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#### Abstract

In its second year of Title VII funding, Jasaes Monroe High Schools's Proyecto Nuevos Horizontes (Project New Horizons) served 344 limited-English-speaking recent arrivals from Latin America and the Caribbean, in grades 9 through 12. The program has built on the strengths of the high school's extensive computer-assisted instruction (CAI) program, and was designed to develop CAI materials and provids individualized CAI to supplement the bilingual education program in English as a second language (ESL), native language instruction, and content areas. The program succeeded in producing ESL material, but was unable to find appropriate software for native language and content area instruction. Analysis of student achievement data indicates that program objectives were met in ESL, native language davelopment courses and in passing rates in mathematics, science, and social studies, and attendance. Recommendations for program improvement include continued efforts to develop and/or locate software in the content areas and native language instruction, and co.,tinugd in-service training on how to gradually increase the amount of English used in content-area courses. (MSE)


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JAMES MONROE HIGH SCHOOL

## PROYECTO NUEVOS HORIZONTES

## 1986-1987

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# O.E.A. Evaluation Section Report <br> Robert Tobias, Administrator of Evaluation Judith S. Torres, Senior Manager <br> Grant Number: G00-852-5045 

JAMES MONROE HIGH SCHCOL
PROYECTO NUEVOS HORIZONTES
1986-1987

Prepared by the O.E.A. Bilingual Education Evaluation Unit

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[^0]In 1986-87, James Monroe High School's Proyecto Nuevos Horizontes (Project New Horizons) was in its second year of a three-year Title VII funding cycle. It served 344 students of limited English proficiency (LEP) in grades nine through twelve. The participants were recent arrivals from Spanish-speaking countries in the Caribbean, Central America, and South America.

Nuevos Horizontes built upon the strengths of Monroe's extensive computer-assisted instructional program. Its chief goals were to develop computer-assisted software materials and to provide individualized computer-assisted instruction to supplement Monroe's bilingual program, which consisted of English as a second language (E.S.L.), native language arts (N.L.A.), and content-area and business courses taught bilingually. The project succeeded in developing computer-assisted instructional materials in E.S.L., as had been proposed. Computer-assisted instructional materials in N.L.A. or the content areas had not yet been developed, because appropriate software had not been found for these areas.

To help assure compliance with regulations of the Bronx Superintendent of High Schools mandating gradual increases in the amount of English used in bilingual content-area classes, the project held four teacher-training workshops and planned several others in the future.

Nuevos Horizontes' chief non-instructional aim was to maintain a high attendance level by carefully monitoring the attendance of each student and providing counseling to chronic absentees and their families. Nuevos Horizontes' Chief extracurricular goal was to foster students' knowledge of and pride in Latin American traditions, while at the same time introducing them to American culture, values, and life-styles. The project sought to realize this goal through trips, cultural festivals and presentations by students, and a magazine featuring the contributions of students and teachers.

Nuevos Horizontes' staff consisted of a project director, a bilingual resource specialist, one educational assistant, one family assistant, and one secretary. Activities to enhance the knowledge and skills of project staff members and of E.S.L., N.L.A., and bilingual content-area teachers consisted of in-house demonstrations and workshops, extramural workshops, professional conferences, and college and university courses.

The project's objectives were assessed in English language development (Criterion Referenced English Syntax Test [CREST]); mastery of the native language (teacher-male tests); contentarea courses (teacher-made tests); and attendance (school and program records). Quantitative analysis of student achievement data indicates that:

- Students tested at the first, second, and third levels of the CREST mastered at least one CREST skill per month, thereby meeting the project's E.S.L. objective.
- More than 70 percent of the students enrolled in N.L.A. achieved passing grades, thereby meeting the objective in this area.
- Overall, more than 65 percent of the students enrolled in social studies, science, and mathematics classes obtained passing grades, thereby meeting the objective in this area.
- The attendance rate of project students was significantly higher than that of mainstream students, thereby meeting the objective in this area.

The evaluation team makes two recommendations to improve Proyecto Nuevos Horizontes in its third year of operation:

- Continue efforts to develop and/or locate software in the content areas and N.L.A.
- Continue to provide in-service training on how to gradually increase the amount of English used in content-area classes.

