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AUTHOR Moore, JoAnne E.
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ABSTRACT

The Elementary Secondary Education Act Title IV-C Bilingual Project instituted in the Detroit (Michigan) Public Schools consisted of two bilingual learning centers at a target school which served 114 students in grades one through five during the 1978-1979 school year. Materials and assistance were also offered to a parochial school. A total of six product objectives related to student outcomes and two process objectives related to instructional variables were identified as the goals of the program. Evaluation procedures indicated that two of the product objectives and both process objectives were achieved. Relevant data and instruments are appended. (MK)

FINAL EVALUATION REPORT ON

DETROIT'S TITLE IV-C BILINGUAL PROJECT

1978 - 1979

Prepared By

JoAnne E. Moore

Project Evaluator

Research and Evaluation Department
Office of Research, Planning and Evaluation
Detroit Public Schools

August, 1979

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4/79

Michigan Department of Education
Research, Evaluation and Assessment Services
TITLE IV-C EVALUATION
Box 30008, Lansing, Michigan 48909

Direct questions regarding this form to Robert Carr at (517) 373-1850

1978-79 ESEA TITLE IV-C EVALUATION REPORT

EDUCATIONAL AGENCY	Legal Name of School District	District Code No.	Telephone - Area Code/Local No
	School District of The City	of Detroit	313-494-1000
	Address	City	Zip Code
	5057 Woodward Ave.	Detroit	48202

Project Title: Detroit's Title IV-C Bilingual Project

MAILING INSTRUCTIONS: Return THREE copies by AUGUST 15, 1979 to the STATE address indicated above. Retain ONE copy for your record.

Part I.

1. CERTIFICATION. I certify that the information submitted in the evaluation report for this project is true and correct to the best of my knowledge.

A. Date 8/27/79 Superintendent or Authorized Official: Paul T. Rankin (Signature)

Dr. Paul T. Rankin - Supervisor (Type Name and Title)

B. Date 8/28/79 Project Director: Edward Ojeda (Signature)

2. RESPONSIBILITY FOR PREPARATION OF PARTS 4 AND 5 OF REPORT

For each person who assumed responsibility for preparation of each section of PART 4 and PART 5 identified in column 1 of the table below, provide the name of the responsible person.

	Area of Responsibility (1)	Type Name of Responsible Person (2)
PART 4	1. Project Description	JoAnne E. Moore
PART 4	2. Evaluation Procedures and Problems	JoAnne E. Moore
PART 4	3. Performance Objective Evaluation	JoAnne E. Moore
PART 4	4. Project Evaluation Summary	JoAnne E. Moore
PART 5	Appendix A - Instrument Description	JoAnne E. Moore

3. EVALUATOR'S CERTIFICATION:

I certify that the information submitted in the evaluation report for which I was responsible, as identified in item 2, is true and correct to the best of my knowledge.

Date 8/27/79 Project Evaluator: JoAnne E. Moore (Signature)

Name of District School District of The City of Detroit

Part 2.

Project Title Detroit's Title IV-C Bilingual Project

I. OBJECTIVE ACHIEVEMENT SUMMARY

PROJECT EVALUATOR SUMMARY					STATE USE ONLY	
Proposal Objectives Type and Number (List all Product Objectives first)	Achieved	Not Achieved	Supplementary Analysis? (Check if Yes)	Page Number Reference for Objective in Evaluation Report	Objective Status	Comments
(1)	(2)	(3)	(4)	(5)		
Product Objective 1		X	X	12		
Product Objective 2		X	X	18		
Product Objective 3	X			23		
Product Objective 4	X		X	26		
Product Objective 5		X	X	34		
Product Objective 6		X	X	38		
Process Objective 1	.1 X			42		
Process Objective 2	.1 X			44		

SUMMARY	Product	Process
Number of Proposal Objectives		
Number of Objectives Achieved		

Reviewed by

Date

4

Name of District School District of The City of Detroit

Part 3.

1. NUMBER OF STAFF PAID FROM TITLE IV-C FUNDS

Indicate the number of project staff members paid from Title IV-C funds during 1978-79 by the project. DO NOT include as project staff members persons hired solely as consultants on a contract basis. (e.g., outside evaluators, inservice training specialists) or teaching staff whose salary was paid by the district.

STAFF	Teaching Staff	Administrative Staff	Other Professional Staff	Para-professionals	Clerical Staff	Other (Identify)	Total
NUMBER	0	1	1	0	1	0	3
FTE*	0	1.0	0.1	0	1.0	0	2.1

*FTE = Full-Time Equivalents (3 half-time staff would be equal to 1.5 full-time equivalents)

2. COUNT OF LEARNERS

DEFINITIONS • LEARNERS are all persons who receive instruction, training and/or other services from the project (Recipients of awareness level dissemination activities are not considered as learners.) Learners are the target population for a specific project activity.

NOTE: Two types of learners are identified in this section.

• STUDENT learners are learners who were enrolled in any grade from preschool through grade 12 in any school building participating in the project.

• NON-STUDENT learners are any learners who are not classified as student learners, e.g., teachers, administrators, aides, parents, etc.

GENERAL INSTRUCTIONS:

If this project provided instruction and/or other project services to STUDENTS, either directly or indirectly, during the 1978-79 project year, respond to both item A. and item B. below. If exact numbers of students are not available for any category, provide a reasonable estimate of the number for that category and identify the estimate with "E" following the estimate, e.g. 77 E.

A. STUDENT LEARNERS (requested for the table at top of page 4)

For this item, three categories of STUDENT learners will be identified:

COLUMN 4: "Direct involvement" includes students who receive their instruction and/or other project services directly from paid project staff.

COLUMN 5: "First level indirect involvement" includes students who receive their instruction and/or other project services from persons, other than paid project staff, who have been trained by paid project staff or consultants.

COLUMN 6: "Second level indirect involvement" includes students who receive their instruction and/or other project services from persons who have been trained by trainers who in turn have received their training from paid project staff or consultants. (A project using a trainer of trainers model for delivery of services would have students in this category.)

2 A Continued)

For the categories of numbers of student learners involved, provide the unduplicated number of student learners who received instruction and or other project services, not just the number of student learners involved in evaluation activities.

Building Name*	Grade Levels in Building Involved in the Project	Appropriate Proposal Objective Number**	NUMBER OF STUDENT LEARNERS INVOLVED (Unduplicated Count - see instructions)			Total Undúplicated Student Learner Count (Sum of columns 4, 5 and 6)	Total Nonpublic Student Learner Count Included in Column 7
			Direct Involvement	First Level Indirect Involvement	Second Level Indirect Involvement		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Preston	1-5	all		114	0	114	
Holy Trinity	ungraded	none		0	235		235
TOTAL				114	235	114	235

* Provide the district name for any building located outside the district which operates the project. For I.S.D. based projects, identify the local district for each building or group of buildings.

** Provide the number of any objectives (either product or process) which specify evaluation activities involving student learners in the building.

B. STUDENT LEARNERS BY GRADE RANGE AND RACIAL-ETHNIC GROUP

Provide the number (or reasonable estimate) of STUDENT learners in each category of the table below.

