ORGANIZATION

Project BATEY is part of the foreign language department. As a result, regularized staff contact usually occurs within the framework of these departmental meetings, rather than in separate settings which would focus on issues and problems of particular concern to the program itself. An organizational table that shows the placement of the program within the school as a whole is included in the 1980-1981 evaluation report.

PROGRAM OBJECTIVES

Specifically during its second year of operation, the program proposed the following objectives for 1981-1982:

1. As a result of E.S.L. instruction, students in E.S.L. classes will master an average of five C.R.E.S.T. objectives per semester.

2. As a result of program participation, students enrolled in reading classes will show a gain in reading achievement that does not differ significantly from the gain of similar non-program students.

3. As a result of program participation, students in the program will show a gain in Spanish language achievement that does not differ significantly from the gain of similar non-program students.

4. As a result of program participation, the percentage of students passing bilingual industrial arts classes will equal statistically the percentage of students passing regular industrial arts classes.

5. As a result of program participation, the percentage of students passing bilingual business education classes will equal statistically the percentage of students passing regular business education classes.

6. Curriculum will be developed in the following areas: E.S.L. curriculum for typing; bilingual curriculum for record keeping; bilingual curriculum for mechanical drawing; and bilingual curriculum for woodworking. Bilingual curricula will emphasize improvement of English language skills.

7. As a result of program participation the attendance rate of students in the program will not differ significantly from that of the school as a whole. There will be a significant relationship between attendance and improvement in English proficiency.

8. As a result of program participation, the percentage of program students who are suspended will be significantly lower than the percentage of non-program students who are suspended.

9. Fifty percent of program students will participate in group counseling sessions.

10. Fifty percent of students will visit business offices and industrial plants.

11. Workshops for parents on career orientation will be held.

12. Sixty percent of parents who participate in program activities will meet individually with project staff in order to discuss students' adjustment.

13. All program students will meet with the guidance counselor for career and psychological counseling.

14. All program students will meet with the assistant project director in order to plan their school programs.

15. Program staff will take fifty university credits in bilingual education and in courses which will lead to certification in their subject areas.

16. Program staff will attend curriculum development training workshops.

The proposed Chapter 720 objectives for the second year of the program are:

1. On a pre-test - post-test basis, 70 percent of the students in remedial mathematics classes will show improvement at the .05 level of significance as measured by the Spanish version of the June 1980 Basic Competency Test in Mathematics. Pre-test will be in October 1981; post-test in May 1982.

2. As a result of participation in the program, the attendance rate of students will not differ significantly from the attendance rate of the school as a whole.

STAFFING

Project staff consists of the project director, curriculum developer, counselor, grade advisor, secretary, and four paraprofessionals. In addition, teachers from different departments are assigned to program courses. The grade advisor, who worked half-time as assistant director in the program last year, was cut to a quarter-time position in the program and therefore has to teach one additional period this year; as a result, she has less time to work individually with students to set up their programs or to do follow-up regarding students with attendance problems.

Though the Title VII administrative staff itself is a stable feature of the program, the teaching staff is less so. While rapid staff turnover was cited in several instances as a programmatic weakness, it actually reflects a school-wide problem, since teachers are tax-levy employees. Several teachers are new to the school and the program: a science and mathematics teacher; a social studies teacher; and a Chapter 720 mathematics teacher who replaced someone who had resigned from the school system in the middle of the spring term.

As a group, the teaching staff reflects the general problem of getting bilingual licensed staff. Last year and during the fall term, for instance, science classes were conducted by a teacher out-of-license. Both the new Chapter 720 mathematics teacher and the mathematics/social studies teacher are licensed in Spanish, rather than in their respective subjects. The new science and mathematics teacher has taught science for 12 years in Puerto Rico; however, she is waiting to take the New York City licensing examination and until she becomes licensed, she cannot use the science lab-

oratory. Industrial arts and some business courses continue to be taught without bilingual teachers; for the most part, these courses use a paraprofessional as a translator. Both the project director and the chairperson of the industrial arts department said that there were simply no bilingual teachers in these areas available in the school system, and linked this situation with competition with private industry for bilingual workers in these fields.

Because of turnover among teaching staff, in some instances the paraprofessionals provide the most stable classroom element. Most often, they are used to work individually or in small groups with the slow learners, and to do clerical work related to the class. In classes like industrial arts, where they serve as translators, they play a particularly vital role; when they are pulled out of class to assist in administering the Language Assessment Battery (LAB) or other such tests, their absence can seriously disrupt the continuity of a class.

The paraprofessionals, all of whom devote 100 percent of their time to the program, indicated that they would like to take on more responsibility than they now receive. In one instance, a paraprofessional said that she was not informed ahead of time as to what was going to be covered in each class period; as a consequence, she could neither plan her participation nor use her skills most effectively. Another paraprofessional noted that because she did not have a mutual preparation period with the teacher with whom she worked, they were unable to do any planning together or to discuss problems that arose. Since paraprofessionals sometimes work with more than one teacher and are subject to assignment to a different teacher each term,

they have to adjust to a range of approaches to the teaching of different subject matter. A repeated suggestion from the paraprofessionals was for workshops with program teachers on working together in the most productive way.

Table 5 provides information on the characteristics of program staff.

FUNDING

Table 6 shows funding sources and number of personnel for the instructional component and Table 7 provides the same information for the non-instructional component.

TABLE 5

Staff Characteristics: Professional and Paraprofessional Staffs

Function(s)	% Time Spent in Function	Date Hired	Education	License	Years of Monolingual Experience	Years of Bilingual Experience	Years of Experience (ESL)
Coordinator	100	9/75	B.A. English working to M.A. Administration	NYC English DHS ESL DHS Spanish DHS	4 years	6 years	2 years
Grade Advisor Spanish Teacher	25 75	10/80 9/80	B.A. Spanish M.A. Counseling	NYC Spanish DHS ESL DHS	3 years	none	6 years as para
Counselor	100	9/75	M.S. ESL M.A. Counseling	NYC ESL DHS		6 years	4 years
Bilingual Bus. Ed. Curriculum Developer	25 75	9/80	B.S. Polit. Science MBA	NYC Bilingual Social Studies DHS	1/2 year	6 1/2 years	none
Bilingual Social Studies	100	9/81	B.S. Pol. Sci. Social Science M.A. Education M.A. Admin. + 60 cr.	NYC Bilingual Social Studies DHS	none	5 years	none
Math Social Studies	75 25	2/80 9/82	B.A. Bil. Ed. Com Br M.A. Bil. Ed.	NYC TPDC Spanish NYS	1/2 year	1/2 year	none
Math Science	50 50	2/82 2/82	B.A. Science ED.	NYC TPDC General Science	12 years in P.S.		none
Chapter 720 Math Skills	100	2/82	B.A. Spanish	NYC Spanish DHS	3 years Spanish Language Arts	none	none
E.S.L.	100	9/76	B.A. French M.A. Education	NYC ESL NYS French	9 years	none	5 years
E.S.L.	100	2/82	B.A. French M.A. TESOL	NYC ESL NYS French		1 year	5 years
Bilingual Industrial Arts	40	9/80	B.S. Education M.S. Education P.D. Administration	NYC Industrial Arts NYS	12 years	2 years	none
Bilingual Business Education	40	2/81	B.A. Education M.A. Education	NYC E.S.L. District Education NYS	10 years	1 1/2 year	5 years
Paraprofessional	100	9/79	17 credits undergrad.	none		3 years	
Paraprofessional ESL	100	2/82	12 credits undergrad.			7 years H.S. 6 years Elem.	1/2 year
Paraprofessional ESL	100	9/74	B.A. Elem. Bil. Ed. 6/82				8 years
Title VII Paraprofessional	100	9/75	48 credits undergrad.			8 years	

