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ABSTRACT

In 1985-86, Project CLIMB was in its first year of funding at two high schools in the Bronx, New York. The program provided instructional and supportive services to 188 students of limited English proficiency (LEP) in grades 9-12. The students were recent immigrants from Cambodia and Vietnam, and all spoke their native language at home. The goal of Project CLIMB is to increase students' proficiency in English through English as a second language (ESL) instruction and instruction in mathematics, science, and social studies in an ESL format. The project provided four Apple personal computers to facilitate individualized instruction, but for security reasons the computers remained unused. Supportive services for program students consisted of academic, personal, and vocational counseling; contact with families; and referrals to outside services. Staff and curriculum development activities were also conducted. Program students at one school did much better on end-of-year achievement tests than students at the other school; school climate is thought to have had a strong effect. Nonetheless, program students at both sites had higher attendance rates and lower dropout rates than mainstream students. Numerous recommendations have been offered for improving the program in its second year. (KH)

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PROJECT CLIMB

1985-1986

OEA Evaluation Report

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Grant Number: G00-852-5202

PROJECT CLIMB

1985-1986

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A SUMMARY OF THE REPORT

This multi-site program, in its first year of funding, provided instructional and supportive services to 188 students of limited English proficiency (LEP) in grades nine through twelve at Christopher Columbus and Walton High Schools in the Bronx. The project served recent immigrants from Cambodia and Vietnam. Over 48 percent of the program students were born in Cambodia; 43 percent were born in Vietnam. All participating students were foreign-born and spoke their native language at home. The students varied in ability in the native language, proficiency in English, and overall academic preparedness.

The project was administered from a central office in Brooklyn; school-based personnel -- a resource teacher and a paraprofessional at each site -- were supervised by the assistant principal of foreign languages and English as a second language (E.S.L.).

The goal of Project CLIMB was to increase students' proficiency in English through E.S.L. instruction and instruction in mathematics, science, and social studies in an E.S.L. format. (These content-area courses were designed to enable program students to make normal academic progress while they were being prepared for the linguistic mainstream.) To facilitate individualized instruction and develop computer literacy, the project provided four Apple personal computers (two at each site) for student use. The computers were intended to help students learn English and content areas, develop computer skills, and stimulate intellectual effort and achievement.

The program operated differently at each site. Students at Christopher Columbus took two or three periods of E.S.L. and several content-area classes in an E.S.L. format with the rest of the school's LEP students. At Walton, project students took E.S.L. with other LEP students but studied content-area subjects in mainstream classes (which was contrary to the CLIMB proposal). Project students at both sites were assigned to French classes to satisfy the New York State foreign language requirement for an academic diploma. The computers that had been purchased by the program in September remained unused in their cartons throughout the school year because satisfactory security arrangements could not be made.

Title VII funds supported administrative and supportive services staff. Supportive services for program students consisted of academic, personal, and vocational counseling; contact with families; and referrals to outside services. Development activities for staff members consisted of training by the project director and project-related university courses. According to the project director, curricula using an E.S.L. approach will be developed in computer science, mathematics, science, and social studies during the summer of 1986.

Students were assessed in English language development (Criterion Referenced English Syntax Test); mathematics, science, social studies, and computer studies (teacher-made examinations); attendance and dropout

(school and program records). Quantitative analysis of student achievement data indicates that:

-- The program objective, that 85 percent of the students would master one CREST objective per month, was achieved only at Christopher Columbus.

-- The 85 percent passing rate objective in content-area courses was achieved only at Christopher Columbus.

-- The attendance rate of program students was greater than that of mainstream students at both sites, thus achieving the program objective.

-- The dropout rate of program students was lower than that of mainstream students at both sites, thus achieving the program objective.

The following recommendations are offered for possible program improvement:

-- Since computer literacy is a central feature of the program, putting the computers on-line should be a top priority.

-- The practice of placing CLIMB students at Walton in mainstream content-area classes should be reassessed.

-- The project director should attempt to visit the two sites more often to resolve various ongoing problems.

-- Staff members at the two sites should meet with each other regularly to share information and resources.