	American Indian or Alaskan Native or Native American	Black, not of Latino or Hispanic Origin	Asian or Pacific Islander	Latino or Hispanic	White, not of Latino or Hispanic Origin	Total (Sum of columns 1, 2, 3, 4 & 5)
	(1)	(2)	(3)	(4)	(5)	(6)
Preschool	1	9		20	2	32
Grades K-3		1		47	1	49
Grades 4-6	1	5		23	4	33
Grades 7-8						
ungraded	4	12	7	160	52	235
TOTAL	6	27	7	250	59	349

C. NON-STUDENT LEARNERS

How many NON-STUDENT learners did the project serve in 1978-79? Provide the number of non-student learners in each category of the table below. If the exact number is not available, provide an estimate of the number and identify the estimate with "E", e.g. 77 E.

	Teaching Staff	Administrative Staff	Other Professional Staff	Parents	Others Aides	TOTAL
NUMBER	23	1	0	53E	4	81E

PART 4

I. PROJECT DESCRIPTION

A. Philosophy

The philosophy underlying the project is consistent with the definition of bilingual education given in the Administrator's Manual for Bilingual Education Programs in Michigan 1979-80 from the Bilingual Education Office, Michigan Department of Education:

> "Bilingual Education is: (1) providing instruction in two languages, one of which is English and the other the home language of the child, and (2) providing instruction in two languages which is related to the objectively diagnosed needs of each individual child."

The project school, Preston Elementary, was selected because it had the highest percentage of Spanish surnamed students of any school in the district. In addition, standardized test results in reading and mathematics indicated that students were scoring lower each additional year they were in school.

The project's philosophy is that it could offer the kind of activities and instruction which prevent this mounting deficiency in basic skills. The project's approach is to become an integral part of the school curriculum, stressing Spanish heritage and culture in the development of positive student self-concepts together with bilingual reading and mathematics learning centers, staff development, parent education, and community involvement.

B. The Project Model

Detroit's Title IV-C Bilingual Project has established a bilingual program modeled according to Public Act 294. The most important facet of the program consists of the two bilingual learning centers at the target school. Each center offers bilingual instruction, meaning the use of two languages, one of which is English, as media of instruction for speaking, reading and writing. Subjects are taught in both Spanish and English. As students progress in English language ability, the bilingual teacher increases the use of English in the classroom. Students spend half the school day in the centers and return to their homeroom classes, which are taught in English, for the remainder of the day.

The bilingual centers are learning centers, not waiting rooms or holding rooms where non-English speaking students are kept until they learn English. They are not places of retention where all cognative development is arrested until the children learn English. Such a situation tends not only to be discouraging but also demoralizing and punitive. Such retention centers have led to disinterest in learning, increased the potential dropout rate and done a grave injustice to the limited English speaking students.

The bilingual centers focus on areas of critical educational need so that target students achieve a level of proficiency in English language skills sufficient to receive an equal educational opportunity in the regular school program.

The project employs a classroom management system which permits one teacher and one paraprofessional to operate several different curricula per day using bilingual materials both commercially published and prepared by the project staff. The learning centers make available to each student twenty times the instructional resources usually found in classrooms and have been shown to lead to measurable gains at a cost-effective rate far better than any other approach. Precise behavioral objectives for the participants including criterion referenced assessment are employed in each center especially for reading and mathematics. The bilingual learning center teachers conduct these assessments in order to make individual prescriptions for each student. In addition, the project teachers use commercially available bilingual materials and teacher made materials for the purpose of developing a complete bilingual curriculum for grades 1 through 5. The combined efforts of the bilingual teachers and the project director ensure that a student at any level will learn by what ever method works for him or her. In addition, it ensures that the materials have a desired degree of cultural relevance for the limited English speaking child. It is expected that dramatic gains in student achievement will be realized through the deployment of these materials and the utilization of the professional staff in the most humane and efficient manner.

In essence, the learning system employed in the bilingual learning centers is built around six features:

(1) Prescriptive — the bilingual teacher defines students' unique needs and prescribes activities to meet those needs;

(2) Motivating — the pupil gets immediate feedback to his responses;

(3) Individualized — a variety of materials are used designed specifically to assist the teacher in personalizing content, rate and level for each student;

(4) Definitive — the system's objective is accountability for student and teacher:

   (a) both know what must be learned,

   (b) both know methods and materials to use, and

   (c) both know what must be done to show mastery;

(5) Intensified — the system is used in the bilingual learning centers where the teacher maximizes the amount of time the students spends on appropriate learning activities;

(6) An "Open System" — the system is continuously being reviewed and improved. It is not partial to any single program or publisher. As new instructional materials appear on the market, they are reviewed by educational consultants. Materials judged to be of potential value are incorporated into the system and all projects are informed of the addition. This characteristic of the system also facilitates local expansion and modification to serve special needs.

The typical daily operation of the project is illustrated in Figure 1 on the following page.

FIGURE 1

DAILY SCHEDULE FOR BILINGUAL LEARNING CENTER STUDENTS*

Time	Language Arts Center 1. English Language Arts 2. Home Language Arts	Mathematics Center 1. Mathematics 2. English-as-a-Second language 3. Language Arts reinforcement (as needed)	Regular Classroom 1. Multicultural Social Studies 2. Science 3. Art 4. Gym 5. Spelling 6. Handwriting 7. Music 8. Health
9:30 - 10:40	Grades 1 and 2	Grade 3	Grades 4 and 5
10:45- 11:55	Grade 3	Grades 1 and 2	Grades 4 and 5
12:55- 2:15	Grade 4	Grade 5	Grades 1, 2, and 3
2:20- 3:40	Grade 5	Grade 4	Grades 1, 2, and 3

*Each student participants at grade level throughout the day.

C. Major Project Activities Not Included with the Project Model Description

The major activities of the project which are not included with the project description are:

(1) Special Counseling in individual and small group sessions,

(2) Resource Coordinator to produce and distribute culture and hertiage materials for the multicultural aspect of the program,

(3) Bilingual Preschool

(4) Workshops which provide foreign language training, cultural activities and teacher training, and

(5) Non-public school program through which materials, both staff produced and commercial, are provided to Holy Trinity school.

II. EVALUATION PROCEDURES AND PROBLEMS

A. Procedures to Identify and Select Learners

Students of limited English speaking ability comprise the target population at the project school. A referral system has been established whereby regular classroom teachers and staff refer prospective target students to the project director. (See Appendix C for a copy of the bilingual pupil profile form and eligibility criteria.) Upon verification of such need twenty-five students are selected for each bilingual center.

The procedure used to identify three and four year old students for the bilingual preschool is on a first-come-first-served basis. Priority is given to four year olds with limited English speaking ability.

The total non-public school enrollment with the exception of the kindergarten students, is included in this component.

B. Major Evaluation Problems

The major evaluation problem was comparability of the comparison group. The group which was originally selected could not be used due to the fact that the school did not comply with instructions to test all pupils on all instruments required for the evaluation. This is discussed at length under comparison group comparability for each objective in Part III of this section.

C. Major Changes in the Evaluation Design for 1978-79 from the 1978 Design:

The evaluation design for 1978-79 has been substantially changed from the design used last year. The new design makes comparisons between project students and students enrolled in the mandatory state funded bilingual program as well as students enrolled in Detroit's Title VII bilingual project at Webster school. In addition, measures of reading and mathematics skills will be administered in Spanish as well as in English. Students attendance has become a product objective and the "Check-In" and "Check-Out" tests for reading and mathematics have been used as process objective measures. Finally, the preschool objectives have been deleted. These changes have been made in an effort to show the project in the best possible light while providing more realistic criteria for success by making comparisons with the progress made by similar students.