TABLE 6

Funding of the Instructional component

	Funding Source(s)	Number of Teachers	No. of Classes	Paras	No. of Classes
E.S.L.	Tax Levy PSEN Title VII	2 2	1 each 5 each	2	5 each
Reading (English)	Tax Levy	2	1 each		
Native Language	Tax Levy	2	3,5		
Math	Chapter 720 Tax Levy Title VII	1 2	5 2,5	1	5
Social Studies	Tax Levy	2	2,5		
Science	Tax Levy	1	3		
Other (Voc. Ed., etc.)	Tax Levy Title VII	2	2 each	1	3

TABLE 7

Funding of the Non-Instructional Component

	Funding Source(s)	Personnel: No. & Title(s)
Administration & Supervision	Title VII	Project Director
Curriculum Development	Title VII	Curriculum Developer - Business Education
Supportive Services	Title VII Title VII	Counselor 1 Grade Advisor .25
Staff Development		
Parental & Community Involvement		
Other	Title VII	Secretary

IV. INSTRUCTIONAL COMPONENT

PLACEMENT AND PROGRAMMING

For the most part, students are chosen to participate in the program on the basis of their LAB score and an interview. Although half of the Hispanic students in Stevenson High School scored below the twenty-first percentile and thereby are certified as of limited English proficiency (LEP), program students are chosen from those ninth to eleventh graders who scored below the fifteenth percentile. A number of students with a record of truancy are admitted to the program without having to be interviewed. For students entering from feeder schools, previous performance and teacher recommendations are considered in selecting program students.

Programming is done on an individual basis in consultation with the guidance counselor. Language proficiency and needs, interest in business or industrial arts, mathematics level, career goals, and graduation requirements are all considered in putting together each student's program. Following are typical student programs:

Ninth-Grade Student

Fundamentals of Mathematics 1, Bilingual
Math Skills, Bilingual
Mechanical Drawing 1, Bilingual
English Language Skills
English 1
Health Education
Reading Methods 3, Bilingual
Spanish 4S

Tenth-Grade Student

Mechanical Drawing 1, Bilingual
Reading Methods 2
Health Education
Spanish 6S
Global History 2, Bilingual
Fundamentals of Math 2, Bilingual
E.S.L.

Eleventh-Grade Student

Puerto Rican Literature 2
English 6
American History 1, Bilingual
Hygiene
Art 1
Fundamentals of Math 4
Typing 2, Bilingual

Twelfth-Grade Student

Bookkeeping 2, Bilingual
E.S.L.
Hygiene
Reading Methods 4, Bilingual
Art 1
Piano 1
American Studies 2, Bilingual

LANGUAGE INSTRUCTION

A central part of the program involves intensive language instruction. Although it was offered at one time, native language arts (remedial) is no longer included among these offerings. The extent of current language instruction in Spanish is indicated in Table 8.

TABLE 8

Instruction in the Native Language[a]

Fall Courses	Number of Classes	Average Class Register
Spanish 1	2	28
Spanish 2	3	27
Spanish 3	4	27
Spanish 4	2	29
Spanish 5	3	30
Spanish 6	2	29
Caribbean Studies	2	28
Spanish Civilization	2	20
Puerto Rican Literature I	1	25
South American Studies	2	22

TABLE 8 (continued)

Spring Courses	Number of Classes	Average Class Register
Spanish 1	2	29
Spanish 2	1	26
Spanish 3	3	30
Spanish 4	3	28
Spanish 5	2	30
Spanish 6	4	30
Caribbean Studies	2	27
Spanish Civilization		
Puerto Rican Literature II	1	27
South American Studies	2	24

[a]Each class was held for five periods per week, and used standard texts. Spanish 1-6 stressed grammar, reading, and writing for native speakers. The other courses listed were advanced literature classes.

.Whereas Spanish 1-6 and Puerto Rican Studies were offered last year, the other advanced literature classes were not.

Table 9 shows the courses offered in E.S.L. and English reading. The evaluator observed two E.S.L. classes in order to get some sense of the range of course offerings and approaches used. One class, which contained mostly ninth graders who had been in this country for about a year, employed both Spanish and English. The teacher wanted answers in English and, though the students' first responses were often in Spanish, he urged them to repeat

TABLE 9

Instruction in English as a Second Language and English Reading

Fall Courses	Number of Classes	Average Class Reg.	Class Pds. Per Week	Curriculum or Material in Use
FEQA - Beg.	2	28	20	Lado 1
FEQB - Beg.	1	19	10	Lado 2
FEQC - Interm.	1	20	10	Lado 3
FEQD - Interm.	1	21	5	Lado 3
FEQE - Advanced	1	20	5	Lado 4
FE1 - Beg. Reading	2	30	10	Standard Texts
FE3 - Interm. Reading	2	27	10	Standard Texts

Spring Courses	Number of Classes	Average Class Reg.	Class Pds. Per Week	Curriculum or Material in Use
FEQA - Beg.	2	14	20	Lado 1
FEQB - Beg.	2	20	20	Lado 2
FEQC - Interm.	1	27	10	Lado 3
FEQD - Interm.	1	21	5	Lado 3
FEQE - Advanced	1	25	5	Lado 4
FE2 - Beg. Reading	2	37	10	Standard Texts
FE4 - Interm. Reading	2	22	10	Standard Texts

.More students than last year are beginning E.S.L. with a level of intensive instruction that requires them to take twenty classes per week. At the same time, half as many classes in advanced E.S.L. are being offered this year as last.

their answers in English and helped them with the English vocabulary to do so. The teacher also offered explanations in English which he then translated into Spanish. Using a text, Discover America: New York, and a large map of New York City, the teacher was able to combine language instruction with some concrete information about the students' immediate environment. A second class, the fourth in the E.S.L. sequence, was conducted entirely in English. Class discussion was based on a text, Modern Stort Stories in English, first published over 30 years ago, whose four to five page stories do not include writing by or about Hispanic people. Students in this class seemed comfortable talking among themselves in English or Spanish. These students are probably among those who will take an additional E.S.L. course to be offered next year that will serve as a transition to mainstream English.