-- The Khmer-speaking paraprofessional at Columbus might spend one day a week at Walton, where his linguistic abilities might be used to great advantage.

-- Further efforts should be made to impress upon the school administrations the importance of all project activities, including extracurricular ones.

-- The project director's office should attempt to make mainstream faculty at the two schools more aware of the special needs of Southeast Asian students.

-- The goal of teaching French to students who have not yet mastered English should be reevaluated.

ACKNOWLEDGEMENTS

The production of this report, as of all Office of Educational Assessment/Bilingual Education Evaluation Unit reports, is the result of a cooperative effort of regular staff and consultants. In addition to those whose names appear on the cover, Eulalia Cabrera has interpreted findings and has integrated material into reports. Arthur Lopatin has edited the reports following the O.E.A. style guide and has written report summaries. Finally, Marcia Gilbert, Bruce Roach, Gladys Rosa, and Martin Zurla have worked intensively as word processors to produce and correct reports. Without their able and faithful participation, the unit could not have handled such a large volume of work and still produced quality evaluation reports.

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PROJECT CLIMB

Central Office:	Title VII Central Program Office 1171 65th Street Brooklyn, New York 11219
Participating Sites:	Christopher Columbus High School 925 Astor Avenue Bronx, New York 10469 Walton High School 196th Street and Reservoir Avenue Bronx, New York 10468
Year of Operation:	1985-86, First year of funding cycle
Number of Participants:	188 students of limited English proficiency in grades nine through twelve
Project Director:	Angelo Gatto
Project Coordinator	Regina Kurtz

I. OVERVIEW

Project CLIMB (Computer Literacy Methodology in Bilingual Education) is designed to offer limited English proficient (LEP) students an education equal to that offered to mainstream students. The goal is to increase English proficiency while providing content-area instruction in mathematics, science, and social studies in an English as a second language (E.S.L.) format. In addition, the project was designed to provide support services through the use of computers housed in a bilingual resource center, as well as guidance and parent-oriented services designed to meet specific needs of the target populations: Vietnamese and Cambodian high school students. The project was implemented during the 1985-1986 school year.

The project operates in two high schools in the Bronx: Walton High School and Christopher Columbus High School. The project proposed to serve approximately 250 LEP students; however during 1985-86 it served 83 students at Christopher Columbus and 105 students at Walton. Both Vietnamese- and Khmer-speaking students were enrolled at each site. CLIMB also serves a number of students who speak Chinese, Laotian, and Thai. The project is administered by a director located at a central office in Brooklyn and is directly supervised by a project coordinator. Both the director and coordinator work on other centrally-administered Title VII projects as well. The assistant principals of foreign languages and E.S.L. at each school supervise the project's on-site staff.

It was proposed that CLIMB students would attend E.S.L. classes and content-area classes taught in an E.S.L. format with other LEP students at the two schools (native language and bilingual subject-area instruction was not proposed because of a lack of certified personnel and the diversity of native languages at each site). Project CLIMB staff members function as both tutors and translators in the classroom and provide guidance and other support services. The project is staffed at each site with a full-time resource teacher and a paraprofessional. These staff members also offer guidance to students and contact parents. As part of the focus on individualized instruction and computer literacy, the project has purchased four Apple personal computers (two at each site) for student use. According to the proposal, the computers are to be housed in the bilingual resource computer center at each school. The computers are intended to help students learn English and content areas, as well as to increase computer skills and enhance overall intellectual motivation.

The project provides staff development funds which are used by staff members at both sites to take college-level courses. In addition, the project director's office conducts its own staff training activities in coordination with other centrally-administered Title VII projects. Project CLIMB also provides an E.S.L. class for parents and conducts other parent-outreach activities, some of which are coordinated with a local Cambodian temple.

The program's mode of operation differs substantially at each site. CLIMB students at Christopher Columbus usually take two or three periods of E.S.L. and several content-area classes in an E.S.L. format with the school's other LEP students. In most cases they are scheduled so that there are several CLIMB students in each of these classes. At Walton, project students take E.S.L. with other LEP students but study content-area subjects in mainstream classes (which is contrary to the project CLIMB proposal). In general, this arrangement seems to have caused discord between the mainstream teachers and the project staff. Mainstream teachers at Walton pointed out that the difficulties involved in teaching classes containing both LEP and English-speaking students were aggravated by the fact that the paraprofessional could translate for the Vietnamese-speaking students but not for the Khmer speakers. On the other hand, project staff said that mainstream teachers often appeared unaware of the special problems of CLIMB students.