III. PERFORMANCE OBJECTIVE EVALUATION

A. Product Objective 1

1. Individuals: Approximately 40 students referred to the project selected according to project guidelines.

2. Behavior: Comprehension

3. Object of Behavior: Reading (in English)

4. Time: September, 1978 to June, 1979.

5. Measurement:

Grade 1:	CAT Level 11
Grade 2:	CAT Level 12
Grade 3:	ITBS Level 9
Grade 4:	ITBS Level 10
Grade 5:	ITBS Level 11

6. Criterion for Success: For at least four of the five grades, the mean gains of project students will be greater than the mean gains of comparable students in the state funded bilingual program.

B. Common Goal of Michigan to Which Project Goal is Related

Goal Area III: STUDENT LEARNING

Goal 1 Basic Skills

(1) The ability to comprehend ideas through reading and listening.

C. Evaluation Design and Procedures

1. Type: Pretest: April, 1978 (Grades 4-5)
and November, 1979 (Grades 1-3)
Posttest: April, 1979

2. Participants in the Primary Analysis:

Project students were selected on the basis of the selection criteria described in Appendix C. In addition to limited English proficient students, some monolingual English speakers were included in order to satisfy U.S. Office of Civil Rights regulations. A distribution of students by grade and English proficiency score may be found in Appendix E; only students having both pre- and posttest measures were included in the analysis. Every attempt was made to see that all project students were tested.

3. Comparison Group Comparability:

The comparison group for this objective consists of students from a neighboring elementary school which operates a state funded bilingual program under the city wide bilingual project. This program consists of pull out sessions and is staffed by two bilingual teachers. Students selected are enrolled in the bilingual program. A breakdown of comparison group A by grade and English language proficiency appears in Appendix E. Only students having both pre- and posttest scores were included in the analysis. The school which was originally selected (comparison group B) did not administer all the instruments required for analysis of achievement data in both English and Spanish. Therefore, in order to achieve comparability among objectives, comparison group A was used.

4. Time:

It is estimated that project participants had one hour of reading instruction per day of attendance and about 20 hours of reading instruction in a typical month.

5. Analysis Technique:

The mean rate of gain in reading for prime project participants and for comparison group students was computed on fall-spring comparisons for grades 1 through 3 and spring-spring comparisons for grades 4 and 5. Each grade was computed separately.

6. Instruments:

California Achievement Tests, Levels 11 and 12 for grades 1 and 2. Iowa Tests of Basic Skills, Levels 9-11 for grades 3-5. Detailed information about these instruments may be found in Appendix A.

7. Problems:

No problems were encountered.

D. Evaluation Results

1. Criterion: For at least 4 of the 5 grades, the mean gains of project students will be greater than the mean gains of comparable students in the state funded bilingual program.

2. Results Statement: In none of the five grades, the mean gains of project students were greater than the mean gains of comparable students in the State funded bilingual program.

E. This objective was not achieved.

F. Data: Table 1 gives the mean gain rates in reading for project and comparison group students in grade equivalent units.

TABLE 1

Mean Grade Equivalent Unit Gains in Reading for Project and comparison group participants by Grade*

	Project		Comparison Group	
Grade	Number	Mean Gains	Number	Mean Gains
1	8	0.5	11	1.0
2	5	0.2	4	1.2
3	13	-0.1	6	0.9
4	9	0.5	5	0.6
5	6	0.6	3	1.7

*Fall-Spring for grades 1-3, Spring-Spring for grades 4 and 5.

Appendix F gives means and standard deviations by grade on pre- and posttests.

G. Supplementary Analyses

Analysis #1

1. Commitment: "Supplementary analysis on Spring-Spring results for grades 1-3... will be performed."

2. Rationale: The Spring-Spring analysis on grades 1-3 provides for consistency with the grades 4-5 comparisons which are also performed on Spring-Spring data.

3. Evaluation Design:

   a. Type: Pretests, April, 1978
      Posttest, April, 1979

   b. Participants: Same as primary analysis

   c. Comparison Group Comparability: Same as primary analysis.

d. Analysis Technique: The mean rate of gain in reading for project participants was computed on Spring-Spring comparisons for grades 1-3. Each grade was computed separately.

e. Instruments:

Grade 1:

Pretest: None

Posttest: California Achievement Test, Level 11

Grade 2:

Pretest: Stanford Achievement Test, Level P1

Posttest: California Achievement Test Level 12

Grade 3:

Pretest: Stanford Achievement Test, Level P2

Posttest: Iowa Tests of Basic Skills, Level 9

f. Problems: Due to a change in the test administered in the city-wide testing program, no comparable results were available. Therefore, this analysis was not completed.

Analysis #2

1. Commitment: "Comparisons with Title VII participants will be performed. Mean gains for project students are expected to be at least as great as those of comparable Title VII students."

2. Rational: Title VII comparisons for grades 1-5 are performed in order to ascertain that project participants are doing at least as well as comparable students in the Title VII project.

3. Evaluation Design:

a. Type: Same as the primary analysis.

b. Participants: Project participants from the Title VII project selected to match as closely as possible in English language ability and having a similar distribution by grade.

c. Comparison Group Comparability: Title VII Project participants attend a neighboring elementary school which has had Title VII bilingual program in place for the past 4 years. The school is larger than the project school, and has more bilingual students and staff. A breakdown of this group by grade and English language proficiency appears in Appendix E. Only students having both pre- and posttest scores were included in the analysis.

d. Analysis Technique: Same as for the primary analysis.

e. Instruments: Same as for the primary analysis.

f. Problems: No problems were encountered.

4. Evaluation Results: In one of the five grades, the mean gains of project students in reading were at least as great as those of comparable Title VII students.

5. Data: Table 2 gives the mean rate of gain in reading for project and Title VII students by grade.

TABLE 2

Mean Grade Equivalent Unit Gains in Reading for Project and Title VII Participants by Grade*

Grade	Project		Title VII	
	Number	Mean Gains	Number	Mean Gains
1	8	0.5	18	0.0
2	5	0.2	13	0.6
3	13	-0.1	10	0.4
4	9	0.5	10	0.9
5	6	0.6	19	1.4

*Fall-Spring for grades 1-3, Spring-Spring for grades 4 and 5.

Appendix F gives means and standard deviations by grade on pre- and posttests.

H. Omitted no additional supplementary analysis were performed.

I. Conclusions:

Project participants' gains in reading did not exceed those of the comparison group nor the Title VII comparison group except in one instance. This was in grade 1 where project participants showed a mean gain of 0.5 grade equivalent units while Title VII students in grade 1 showed a mean gain of 0.0 grade equivalent units. It should be noted that there may be some comparability problems due to the fact that comparison group A students are from a non-Title I school while the project school is a Title I school.

Data from 1977-78 for project and comparison group students yielded similar results when analyzed using 1978-79 procedures.

Product Objective 2

1. Individuals: Approximately 40 students referred to the project selected according to project guidelines.

2. Behavior: Comprehension

3. Object of Behavior: Mathematical operations, and concepts (in English.)

4. Time: September, 1978 to June, 1979.

5. Measurement:

Grade 1:	CAT Level	11
Grade 2:	CAT Level	12
Grade 3:	ITBS Level	9
Grade 4:	ITBS Level	10
Grade 5:	ITBS Level	11

6. Criterion for Success: For at least 4 of the 5 grades, the mean gains of project students will be greater than the mean gains of comparable students in the state funded bilingual program.