BILINGUAL INSTRUCTION IN CONTENT AREAS

Program students take social studies, mathematics, and science in Spanish. Table 10 lists content-area courses given during the fall and spring terms.

While all of the content-area courses, except the vocational ones, are listed as taught 100 percent in Spanish, the evaluator observed classes in social studies, science, and mathematics in which teachers introduced key words in English. Some of the introductory words, especially in mathematics and science, are English-Spanish homonyms (i.e., formula, symbols, biology), but others are not readily recognizable by the students (i.e., underground railroad, slavery, compromise). One teacher, however, who used no English at all during a class that included the program's more skilled students, contended that the process of translating sidetracks

TABLE 10

Bilingual Instruction in Content Areas[a]

FALL COURSE	NUMBER OF CLASSES	AVERAGE REGISTER	LANGUAGES OF INSTRUCTION	USED FOR WHAT PERCENT OF CLASS TIME	CRITERIA FOR SELECTION OF STUDENTS	PERCENT OF MATERIALS IN NATIVE LANGUAGE	ARE MATERIALS APPROPRIATE TO STUDENTS' READING LEVEL	DO MATERIALS CORRESPOND TO MAINSTREAM CURRICULUM
Global History I General	3	27	Spanish	100	Teacher Recom.	100	No	Yes
Global History II General	2	21	Spanish	100	Teacher Recom.	100	No	Yes
Economics General	1	25	Spanish	100	Teacher Recom.	100	No	Yes
American Studies II General	1	21	Spanish	100	Teacher Recom.	100	Yes	Yes
Fundamental Math I - III General	6	23	Spanish	100	Teacher Recom.	100	No	Yes
Math Skills Remedial[b] (Chapter 720)	5	18	Spanish	100	Teacher Recom.	100	No	Yes
Algebra - Academic	1	16	Spanish	100	Teacher Recom.	100	No	Yes
Introduction Physical Science General[c]	2	17	Spanish	100	Teacher Recom.	100	Yes	No
Biology General	1	27	Spanish	100	Teacher Recom.	100	Yes	Yes
Level I Mechanical Drawing I[d]	1	14	English	80	Elective	5	Yes	No
Typing I Level I	1	17	English	90	Elective	0	Yes	Yes
Record Keeping I Level I	1	10	English	90	Elective	0	Yes	Yes
Bookkeeping I Level I[d]	1	15	English	90	Elective	0	Yes	Yes
Child Care Level I[d]	1	15	English	90	Elective	0	Yes	No

SPRING COURSE	NUMBER OF CLASSES	AVERAGE REGISTER	LANGUAGES OF INSTRUCTION	USED FOR WHAT PERCENT OF CLASS TIME	CRITERIA FOR SELECTION OF STUDENTS	PERCENT OF MATERIALS IN NATIVE LANGUAGE	ARE MATERIALS APPROPRIATE TO STUDENTS' READING LEVEL	DO MATERIALS CORRESPOND TO MAINSTREAM CURRICULUM
Global History II General	4	25	Spanish	100	Teacher Recom.	100	No	Yes
Global History III General	2	20	Spanish	100	Teacher Recom.	100	No	Yes
American Studies I General	2	21	Spanish	100	Teacher Recom.	100	Yes	Yes
Fundamental Math I - III General	6	24	Spanish	100	Teacher Recom.	100	No	Yes
Math Skills Remedial[c] (Chapter 720)	5	17	Spanish	100	Teacher Recom.	100	No	Yes
Algebra II Academic	1	15	Spanish	100	Teacher Recom.	100	No	Yes
Introduction Physical Science II General	2	17	Spanish	100	Teacher Recom.	100	Yes	No
Biology II General	1	30	Spanish	100	Teacher Recom.	100	Yes	Yes
Mechanical Drawing I[d]	1	20	English	80	Elective	5	Yes	No
Mechanical Drawing II[d]	1	13	English	80	Elective	5	Yes	No
Typing II	1	17	English	90	Elective	0	Yes	Yes
Record Keeping II	1	10	English	90	Elective	0	Yes	Yes
Bookkeeping II[d]	1	12	English	90	Elective	0	Yes	Yes

[a] All classes met five times a week.
[b] Taught by TPDC in Spanish.
[c] Teacher is not licensed.
[d] Special course.

students from the lesson itself. In other classes, though, teachers indicated that they go beyond the introduction of some English vocabulary: one teacher gives students in the more advanced classes tests that are half in English and half in Spanish; another teacher gives assignments requiring summaries in English to the more English-proficient students and includes vocabulary translation as a regular part of weekly quizzes.

Texts used are not always appropriate to the students' reading levels, especially in mathematics and social studies. The need for a more basic book than Matemáticas Modernas para Escuelas Secundarias (Modern Mathematics for Secondary Schools) was cited by a fundamentals of mathematics teacher. A second mathematics teacher also felt the need for more appropriate materials in Spanish for the Chapter 720 classes, particularly a workbook that could take the place of a stream of teacher-prepared hand-outs. The need for texts better suited to program students is particularly acute because of students' reported low motivation and past low achievement in the basic mathematics courses.

A similar problem regarding texts exists in social studies. One teacher described a situation in which three different books for global history had been tried, including the translation of a junior high school text that was at the appropriate reading level in English, but ended up being too difficult for the students when it was translated into Spanish. Historia Antigua y Media (Ancient and Medieval History) and Historia Moderna y Contemporáneo (Modern and Contemporary History), the two books currently being used, had, according to this teacher, too high a reading level for the students. One possibility mentioned was the translation into Spanish of

Global History: A Curriculum Guide, a recent New York City Board of Education publication that corresponds to the students' reading level.

VOCATIONAL COURSES

The vocational courses are designed to provide program students with entry-level skills in business or industrial arts. Vocational courses offered during the fall and spring terms are indicated in Table 10.

The evaluator observed two vocational classes, one in typing, the other in mechanical drawing. Due to budget cuts, the typing teacher no longer has the paraprofessional he had the previous semester. Nonetheless, students seemed able to follow instructions in English and were learning to type from English texts. He occasionally translated a brief instruction into Spanish. For lengthier instructions, he uses one of the more English-proficient students in the class as translator, but this was not necessary during the class observed by the evaluator. After passing this class, students will go into a mainstream typing class in which they will learn to use electric typewriters.