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Location:

Year of Operation:

Target Language:
Number of Students:
Principal:
Project Coordinator:

300 Boynton Avenue Bronx, New York 10472

1986-87, second year of a three year cycle

Spanish 344

Jack Valerio
Reyes Irizarry

## I. OVERVIEW

In 1986-87, Proyecto Nuevos Horizontes (Project New Horizons) was in its second year of a three-year Title VII funding cycle at James Monroe High School. The school is located in the South Bronx, one of the most impoverished areas of New York City. Since the South Bronx's population has long been overwhelmingly Hispanic, James Monroe has had a oilingual program for more than 15 years.

The primary goal of Nuevos Horizontes was to improve the English-language skills of students of limited English proficiency (LEP) while at the same time enabling them to continue developing their knowledge of Spanish. Underlying this policy was the belief that :inglish language learning is facilitated when native language skills are well develuped, because higher-order language skills will transfer from the first, better-developed language, to the second one. ro implement this goal, Monroe had a bilingual program that consisted of 26 Engiish as as second language (E.S.L.) classes,
nine Spanish native Janguage arts (N.L.A.) classes, nine social studies classes, five mathematics classes, and five businessrelated classes.

The project also sought to develop computer-assisted instructional programs to reinforce skills in English, Spanish, and the content areas. Title VII funds were used to purchase five computers, which were installed and in use at the project's computer/resource room. Students visited the computer/resource room at rejularly scheduled times and during their lunch and free periods. The project's resource teacher and/or one paraprofessional were present at all times.

Business education classes were tailored to the linguistic capabilities of LEP stuler. s. Nuevos Horizontes also sought to enhance students' employability by incorporating career-awareness training into E.S.L., Spanish, and social studies classes.

In addition, the project had an extensive extracurricular activities component that was designed to foster students' pride in their ethnic heritage, while ac the same time developing their understanding and appreciation of American culture and values.

Nuevos Horizontes sought to maintain a high attendance level by carefully monitoring the attendance of every project student and by providing counseling to chronic absentees and their families. Staff training and parental involvement activities were additional components of the project.

In addition to E.S.L., N.L.A., and content-area and bisiness subjects taught bilingually, project students studied art,
industrial arts, music, and physical education classes with mainstream students. All courses met the minimum graduation requirements set forth in the New York State Regents Action Plan.

## ORGANIZATION AND STRUCTURE

Nuevos Horizontes had a decentralized administrative structure. (See Figure 1.) Working under the overall supervision of the principal, the assistat $=$ principal (A.P.) for E.S.L. and foreign languages supervised both the project director and the E.S.L. and N.L.A. instructors. Bilingual as well as mainstream content-area teachers were supervised by their departmental A.P.s.

The project director said he liked this structure because he believed that bilingual content-area teachers need to interact regularly with their departmental A.P.s and their mainstream content-area colleagues. He also felt that a decentralized structure gives mainstream teachers a good opportunity to learn about the bilingual program, and thereby promotes the bilingual program's integration into the larger school environment.

The project director's responsibilities included policy implementation, fiscal management, and supervision of the Title VII staff. Since Nuevos Horizontes' staff was small and closeknit, the project director tended use a collegial approach to adninister the project.

Because Monroe High School has a long history of serving LEP students, its administrators and faculty generally understood and supported Nuevos Horizontes. For instance, the project director,
the A.P. for E.S.L. and foreign languages, and the content-area A.P.: worked closely together to cocrdinate course offerings, select resource materials, and solve individual project students' problems.

Organization of James Monroe High School


Direct Supervision
------------------Collaboration and Communication

## STAFF CHARACTERISTICS

In addition to the project director, Nuevos Horizontes' staff consisted of one bilingual resource specialist, one educational assistant, one family assistant, and one bilingual secretary. Municipal tax-levy funds were used to hire a bilingual guidance counselor.

The project director said that the project's secretarial position would not be funded by Title VII after the end of the current academic year, and that the school would assume the cost of this position.

The instructional staff of Monroe's bilingual program consisted of five E.S.L. teachers, four Spanish-language teachers, two social studies teachers, one math teacher, one science teacher, and three business/accounting teachers. Eighty percent had five or more years of experience in bilingual, E.S.L., or foreign language education.

## II. STUDENT CHARACTERISTICS

Seventy-one percent of James Monroe's 2,014 students were Hispanic; 27 percent were black; and 2 percent were white or Asian. Fifty-eight percent of Monroe's students came from poverty-level families, as indicated by their eligibility for lunch at free or reduced rates.