At both sites, project students are assigned to French classes to satisfy the New York State foreign language requirement for an academic diploma.

The project coordinator visited both sites regularly and functioned as a liaison between the on-site staff and the director's office. However, there are no formal communication links between staff at the two sites.

At Christopher Columbus, the project does not have its own resource room; it shares one with the school's Italian language program. At Walton, the program inherited a resource room containing an extensive collection of materials from a previous project, but it lost its facility in the middle of the 1985-86 school year and has had to double up with a Spanish language program. This situation has created problems at both schools. For example, because parent conferences are conducted in the resource room, program students could no longer feel free to use the rooms as their "home base." The lack of a more private space also made it harder to establish rapport at meetings with parents. According to the program staff and the school administration at Walton, this had been one of Project CLIMB's more successful features. The problem was aggravated at Christopher Columbus by the fact that the program lacked a telephone of its own.

The computers purchased by the program in September 1985 were not put into operation because satisfactory security arrangements could not be made. The issue of who was responsible for computer security created some conflict between the school administrations and the project director's office. Consequently, as of the spring of 1986, the computers remained unused in their boxes.

II. STUDENT CHARACTERISTICS

Most students were placed in the project based on teacher recommendations, usually shortly after they entered school. In addition to those formally served by the project, many former E.S.L. students continue relying on project staff members for instructional and guidance services, particularly college counseling. LEP students from other Asian ethnic groups also use project services, which underscores one of the advantages of the E.S.L. approach.

All project students were born in Southeast Asia and most had been in the United States only a short time before they entered the program. Most of the students (51 percent) had received no more than two years of education in the United States. Many receive public assistance and most (100 percent at Christopher Columbus, and the majority at Walton) are eligible for free lunch. On-site staff said that in contrast to previous cohorts of Southeast Asian immigrants, CLIMB students are more likely to come from poor and rural backgrounds, more likely to be racially mixed (Amerasian), less likely to be ethnic Chinese, more likely to speak some English on arrival (probably because of courses given in refugee camps), but less likely to speak French.

The Cambodian students face special difficulties. Most had no formal schooling prior to entering the program because schools in Cambodia were closed by the Khmer Rouge in 1975 (even earlier in many rural areas). Thus, many were not proficient in their native language when they emigrated. In addition, most suffered the loss of family members during the Pol Pot period and have a long history of violent dislocations which has left deep psychological scars. The family situation of some students is

extremely unstable. Many live with distant relatives or on their own -- few families survived the Cambodian holocaust intact. Many of the Cambodian students are overage (it is impossible to say for certain, because very few enter the country with birth records), and some have children of their own.

It should be noted that CLIMB, like all programs for Cambodian students, suffers from a lack of certified Khmer-speaking personnel. There are no Khmer-speaking project personnel at Walton High School. At Christopher Columbus, the resource teacher speaks Vietnamese while the educational paraprofessional is Cambodian.

In general, entering Vietnamese students have stronger educational backgrounds than the Cambodians. However, many Vietnamese had their education interrupted and their families disrupted because of the war, the immigration process, and the time spent in refugee camps. Nevertheless, the Vietnamese students are often college bound and the project staff say that most will probably find their way into the mainstream fairly quickly. Many Vietnamese students have become outstanding scholars at Walton, particularly in mathematics. Still, the staff reports that project students tend to segregate themselves and hesitate to mix socially with mainstream students. Happily, project staff report remarkably few conflicts between Cambodian and Vietnamese students or between the Amerasians and the other project students.

Table 1 presents the nations of origin of program students and Table 2 presents the number of students by age and grade.

TABLE 1

Number and Percent of Program Students
by School and Language

School	Language	Number	Percent
Columbus	Khmer	49	26.3
	Vietnamese	34	18.3
Walton	Khmer	42	22.6
	Vietnamese	47	25.3
	Other Asian Languages	14	7.5
TOTAL		186*	100.0

*Data were missing for two students.