B. Common Goal of Michigan to Which Goal is Related

Goal Area III: STUDENT LEARNING

Goal 1 Basic Skills

(3) The ability to handle mathematical operations and concepts.

C. Evaluation Design and Procedures

1. Type: Pretest: April, 1978 (Grades 4-5) and November, 1978 (Grades 1-3)
Posttest: April, 1979

2. Participants in the Primary Analysis: Same as objective #1

3. Comparison Group Comparability: Same as objective #1

4. Time: It is estimated that project participants had one hour of mathematics instruction per day of attendance and about 20 hours of mathematics instruction in a typical month.

5. Analysis Technique: The mean rate of gain for prime project participants and for comparison group students was computed on Fall-Spring comparisons for grades 1 through 3 and Spring-Spring comparisons for grades 4 and 5. Each grade was computed separately.

6. Instruments: Same as objective #1

7. Problems: No problems were encountered.

D. Evaluation Results

1. Criterion: For at least 4 of the 5 grades, the mean gains of project students will be greater than the mean gains of comparable students in the state funded bilingual program.

2. Results Statements: In none of the five grades, the mean gains of project students were greater than the mean gains of comparable students in the state funded bilingual program. They were equal in grade 3.

E. This objective was not achieved.

F. Data: Table 3 gives the mean gain rates in mathematics for project and comparison group students by grade.

TABLE 3

Mean Grade Equivalent Unit Gains in Mathematics for Project and Comparison group Participants by Grade*

	Project		Comparison Group	
Grade	Number	Mean Gains	Number	Mean Gains
1	8	0.5	11	0.9
2	5	0.7	4	1.2
3	13	0.5	6	0.5
4	9	0.8	5	1.2
5	6	0.3	3	0.8

*Fall-Spring for grades 1-3, Spring-Spring for grades 4 and 5.

Appendix F gives means and standard deviations by grade on pre- and posttests.

G. Supplementary Analysis:

Analysis #1

1. Commitment: "Supplementary analysis on Spring-Spring results for grades 1-3... will be performed."

2. Rationale: The Spring-Spring analysis on grades 1-3 provides for consistency with the grades 4-5 comparisons which are also performed on Spring-Spring data.

3. Evaluation Design:

   a. Type: Pretest: April, 1978
      Posttest: April, 1979

   b. Participants: Same as primary analysis.

   c. Comparison Group Comparability: Same as primary analysis.

   d. Analysis Technique: The mean rate of gain in mathematics for project participants was computed on Spring-Spring comparisons for grades 1-3. Each grade was computed separately.

   e. Instruments:

      Grade 1:

      Pretest: None
      Posttest: California Achievement Test, Level 11.

      Grade 2:

      Pretest: Stanford Achievement Test, Level P1
      Posttest: California Achievement Test, Level 12.

      Grade 3:

      Pretest: Stanford Achievement Test, Level P2.
      Posttest: Iowa Tests of Basic Skills Level 9

F. Problems: Due to a change in the test administered in the city-wide testing program, no comparable results were available. Therefore, this analysis was not completed.

Analysis #2

1. Commitment: "Comparisons with Title VII participants will be performed. Mean gains for project students are expected to be at least as great as those of comparable Title VII bilingual students."

2. Rationale: Title VII Comparisons for grades 1-5 are performed in order to ascertain that project participants are doing at least as well as comparable students in the Title VII project.

3. Evaluation Design

   a. Type: Same as primary analysis.

   b. Participants: Project participants from the primary analysis are compared to students from the Title VII project selected to match as closely as possible in English language ability and having a similar distribution by grade.

   c. Comparison Group Comparability: Same as objective 1, Supplementary Analysis #2.

   d. Analysis Technique: Same as for the primary analysis.

   e. Instruments: Same as for the primary analysis

   f. Problems: No problems were encountered.

4. Evaluation Results: In none of the five grades, the mean gains of project students in mathematics were at least as great as those of comparable Title VII bilingual students.

5. Data: Table 4 gives the mean rate of gain in mathematics for project and Title VII students by grade.

TABLE 4

Mean Grade Equivalent Unit Gains in Mathematics for Project and Title VII Participants By Grade*

Grade	Project		Title VII	
	Number	Mean Gain	Number	Mean Gain
1	8	0.5	18	0.8
2	5	0.7	12	1.2
3	13	0.5	10	1.1
4	9	0.8	15	1.3
5	6	0.3	18	1.9

*Fall-Spring for grades 1-3, Spring-Spring for grades 4 and 5.

Appendix F gives means and standard deviations by grade for pre- and posttests.

H. Omitted. No additional Supplementary analyses were performed.

I. Conclusions:

Project participants gains in mathematics did not exceed mean gains of either comparison group. In grade 3, however, project students and comparison group A students had equal mean gains. It should be noted that there may be some comparability problems due to the fact that comparison group A students are from a non-Title I school while the project school is a Title I school.

Data from 1977-78 for project and comparison group students yielded similar results when analyzed using 1978-79 procedures.

A. Product Objective 3

1. Individuals: Approximately 40 students referred to the project and selected according to project guidelines.

2. Behavior: Attendance.

3. Object of Behavior: Maximize daily attendance.

4. Time: September, 1978 to June, 1979.

5. Measurement: School attendance records.

6. Criterion for Success: The proportion of project students in attendance will exceed the proportion of non-project students in attendance at the project school.

B. Common Goal of Michigan to Which Goal is Related

Goal Area I: CITIZENSHIP AND MORALITY

Goal 3: Rights and responsibilities of students.

C. Evaluation Design and Procedures

1. Type: Four one-week samples of attendance for project and non-project students were drawn. The weeks selected were:

November 13-17, 1978
January 15-19, 1979
March 19-23, 1979
May 21-25, 1979.

2. Participants: All students enrolled at the project school.

3. Comparison Group Comparability; students in the comparison group are also students at the project school and are considered to have similar characteristics with respect to attendance patterns.

4. Time: Project students spend approximately 2 hours a day in the learning centers. The remainder of the day is spent in the regular classroom.

5. Analysis Technique: The mean proportion of project participants and the mean proportion of non-project participants present at the project site were computed during each of the one-week periods noted above. Project means were compared with non-project means.

6. Instruments: School attendance records.

7. Problems: No problems were encountered.

D. Evaluation Results

1. Criterion: The proportion of project students in attendance will exceed the proportion of non-project students in attendance at the project school.

2. Results statement: For each of four weeks sampled, the mean proportion of project students in attendance exceeded the mean proportion of non-project students at the project school. In addition, the overall mean proportion of project students in attendance exceeded the mean proportion of non-project students in attendance.

E. This objective was achieved.

F. Data: Table 5 gives the mean number of project and non-project students enrolled and present for each selected week as well as the proportion present for each group. The grand mean is also given.