Of the 1179 students whose native language was Spanish, 369 (31 percent) were categorized as LEP. During the year under review, Proyecto Nuevos Horizontes served a total of 344 students, 310 of whom were enrolled in the fall and 320 in the spring. (In other words, 286 students were enrolled both semesters; 24 were enrolled in the fall only; and 34 were enrolied in the spring only.)

Data also were received for 57 students who had been enrolled in the project during the previous year but left prior to September 1986 -- 34 graduated; 5 left the United States; 3 were mainstreamed; 3 transferred; and 12 left for unknown reasons. Fifty-four students left the program during the academic year. Fifty-seven percent of them left the United States, 21 percent transferred, and 11 percent graduated. (See Table 1.)

Of the 320 students enrolled in the spring, 161 had participated in the project for ore year or less, and 159 had participated for about two years.

Table 2 presents the distribution of project students by country of birth. Although a growing number came from Central

## TABLE 1

Number of Students Leaving the Program

|  |  |  |  |
| :--- | :---: | :---: | :---: |
| Reason For <br> Leaving | Left By <br> January 1987 | Left By <br> June 1987 | Percent <br> of Total |
| Mainstreamed | 2 | 0 | 4 |
| Transferred | 5 | 6 | 21 |
| Left U.S. | 11 | 19 | 57 |
| Graduated | 0 | 0 | 11 |
| Family Problem | 1 | 0 | 2 |
| Other Reasons | 2 | 2 | 6 |
| TOTAL | 21 | 33 | 100 |

- A total of 54 students left the program during the academic year.
and South America, students from the Caribbean still predominated: 46 percent were born in Puerto Rico; 23 percent were born in the Dominican Republic; and 26 percent were born in Central or South America.

Overall, the distribution of project students by gender was approximately equal. Grade ten had the highest percentage of female students ( 60 percent); grade eleven had the lowest (44 percent).

Table 3 presents the distribution of project students by age and grade. Of the 327 students for whom data were provided, 117 (36 percent) were in grade nine; 102 (31 percent) were in grade ten; 61 (19 percent) were in grade eleven; and 47 (14 percent) were in grade twelve. Fifty-eight percent of the students were overage for their grade placement. Grade nine had the highest percentage of overage students (67 percent), while grade twelve had the lowert (47 percent).

Table 4 presents students' educational background by grade. The studentis' mean number of years of schooling in the native country was 8.1; the mean number of years of education in the United States was 2.0. The latter is consistent with a recently arrived population.

TABLE 2
Number and Percent of Program Students by Country of Birth

| Region | Country of Birth | Number | Percent |
| :---: | :---: | :---: | :---: |
| Caribbean | Puerto Rico | 157 | 46 |
|  | Dominican Republic | 79 | 23 |
|  | Haiti | 3 | 1 |
| South America | Ecuador | 37 | 11 |
|  | Colombia | 8 | 2 |
|  | Peru | 3 | 1 |
| Central America | Honduras | 14 | 4 |
|  | Nicaragua | 10 | 3 |
|  | Mexico | 8 | 2 |
|  | El Salvador | 4 | 1 |
|  | Guatemala | 3 | 1 |
|  | Costa Rica | 1 | * |
|  | Panama | 1 | * |
| North America | United States | 15 | 4 |
| TOTAL |  | 343** | 100 |

*Less than one percent. **Information was missing for one student.

- Forty-six percent of the students served by the project we:e born in Puerto Rico.
- Twenty-three percent were born in the Dominican Republic.

TABLE 3
Number of Project Students by Age* and Grade

|  |  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Grade 9 | Grade 10 |  | Grade 11 | Grade 12 | Total |  |
| 14 | 14 | 0 | 0 | 0 | 14 |  |
| 15 | 25 | 14 | 1 | 0 | 40 |  |
| 16 | 36 | 32 | 10 | 1 | 79 |  |
| 17 | 23 | 29 | 17 | 6 | 75 |  |
| 18 | 15 | 15 | 16 | 18 | 64 |  |
| 19 | 4 | 8 | 11 | 15 | 38 |  |
| 20 | 0 | 4 | 4 | 5 | 13 |  |
| 21 | 0 | 0 | 2 | 2 | 4 |  |
| TOTAL | 117 | 102 | 61 | 47 | $327 * *$ |  |

Overage
Students

| Number | 78 | 56 | 33 | 22 | 189 |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Percent | 67 | 55 | 54 | 47 | 58 |

Note. Numbers in bold area reflect expected age range for grade.
*Age on June 30, 1987.
**Data were missing for 17 students.