- Forty-nine percent of the students spoke Khmer; forty-four percent spoke Vietnamese.

TABLE 2

Number of Program Students by Age and Grade

Age	Grade 9	Grade 10	Grade 11	Grade 12	Total*
13	1	0	0	0	1
14	4	0	0	0	4
15	10	2	0	0	12
16	21	17	4	1	43
17	13	14	12	1	40
18	13	13	17	1	44
19	3	5	11	7	26
20	0	1	6	3	10
21	1	0	2	1	4
22	0	2	0	1	3
TOTAL	66	54	52	15	187
Overage Students					
Number	51	35	36	12	134
Percent	77	65	69	80	72

Note. Shaded boxes indicate expected age range for grade.

*Data were missing for one student.

- Seventy-two percent of the program students were overage for their grade.
- Grade twelve had the highest percentage (80 percent) of overage students, whereas grade ten had the lowest (65 percent).

Although CLIMB does not provide native language instruction, the project director's office tried to build cultural activities around Indochinese student clubs at each site, for which the project staff served as advisors. Under the auspices of the Indochinese student club at Walton, program students went on field trips, held Vietnamese New Year celebrations, and produced an extremely high quality trilingual (Vietnamese, Khmer, and Chinese) literary magazine. Because of the extraordinary backgrounds of Indochinese students, such activities are thought to be tremendously important in facilitating their adjustment to a radically new environment. Unfortunately, administrations of the two schools have not been very supportive of these activities. At Walton, cultural activities were hampered by the loss of a highly motivated resource teacher in February 1986. No other faculty member would sponsor the club, and students were not allowed to celebrate the Cambodian New Year.

At Christopher Columbus, more limited club activities are carried out by project staff on their own time, generally without the help of the school administration. Non-program administrators and staff seem somewhat uninformed about the traumatic life experiences of the program students, especially the Cambodians.

III. FINDINGS

This section is based on data taken from documents that were made available during a visit by the evaluation team, interviews, classroom observations, and an analysis of student achievement data. Findings are presented by the objectives that were stated in the project proposal and approved by the Office of Bilingual Education and Minority Languages Affairs of the United States Department of Education.

ENGLISH AS A SECOND LANGUAGE

-- As a result of participating in the program, 85 percent of the students will demonstrate an appropriate increase in English proficiency (measured by the CREST test Levels 1, 2, or 3).

All program students take two or three periods per day of E.S.L. offered by tax-levy funded personnel at each school. Placement in E.S.L. classes is based on the student's level of proficiency measured by the LOTTO examination and teacher recommendations. (Few students arrive with academic records from their countries of origin.) Project staff members reported a good working relationship with the E.S.L. instructors at each school.

Program students attend classes with LEP students from a wide variety of language groups. It is hoped that integrating students from different language groups will accelerate the development of both academic and social skills.

Student Achievement in E.S.L.

The assessment instrument used to evaluate achievement in this area was the Criterion Referenced English Syntax Test* (CREST). The CREST was administered at the beginning and end of each semester. A mastery score to indicate gains was computed for each student by 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 attendance rate. The number of skills mastered per month was calculated by dividing the mean mastery by the mean number of months of instruction between testings.

Table 3 presents the test results for students who were pretested and posttested with the same level and the percentage of students who mastered one CREST objective per month of instruction. Of the students who were reported to be taking E.S.L. classes (levels 1, 2, and 3), complete data (levels, pretest score, and posttest score) were available for 120 students (71 percent) in the fall and 133 students (74 percent) in the spring.

The program objective calls for an "appropriate" increase in English language proficiency. Because Chapter I programs consider an average of one CREST objective per month as an appropriate level of achievement, this criteria was used to assess the achievement of project students.

*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).