Table 5

Mean Numbers of Project and Non-Project Students enrolled and Mean Numbers and Proportions of Project and Non-Project Students present during four Selected Weeks

	Project			Non-Project		
	Number	Present		Number	Present	
Week	Enrolled	Number	Percent	Enrolled	Number	Percent
Nov. 13-17, 1978	53	49.8	94.0	102	93.3	91.5
Jan. 15-19, 1979	56	47.2	84.3	105	84.6	80.6
Mar. 19-23, 1979	58	53.6	92.4	109	98.4	90.3
May 21-25, 1979	66	54.7	82.9	123	101.2	82.3
Grand Mean	58.3	51.3	88.0	109.8	94.4	86.0

G. Supplementary Analyses:

No supplementary analyses were performed for this objective.

H. Omitted. No additional supplementary analyses were performed.

I. Conclusions:

These data appear to support the hypothesis that project students have attendance rates superior to non-project students enrolled at the same school. It should also be noted that students selected for the project are frequently those with below average attendance. Even so, project students had a higher rate of attendance.

A. Product Objective 4:

1. Individuals: Approximately 40 students referred to the project selected according to project guidelines.

2. Behavior: Responding

3. Object of Behavior: Self-concept positive response (self-fulfullment).

4. Time: September, 1978 to June, 1979.

5. Measurement: Primary Self-Concept Inventory and individual interview in conjunction with teaching staff appraisal.

6. Criterion for Success: The proportion of participants having a low self-concept score on the posttest will be less than the proportion of students in the comparison group having low self-concept on the posttest and the number of project students having low self-concept score will decrease.

B. Common Goal of Michigan to Which Goal is Related:

GOAL AREA III STUDENT LEARNING GOAL 7 SELF-WORTH

C. Evaluation Design and Procedures:

1. Type: Pretest : December, 1978
Posttest: May, 1979

2. Participants in the Primary Analysis: All students enrolled in the bilingual learning centers and comparison group students as described in product objective 1.

3. Comparison Group Comparability: The comparison group consists of primarily Spanish speaking students from the bilingual program funded under Section 41 of the Bilingual Education Act at a neighboring elementary school. These students receive bilingual services in a pull out program from one of two bilingual teachers. A breakdown of students by grade and language proficiency score appears in Appendix E. (Comparison Group B).

4. Time: Project students spend spproximately 2 hours a day in the learning centers. The remainder of the day is spent in the regular classroom.

5. Analysis Technique: The number and proportion pupils judged to have low self-concept on the posttest will be compared to the number and proportion judged to have low self-concept on the pretest for project participants as well as for the comparison group.

6. Instrument: Primary Self-Concept Inventory. Detailed information about this instrument may be found in Appendix A.

7. Problems: No problems were encountered.

D. Evaluation Results:

1. Criterion: The proportion of project participants having a low self-concept score on the posttest will be less than the proportion of students in the comparison group having a low self-concept score on the posttest and the number of project students having a low self-concept score will decrease.

2. Results Statement: The proportion of project participants having a low self-concept score on the posttest was less than the proportion of comparison group students having a low self-concept score on the posttest. The number of project students having a low self-concept decreased.

E. This objective was achieved.

F. Data: Table 6 indicates the number and percent of project and comparison group students having low self-concept scores on the posttest by grade.*

Table 7 indicates the number of project students having a low self-concept score on the pre- and posttest by grade.

TABLE 6

Number and Percent of Project and Comparison Group Students having Low Self-Concept Scores on the Posttest By Grade

	Project*		Comparison Group B**	
Grade	Number	Percent	Number	Percent
1	1	14.3	1	14.3
2	0	0.0	5	35.7
3	4	26.7	0	0.0
4	3	27.3	2	50.0
5	4	44.4	2	33.3
Total	12	23.5	10	30.3

*N=51 **N=33

TABLE 7

Number of Project Students* Having Low Self-Concept scores on the Pre- and Posttest By Grade

Grade	Pretest	Posttest
1	5	1
2	4	0
3	6	4
4	3	3
5	5	4
Total	23	12

*N=51

G. Supplementary Analyses:

Analysis #1

1. Commitment: "Supplementary Analyses will be performed comparing project participants to Title VII students in the same manner."

2. Rationale: Project participants self-concept scores should improve at a rate which is at least as great as that for Title VII project participants.

3. Evaluation Design:

   a. Type: Pretest : December, 1978
      Posttest: May, 1979

   b. Participants: Project students used in the primary analysis and students from the Title VII bilingual project.

   c. Comparison Group Comparability: same as objective 1, Part G, Analysis #2

   d. Analysis Technique: same as primary analysis.

   e. Instruments: same as primary analysis.

   f. Problems: Webster school did not complete the posttest as planned. Therefore, this analysis cannot be completed.

Analysis #2

1. Commitment: "Posttest scores for project participants scoring above the cut-off score on the pretest will be analyzed to determine what proportion of these fell below the cut-off score on the posttest."

2. Rationale: To substantiate the contention that students in the project retain a satisfactorily high self-concept score through out the project.

3. Evaluation Design:

   a. Type: Pretest : December, 1978
      Posttest: May, 1979

   b. Participants: Project students used in the primary analysis

   c. Comparison Group Comparability: No comparison group was used.

   d. Analysis Technique: The proportion of students having a pretest score above the cut-off score and a posttest score below the cut-off score will be computed for project and comparison group participants.

   e. Instruments: same as primary analysis

   f. Problems: No problems were encountered.

4. Evaluation Results: The proportion of project students having a pretest score above the cut-off score and a posttest score below the cut-off score was 10.8%.

5. Data: Table 8 gives the number and percent of project students having a pretest score above the cut-off score and a posttest score above and below the cut-off score.

TABLE 8

Number and Percent of Project Students Having
A Pretest Score above the cut-off Score
by level of Posttest Score and Grade

	Project Students				
		Posttest at or above Cut-off Score		Posttest below Cut-off Score	
Grade	N*	N	%	N	%
1	2	2	100.0	0	0.0
2	5	5	100.0	0	0.0
3	9	8	88.9	1	11.1
4	8	7	87.5	1	12.5
5	4	3	75.0	1	25.0
Total	28	25	89.2	3	10.8

*Number of students having a pretest score at or above the cut-off score.

H. Supplementary Analyses (Unsolicited)

Analysis #1

1. Rationale: Based on the results obtained above it appears that there is only a 10% regression of scores which show a positive self-concept on the pretest to scores which show a low self-concept score on the posttest. This coupled with the fact that the Title VII comparison school (Webster) tested only students having a low score on the pretest indicates that an analysis comparing posttest scores of project participants who scored low on the pretest with those of Title VII students selected in the same manner would be in order.

2. Evaluation Design:

   a. Type: Pretest : December, 1978
      Posttest: May, 1979

   b. Participants: Project students and Title VII students who scored below the cut-off score on the pretest and who were posttested.

   c. Comparison Group Comparability: same as objective 1, Part G, Analysis #2.

d. Analysis Technique: The number and percent of project and comparison group students having a low self-concept score on the posttest will be compared.

e. Instruments: same as primary analysis.

f. Problems: not all students having low scores on the pretest at Webster were posttested.

3. Evaluation Results: The proportion of project students having a low self-concept score on the pretest and a high self-concept score on the posttest was significantly greater than the proportion of Title VII students having a low self-concept score on the pretest and a high self-concept score on the posttest.

4. Data: Table 9 indicates the number of project and Title VII students having a pretest score below the cut-off score on the pretest by grade. In addition, for each grade level, the number and percent of these students scoring at or above and below the cut-off score are presented.