The mechanical drawing teacher worked with a paraprofessional who translated for the students. Instructions were written on the board in English and several of the students volunteered answers in English. The teacher thought that, unlike during the fall term when he had the same students, all of them understood his English; as a result, the paraprofessional played a less active role than in the fall. Even for those students who comprehended the English instructions, her translations provided a means of checking their level of understanding and increasing confidence that they were working on the basis of instructions that were completely clear to them. The teacher

gives a midterm in both English and Spanish and allows students to select which they will take. He regularly provides vocabulary on ditto sheets for the students. His general sense was that the subject's visual orientation facilitated its being taught in English.

Vocational courses are expected to expand next year with the introduction of program classes in automotive shop and clothing construction. The mechanical drawing teacher plans to feed many of the students he had taught this year into automotive shop. He expected, too, that most of the program students taking the clothing course would be juniors and seniors with some facility in English.

Teachers of language and other academic courses expressed strong support for the vocational offerings. They recognized its central role in the program in terms of motivating students and providing them with concrete job skills. Consequently, they fully supported an increase in the numbers and type of vocational courses open to program students.

MAINSTREAMING

The emphasis in the program is toward greater participation by its students in mainstream classes, rather than toward complete mainstreaming. One program teacher was pleased to be able to recommend half the students in his algebra class, the last in the bilingual sequence, for geometry and the other half for intermediate algebra, both mainstream classes -- the former requiring students to take a Regents examination, the latter requiring them to take a city-wide examination. Table 11 lists mainstream courses taken by program students.

TABLE 11

Mainstream Classes in which Program Students Are Enrolled (Fall and Spring)

Component/Subject	Fall Number of Students	Spring Number of Students	Criteria for Selection
English 1-8	112	120	Teacher Recommendation
English Electives	3	1	Elective
Learning Center	1	2	C.O.H. Placement
Fundamental Math	11	21	Teacher Recommendation
Algebra	11	18	Teacher Recommendation
Tenth-Year Math	7	8	Teacher Recommendation
Eleventh-Year Math	1	3	Teacher Recommendation
Twelfth-Year Math	1	1	Teacher Recommendation
General Science	9	6	Teacher Recommendation
Chemistry	3	2	Teacher Recommendation
Regents Biology	4	4	Teacher Recommendation
English Skills	57	57	Teacher Recommendation
Astronomy		1	Elective
Hygiene	19	37	Requirement in Sequence 11th Grade
Psychology	2	2	Elective
American Studies	6	10	Teacher Recommendation
Global History 1-3	9	12	Teacher Recommendation
Economics	5	1	Teacher Recommendation
Art	16	37	Requirement in Sequence 10th-12th Grade
Music	10	27	Requirement
Business[a]	23	24	Elective
Industrial Arts[a]	12	14	Elective

[a]In addition to bilingual classes.

- All classes meet five times a week.
- Students take hygiene, art, and music as part of their graduation requirements.

Information on students' performance in mainstream courses seems to come back to the program from student reports and grades, rather than from some formal liaison with non-program faculty. Although approximately 20 percent of Project BATEY students are taking English skills (the Title I/P.S.E.N. reading/writing program), for instance, the Title VII and Title I/P.S.E.N. program, both focussing on language skills development, seem to operate in isolation from each other; the principal thought that it was better that the Title I/P.S.E.N. teachers not know which students are former E.S.L. students.

During the 1981-1982 year, two students were fully mainstreamed, the same number as last year. Total mainstreaming depends on students' test scores, classroom performance, and teacher recommendations, as well as on agreement on the part of students and parents. The almost unanimous sense of program staff was that students were being mainstreamed at an appropriate rate; only one of the 15 staff members with whom the evaluator spoke thought that students were being held too long in the program. The principal was emphatic in stating that students who were more comfortable in the bilingual program should be allowed to stay in it.

V. NON-INSTRUCTIONAL COMPONENT

CURRICULUM DEVELOPMENT

The need for appropriate curriculum motivated the participants in the program's summer training sessions to focus on curriculum development. As a result, curriculum material was completed to supplement the bookkeeping text, a text also used in mainstream classes. In part, this material was needed because the workbooks given to students in class cannot be used as worksheets. The new curriculum allows students to do exercises involving accounts, income statements, and balance sheets directly onto worksheets compiled in workbook form. In 24 chapters of approximately five pages each, the workbook will continue to be used as an introductory Spanish bookkeeping text.

The summer training also allowed the coordinator to focus on putting together a series of E.S.L. lessons designed to supplement the LADO text. Lessons focus on paragraphs, topic sentences, pre-writing, and selection of relevant details to support a general statement. They also include review exercises for the different aspects of the reading and writing skills covered in them.

SUPPORTIVE SERVICES

Personal Counseling

The only bilingual counselor in the school, the program counselor, does personal counseling individually and in groups for program students. The needs, however, are greater than the time he has to meet them especially since many of the personal issues raised involve a student's family. Un-

fortunately, some problems exist with psychological referral agencies. Although it has an Hispanic social worker, for example, Soundview Psychiatric Center was described as a weak referral because it is not well adapted to the Hispanic community. The counselor suggested that bilingual psychologists and social workers come into the school; work there with students and, where possible, with their parents or other family members; and then move their sessions outside of the school. He felt that this transitional approach would increase usage of available counseling services, since students and their families are more likely to seek help in a familiar setting. Last year's report contains details about the community referrals used.

An increasingly serious problem is the growth in the number of special education referrals among program students. Staff repeatedly cited this as a major area of concern. As with many of the other program problems, the responsibility lies outside the domain of the program staff. Despite it huge Hispanic population, the Bronx has a single bilingual educational evaluator and a single bilingual psychologist to do the screening of all potential special education students in the borough. As a result, there is a tremendous backlog and students can take a year or longer to be tested and possibly to be sent to the special education program at South Bronx High School, a placement process that is supposed to occur 30 days after testing. According to program staff, one or two of every ten students recommended to be in special education refuse to approve the placement or their parents do not follow through and sign the option letter. As a result, these students remain in the program even though they have been evaluated and recommended for placement in special education.

The strain on the program while the evaluation procedure takes place is tremendous. One teacher cited a situation in which a student awaiting testing and placement spent an entire year in her class and a paraprofessional had to spend most of her time making sure that the student, who had previously set several fires, did not do so in the class; in the meantime, the student spent a year without receiving help or being in an environment properly suited to his learning. Program teachers have had no special training to deal with such students; along with the rest of the Stevenson faculty, they have seen a videotape on the special problems and the legal rights of special education students.