Examination of Table 3 reveals that overall, although students mastered more than one CREST skill per month of instruction, the program objective of 85 percent mastery of CREST objectives was not achieved either semester. However, when examined by site, students at Christopher Columbus met the program objective both semesters (see Table 4). At this site, 90 percent of the students gained one CREST objective per month in the fall and 80 percent gained one objective per month in the spring (a z-test of one proportion did not show the latter percentage to be statistically significant from the objective criterion). The comparable percentages at Walton were 55 and 62 percent, where students had lower pretest scores and a longer time between testing periods than at Christopher Columbus (see Table 5).

TABLE 3

Results of the Criterion Referenced English Syntax Test and Percentage of E.S.L. Students Gaining One Objective Per Month of Instruction by Test Level (All Students)

Test Level	Number of Students	PRETEST Mean	PRETEST S.D.	POSTTEST Mean	POSTTEST S.D.	MASTERY* Mean	MASTERY* S.D.	Mean Mastery Per Month	Percentage Gaining One CREST Objective Per Month
				FALL					
1	53	9.8	5.7	14.3	5.3	4.5	2.7	1.7	77.4
2	48	14.2	6.2	18.6	5.0	4.4	2.9	1.5	70.8
3	19	10.7	3.6	12.6	5.7	1.9	1.8	0.6	31.6
TOTAL	120	11.7	5.9	15.8	5.3	4.1	2.8	1.4	66.7
				SPRING					
1	46	11.5	6.3	15.5	6.4	3.9	2.7	1.6	82.6
2	41	13.4	4.8	16.9	5.0	3.6	2.3	1.3	68.3
3	46	8.9	3.4	11.7	2.8	2.8	2.1	1.0	58.7
TOTAL	133	11.2	5.3	14.6	5.4	3.4	2.4	1.4	64.7

*Posttest minus pretest.

- The percentage of students who mastered one CREST objective per month of instruction was lower than the objective criterion of 85 percent at all E.S.L. levels.
- On the average, program students mastered more than one CREST objective per month of instruction.

TABLE 4

Results of the Criterion Referenced English Syntax Test
at Christopher Columbus

Test Level	Number of Students	PRETEST Mean	PRETEST S.D.	POSTTEST Mean	POSTTEST S.D.	MASTERY* Mean	MASTERY* S.D.	Mean Mastery Per Month	Percentage Gaining One CREST Objective Per Month
				FALL					
1	35	9.2	4.8	13.3	4.5	4.1	2.2	1.8	88.6
2	24	14.1	4.9	18.8	4.1	4.7	2.7	1.8	79.1
3	3	9.0	3.0	12.7	2.5	3.7	0.6	1.3	100.0
TOTAL	62	11.1	5.3	15.4	5.0	4.3	2.4	1.8	90.3
				SPRING					
1	18	11.0	7.1	16.2	6.4	5.2	3.4	1.5	88.0
2	24	14.3	7.3	18.5	6.0	4.2	3.1	1.2	66.7
3	16	11.0	3.7	12.6	2.8	1.6	1.7	0.5	78.6
TOTAL	58	12.3	6.6	16.1	5.9	3.8	3.2	1.1	79.6

*Posttest minus pretest.

- Program students surpassed the 85 percent mastery objective in the fall.
- Program students met the program objective in the spring since the percentage of students who mastered one CREST objective per month was not significantly different from the 85 percent criterion.
- On the average, program students mastered more than one CREST skill per month of instruction both semesters.

TABLE 5

Results of the Criterion Referenced English Syntax Test at Walton

Test Level	Number of Students	PRETEST Mean	PRETEST S.D.	POSTTEST Mean	POSTTEST S.D.	MASTERY* Mean	MASTERY* S.D.	Mean Mastery Per Month	Percentage Gaining One CREST Objective Per Month
				FALL					
1	25	10.5	4.5	14.9	4.9	4.4	2.8	2.4	77.7
2	15	13.2	4.4	16.1	4.7	2.9	2.3	1.6	62.5
3	14	8.2	2.2	11.1	3.0	2.9	1.8	1.4	18.8
TOTAL	54	10.7	4.3	14.3	4.8	3.6	2.5	1.9	55.2
				SPRING					
1	21	12.7	7.9	16.1	7.9	3.4	2.6	1.1	41.9
2	26	13.4	5.1	17.3	5.1	3.9	2.3	1.2	73.1
3	32	9.2	3.8	11.9	2.7	2.7	2.2	.9	53.1
TOTAL	79	11.5	5.8	14.8	5.7	3.3	2.4	1.0	62.0

*Posttest minus pretest.