- Fifty-eight percent of the students served by the project were overage for their grade placement.
- Grade nine had the highest percentage of overage students ( 67 percent); grade twelve had the lowest (47 percent).


## TABLE 4 <br> Students' Years of Education by Grade

| Grade | Total Years of Education |  |  |  |  |  | Total | Years Education Native Country |  | Years Education United States |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $<8$ | 9 | 10 | 11 | 12 | >12 |  | Mean | S.D. | Mean | S.D. |
| 9 | 2 | 95 | 18 | 2 | 2 | 0 | 119 | 7.5 | 1.3 | 1.6 | 1.4 |
| 10 | 1 | 3 | 85 | 11 | 4 | 0 | 104 | 8.0 | 1.3 | 2.0 | 1.2 |
| 11 | 0 | 0 | 4 | 51 | 4 | 3 | 62 | 8.5 | 1.3 | 2.5 | 1.3 |
| 12 | 0 | 0 | 5 | 14 | 19 | 7 | 45 | 8.8 | 1.2 | 2.8 | 1.2 |
| TOTAL | 3 | 98 | 112 | 78 | 29 | 10 | 330* | 8.1 | 1.4 | 2.0 | 1.4 |

*Data were missing for 14 program students.

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Staff members noted that project students exhibited a wide range of attitudes toward learning and varying degrees of enthusiasm, discipline, and motivation. However, virtually all project students were reported to be well behaved.

In an interview with a member of the evaluation team, the project director stated that while the majority of students had a good command of their native language, a small but increasing number were illiterate in Spanish as well as English. Since such students had problems conceptualizing subject matter in either language, thêy were given individualized tutoring in the computer lab.

## III. FINDINGS

Evaluation findings are presented by program objectives. They include the results of students' performance in courses and tests, reviews of program materials and records, interviews with relevant person:iel, and classroom observations.

## ENGLISH AS A SECOND LANGUAGE

-- As a result of participating in the program, students in E.S.L. 1 and E.S.L. 2 will master an average of one objective per twenty days of instruction on the beginning level of the Criterion Referenced English Syntax Test (CREST).
-- As a result of participating in the program, students in E.S.L. 3 and E.S.L. 4 will master an average of one objective per twenty days of instruction on the intermediate level of the CREST.
-- As a result of participating in the program, students in E.S.L. 5 and E.S.L. 6 will master an average of 0.8 objectives per twenty days of instruction on the advanced level of the CREST.

Project students received a minimum of two periods of E.S.L. instruction per day. At the beginning of each semester, teachers were asked to refer any students who needed tutoring to the project's computer/resource room, where the resource specialist provided individualized, computer-assisted instruction using a life-skills approach developed by the bilingual resource sreciaiist in collaboration with the A.P. of foreign languages.

A member of the evaluation team visited an E.S.L. class. The aim of the lesson was to study the use of quotation marks in complete sentences. The teacher spoke clearly and distinctly, called students by their first names, and encouraged class
participation. A bilingual paraprofessional provided individualized instruction. The teacher kept the students' attention at all times and had no problems maintaining discipline.

Achievement in E.S.L.
The assessment instrument used to evaluate the objectives in this area was the Criterion Referenced English Syntax Test* (CREST). The test was administered at the beginning and the end of each semester. A mastery score to indicate gains was computed for each student calculating the difference between pretest and posttest. The number of months of instruction between testings was computed for each student by multiplying the number of months between testings by the student's aťendance rate. The number of skills mastered per month was calculated by dividing the mean mastery by the mean number of months of instruction betweer testings.

Table 5 presents the test results for students who were pretested and posttested with the same level. Complete data (levels, pretest score, and posttest score) were available for 224

[^1]students in the fall and 238 students in the spring.
Examination of Table 5 reveals that the program's E.S.L. objectives were achieved. Students tested at the beginning (E.S.L. 1 and 2) and intermediate (E.S.L. 3 and 4) levels of the CREST mastered an average of more than one CREST skill per month of instruction both semesters, and students tested at the advanced (E.S.L. 5 and 6) level of the CREST mastered an average of one CREST skill per month of instruction both semesters.

