DOCUMENT RESUME

ED 357 101 UD 029 155

AUTHOR Clark, Andrew

TITLE The Asian and Arabic Mediated Enrichment Resource and

Instructional Career Awareness Program (Project AMERICA). Transitional Bilingual Education, 1991-92.

Final Evaluation Profile. OREA Report.

INSTITUTION New York City Board of Education, Brooklyn, NY.

Office of Research, Evaluation, and Assessment.

PUB DATE 7 Jul 92 CONTRACT G008710397

NOTE 19p.; For earlier reports, see ED 320 430, ED 336

481, and ED 346 223.

AVAILABLE FROM Office of Research, Evaluation, and Assessment, New

York City Public Schools, 110 Livingston Street, Room

732, Brooklyn, NY 11201.

PUB TYPE Reports - Evaluative/Feasibility (142)

EDRS PRICE MF01/PC01 Plus Postage.

DESCRIPTORS *Bilingual Education Programs; Career Awareness;

Career Development; Chinese Americans; Compensatory Education; *Curriculum Evaluation; *English (Second Language); High Schools; *High School Students; Immigrants; Language Proficiency; Limited English Speaking; Native Language Instruction; Program Evaluation; Staff Development; *Urban Schools

Language Minorities; *New York City Board of

Education; *Project AMERICA NY; Transitional

Bilingual Education Programs

ABSTRACT

IDENTIFIERS

An evaluation was conducted of the second year of a 2-year renewal program at two high schools in Brooklyn (New York City), the Asian and Arabic Mediated Enrichment Resource and Instructional Career Awareness Program (Project AMERICA), originally designed to ease the transition of Arabic and Chinese-speaking immigrant students to life in America, but the Arabic-speaking component was phased out in 1989. Focusing on basic skills, career development, and preoccupational training, the project proposed to provide services to students of limited English proficiency (LEP) with limited reading and writing abilities in their native language. The design included staff development; dissemination of bilingual newsletters; meetings and English as a Second Language (ESL) classes for parents; development of curricular materials; intensive student instruction in ESL and Chinese Native Language Arts (NLA); and courses in science, mathematics, social studies, and preoccupational training in the native language. During the 1991-92 school year, the project enrolled 432 Chinese, 5 Vietnamese, 2 Arabic, 2 Spanish, 1 French, 1 Russian, and 5 unreported 9th through 12th grade students. Project AMERICA met objectives for NLA, career education, parent involvement, and attendance. It did not meet objective for ESL and attitude toward cultural heritage. It met the objective for content area subjects and dropout prevention. It did not meet objectives for staff development and career advisement. It partially met the objective for cultural enrichment and curriculum development. It met the objective for attitude toward school. This was the last year of programming, and no suggestions or recommendations were made for meeting unmet or partially met objectives. Appendixes describe data collection and analysis and instructional materials. (RLC)

OREA Report

The Asian and Arabic Mediated Enrichment Resource and Instructional Career Awareness Program (Project AMERICA) Transitional Bilingual Education Grant G008710397 1991-92

FINAL EVALUATION PROFILE

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION
CENTER (ERIC)

- This document has been reproduced as received from the person or organization
- originating it

 Minor changes have been made to improve reproduction quality
- Points of view or opinions stated in this document do not necessarily represent official OERI position or policy

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

P. Tobias

NYC Public Schools

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

BEST COPY AVAILABLE

The Asian and Arabic Mediated Enrichment Resource and Instructional Career Awareness Program (Project AMERICA) Transitional Bilingual Education Grant G008710397 1991-92

FINAL EVALUATION PROFILE



NEW YORK CITY BOARD OF EDUCATION

H. Carl McCall
President

Irene H. Impellizzeri
Vice President

Carol A. Gresser Westina L. Matthews Michael J. Petrides Luis O. Reyes Ninfa Segarra Members

Keysha Z. McNeil Student Advisory Member

Joseph A. Fernandez
Chancellor

DIVISION OF STRATEGIC PLANNING/RESEARCH & DEVELOPMENT

Robin Willner Executive Director

It is the policy of the New York City Board of Education not to discriminate on the basis of race, color, creed, religion, national origin, age, handicapping condition, mantal status, sexual orientation, or sex in its educational programs, activities, and employment policies, and to maintain an environment free of sexual harassment, as required by law, inquince regarding compliance with appropriate laws may be directed to Merceda, Nessiad, Director, Office of Equal Opportunity, 110 Livingston Streat, Room 601, Brooklyn, New York 11201, Telaphone: (718) 935-3320.