- The 85 percent mastery objective was not achieved either semester.
- On the average, program students mastered at least one CREST skill per month of instruction both semesters.

CONTENT-AREA SUBJECTS

-- As a result of participating in the program, 85 percent of the students will achieve a passing grade in the subject areas of mathematics, science, social studies, and computer studies (evaluated by teacher-made instruments).

As noted above, the format of content-area instruction differs at each site: at Christopher Columbus, students attend content-area classes taught in an E.S.L. format along with other LEP students; at Walton groups of five or six CLIMB students attend mainstream content-area classes. Project staff members tutor students both individually and in the classroom.

Project staff and school administrators at both sites expressed satisfaction with students' progress in science and mathematics. However, in the spring they were somewhat concerned about the difficulties that project students seem to have with social studies.

Student Achievement in Content-Area Subjects

Table 6 presents students' passing rates in mathematics, science, social studies, and computer courses. Passing rates ranged from 74 percent in spring social studies to 94 percent in spring computer courses. Examination of Table 6 reveals that the 85 percent passing objective was achieved in computer studies both semesters. A z-test for the significance of a proportion was performed to assess whether the fall passing rates for science and social studies were significantly different from the objective criterion. The test results indicated that the rates did not differ significantly, and therefore the objective was achieved in these areas. However, the objective was not met in math either semester, or in science and social studies in the spring.

TABLE 6

Passing Rates in Content-Area Courses
(All Students)

Content Area	FALL		SPRING		TOTAL
	Number of Students	Percent Passing	Number of Students	Percent Passing	Overall Passing Rate
Mathematics[a]	149	74.5	168	78.6	76.7
Science[b]	97	81.4	218[e]	76.6	77.8
Social Studies[c]	128	83.6	167	73.6	77.9
Computer[d]	14	92.9	37	94.6	94.1
TOTAL		77.4		80.3	78.4

[a]Math courses ranged from remedial math to twelfth-grade math.
[b]Science courses included general science, biology 1 and 2, chemistry 1 and 2, physics, geology, and hygiene.
[c]Social studies courses included global history 1 to 3, American history 1 and 2, economics, American studies, and world geography.
[d]Computer courses included computer literacy, keypunching, and keyboard typing.
[e]Students enrolled in more than one class.

- The program objective was met in computer courses both semesters; it was also met in science and social studies in the fall since the fall passing rates in those subjects were not significantly different from the objective criterion of 85 percent.

- Overall, passing rates were fairly high.

Tables 7 and 8 present passing rates for content-area courses at Christopher Columbus and Walton. Students at Columbus surpassed the objective criterion in computer and science courses; a z-test for one proportion showed that passing rates in mathematics and social studies were not significantly different from the objective criterion. Thus, the program objective was met in all subjects at Columbus. At Walton, the program objective was met in computer courses both semesters. Program students achieved the objective also in fall social studies courses, since a z-test of one proportion showed that the passing rate in that subject was not significantly different from the objective criterion.

TABLE 7

Passing Rates in Content-Area Courses
at Christopher Columbus

Content Area	FALL		SPRING		TOTAL
	Number of Students	Percent Passing	Number of Students	Percent Passing	Overall Passing Rate
Mathematics[a]	70	80.0	74	83.8	82.0
Science[b]	35	91.4	52	86.5	88.5
Social Studies[c]	50	86.0	72	80.6	82.8
Computer[d]	4	100.0	26	92.3	93.3
TOTAL		85.0		84.4	84.6

[a]Math courses ranged from remedial math to twelfth-grade math.
[b]Science courses included general science, biology, chemistry, physics, geology, and hygiene.
[c]Social studies courses included world geography, global history, American history, American studies, and economics.
[d]Computer courses included computer literacy, keypunching, and keyboard typing.
[e]Students enrolled in more than one class.

- The program objective was achieved both in the fall and the spring semesters since the passing rate in the latter was not significantly different from the objective criterion of 85 percent.