TABLE 9

Number and Percent of Project and Title VII Students Scoring Below the Cut-off Score on the Pretest By Level of Posttest Score and Grade.

	Project Students					Title VII Students				
		Posttest at or above Cut-off Score		Posttest below Cut-off Score			Posttest at or above Cut-off Score		Posttest below Cut-off Score	
Grade	N*	N	%	N	%	N*	N	%	N	%
1	5	4	80.0	1	20.0	4	4	100.0	0	0.0
2	4	4	100.0	0	0.0	1	0	0.0	1	100.0
3	6	4	66.7	2	33.3	5	2	40.0	3	60.0
4	3	0	0.0	3	100.0	3	1	33.3	2	66.7
5	5	2	40.0	3	60.0	6	0	0.0	6	100.0
Total	23	14	60.9	9	39.1	19	7	36.8	12	63.2

*Number of students having a pretest score below the cut-off score.

Analysis #2

1. Rationale: As a result of achievement data collection problems at the comparison school, it was necessary to use an alternate comparison school for those objectives involving standardized test scores than for this objective. The school chosen as an alternate did not posttest all students on the self-concept instrument, however. They posttested only students scoring below the cut-off score on the pretest. (This is the same situation as occured at the Title VII school which gave rise to Analysis #1 above.) In order to give an overall picture at the alternative school, an analysis parallel to analysis #1 above is presented here comparing the project school with the alternative comparison school on self-concept.

2. Evaluation Design:

   a. Type: Pretest: December, 1978
      Posttest: May, 1979

   b. Participants: Project students and alternate comparison group students who scored below the cut-off score on the pretest and who were posttested.

   c. Comparison Group Comparability: same as objective 1, Part C, Primary Analysis.

   d. Analysis Technique: same as Analysis #1 above.

   e. Instruments: same as primary analysis.

   f. Problems: no problems were encountered.

3. Evaluation Results: The proportion of project students having a low self-concept score on the pretest and a high self-concept score on the posttest was slightly lower than the proportion of alternate comparison group students having a low self-concept score on the pretest and a high self-concept score on the posttest.

4. Data: Table 10 indicates the number of project and alternate comparison group students having a pretest score below the cut-off score on the pretest by grade. In addition, for each grade level, the number and percent of these students scoring at or above and below the cut-off score on the posttest are presented.

TABLE 10

Number and Percent of Project and Alternate Comparison Group Students Scoring below the Cut-off Score on the Pretest By Level of Posttest Score and Grade.

Grade	Project Students					Comparison Group A				
	N*	Posttest at or above Cut-off Score		Posttest below Cut-off Score		N*	Posttest at or above Cut-off Score		Posttest below Cut-off Score	
		N	%	N	%		N	%	N	%
1	5	4	80.0	1	20.0	4	2	50.0	2	50.0
2	4	4	100.0	0	0.0	1	1	100.0	0	0.0
3	6	4	66.7	2	33.3	1	1	100.0	0	0.0
4	3	0	0.0	3	100.0	4	2	50.0	2	50.0
5	5	2	40.0	3	60.0	1	1	100.0	0	0.0
Total	23	14	60.9	9	39.1	11	7	63.6	4	36.4

*Number of students having a pretest score below the cut-off score.

I. Conclusions: The results of these analyses indicate that project students tend to perform better than non-project students on the self-concept instrument. Regression of students with high pretest scores to low posttest scores appears to occur about 10% of the time. When comparing project students to Title VII and non-project students, using only posttest scores of students having low pretest scores, project students appear to do as well as or better than others. Therefore, it can be concluded that the project's smaller class size, individualized counseling and positive teacher-student relationship are contributing factors to the attainment of this objective.

A. Product Objective 5:

1. Individuals: Approximately 40 students referred to the project selected according to project guidelines

2. Behavior: Comprehension

3. Object of Behavior: Reading (in Spanish).

4. Time: September 1978 to June 1979.

5. Measurement: Grade 1: CTBS/Español Level B
   Grade 2: CTBS/Español Level C
   Grade 3 & 4: CTBS/Español Level 1
   Grade 5: CTBS/Español Level 2

6. Criterion for Success: For at least 4 of 5 grades, the mean gains of project students will be greater than the mean gains of comparable students in the state funded bilingual program.

B. Common Goal of Michigan to Which Project Goal is Related:

Goal Area III: STUDENT LEARNING

Goal 1: Basic Skills

(1) The ability to comprehend ideas through reading and listening.

C. Evaluation Design and Procedures:

1. Type: Pretest: December, 1978
   Posttest: May, 1979

2. Participants in the Primary Analysis: same as objective 1.

3. Comparison Group Comparability: same as objective 1.

4. Time: It is estimated that project participants had one hour of reading instruction per day of attendance and about 20 hours of reading instruction per month.

5. Analysis Technique: The mean raw score gains for prime project participants and for comparison group participants was computed based on fall-spring comparisons.

6. Instruments: CTBS/Español (Comprehensive Tests of Basic Skills/ Spanish), levels B, C, 1 and 2. Detailed information about this instrument may be found in Appendix A.

7. Problems: The comparison group used for this objective is not the one originally chosen. See objective 1 for explanation.

D. Evaluation Results:

1. Criterion: For at least 4 of the 5 grades, the mean gains of project students will be greater than the mean gains of comparable students in the state funded bilingual program.

2. Results Statement: In three of the five grades, the mean gains of project students were greater than the mean gains of comparable students in the state funded bilingual project.

E. This objective was not achieved.

F. Data: Table 11 gives the mean raw score gains in Spanish reading for project and comparison group students by grade.

TABLE 11

Mean Raw Score Gains in Spanish Reading for Project and Comparison Group A Participants by grade Fall-Spring Comparisons

	Project		Comparison Group A	
Grade	Number	Mean Gain	Number	Mean Gain
1	3	3.3	4	0.8
2	6	2.2	4	1.3
3	10	-0.3	2	3.0
4	8	0.5	5	0.2
5	4	-0.3	5	2.0

Appendix F gives means and standard deviations by grade on pre- and posttests.

G. Supplementary Analysis:

1. Commitment: "Supplementary analysis comparing project participants with Title VII students will be made, but predictions as to outcomes here are that Title VII students may gain more than project students."

2. Rationale: Title VII comparisons for grades 1-5 are performed in order to determine the standing of project students with comparable students involved in a similar program.

3. Evaluation Design:

   a. Type: Same as the primary analysis.

   b. Participants: Project participants from the primary analysis are compared to students from the Title VII project selected to match as closely as possible in English language ability and having a similar distribution by grade.

   c. Comparison Group Comparability: Same as objective 1, supplementary analysis.

   d. Analysis Technique: Same as for the primary analysis.

   e. Instruments: Same as for the primary analysis.

   f. Problems: No problems were encountered.

4. Evaluation Results: In every grade except fourth, the Title VII comparison group students made larger mean gains in Spanish reading than the project students.

5. Data: Table 12 gives the mean raw score gains in Spanish reading for project and Title VII students by grade.

TABLE 12

Mean Raw Score Gains in Spanish Reading
for Project and Title VII Participants
By Grade Fall-Spring Comparisons

	Project		Title VII	
Grade	Number	Mean Gain	Number	Mean Gain
1	3	3.3	12	13.5
2	6	2.2	12	2.7
3	10	-0.3	12	1.2
4	8	0.5	14	-2.1
5	4	-0.3	16	3.4

Appendix F gives means and standard deviations by grade for pre- and posttests.