7/7/92



11

ACKNOWLEDGMENTS

This report has been prepared by the Bilingual, Multicultural, and Early Childhood Evaluation Unit of the Office of Research, Evaluation, and Assessment. Thanks are due to Andrew Clark for collecting the data and writing the report.

Additional copies of this report are available from:

Dr. Tomi Deutsch Berney
Office of Research, Evaluation, and Assessment
New York City Public Schools
110 Livingston Street, Room 732
Brooklyn, NY 11201
(718) 935-3790 FAX (718) 935-5490



FOREWORD

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

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

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



Office of Research, Evaluation, and Assessment New York City Public Schools

E.S.E.A. Title VII Evaluation Profile

The Asian and Arabic Mediated Enrichment Resource and Instructional Career Awareness Program (Project AMERICA)

Transitional Bilingual Education Grant G008710397 1991-92

EXTRACT

PROJECT DIRECTOR:

Mr. Paul Wong

FUNDING CYCLE: Year 2 of 2-year renewal cycle

SITES

School	<u>Borough</u>	Grade Levels	Enrollment*	
			(fall)	(spring)
Fort Hamilton High School	Brooklyn	9-12	258	214
Lafayette High School	Brooklyn	9-12	172	171

^{*}The project enrolled 448 students (40 more than in the previous year), 372 of whom participated both semesters. Male students numbered 225, female 220; gender was not stated for three. Students served totaled 430 in the fall and 385 in the spring.

STUDENT BACKGROUND

Native Language	<u>Nu</u>	mber of Students	Countries of Origin	Number of Students
Chinese		432	China	357
Mandarin	19		Hong Kong	61
Cantonese	409		Vietnam	13
Other	4		Taiwan	3
Vietnamese		5	Other	12
Arabic		2	Unreported	2
Spanish		2	•	
French		1		
Russian		1		
Unreported		5		

Median Years of Education in Native Country: 7.0; in the United States: 3.0

Percentage of Students Eligible for Free Lunch Program: 38.4

About ten percent of the students were recent immigrants from rural areas of China, where they had received a very limited education. At Lafayette High School many project students lacked time to study because they held part-time or even full-time jobs after school. About 20 percent of the LEP students were not recent immigrants and 30 percent were not literate in their native language.

ADMISSION CRITERIA

Project AMERICA admitted Chinese-speaking students, most of whom had scored at or below the 40th percentile on the Language Assessment Battery (LAB) and thus were classified as limited English proficient (LEP). A small number of English proficient students opted into the program in order to learn about their cultural heritage and improve their native language skills. In selecting students, the project also took into account academic transcripts from native countries and teacher recommendations.



PROGRAMMING

Design Features

Project AMERICA was originally designed to ease the transition of Arabic- and Chinese-speaking immigrant students to life in America, but the Office of Bilingual Education and Minority Language Affairs (OBEMLA) granted permission to phase out the Arabic-speaking component in 1989. Focusing on basic skills, career development, and pre-occupational training, the project proposed to provide services to LEP students who were also limited in their ability to read and write their native language. The design included staff development, dissemination of bilingual newsletters at both sites, meetings and E.S.L. classes for parents, and development of curricular materials. Students were to receive intensive instruction in English as a Second Language (E.S.L.) and Chinese Native Language Arts (N.L.A.); courses in science, mathematics, social studies, and pre-occupational training were to be offered in the native language.

Capacity building. This was the project's final year of Title VII funding, and the project director reported that tax-levy monies would be used at both sites to support all project staff as well as parental activities and cultural trips. Details furnished by the resource teachers, however, suggested that services to the target population had already diminished with the reduction of Title VII funding and would be further cut when that funding was eliminated.