TABLE 8

Passing Rates in Content-Area Courses at Walton

Content Area	FALL		SPRING		TOTAL
	Number of Students	Percent Passing	Number of Students	Percent Passing	Overall Passing Rate
Mathematics[a]	79	69.6	94	74.5	72.3
Science[b]	62	75.8	166[e]	72.9	73.7
Social Studies[c]	78	82.0	95	69.5	75.1
Computer[d]	10	90.0	11	100.0	95.2
TOTAL		76.4		73.2	74.5

[a]Math courses ranged from remedial math to twelfth-grade math.
[b]Science courses included general science, biology, chemistry, physics, geology, and hygiene.
[c]Social studies courses included global history, American history, American studies, and economics.
[d]Computer courses included computer literacy, keypunching, and keyboard typing.
[e]Students enrolled in more than one course.

- The program objective was met in computer courses both semesters and in social studies in the fall, since the passing rate in that subject was not significantly different from the objective criterion of 85 percent.

ATTENDANCE AND DROPOUT RATES

-- As a result of participation in the program, the dropout or absenteeism rate of the students will be less than mainstream students (as shown by school records).

-- As a result of participating in the program, the students' attendance rate will be greater than mainstream students (as shown by school records).

Based on reports from both project and school staff, attendance rates for students at both sites were substantially higher than for mainstream students. However, staff at Columbus High School report that students frequently arrived late for classes. Nevertheless, given the chaotic personal circumstances of many students, staff members at both sites expressed satisfaction and, indeed, surprise at the high attendance rates.

The dropout rates for program students at both sites were also reported to be significantly lower than for the mainstream students. This is remarkable considering the many personal problems faced by program students.

Statistical significance between program and school rates was determined through the application of a z-test for the significance of a proportion.* This procedure tests whether the difference between one proportion (the program's rate) and a standard proportion (the school's rate) is greater than what can be expected by chance variation. The results are presented in Tables 9 and 10.

The most recent school dropout rates (1984-85) have been used to assess this objective. Examination of Tables 9 and 10 reveals that the program objectives were achieved in both schools.

*Bruning, J.L. and Kintz, B.L.; Computational Handbook of Statistics; Scott, Foresman and Company, 1968.

TABLE 9

Program and School Attendance and Dropout Rates at Christopher Columbus

	Number of Program Students	Program Rate	School Rate	z-test
Attendance	83	90.7	73.4	3.6*
Dropout	83	2.4	10.6	-2.4*

*Significantly different at the .05 level.

- The program met both its attendance and dropout objectives at Columbus.

TABLE 10

Program and School Attendance and Dropout Rates at Walton

	Number of Program Students	Program Rate	School Rate	z-test
Attendance	105	95.3	77.3	4.4*
Dropout	105	0	10.2	-3.5*

*Significantly different at the .05 level.

- The program met both its attendance and dropout objectives at Walton.

STAFF AND CURRICULUM DEVELOPMENT

-- As a result of participation in the program, staff will demonstrate professional growth (as shown by college transcripts).

As noted above, locating and retaining qualified personnel who speak Vietnamese and Khmer has been a problem for CLIMB and for similar programs throughout the city. Thus, it was particularly disruptive when the program lost a veteran resource person at Walton High School in mid-year, especially since this loss occurred simultaneously with the loss of the project's resource room. Nevertheless, the resource teacher was quickly replaced and services were resumed fairly smoothly.

Three of the four on-site staff members reported that they took advantage of the program's staff development component by taking job-related college courses during 1985-86. In addition, the project director held a one-day conference/workshop with the staff of the various other Title VII programs he supervises.

-- As a result of the program, five subject-oriented guides will be developed in the areas of math, science, social studies, and computer science using an E.S.L. approach.

The proposed subject-oriented guides were not ready at the time of the site visits and meetings with project staff in the spring of 1986. However, the project director's office reported that these materials would be developed during the summer of 1986.

-- As a result of participation in the program, there will be an increase in awareness of pupil problems and needs by program staff.

According to the project coordinator, staff showed a high awareness of and sensitivity to students' problems and needs through the entire year. The evaluation of the objective asked for an increase in the score obtained

by staff on a five-point scale of pupil problems and needs. Since the questionnaire was not administered, the third objective could not be assessed.