TABLE 5
Results of the Criterion Referenced English Syntax Test

| Test | Number of | PRETEST | POSTTEST | MASTERY* | Me |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | Mastery |
| Level | Students | Mean S.D. | Mean S.D. | Mean S.D. | Per Mont |

## FALL

| 1 | 70 | 5.3 | 4.2 | 8.8 | 5.5 | 3.5 | 2.2 | 1.3 |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2 | 91 | 9.3 | 6.4 | 3.6 | 6.5 | 4.1 | 3.6 | 1.5 |
| 3 | 63 | 9.6 | 3.4 | $1 . .2$ | 2.7 | 2.6 | 2.7 | 1.0 |
| TOTAL | $\overline{224}$ | $\overline{8.1}$ | $\overline{5.4}$ | $\overline{11.6}$ | $\overline{5.7}$ | $\overline{3.5}$ | $\overline{3.0}$ | $\overline{1.3}$ |

## SPRING

| 1 | 62 | 5.7 | 4.2 | 9.7 | $5 . \Omega$ | 4.0 | 3.2 | 1.7 |
| :--- | :---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 2 | 89 | 8.0 | 5.4 | 12.1 | 6.1 | 4.1 | 3.6 | 1.7 |
| 3 | 87 | 9.0 | 3.5 | 11.9 | 3.2 | 2.8 | 2.2 | 1.1 |
| TOTAL | $\overline{238}$ | $\overline{7.8}$ | $\overline{4.7}$ | $\overline{11.4}$ | $\overline{5.2}$ | $\overline{3.6}$ | $\overline{3.1}$ | $\overline{1.5}$ |

*Posttest minus pretest.

- Program students tested at Levels 1 and 2 mastered an average of one CREST skill per month of instruction, thus meeting the program objective both semesters.
- Program students tested at Level 3 mastered an average of one CRES' skill per month of instruction, thus surpassing the program objective of 0.8 CREST skills mastered per month of instruction in both semesters.
-- As a result of participating in the program, at least seventy percent of the students will score at or above the sixty-five percent criterion in native language arts classes.

A member of the evaluation team observed an advanced spanish class. Using the text El Arte del Cuento en Puerto Rico by Concha Melendez, the class was devoted to the work of Pedro Juan Soto. After reading a short essay about Soto, the class discussed the major themes in his work, such as the disintegration of traditional family life and values among Puerto Ricans in East Harlem.

The class then read the poem "Garabatos," from the author's book Spiks. The poem deals with the life of a poor Puerto Rican family that migrated to New York in the 1950 s -- their means of survival, their religious syncretism, their dreams and frustrations. The teacher had students read parts of the poem and then helped them analyze the reading, focusing on Soto's use of metaphor and colloquial expression. The students' participation $W^{-3} s$ so enthusiastic, that despite the teacher's efforts to encourage students to raise their hands, they called out their remarks. This may have been due to the poem's direct re?こ・rance to the students' own lives, because many of their comments compared their own experiences to the situation described in the poem. Before the end of the class, the teacher assigned a series of written questions as homework.

## Achievement in Native Language Arts

With 89.2 percent of the students enrolled in N.L.A. classes passing in the fall and 95.5 percent passing in the spring, the project surpassed its objective of a 70 percent passing rate both semesters.

## CONTENT-AREA SUBJECTS

-- At least sixty-five percent of the stulents will score at or above the sixty-five percent criterion in social studies, science and math.

A regulation of the Bronx High School Superintendent mandates gradual increases in the amount of English used in bilingual content-area classes. To assure compliance with this regulation, the project director held a teacher-training workshop on this issue during the year under review and plans to hold additional ones in the future. The project director also assisted individual project staff members and teachers in developing teaching strategies to gradually increase their use of English in the classroom. However, the project director said that implementing these strategies in the classroom would depend on the degree of heterogeneity of students' English language skills and the specific subject matter being taught.

A member of the evaluation team visited three content-area classes: American history, general science, and integrated math.