Strengths and Limitations

For the most part, Project AMERICA carried out the activities it had proposed in its design.

The project was unable to meet the linguistic needs of many students at Fort Hamilton High School because of the gap between Mandarin-speaking staff and Cantonese-speaking students. There were insufficient funds available for proposed cultural activities as well as tuition assistance for Title VII staff at Lafayette High School. Staff had to help cover costs of subway transportation and celebrations out of their own pockets.

CONCLUSIONS

As in the previous year, Project AMERICA met objectives for N.L.A., career education, parent involvement, and attendance, and did not meet the objectives for E.S.L. and attitude toward cultural heritage. It fully met the objective for content area subjects and dropout prevention, only partially met the previous year. It failed to meet the objectives for staff development and career advisement, and met the cultural enrichment objective only partially—all of which it had met the previous year. On the other hand, it met the objective for attitude toward school, which it had not met in the previous year. The project partially met its long-range objective for curriculum development. This was the last year of programming, and no suggestions or recommendations were made for meeting unmet or partially met objectives.



PROGRAM ASSESSMENT

STAFFING

Title VII Project Staff (Total 6)

Title	Degree	Language Competencies	Title VII Funding	Other Funding
Project Director Resource Specialist Resource Specialist Paraprofessional Paraprofessional Office Aide	M.A. M.Ed. M.A. High School B.A. High School	Chinese Chinese Chinese Chinese Chinese Chinese	Full time Part-time Part-time Full time Full time Full time	Tax-levy To :-levy

The office aide worked at the central office of Title VI! programs.

Other Staff Working With Project Students (Total 50)

<u>Titles</u>		Degrees		Certifications			Competencies and Teaching/ cative Proficiencies (TP/CP)*
Teachers Guidance Counselor	47	Ph.D. M.A./M.S. B.A./B.S.	1 33 14	E.S.L. English Mathematics	16 1	Chinese	8 TP, 2 CP
Paraprofessionals	3 2	High School	2	T.P.D. Social Studies General Science	12 7 2		
				Spanish Music Guidance	1 1 1		

The project director said that staffing at the two schools was unchanged from the 1990-91 school year. OREA was unable to ascertain whether any of the twelve teachers at Fort Hamilton High School who had been listed as holding only Temporary Per Diem certification had upgraded their credentials. Of the remaining staff at both sites, all but four held certification in the areas they served.



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

IMPLEMENTATION AND OUTCOMES (Objectives prefaced by •)

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

E.S.L. CLASSES

Sites	<u>I.evel</u>	Periods Weekly	Students Enrolled
Fort Hamilton High School	Beginning	15	44
	Intermediate	10	127
	Advanced	10	83
Lafayette High School	Beginning	10	76
	Intermediate	10	25
	Advanced	10	19

Instructors at Fort Hamilton High School relied on a whole-language approach emphasizing dialogue and cooperative learning in small groups. Staff at Lafayette High School reported using a variety of approaches, including the audiolingual method, the notional-functional approach, and the methodology of total physical response. For a list of instructional materials, see Appendix B.

• As a result of participating in the program, 70 percent of the targeted students will demonstrate an appropriate increase in English language proficiency.

Evaluation Instrument: Language Assessment Battery (LAB)*

Pretest: May 1991; posttest: May 1992.

Number of students for whom pre- and posttest data were reported: 328

Percent of students with pretest/posttest gains: 45.1

Mean gain: 2.5 N.C.E.s (s.d.=8.5)

Mean gain is statistically significant (t=5.40, p<.05).

Fewer than 70 percent of the students showed gains on the LAB.

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



^{*}OREA used a gap reduction design to evaluate the effect of supplementary instruction on project students' performance on the LAB. Since all LEP students in New York City are entitled to such instruction, no valid comparison group exists among these students, and OREA used instead the group on which the LAB was normed. Test scores are reported in Normal Curve Equivalents (N.C.E.s), which are normalized standard scores with a mean of 50 and a standard deviation of 21.96. It is assumed that the norm group has a zero gain in N.C.E.s in the absence of supplementary instruction and that participating students' gains are attributable to project services.