PARENTAL PARTICIPATION

-- As a result of the program, the parents of students in the program will demonstrate more parental involvement than parents of mainstream students.

According to the project coordinator, most parents of program students worked full-time and, thus, were not likely to participate in school functions. They would come to school to confer with staff if any problems arose, and were supportive of their children at home. However, she also stated that the parents of program students were more involved in school events than were parents of mainstream students.

REFERRALS

-- As a result of participation in the program, the rate of referral to special (e.g. remedial) programs will be less than mainstream students.

The project coordinator reported that no referrals had been made to other programs since the program itself offered tutorial and individualized instruction. Thus, the first objective could not be assessed.

-- As a result of participation in the program, the rate of student grade retention or referral to or placement in special education classes will be less than mainstream students.

No data were provided on student grade retention. The project coordinator reported that about six percent of the program students were referred to special education programs. However, as no mainstream data were available the second objective could not be assessed.

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

No program student was either placed in programs for gifted and talented students or graduated. No comparable mainstream data were provided. Thus, the third objective could not be assessed.

IV. CONCLUSIONS AND RECOMMENDATIONS

CONCLUSIONS

Despite the loss of a key staff member at mid-year, the major strength of Project CLIMB is its highly motivated, hard-working, on-site personnel. Even with uncooperative school administrations, CLIMB staff members have performed their difficult jobs with creativity and sensitivity, taken college courses, and served as advisors to unofficial Indochinese student groups, often on their own time. However, school climate appears to have an effect on students' achievement: program students at Christopher Columbus achieved the program objectives in E.S.L. and all content-area courses both semesters. In contrast, students at Walton achieved the program objectives only in computer courses both semesters and in science and social studies in the fall. Moreover, they did not achieve the program objective in E.S.L. Nevertheless, program students at both sites had higher attendance rates and lower dropout rates than mainstream students, thus meeting that program objective.

Like most projects in their first year of operation, the project encountered difficulties. The on-site staff, who answer directly to supervisors at the site, cannot be expected to maintain the integrity of the program if schools make major changes, such as removing a resource room or programming students into mainstream classes (as occurred at Walton High School). Such situations require the more direct involvement of the project director's office.

Finally, despite the efforts of the project coordinator, bureaucratic procedures and the distance between sites and the project director's office have created major time delays in accomplishing basic tasks, such as

arranging adequate security for the program's computers. Such delays are extremely frustrating for the on-site project staff.

RECOMMENDATIONS

The proposed resource rooms should be established at Columbus and reestablished at Walton. The computers, which have been at the schools since the fall of 1985, should be set up for use without further delay. Since computer literacy is a central feature of the program, an effort to put these computers to use should be a top priority.

Placing project students into mainstream classes in content areas at Walton High School should also be reassessed. Since this is a major departure from the project CLIMB proposal, the project director should have at least been consulted before this policy was implemented.

The project director should try to visit the sites more often. Frequent visits by someone in authority might resolve many ongoing problems that the project coordinator has been unable to solve thus far.

The project staff members at both sites should meet with each other regularly so that information and resources can be shared. The project has not yet taken advantage of the fact that the two sites, serving the same language groups, and working under the same Title VII program guidelines, are geographically close. Some consideration should also be given to having the one Khmer-speaking staff member (a paraprofessional at Columbus High School) spend one day a week at Walton, where his linguistic abilities might be used to great advantage.

Further efforts should be made to impress upon the school administrations the importance of all project activities, including "extracurricular" ones. The project director's office should also attempt to make non-

program staff members at the two schools more aware of the special needs of Southeast Asian students -- e.g. through presentations at staff meetings.

The goal of teaching a third language (French) to students who have not yet mastered English should be reevaluated. Thought should be given to devising a procedure for granting LEP students foreign-language credit for study of their native languages. The project director's office should initiate contact with state education officials, to explore this or other possible solutions.

Finally, data should also be provided to assess the achievement of each of the objectives proposed. If the program cannot obtain data for a particular objective or the objective is not pertinent to the program, it should be modified or deleted.