Vocational and Career Guidance

Located in a school which has a general emphasis on career education, the project provides a considerable amount of additional career guidance to its own students. Much of this is done by the counselor in small groups, a format that also enables him to identify personal problems that require further attention. The counselor maintains contacts with the Bronx Career Center and other local sources of career information. Meeting weekly in groups, students define career goals and learn to locate career materials. Students use the Spanish version of the JOB-O Title Search (Career Materials, Inc.) to identify their interests and aptitudes, to select related careers, and to design a high school course plan based on their job interests and, where appropriate, geared to post-high school training or college education. Special emphasis is placed on involving ninth-grade students in these groups and encouraging them to take vocational courses in the program. One teacher suggested that having someone in charge of getting bilingual speakers to

come into the school to talk about their experiences and about career opportunities for bilingual students would serve as an additional motivating force for these program students.

Truancy Prevention

Truancy continues to be a serious problem in the program. Again, this programmatic problem reflects the situation in the school as a whole and within the Hispanic student population in the city, rather than one that is endemic to the program. The addition of students to the program who have a history of truancy increases pressure on staff to focus primarily on keeping the students in school. At the same time, it seems to gear the program toward those in particular need of it, students whose prior record suggests the increased likelihood that they will drop out.

The problem has less to do with selective cutters than with students who simply do not attend after the first day or two of classes or who never show up at all. Teachers repeatedly told the evaluator that students' overall attendance is very good, a fact borne out during eight classroom observations. Yet each teacher had a number of students whose only connection to the class was the fact that they had been registered for it.

The grade advisor thought that one influence on attendance was the change represented in attending Stevenson for the many students who live in the Hunts Point section of the Bronx. Whereas they went to a fairly small junior high or intermediate school close to home, these students are now faced with a more impersonal school facility with almost 5,000 students, as well as two bus rides, beginning at seven a.m. at the latest, just to get there.

The grade advisor described one situation in which, although the mother of two program students came to see her and she called the students' home to talk to them, they refused to come to school, even to pick up their program cards. She felt that their near phobia about being in school prevented her from being able to make any meaningful contact with them. The incident is typical of program staff showing great concern and acting on it, but being thwarted by external circumstances.

Contact with parents is maintained additionally through postcards regarding absences sent home after the school computer has recorded a certain number of cuts. Nonetheless, the program lacks the staff resources to follow up on each of these students: counseling time is severely limited; the grade advisor spends less time working in the program this year than last; and the paraprofessionals are needed in the classroom. One staff member thought that the truancy problem might be addressed more effectively if there were a school-wide policy on how to handle it, rather than a system in which policies and approaches are developed by the individual programs (i.e., phoning, groups, attendance contests).

For the students who do attend, the entry-level skill focus is designed, among other things, to support regular attendance by making a clear link between in-school learning and subsequent job possibilities. Toward this end, the counseling groups with their career-oriented focus provide some of the individual support and direction that can encourage students to stay in school. While these groups play an extremely important role in drop-out prevention, they simply cannot involve all of the students

who might benefit from them or address the range of personal, family, social service, and other problems that the students have.

STAFF DEVELOPMENT

Staff development has focused primarily on curriculum development. The 1981 summer seminar, which met for 100 hours, chose this as its area of concentration. Attended by the project coordinator, the business education curriculum developer, a social studies teacher, and an E.S.L. teacher, these sessions played an important part in the development of new bookkeeping material and a series of supplementary E.S.L. lessons.

Monthly department meetings deal primarily with school policy, deadlines, and other administrative matters. While training sessions dealing with special education, use of paraprofessionals in the classroom, and other issues were suggested as fruitful areas for staff development, funding in this area has been cut.

Several staff members are pursuing additional training through university courses: one paraprofessional is studying toward a degree in bilingual education; two teachers are getting master's degrees in guidance and counseling; and a third teacher is taking graduate courses in preparation for state and city certification in guidance and counseling.

PARENTAL INVOLVEMENT

The parent/student/community advisory committee met in the fall semester, but not in the spring. This body was inactive last year also, a situation discussed in the previous evaluation report. While it has been a problem getting this committee to work continuously, parent participation

in it also needs to be placed within the framework of such participation in the school as a whole: regular monthly P.T.A. meetings, for instance, attract only two or three parents plus those on the executive committee. Parents of program students do, however, attend such events as the May parent/student social evening and open school week, go to parent conferences, and respond to phone contacts from program staff.

AFFECTIVE DOMAIN

Student attitudes toward the program are reflected by the following indicators:

Attendance

According to an analysis of student data reported by the program compared to the schoolwide attendance rate, program students had an overall attendance rate which was significantly higher than that of the school as a whole.

Admittance to College

A very high percentage (53 percent) of seniors in the program applied to college and were admitted. Of the 23 seniors expected to graduate in May 1982, 18 will be entering college in the fall. Most will be attending different branches of the City University of New York, but others are attending such schools as Binghamton (SUNY), Boricua College, Buffalo College of Engineering, Farmingdale (SUNY), and Marist College. A recent article in the Bronx Press-Review, "Stevenson Bilingual Program Graduates Are Getting Along," highlights program success in getting its graduates into college. See Table 12 for seniors' post-high school plans.

TABLE 12

Post-High School Plans of Twelfth-Grade Students

Plans	N	%
College	17	53
Vocational or Career Training School	4	13
Armed Forces	2	6
Job	3	10
Keep a Household	1	3
Undecided	3	9
Unknown	2	6

.Most grade 12 students plan to attend college. Four students plan to enter a vocational a career training program.

After-School Activity

Participation of many of the students continues in Teaching of Occupation and Language for Limited English Proficiency Students (TOLLEPS). Two afternoons a week, students can take courses in bilingual office practice, computers, and home repair and construction. The computer course is new this year. Students also participate in varsity sports and other school activities. Many of the students, about 40 percent in the junior and senior years, work after school; many also work during the summer.

Suspensions

The rate of suspension in the program this year through mid-May is 6.76 percent, more than the school-wide rate of 5.19 percent. Although

the Progam rate is slightly above its 6.11 percentage of the school population, its reflects a significant increase within the program over the previous year's suspension rate of 4.5 percent, which was about equal to the 1980-1981 school-wide suspension rate. All of the 19 program suspensions were for fighting; none were for drug use or vandalism.

Honorable Achievements

Program students have won a number of academic and other honors. Two eleventh graders won the Daily News Super Youth Honor Roll Awards. A graduating student won a four-year, 1,000 dollars a year United Federation of Teachers college scholarship. Two students won essay contests. One eleventh grader was selected to participate in an executive internship program that was seeking placement for participants with an architectural firm.

VI. FINDINGS

ASSESSMENT PROCEDURES, INSTRUMENTS, AND FINDINGS

The following section presents the assessment instruments and procedures used in evaluating the attainment of the program objectives.