Native Language Arts (N.L.A.) -- Chinese

Students lacking literacy skills in native language (estimated): 30 percent.

N.L.A. CLASSES

High School	Level	Periods Weekly	Students Enrolled
Fort Hamilton	Beginning	5	50
	Intermediate	5	120
	Advanced	5	60
Lafayette	Beginning	5	20
•	Intermediate	5	60
	Advanced	5	60

N.L.A. classes at Fort Hamilton High School emphasized role-playing and other forms of dramatization. At Lafayette High School, as a result of scheduling constraints and the fact that there was only one N.L.A. teacher, students at different levels of proficiency were placed in the same class; the instructor combined oral discussions with practice in expository writing. For a list of instructional materials, see Appendix B.

 As a result of participating in the program, 75 percent of the targeted students will increase in Chinese language achievement.

Evaluation Indicator: final course grades.

Of the 233 students who enrolled in Chinese N.L.A. courses in the fall, 91.8 percent received passing grades; of the 254 enrolled in the spring, 84.3 percent received passing grades.

Project met N.L.A. objective.

Content Area Subjects

All content area subjects were taught for five periods a week. Fort Hamilton High School offered most courses bilingually: a few courses were also taught with a sheltered English methodology, and advanced mathematics was available only in the mainstream. Staffing limitations led to overcrowding in some bilingual classes, but this problem was resolved after the United Federation of Teachers (U.F.T.) intervened. At Lafayette High School, all mathematics courses were taught in the mainstream; social studies and science courses were available bilingually. Each site offered pre-occupational bilingual courses in typing and/or computer literacy.

At Fort Hamilton High School, project staff felt that students who were not literate in their native language labored under the particular difficulty presented by the use of Mandarin by instructional staff rather than the more familiar Cantonese. This language gap also proved troublesome in social studies.

Instructional materials used are listed in Appendix B.



• As a result of participating in the program, 70 percent of the targeted students will score at or above the 65 percent passing criterion in the content subject areas (mathematics, social studies, and science).

PASSING GRADES IN CONTENT AREA COURSES

High School			Fall	<u>S</u> 1	Spring	
	Subject	Enrollment	Percent Passing	Enrollment	Percent Passing	
Fort Hamilton	Mathematics	210	81.0	202	75.2	
	Science	126	79.4	113	88.5	
	Social Studies	199	84.9	191	85.9	
Lafayette	Mathematics	133	90.2	141	81.6	
	Science	141	84.4	135	83.0	
	Social Studies	160	85.0	151	87.4	

Project met the content area objective both semesters in all subjects.

Attitude Toward Cultural Heritage

At each site, project staff organized activities, including a ping-pong tournament and an after-school Chinese New Year party. The Chinese Culture Club at Fort Hamilton High School sought to ease assimilation for project students.

• As a result of participation in the program, 75 percent of the students will demonstrate an improvement in attitude toward Cultural Heritage by at least one scale unit on a five-point scale.

The project administered an OREA-developed Likert scale-type questionnaire to 119 project students. Three questions asked students to assess, on a scale from one to five, how their participation in the project had affected their attitude toward their cultural heritage. Ten (8.4 percent) of the respondents averaged 4.0 or higher (one scale unit above the midpoint that represents 'no change') in their responses.

Project did not meet objective for students' attitude toward cultural heritage.

Attitude Toward School

• As a result of participation in the program, 75 percent of the students will demonstrate an improvement in attitude toward school by at least one scale unit on a five-point scale.

The project administered an OREA-developed questionnaire to 119 project students. Three questions asked students to assess, on a scale from one to five, how participation in the project had affected their attitude toward school. One hundred six (89.1 percent of the respondents) averaged 4.0 or higher (one scale unit above the midpoint that represented 'no change') in their responses to these questions.

Project met objective for students' attitude toward school.