The American history teacher was fluent in Spanish. The aim of the lesson was to study the struggle against white supremacy in the south in the 1960s. Although most of the teacher's presentation was in Spanish, an English-language outline on the
blackboard presented major concepts, such as "civil rights," "War on Poverty," "poll tax," "Voting Rights Law," "Fair Housing Law," and "Bilingual Act."

The students appeared attentive and orderly, and they took copious notes and eagerly volunteered to answer the teacher's questions.

Unlike the history class, the general science class was conducted by a newly hired teacher. The aim of the lesson was to study the nature of light. The class was conducted largely in Spanish. Although the teacher's linguistic skills were good, it was obvious that Spanish was not his primary language. After some initial restlessness, the class ran smoothly for about fifteen minutes, with students silent and attentive; thereafter the class suffered from the constant interruptions of students arriving late, speaking out of turn, and asking for passes.

The mathematics class also was conducted largely in Spanish. The aim of the class was to study simple equations. Students appeared interested, seemed to understand the subject matter, and enjoyed solving the problems the teacher gave. They compated eagerly to write their solutjons on the blackkoard.

Student Achievement in Content-Area Subjects
Table 6 presents the passing rates for program students in math, science, and social studies. The overall passing rate of 78 percent was well above the project's objective of a 65 percent passing rate. Student had high passing rates in social studies and science and low passing rates in mathematics.

TABLE 6
Passing Rates for Program Students in Content-Area Courses

|  | Number of <br> Students | Percent <br> Passing | Number <br> Students | Percent <br> Passing | Overall PataL <br> Rate |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Math | 130 | 55.4 | 139 | 66.2 | 60.9 |
| Science 140 | 89.3 | 102 | 77.5 | 84.3 |  |
| Social <br> Studies | 191 | 83.8 | 169 | 89.9 | 86.6 |
| Overall <br> Passing <br> Rate |  | 77.4 |  | 78.7 | 78.0 |

- The overall passing rate in content-area courses was above 65 percent both semesters; thus, the project achieved its objective in this area.
- Students had high passing rates in social studies and science and low passing rates in mathematics.


## COMPUTER-ASSISTED INSTRUCTION

-- Title VII funds will be used to supplement the computer program already existing at James Monroe and provide LEP students with more time on the actual use of computers.
-- Computer-assisted instruction will be used to reinforce skills for E.S.L., native language arts, and contentarea instruction.
-- A computer resource lab will be created. Computerassisted instruction will be supplemented by a minimum of one period per week in the computer resource lab. Computer-assisted course work will be purchased and translated if necessary. A resource teacher will select appropriate software and prepare a schedule for the use of the computer resource lab.
-- By the end of the second project year, the resource teachers will have developed sample lesson plans or units of curricula for the infusion of computer-assisted instruction in E.S.L., native language arts, and social studies.

Two major long- and short-term objectives of the project were to provide LEP students with additional computer-assisted instruction in E.S.L., native language arts, and content-area courses and to establish a computer resource laboratory, complete with course work, a schedule of usage, and formal instruction plans. The computer resource laboratory was in full operation during the 1986-87 academic year, with five computers and three printers available for student use.

At the beginning of each semester, teachers were asked to recommend students who would benefit from the individualized computer-assisted instruction program. The staff of the computer lab then developed formal instructional plans tailored to each of these student's needs. The teacher maintained a file on each student's progress, together with his or her instructional plan.

The field evaluator reviewed these files and discerned that each student's work was saved, and there was continuous follow-up and reassessment of his/her progress. The lab teachers provided classroom teachers with feedback reports twice a semester and sent parents a report once a semester. A total of 15 students received individualized computer-assisted instruction in the fall semester.

A member of the evaluation team interviewed two students in the resource room. They had been scheduled for weekly computerassisted E.S.L. instruction, but on their own initiative they frequently visited the resource room during their lunch period. Both students said they felt their English skills had improved since they started receiving computer-assisted instruction.

The resource teachers said that many students were more at ease with the computer than they were in the classroom, where their deficits were readily apparent to their peers. Such students reportedly made remarkable progress once they began formal individualized instruction.