H. Omitted. No additional supplementary analyses were performed.

I. Conclusions:

Although this objective was not achieved, the results in grades 1 and 2 are especially encouraging. The instrument used for this objective has not been used by the district before and results were difficult to predict. The Title VII comparison had the anticipated result. It was predicted that Title VII students may gain more than project students and this was the result. It should be noted that the staff of the Title VII project has been emphasizing Spanish reading longer than the Title IV-C project staff.

A. Product Objective 6:

1. Individuals: Approximately 40 students referred to the project selected according to project guidelines.

2. Behavior: Comprehension

3. Object of Behavior: Mathematical operations and concepts (in Spanish)

4. Time: September, 1978 to June, 1979

5. Measurement:
   Grade 1 : CTBS/Español Level B
   Grade 2 : CTBS/Español Level C
   Grade 3 & 4: CTBS/Español Level 1
   Grade 5 : CTBS/Español Level 2

6. Criterion for Success: For at least 4 of 5 grades, the mean gains of project students will be greater than the mean gains of comparable students in the state funded bilingual program.

B. Common Goal of Michigan to Which Project Goal is Related:

Goal Area III: STUDENT LEARNING

Goal 1: Basic Skills
(3) The ability to handle mathematical operations and concepts.

C. Evaluation Design and Procedures:

1. Type: Pretest December, 1978
   Posttest: May, 1979

2. Participants in Primary Analysis: Same as Objective 1.

3. Comparison Group Comparability: Same as Objective 1.

4. Time: It is estimated that the project participants had one hour of mathematics instruction per day of attendance and about 20 hours of mathematics instruction per month.

5. Analysis Technique: The mean raw score gains for prime project participants and for comparison group participants was computed based on fall-spring comparisons.

6. Instruments: CTBS/Espanol (Comprehensive Tests of Basic Skills/ Spanish), levels B, C, 1 and 2. Detailed information about this instrument may be found in Appendix A.

7. Problems: The comparison group for this objective is not the one originally chosen. See objective 1 for explanation.

D. Evaluation Results:

1. Criterion: For at least 4 of the 5 grades, the mean gains for project students will be greater than the mean gains of comparable students in the state funded bilingual program.

2. Results Statement: In one of the five grades, the mean gains of project participants were greater than the mean gains of comparable students in the state funded bilingual project.

E. This objective was not achieved.

F. Data: Table 13 gives the mean gain rates in mathematics (in Spanish) for project and comparison group students by grade.

TABLE 13

Mean Raw Score Gains in Mathematics (in Spanish) for Project and Comparison Group participants by grade Fall-Spring Comparisons

Grade	Project		Comparison Group	
	Number	Mean Gains	Number	Mean Gains
1	3	-2.7	6	6.8
2	5	4.6	5	4.8
3	10	2.9	2	11.0
4	8	1.3	4	-1.5
5	4	-4.8	4	15.5

Appendix F gives means and standard deviation by grade on pre- and posttests.

G. Supplementary Analysis

1. Commitment: "Supplementary analysis comparing project students with Title VII students will be performed. Mean gains for project students are expected to be at least as great as those for comparable Title VII bilingual students."

2. Rationale: Title VII comparisons for grades 1-5 are performed in order to ascertain that project participants are doing at least as well as comparable students in the Title VII project.

3. Evaluation Design:

   a. Type: Same as the primary analysis

   b. Participants: Projects Participants from the primary analysis are compared to students from the Title VII project selected to match as closely as possible in English language ability and having a similar distribution by grade.

   c. Comparison group Comparability: Same as objective 1 supplementary analysis.

   d. Analysis Technique: Same as the primary analysis.

   e. Instruments: Same as the primary analysis.

   f. Problems: No problems were encountered.

4. Evaluation Results: In One of the five grades, the mean gains of project students in mathematics (in Spanish) were at least as great as those of comparable Title VII students.

5. Data: Table 14 gives the mean raw score gain in mathematics (in Spanish) for project and Title VII students by grade.

TABLE 14

Mean Raw Score Gains in Mathematics (in Spanish) for Project and Title VII Participants By Grade, Fall-Spring Comparisons.

Grade	Project		Title VII	
	Number	Mean Gains	Number	Mean Gains
1	3	-2.7	12	21.3
2	5	4.6	12	12.3
3	10	2.9	8	10.1
4	8	1.3	13	-35.1
5	4	-4.8	15	3.2

Appendix F gives means and standard deviations by grade for pre- and posttests.

H. Omitted, No additional supplementary analyses were performed.

I. Conclusions

The results of this objective indicate that project students are not gaining in mathematics skills at as great a rate as comparison group students. It should be noted, however, that project students had higher mean scores on the pretest than the comparison group in mathematics using this instrument in all but the second grade, (See appendix F, Table F 7.) In addition, the mathematics learning center had two teachers during the year while the other groups had continuous instruction from the same teacher, all of these factors could have contributed to the results observed here.

A. Process Objective 1.1

1. Individuals: Approximately 40 students referred to the project selected according to project guidelines.

2. Behavior: Comprehension

3. Object of Behavior: Reading

4. Time: September, 1978-June, 1979.

5. Measurement: "Check-In" and "Check-Out" Tests.

6. Criterion for Success: 70% of the target students will achieve three new instructional objectives for every 20 hours of instruction in the Center.

B. Process Ojbective

C. Evaluation Design

1. Type: Each Objective is recorded by the teacher as it is mastered. The number of objectives mastered by each participant is recorded in June.

2. Participants in the Primary Analysis: All students enrolled in the bilingual learning centers and attending for a minimum of 25 hours of instruction.

3. Comparison Group Comparability: No Comparison group was used.

4. Time: It is estimated that project participants had one hour of reading instruction per day of attendance and about 20 hours of reading instruction in a typical month.

5. Analysis Technique: The numbers and percents of target students who mastered three or more new instructional objectives for every 20 hours of instruction were tabulated.

6. Instruments: Each pupil keeps a copy of a Student Record Book which duplicates the numbers and prescriptions listed in the Catalog of Instructional Objectives and Prescriptions. The teacher circles objectives mastered by the student. Page one of the book is in Appendix D. Forms used for data collection from teachers may be found in Appendix B.

7. Problems: No problems were encountered.

D. Evaluation Results:

1. Criterion: 70% of the target students will achieve three new instructional objectives for every 20 hours of instruction in the Center.

2. Results Statement: 85.1% of the target students achieved three new instructional objectives for every 20 hours of instruction in the Center.

E. This objective was achieved.

F. Data: Table 15 gives the numbers and percents of target students achieving three new Reading objectives for every 20 hours of instruction in the Center.

TABLE 15

Number and Percent of Target group students achieving Three New Reading Objectives for Every Twenty Hours in the Center. By Grade.

Grade	Target Group Students			
	Number enrolled*	Achieving Objective		
		Number	Percent	
1	7	2	28.6	
2	12	10	83.3	
3	18	15	83.3	
4	17	17	100.0	
5	13	13	100.0	
Total	67	57	85.1	

*having a minimum of 25 hours of instruction.

G and H Omitted, No Supplementary analyses were performed.

I. Conclusions:

This represents the third consecutive year of high student achievement in the individualized reading program for limited English proficiency students at Preston. This continued success bodes well for the project.