Several objectives have been revised from the proposed program objectives (pgs. 10, 11) for the following reasons:

1) Objective 1 was revised to state that program students would master one CREST objective per month. This revision was necessary because the time which elapsed between the administration of the pre-test and the post-test may not have been equal for each program students. Dividing the pre-test/post-test difference by the number of school days per month between testing eliminates this problem.

2) Objectives 2 and 3 had to be revised because there were no comparison data available for non-program students. Therefore, a correlated t-test model was applied to the differences between pre-test and post-test scores. This allows one the opportunity to assess whether or not there was significant improvement in English and native-language reading achievement.

3) Objectives 4 and 5 had to be revised because program and non-program students were administered different final examinations for industrail arts classes and business education classes. These objectives were revised to read that approximately 60 percent of program students would pass industrial arts and business education courses.

4) Objective 7 was revised to focus only on the difference between the attendance rate of program students and the school-wide attendance rate. Due to the large number of program students with missing or incomplete data, there was insufficient statistical power to test the hypothesis that the correlation between attendance rate and CREST gain scores was significantly greater than zero.

It was also necessary to revise objective 1 for Chapter 720 program students because the objective as previously stated was untestable. The revised objective states that Chapter 720 program students will show a significant improvement ($p<.05$) on a program-developed test of basic mathematics skills. The revised objectives are summarized and presented in Table 13. Each objective will be discussed separately:

Objective 1. The assessment instrument utilized for measuring the attainment of objective 1 was the Criterion Referenced English Syntax Test (CREST). There are three levels of the CREST; each level appropriate for students with beginning, intermediate, or advanced knowledge of proper English syntax. Scores on Levels I and II can range from 0-25, while scores on Level III range from 0-15. Extensive information on CREST content areas and psychometric properties can be found in Technical Manual, New York City English as a Second Language Criterion Referenced English Syntax Test.*

The CREST was administered at the beginning and end of both the fall and spring semesters. Tables 14-19 present the pre- and post-

*Board of Education of the City of New York, Division of High Schools, 1978.

test results for each CREST level by grade during each semester for E.S.L. students only. The mean difference between post-test and pre-test scores represents the average number of CREST objectives attained. An index which expresses the number of CREST objectives gained per month was also computed.

Data were missing or incomplete for 92 E.S.L. students (50 percent) in the fall semester and for 81 E.S.L. students (44 percent) in the spring semester. Examination of Tables 14-19 reveals that a range of 1.4 to 2.2 CREST objectives per month were mastered by students who were tested on CREST Levels I and II during the fall and spring semester. Students who were tested on CREST Level III mastered an average of .7 (fall) and .9 (spring) CREST objectives per month.

Inspection of the CREST Level II and III score distributions for both the fall and spring semester showed that approximately 13-21 percent of the students tested demonstrated pre-test mastery of 80 percent of the objectives. This tends to produce a negatively skewed distribution of scores and places a "ceiling effect" on CREST post-test scores. This is because students scoring high on the pre-test have little or no room to score higher on the post-test. Thus, the observed mastery rates for CREST Levels II and III probably underestimates the true mastery rate due to the "ceiling effect" observed within these levels. Inspection of the CREST Level I score distribution reveals a similar effect, although to a lesser degree.

Objective 2. The assessment instruments utilized for evaluating the attainment of objective 2 were the Comprehensive Test of Basic Skills

(C.T.B.S.)* or the California Achievement Test (CAT).** These are administered to alternate grades as part of the citywide testing program for high school students. The C.T.B.S. was administered to Grade 9 and 11 while the CAT was administered to Grades 10 and 12. Scores on the C.T.B.S. can range from 0-85 while scores on the CAT can range from 0-70. Both tests are essentially measures of reading achievement in the English language. More extensive information on test content and psychometic properties can be found in the appropriate test manuals.

The C.T.B.S. and CAT were administered early in the fall semester and at the end of the spring semester. Table 20 presents the pre- and post-test results by grade for non-E.S.L. students. Data were missing or incomplete for 55 non-E.S.L. students (62 percent). While three ninth-grade students evidenced a significant gain on the C.T.B.S., the remainder of the students tested showed little or nor gains by the end of the school year. Another index of improvement, the effect size, which summarizes the degree of post-test vs. pre-test change in standard deviation units, is also reported.

Objective 3. The assessment instrument utilized for evaluating the attainment of objective 3 was the Interamerican Series Prueba de Lectura,*** Level 3. Basically, this test measures reading achievement in the Spanish language. More extensive information on test content and psychometric properties can be found in the test manual.

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*CTB/McGraw-Hill, Del Monte Research Park, Monterey, California, 1973, 1974.

**CTB/McGraw-Hill, Del Monte Research Park, Monterey, California, 1977.

***Guidance Testing Associates, Austin, Texas, 1967.

The Prueba de Lectura (Level 3) was administered early in the fall semester and then again at the end of the spring semester. Table 21 presents the pre- and post-test results by grade for all program students who were tested. Data were missing or incomplete for 248 program students (82 percent). Significant gains ($p < .01$) were observed for all ninth- and tenth-grade students who were tested. The degree of improvement for ninth- and tenth-grade students was .74 and .92 standard deviation units respectively. A statistically significant gain was not observed for the 8 eleventh-grade students who were tested due to the small sample size of this group. However, they did show an improvement of .34 standard deviation units which is an educationally meaningful gain.

Objectives 4 and 5. The methods for evaluating the attainment of objectives 4 and 5 are sufficiently similar to merit their presentation collectively. Tables 22 and 23 present the percentage of program students passing industrial arts classes and business education classes by grade for both the fall and spring semesters. The total passing rates for these classes were 90 percent (industrial arts, spring) and 73 and 90 percent (business education, fall and spring respectively).

Objective 7. Tables 24 and 25 present the attendance rates of program students for both the fall and spring semesters by grade. For comparative purposes, the school-wide attendance rates are also presented. The attendance rates for program students are significantly higher ($p < .001$) than the school-wide attendance rates.

Chapter 720 Objective 1. The measure utilized to assess the attainment of this objective was a program-developed test of basic mathematics skills.

The mean pre-test/post-test scores and standard deviations can be found in Table 26. Also presented are the mean difference score, the correlated t value with its one-tailed alpha probability level, and an effect size which expresses the mean difference score in terms of pooled within standard deviation units. The difference between the pre-test/post-test scores is significant at the .03 level. The degree of this difference is .36 pooled within standard deviation units which reflects an educationally meaningful gain.

Chapter 720 Objective 2. The mean attendance rates for Chapter 720 program students by grade for both the fall and spring semester can be found in Tables 27 and 28. For comparison purposes, the school-wide attandance rates for each semester are also included. Both the fall and spring attendance rates for the Chapter 720 program students are significantly higher ($p<.001$) than the corresponding school-wide attendance rates during the same time periods.