Computer-assisted E.S.L. classes were held once a week. Instruction was based on an instructional plan developed by the A.P. for E.S.L. and foreign languages in cooperation with the Title VII-funded bilingual resource specialist. This plan, which has been adopted by the Board of Education and disseminated city-wide, integrates word processing with E.S.L. instruction.
E.S.L. was the only area in which computer-assisted curriculum materials were developeć, since appropriate software
still had to be found for the contenc areas and native language arts. These subjects continued to be taught in traditional fashion, however, the proje'st director was trying to build a library of software materials. The project director also reported that new bosks and other materials in English, E.S.L., Spanish, and the content areas had been purchased in order to increase the number and improve the quality of materials available to project students.

In summary, Project Nuevos Horizontes provided LEP students with additional time to use computers and computer-assisted instruciion to reinforce skills in E.S.L. and sought to develop or locate appropriate software in other subjects. Thus, it may be stated that the project's goals in this area have largely been achieved.

## STAFF DEVELOPMENT

-- One hundred percent of staff members will be fully trained in the educational aspects related to E.S.L., bilingual education, native language arts, and computer education through attendance at workshops, conferences, or courses at institutions of higher education.

Staff development activities, a large component of the Title VII project, surpassed expectations. By January 1987, five in-house workshops and a "Software and Materials Fair/Buffet" had been held. The workshops covered such issues as teaching strategies for LEP students in mainstream cidsses, the use of computers for instructional purposes, and the philosophy of transitional bilingual education.

In addition, all project staff members attended an average of one meeting per month of the E.S.L./Foreign Languages Department. In addition, during the fall term, three departmental meetings were held about "making the lesson student centered," "improving writing skills," and "Crack Teach-In." Staff also attended two lectures during the fall, one on CAI Writing Poetry, and one on E.S.L.

In addition, two staff members attended workshops sponsored by the New York State Chapter of TESOL (Teachers of English to Speakers of Other Languages). The project director also attended Conferences and symposia on E.S.L./bilingual education software, modern languages, linguistics, BESIS (Bilingual Education Student Information Survey) data orientation, and a Title VII-sponsored workshop. Four staff members attended project-relevant courses at local colleges and universities.

## AFFECTIVE DOMAIN

--Participating students will maintain an attendance rate equal to or greater than that of mainstream students.
--Participating students will develop and maintain positive self-image and cultural pride by participating in cultural celebrations and student performance,

## Attendance

One of the project's main goals was to improve student attendance. The project had dedicated a family assistant who spent two to three days per week in the field. She made phone calls or home visits whenever a student was absent for more than three days or if a teacher requested it. She usually received a
positive response from parents. When a member of the evaluation team asked her what she thought was the chief reason for poor attendance she answered that in many cases the students were so poor they lacked the money for public transportation. She said the problem had become more severe because of cutbacks and termination of some federal public assistance programs. In such cases, the family assistant provided information about alternative sources of assistance. For students from such families, the project was a vital source of emotional support in that it tried hard to provide them with a sense of personal worth and an appreciation for the importance of educaticn. It was largely as a result of the family assistant's efforts that project students maintained a high attendance rate.

## Attendance Outcomes

Since the school's attendance rate includes the attendance of program stl:dents, the statistical significance of the difference between progiam and school attendance was determined through the application $c:$ a $\underline{z}$-test for the significance of a proportion.* This procedure tests whether the difference between one proportion (the program's attendance) and a standard proportion (the school's attendance) is greater than can be expected from chance variation.

The attendance of program students was 87.4 percent, 15.4 percentage points above the school's attendance rate (74

[^2]percent). The $\underline{z}$ test results $(\underline{z}=5.98)$ indicated that differences between the two attendance rates rere statistically significant at the . 01 level of significance. Thus, the program objective was achieved.

## Cultural Heritage

The project sponsored several events celebrating the students' cultural heritage, such as Puerto Rican Discovery Day, "Baile Navideno," Pan Anerican Week, and Dominican Independence Day. As part of its cultural heritage goals, Nuevos Horizontes sponsored a "Country of the Month" project wherein each month the history, customs, and literature of a different Latin American country were highlighted.

Students also visited historical sites throughout the city and attended several Broadway pıays. A student advisory board planned all extracurricular activities, worked on the project newsletter, and helped plan and organize project-sponsored celebrations.

The newsletter, Nuevos Horizontes, was a literary and informational paper that contained contributions from teachers and students. Newsletter contents included poems, literary critiques, play reviews, interviews with faculty members, and educational crossword puzzles. An educational assistant was available to help students write their articles.