Career Advisement

• All graduating students will meet with the bilingual career specialists for advisement at least three times during the school year.

Of the 103 graduating students, only one was reported to have received career counselling at least three times during the school year.

Project did not meet career advisement objective.



Career Education

• The program will organize at least one conference for students in which representatives of business and industry will present information on career options and skills requirements.

In conjunction with other central Title VII programs for Chinese-speaking students, Project AMERICA organized a career day at the Brooklyn Campus of Long Island University. Guest speakers described typical experiences and skills requirements in twelve professions.

Project met career education objective.

Cultural Enrichment

• The program will organize at least two field trips to historical museums, the United Nations, the White House, etc., to increase familiarity with American culture and citizenship.

At Fort Hamilton High School, the project organized trips to the Statue of Liberty and the Intrepid Sea-Air-Space Museum on the Hudson River. At Lafayette High School, Title VII funds were not allocated for trips, and the trips that were arranged focused on Chinese rather than American culture.

Project partially met cultural enrichment objective.

Other Activities

The project published a monthly newsletter at each site.

Attendance

• As a result of participation in the program, students' attendance will be significantly higher than that of mainstream students.

ATTENDANCE RATES

High School	Project Students	Mainstream Students	<u>Difference</u>
Fort Hamilton	95.7	82.9	12.8*
Lafayette	93.9	78.5	15.4*

*p<.05

The previous year's attendance at Lafayette High School was 92.2 and at Fort Hamilton High School it was \$5.5 percent.

Project met attendance objective.



Dropout Prevention

Field trips, cultural activities, and the personal interest of project staff were intended to encourage students to stay in school.

• As a result of participation in the program, the dropout rate of the students will be significantly lower than that of similar non-program students.

DROPOUT RATES

High School	Project Students	Mainstream Students	Difference
Fort Hamilton Lafayette	0.7 0.0	22.8 14.7	22.1* 14.7*
*n<.05			

Project met dropout prevention objective.

Grade Retention

Thirty-six students (8 percent of the participants) were retained in grade. The project did not propose an objective for this area.

Enrollment in Post-secondary Institutions

None of the graduating students were reported as applying for enrollment in post-secondary education institutions. The project did not propose an objective for this area.

Students With Special Academic Needs

Referral to special education. Teachers referred students whose ability to function in the program was in doubt to a School-based Support Team (S.B.S.T.) of clinicians. No members of the S.B.S.T. at either school spoke Chinese, but the team called in project staff to translate when necessary.

At Fort Hamilton High School, the project served two students who had been certified to receive special education services.

Remedial programs. No students were referred to remedial programs.

Gifted and talented programs. No students were referred to gifted and talented programs.

Mainstreaming

Project AMERICA mainstreamed none of its students.

Academic achievement of former project students in mainstream. The project did not report performance data on any of the ten students mainstreamed in the previous year.



Staff Development

 Ninety percent of program staff members will enroll in at least one college or university course each semester.

As in the past, it was agreed that OREA would evaluate this objective with reference to Title VII-funded program staff only. Three of the six (50 percent) took university courses during the year under review.

Project did not meet staff development objective.

Staff Awareness of Pupil Needs

• As a result of participation in the program, there will be an increase in awareness of pupil problems and needs on the part of at least 80 percent of the staff.

The project administered an OREA-developed questionnaire to 26 staff members. Two questions asked the staff members to assess on a scale from one to five the extent to which participation in the project had made them more aware of students' problems and needs. Twenty-two (84.6 percent) of the respondents averaged 4.0 or higher (one scale unit above the midpoint that represents 'no change') in their responses to these questions.

Project met staff awareness objective.

Curriculum Development

 By the fifth project year, the curriculum specialists will have developed or translated one subjectmatter oriented instructional unit for teaching each of the following: English as a second language, mathematics, science, and social studies.

In conjunction with other centre—itle VII programs serving Chinese-speaking students, Project AMERICA developed at least two instructional units for teaching mathematics, science, and social studies. The project did not report developing any units for teaching E.S.L.

Project partially met curriculum development objective.