TABLE 13

Evaluation of Data-based Program Objectives

Objective #	Brief Description of Objective	Method of Evaluation	Table(s)
1	E.S.L Students will master an average of 1 CREST objective per month for both fall and spring semesters	CREST post-test-CREST pre-test; weight number of months between testing.	14-19
2	Students will demonstrate significant improvement in reading achievement in the English language	Correlated t-test post-P.S.E.N. scores vs. pre-P.S.E.N. scores	20
3	Students will demonstrate significant improvement in Spanish language achievement	Correlated t-test post-Prueba de Lectura scores vs. pre-Prueba de Lectura scores	21
4	60 percent of program students in bilingual industrial arts classes will pass during the fall and spring semesters	z test for a significant difference between a sample value and a hypothetical value	22
5	60 percent of program students attending bilingual business education classes will pass during the fall and spring semesters	z-test for a significant difference between a sample value and a hypothetical value	23
7	The attendance rate of program students will be significantly higher than that of the school-wide attendance rate for both the fall and spring semesters	z-test for a significant difference between uncorrelated proportions (using reduced degrees of freedom)	24-25
1 (Chapter 720)	Chapter 720 program students will show a significant improvement in basic mathematics skills	Correlated t-test post-test scores vs. pre-test scores	26
2 (Chapter 720)	The attendance rate of program students will be significantly higher than that of the school-wide attendance rate for both the fall and spring semesters	z-test for a significant difference between uncorrelated proportions (using reduced degrees of freedom)	27-28

TABLE 14

Results of the Criterion Referenced English Syntax Test Level I, (Fall)

Grade	# of Students	Average Number of Objectives Mastered Pre-test x	(sd)	Post-test x	(sd)	Mean Difference Score	Average Number of Objectives Mastered (per month)
9	28	8.1	(3.9)	12.9	(5.6)	4.8	2.8
10	12	10.7	(6.6)	15.5	(6.4)	4.8	1.4
11	4	10.3	(10.0)	12.0	(8.9)	1.7	.54
12	0	----------				---	---
TOTAL	44	9.0	(5.4)	13.5	(6.1)	4.5	2.2

TABLE 15

Results of the Criterion Referenced English Syntax Test Level II, (Fall)

Grade	# of Students	Average Number of Objectives Mastered Pre-test x (sd)	Post-test x (sd)	Mean Difference Score	Average Number of Objectives Mastered (per month)
9	8	15.9 (4.4)	20.1 (2.5)	4.2	1.4
10	17	14.5 (5.8)	18.5 (4.4)	4.0	1.2
11	6	11.8 (6.5)	19.7 (3.1)	7.9	2.5
12	3	14.0 (3.6)	20.3 (2.5)	6.3	2.0
TOTAL	34	14.3 (5.4)	19.3 (3.6)	5.0	1.5

TABLE 16

Results of the Criterion Referenced English Syntax Test Level III, (Fall)

Grade	# of Students	Average Number of Objectives Mastered Pre-test x (sd)	Post-test x (sd)	Mean Difference Score	Average Number of Objectives Mastered (per month)
9	2	9.0 (2.8)	11.5 (3.5)	2.5	.8
10	4	11.0 (3.2)	12.5 (2.4)	1.5	.4
11	5	9.0 (3.9)	12.2 (2.3)	3.2	1.0
12	5	6.0 (3.0)	8.4 (2.6)	2.4	.7
TOTAL	16	8.6 (3.6)	11.0 (2.9)	2.4	.7

TABLE 17

Results of the Criterion Referenced English Syntax Test Level I, (Spring)

Grade	# of Students	Average Number of Objectives Mastered Pre-test x (sd)	Post-test x (sd)	Mean Difference Score	Average Number of Objectives Mastered (per month)
9	28	9.9 (5.6)	14.3 (6.5)	4.4	1.9
10	17	11.7 (5.1)	15.8 (4.8)	4.1	1.3
11	8	12.1 (8.2)	15.9 (7.7)	3.8	1.3
12	1	9.0 (-)	17.0 (-)	8.0	1.6
TOTAL	54	10.8 (5.8)	15.0 (6.1)	4.2	1.7

TABLE 18

Results of the Criterion Referenced English Syntax Test Level II, (Spring)

Grade	# of Students	Average Number of Objectives Mastered Pre-test x (sd)	Post-test x (sd)	Mean Difference Score	Average Number of Objectives Mastered (per month)
9	12	12.0 (4.9)	15.8 (6.2)	3.8	1.2
10	17	12.4 (5.1)	18.2 (6.1)	5.8	1.7
11	6	15.7 (4.1)	17.7 (4.2)	2.0	.7
12	----------				
TOTAL	35	12.8 (4.9)	17.3 (5.8)	4.5	1.4

TABLE 19

Results of the Criterion Referenced English Syntax Test Level III, (Spring)

Grade	# of Students	Average Number of Objectives Mastered Pre-test x (sd)	Post-test x (sd)	Mean Difference Score	Average Number of Objectives Mastered (per month)
9	5	9.2 (2.4)	11.6 (.9)	2.4	.8
10	6	9.0 (1.4)	12.2 (1.0)	2.2	1.0
11	2	12.0 (2.8)	12.0 (2.8)	0.0	0.0
12	3	8.7 (1.5)	12.3 (2.3)	3.6	1.2
TOTAL	16	9.4 (2.0)	12.0 (1.4)	2.6	.9

TABLE 20

Results of the New York City Reading Test by Grade

Grade	Test	Score Range	# of Students	Pre-test x (sd)	Post-test x (sd)	Mean Difference Score	p	ES
9	CTBS	0-85	3	51.3 (10.7)	54.3 (9.8)	3.0	.02	1.4
10	CAT	0-70	-	--	--	--	--	--
11	CTBS	0-85	16	36.1 (8.6)	36.8 (12.2)	.7	NS	.2
12	CAT	0-70	15	34.6 (7.1)	34.1 (11.6)	-.53	NS	--

TABLE 21

Results of the Prueba de Lectura by Grade

Grade	Test Level	# of Students	Pre-test x (sd)	Post-test x (sd)	Mean Difference Score	p	ES
9	3	24	37.6 (13.4)	48.1 (16.0)	10.5	.01	.74
10	3	21	49.9 (16.0)	58.4 (14.3)	8.5	.01	.92
11	3	8	65.3 (15.5)	68.3 (8.2)	3.0	NS	.34

TABLE 22

Number of Program Students Attending Courses and Percent Passing

Teacher-Made Examinations in Industrial Arts

Spring Course	Grade 9		Grade 10		Grade 11		Grade 12		Total	
	N	% Passing	N	% Passing	N	% Passing	N	% Passing	N	% Passing
Drafting	7	100	7	100	5	60	1	100	20	90