In addition to fostering students' self-pride and confidence by developing an appreciation of their native culture, the project also sought to familiarize students with American society through
"A Bite of the Big Apple," a project introduced by the Title VII staff during the current academic year. "A Bite of the Big Apple," taught students about New York City -- its history and geography, different neighborhoods, ethnic groups, and cultural resources -- through lectures workshops, and field trips to the Empire State Building, the World Trade Center, the South Street Seaport, a multi-screen film called the "New York Experience," and Broadway plays. According to the project director, "A Bite of the Big Apple" proved very useful in developing students' awareness of opportunities and life-styles different from those in the South Bronx.

## PARENTAL INVOLVEMENT

-- The Bilingual Advisory Council will hold at least four meetings during the 1986-1987 school year.

Parents were invited to attend most of the celebrations and cultural activities mentioned in the previous section and to participate in the parents' advisory council. At advisory council meetings, parents were told about bilingual education in general and Nuevos Horizontes in particular. The need to stay in school and to attend it regularly were continually stressed. Four council meetings were held but attendance was sparse. The project director said efforts were being made to raise the level of parental involvement.

Parents also were invited to visit the bilingual resource room where they were told about the computer-assisted
instructional program and encouraged to try out the E.S.L. word processing program.

Parents were contacted frequently by mail and by phone throughout the school year.

## V. CONCLUSIONS AND RECOMMENDATIONS

Proyecto Nuevos Horizontes made great strides during the year under review. The computer/resource laboratory was in full operation, and individualized instruction was provided to program students. In addition, computer-assisted E.S.L. instruction was provided, using an exemplary program-developed manual that has been adopted by the Board of Education for use in schools throughout the city. Efforts were being made to develop a library of software and written materials in the content areas and native language arts in order to improve the resource room's ability to serve its target population.

The attendance rate of project students was considerably higher than that of mainstream students. The staff suggested that this success could not be maintained without the continued provision of the sipport services -- particularly those of the family assistant -- currently funded by Title VII. The project director began training bilincual content-area teachers to develop teaching strategies to gradually increase the use of English in the classroom.

The project's instructional objectives were achieved in E.S.L., native language arts, content-area courses, and computerassisted instruction.

Cultural heritage and parental involvement components contributed to the development of students' self-pride and improved their determination to succeed in American society. The project also created a sense of "esprit de corps" among the staff,
students, and parents.

## RECOMMENDATIONS

To improve Nuevos Horizontes in its third year of operation, the evaluation team recommend that the project:

- Continue its efforts to locate and develop a software library in the content areas and N.L.A.
- Continue in-service training and workshops on how to increase gradually the amount of English user in content-area classes.


[^0]:    It is the policy of the Board of Education not to discriminate on the basis of race, creed, national origin, age, handicapping condition, sexual orientation, or sex, in the educational programs, activties, and employment policies, as required by law. Any person who belioves he or she has been discriminated masinst should compact: Carole Guerra, Local Equal Opportunity Coordinator, Office of Educational Acsesemem, 110 Livingston Street, Foom 743, Brooklyn, New York 11201. Inquiries rogarding complience with appropriate lews may also be directed to: Mercedes A. Nesfield, Director, Oftice of Equal Opportunity, 110 Livingsion Streph. Room 601, Brooklyn, New York; or the Director, Office of Civil Righs, U.S. Department of Education, 28 Fa, feral Plaza, Room 33-130, Now York, New York 10278.

[^1]:    *The Criterion Referenced English Syntax Test (CREST) was developed by the Board of Education of the City of New York to measure mastery of instructional objectives of the E.S.L. curricula, and thus was constructed to maximize content validity. The test contains four items per curricular objective, and mastery of an objective is achieved when three of these items are answered correctly. The test measures mastery of 25 objectives at Levels 1 and 2, and 15 objectives at Level 3. The Kuder-Richardson Reliability Estimates for pretest and posttest administrations of the three levels of the CREST are:

    Level 1 -- pretest (.91)/posttest (.96)
    Level 2 -- pretest (.94)/posttest (.95)
    Level 3 -- pretest (.91)/posttest (.91).

[^2]:    *J.L. Brunning and B.L. Kintz, Computational Handbook of Statistics (Glenview, Illinois: Scott, Foresman and Company, 1968).