Parental Involvement

At each site, about 15 parents participated in an E.S.L. class that met for six hours each week during most of the school year. The resource teacher at Lafayette High School reported frequently telephoning parents late in the evening after they came home from work.

• As a result of participating in the program, students' parents who participate in open school day/evening will be equal to or greater than the proportion of mainstream students' parents who participate in that activity.

PERCENTAGE ATTENDANCE RATES AT OPEN SCHOOL DAY/EVENING

High School	Project Parents	Mainstream Parents
Fort Hamilton	40.0	6.2
Lafavette	10.0	9.9

Project met parental involvement objective.



CASE HISTORY

Lisa J. entered the project in the fall of 1989 as a sophomore at Lafayette High School. Recently arrived from Canton, China, she spoke hardly any English and found the transportation system bewildering. She was very discouraged, but her parents convinced her that school would enable her to escape the kind of menial jobs which would otherwise be open to her. She made phenomenal progress in E.S.L., and in her junior year, she moved into mainstream English courses on the resource teacher's recommendation. At her graduation in June 1992, she delivered the salutatorian's address. Several colleges offered her scholarships; she was interested in becoming a pharmacist.



APPENDIX A

DATA COLLECTION AND ANALYSIS

COLLECTION

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

Student Data Form

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

Project Director's Questionnaire

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

Project Director's Interview

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

Citywide Test Scores

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

Likert-Type Surveys

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

<u>ANALYSIS</u>

Gap Reduction Evaluation Design

OREA uses a gap reduction design for measuring changes in standardiz 1 tests. Since no appropriate non-project comparison group is available in New York City, where all students of limited English proficiency (LEP) are entitled to receive supplementary services, OREA compares the progress of participating students with that of the group on which the test was normed. It is assumed that the norm group would show a zero gain in the absence of instruction, and gains made by project students could be attributed to project services. Scores are reported in Normal Curve Equivalents (N.C.E.s), which are normalized standard scores with a mean of 50 and a standard deviation of 21.06. (See "Citywide Test Scores" above.)

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



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

Techniques For Minimizing Error

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

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



APPENDIX B

INSTRUCTIONAL MATERIALS

E.S.L.

New Horizons, books 1 & 3 Turning Points, books 1-4 English With a Smile, books 1-2 Elementary Reader in English An O. Henry Reader Myths and Folktales	Mellgren & Walker Iantorno & Papa Krulik & Zaffran R. Dickson Mellgren & Walker (ed.) Potter & Robinson	Addison-Wesley Addison-Wesley National Textbook Addison-Wesley Globe	1984 1987 1987 1983 1984 1980
N.L.A.			
Chinese Language Arts, books 1-3 Chinese Step-By-Step	Byounghye Chang G. Wang	Lesley College Addison-Wesley	1983 1986
Mathematics			
Integrated Mathematics I, II, III Concepts and Applications: Key Ideas in Mathematics	Dressler & Keenan	Amsco Harcourt, Brace, Jovanovich	1980
Science			
Concepts and Challenges in Science books 1-3	S. Wolfe	Globe	1975
Pathways in Biology Biology and Human Progress Physical Science Physics: Principles and Problems	J. Oxenhorn Tanzer & Schwartz Murphy & Smoot	Prentice Hall D. C. Heath Chas. E. Merrill	1974 1986 1989 1982
Social Studies			
The Unfinished Journey: A World History	M. Perry	Houghton, Mifflin	1980
People and Our World World History: Perspectives on the Past	Kownslar & Smart Jantzen, Neill, & Krieger	Holt, Rinehart, D. C. Heath	1981 1988
Civics, Citizens, and Society Government and You Triumph of the American Nation Economics: Institutions & Analysis Exploring Our Nation's History	Kownslar & Smart Killoran, Zimmer, & Fischer Todd & Curtis Gerson & Antell J. O'Connor	McGraw-Hill Amsco Harcourt, Brace, Amsco Globe	1983 1987 1986 1987 1969
Exploring the Non-Western World	Schwartz & O'Connor	Globe	1976