TABLE 23

Number of Program Students Attending Courses and Percent Passing

Teacher-Made Examinations in Business Education

Fall Course	Grade 9		Grade 10		Grade 11		Grade 12		Total	
	N	% Passing	N	% Passing	N	% Passing	N	% Passing	N	% Passing
Typing	12	50	2	100	3	100	4	100	21	71
Accounting			1	100	4	100	7	100	12	100
Commercial Record-Keeping	14	43	6	100	2	50			22	59
TOTAL									55	73

Spring Course	Grade 9		Grade 10		Grade 11		Grade 12		Total	
	N	% Passing	N	% Passing	N	% Passing	N	% Passing	N	% Passing
Typing	5	60	3	100	4	100	2	100	14	86
Accounting			1	100	1	100	3	100	5	100
Commercial Record-Keeping	5	80	4	100	1	100			10	90
TOTAL									29	90

TABLE 24

Significance of the Difference Between the Attendance Percentage of Program Students and the Attendance Percentage of the School for the Fall Semester

Grade	N	Mean Percentage	Standard Deviation
9	114	76.0	27.3
10	63	89.5	15.6
11	55	89.3	15.1
12	29	91.6	7.4
TOTAL	261	83.8	22.0

Average School-Wide Attendance Percentage: 72.3

Percentage Difference =11.5 z= 5.65 p<.001

TABLE 25

Significance of the Difference Between the Attendance Percentage of Program Students and the Attendance Percentage of the School for the Spring Semester

Grade	N	Mean Percentage	Standard Deviation
9	115	77.6	23.4
10	65	91.7	10.0
11	58	85.6	18.7
12	30	89.0	13.2
TOTAL	268	84.0	19.9

Average School-Wide Attendance Percentage: 74.2

Percentage Difference = 9.8 z= 4.80 p<.001

TABLE 26

Pre- and Post-Test Scores for Chapter 720 Students

on a Program-Developed Test of Basic Mathematics Skills

Number of 720 Students	Pre-test x (sd)	Post-test x (sd)	Mean Difference Score	T-value	p	ES
54	16.0 (4.4)	17.6 (6.7)	1.5	1.92	.03	.36

TABLE 27

Significance of the Difference Between the Attendance Percentage of Chapter 720 Students and the Attendance Percentage of the School for the Spring Semester

Grade	N	Mean Percentage	Standard Deviation
9	76	77.8	22.9
10	26	84.3	16.9
11	5	90.2	12.8
12	--	--	--
TOTAL	107	79.9	21.4

Average School-Wide Attendance Percentage: 72.3

Percentage Difference = 7.6 $z = 5.39$ $p < .001$

TABLE 28

Significance of the Difference Between the Attendance Percentage of Chapter 720 Students and the Attendance Percentage of the School for the Spring Semester

Grade	N	Mean Percentage	Standard Deviation
9	80	79.2	21.3
10	25	90.0	10.3
11	7	80.6	15.2
12	--	--	--
TOTAL	112	81.7	15.2

Average School-Wide Attendance Percentage: 74.2

Percentage Difference = 7.5 $z = 5.40$ $p<.001$

SUMMARY OF FINDINGS

The findings indicate that objective 1 was clearly attained with most students mastering more than one CREST objective per month. It is difficult to evaluate whether or not objective 2 was attained because data were missing or incomplete for students on the C.T.B.S. and CAT. The available data indicate no reliable pattern. Ninth and eleventh graders show some gain while tenth graders show a slight loss. A similar caveat regarding the missing data problem is also necessary in evaluating the attainment of objective 3. However, the available data indicate that educationally meaningful gains were observed within all grades. The overall passing rate for students attending spring industrial arts classes was 90 percent. The overall passing rates in education classes were 73 percent (fall) and 90 percent (spring). Clearly objectives 4 and 5 were attained. The attendance rate for program students was significantly higher than the school-wide attendance rate, indicating that objective 7 was also attained.

The findings for the Chapter 720 students indicate that both objectives 1 and 2 were also attained. Students showed statistically and educationally significant gains on a program-developed test of basic mathematics skills. In addition, the fall and spring attendance rates for these students were significantly higher than the corresponding school-wide attendance rates.

VII. CONCLUSIONS AND RECOMMENDATIONS

CONCLUSIONS

In its second year of funding, the staff members of Project BATEY have expanded a program that addresses the need of Hispanic students for career orientation, guidance, and courses, in addition to instruction in language skills and academic subjects. In the past year, new curriculum has been developed, new vocational courses have been planned, and more intensive work has been done to provide support, vocational direction, and preventive counseling for ninth-grade students, those with a history of being most likely to drop out of the program.

At the same time, the program has had to contend with a student population that brings with it a growing number of major problems: overage students who have had only a few years of prior schooling; students who should be placed in special education; and truants with only a marginal relationship to the program. While recommendations can be made to address these and other problem areas, they must be understood within the framework of what is financially possible. Although the staff is committed and competent, it is severely hampered by a shortage of funds to pay for additional counselors, for a grade advisor who could work more than quarter-time in the program, and for training for all program personnel. Staff is likewise hampered by other factors that lie outside of program jurisdiction, such as the shortage of bilingual staff in the Bronx to test and place special education students.

All members of the staff are to be commended for their contribution to an expanding program that operates under difficult circumstances.

RECOMMENDATIONS

On the basis of several site visits, the evaluation team recommends that:

1. the focus of vocational and other counseling remain on ninth-grade students in order to identify at the earliest stage potential dropout and special education referrals;

2. an interview be required of all students prior to placement in the program in order to minimize the number of students who are registered for classes but do not attend at all;

3. a paraprofessional be assigned as a family worker to follow up on students with attendance problems and to document the kinds of absenteeism reflected in the program so that strategies can be developed to combat them;

4. a peer tutoring program be established, with twelfth-grade students working individually with ninth graders;

5. offerings in industrial arts and business continue to be increased because of the positive role that these vocational courses play in encouraging students to remain in school and prepare for the job market;

6. curriculum appropriate to the students' reading level be developed in mathematics and social studies;

7. staff training be done in the area of special education during the monthly meeting, if a separate time cannot be arranged:

8. staff training be done, during the monthly meetings if necessary, on approaches to teachers and paraprofessionals working in the classroom;

9. liaison relationships be established with other basic skills programs within the school to facilitate the exchange of information about student progress and share resources;

10. liaison relationships be established with feeder schools to facilitate the early identification of potential special education or truant students;

11. more care be exercised in order to minimize the problem of missing or incomplete data for determining the attainment of program objectives (missing data ranged from 44 to 82 percent);

12. students who show a pre-test mastery of 80 percent or more CREST objectives be pre-tested again on the next higher CREST level. This will minimize the "ceiling effect" and provide for a more sensitive assessment of educational improvement.