A. Process Objective 2.1

1. Individuals: Approximately 40 students referred to the project selected according to project guidelines.

2. Behavior: Comprehension

3. Object of Behavior: Mathematical Operations and Concepts

4. Time: September, 1978 to June, 1979.

5. Measurement: "Check-In" and "Check-Out" tests

6. Criterion for Success: 80% of the target students will achieve four new instructional objectives for every 20 hours of instruction in the center.

B. Process Objective

C. Evaluation Design

1. Type: Each objective is recorded by the teacher as it is mastered. The number of objectives mastered by each participant is recorded in June.

2. Participants in the Primary analysis: Same as objective 1.1

3. Comparison Group Comparability: No Comparison group was used.

4. Time: It is estimated that project participants had one hour of mathematics instruction per day of attendance and about 20 hours of mathematics instruction in a typical month.

5. Analysis Technique: The numbers and percents of target group students who mastered four or more new instructional objectives for every 20 hours of instruction were tabulated.

6. Instruments: Same as objective 1.1

7. Problems: No major problems were encountered. However, students who left the project during the first semester were not included in this analysis as their records were not available. A new teacher was employed in the math center the second semester and she was not able to account for these students. Based on records from the reading center, most of these thirteen students would have been eliminated from the analysis due to fewer than 25 hours exposure.

D. Evaluation Results:

1. Criterion: 80% of the target students will achieve four new instructional objectives for every 20 hours of instruction in the Center.

2. Results statement: 87.1% of the target students achieved four new instructional objectives for every 20 hours of instruction in the Center.

E. This objective was achieved.

F. Data: Table 16 gives the numbers and percents of target students achieving four new mathematics objectives for every 20 hours of instruction in the Center.

TABLE 16

Number and percent of Target Group Students Achieving Four New Mathematics Objectives for Every Twenty Hours in the Center By Grade

Grade	Target Group Students		
	Number Enrolled*	Achieving Objective	
		Number	Percent
1	8	5	62.5
2	10	10	100.0
3	18	16	88.9
4	16	14	87.5
5	10	9	90.0
Total	62	54	87.1

*having a minimum of 25 hours of instruction.

G and H Omitted, No Supplementary analyses were performed.

I. Conclusions:

This represents the third consecutive year of high student achievement in the individualized mathematics program for limited English proficiency students at Preston. This continued success bodes well for the project.

IV. PROJECT EVALUATION SUMMARY

A. Major Limitations:

The major limitation of this evaluation is the comparison group. The school originally selected (Comparison Group B) did not complete the testing necessary to allow its use for analysis in the major objectives. Therefore, it was necessary to select an alternative school (Comparison Group A) which had completed the necessary testing. Due to circumstances beyond the control of the project, this school was not a Title I school. It is possible therefore, that students at the comparison school might achieve greater gains as a result of factors related to socio-economic factors rather than treatment.

In addition, this evaluation is limited in size. Only approximately 150 students were involved. The scope of the evaluation was limited to those major areas of the project outcomes involving students and where appropriate measurement instruments were available.

B. Conclusion:

Historically, Detroit Public Schools teachers have always adjusted their methods and materials to try to accommodate children who enter school unable to understand the English language because they were raised in a family that spoke a foreign language. However, in most instances, both parties of the teacher-pupil relationship were automatically disadvantaged because of the language barrier. Thus, normal student achievement rates were rarely achieved by the limited English-speaking student.

Detroit's Title IV-C Bilingual project is designed to fill the need for an educational program which provides bilingual teachers and paraprofessionals to effectively assist limited English-speaking students to progress at or close to normal annual academic progress rates. Ever since the project began at Preston School in 1972, the instructional staff members have provided instruction in both Spanish and in English. While the staff tailors the amount of Spanish instruction to the individual student's need, the goal is to move towards greater and more frequent use of English. Thus, when a project student leaves the Preston School for middle school, he or she is prepared to continue learning with English as the medium of instruction.

In addition to the basic cognitive subjects, the bilingual project also addressed itself to the affective domain. They believe that progress in academic areas must be linked to progress in self-concept. Each staff member attempts to weave into the academic scene, at appropriate moments, educational experiences and situations which will enhance self-images.

Many such classroom experiences involve appropriate culture and heritage which provide good examples of citizenship and proper relations with other students and adults in the community.

C. Recommendations:

The systems-managed, individualized instructional approach to bilingual education as implemented in the Title IV-C Program of the Detroit Public Schools can serve as a replicable model for any school district in Michigan that must meet its legal obligation to provide bilingual instruction to the limited English-speaking students within its jurisdiction.

It is recommended that the systems-managed, individualized instructional model utilizing the "Bilingual Learning Center" concept be adopted because of the many benefits that such a model would afford both to the students and to the school district.

The model is recommended for limited English-speaking students because it would enable them to function in a non-competitive, academic setting that can accommodate a diversity of cognitive styles, levels of language proficiency, and learning abilities. Because the learning program is tailored individually to the functional level of the child, all students would begin to experience immediate, academic success at their appropriate levels and at their own self-prescribed rates. In turn, as the students began to experience academic success, their self-concepts would be enhanced and fortified by a self-perceived sense of "competency" which, in turn might be the motivating factor for even greater academic growth.

The systems-managed, individualized instructional model is recommended for replication by school districts with one or more non-English language groups to be served for four reasons. First, the model can be implemented for a relatively modest, one-time expenditure as the majority of the materials in the system are non-consumable; in fact, available in the district, thereby reducing the initial investment. Secondly, the system employed in the model is sufficiently flexible to allow for the expansion of the material resources as both new English language materials and non-English language materials become available. Thirdly, if a district was confined to the sole use of English language materials due to the in-availability of materials in the native language of the student, the system would still be operable as long as a bilingually capable teacher or paraprofessional was available to act as the critical link between the students and the materials.

The cost of staffing is always a critical concern to school districts and a final reason for recommending the model is the fact that it does not require excessive staffing. A bilingually capable teacher assisted by a paraprofessional could accommodate up to thrity pupils per academic period, though a figure of fifteen to twenty would be more desirable.

The economy in terms of staffing requirements is effected through the active involvement of the students in the management process. Most record keeping responsibilities including the self-checking of learning tasks and the recording of progress rests with the students. As a consequence, the teacher is freed of a significant number of clerical tasks and can relate frequently to individual students and still manage the over-all operation of the system.

Some Specific Recommendations are as follows:

1. It is recommended that selection of personnel for a program based on this model be chosen from candidates with the same language background and if possible, the same ethnic and cultural background as that of the majority of the limited English-speaking students in that district. If multiple languages are represented, it is desirable that the teacher be proficient in the language of the largest group and that paraprofessionals be selected on the basis of their proficiency in the other languages represented.

2. It is recommended that selected staff personnel receive sufficient time for preservice training in the systems approach of individualized and small group learning processes.

3. Experience has shown that the three years' participation in the program is desirable, however, the model is flexible enough to provide services for students who must go beyond the three year maximum amount of time stipulated in Public Act 294.

4. It is strongly recommended that parental involvement in the bilingual learning process be encouraged and organized in some way such as a parent advisory group with regularly scheduled meetings.

5. A continuing search for bilingual materials and instruments which would be better suited to the classroom and evaluation processes of the project should be an ongoing project activity.

6. Pre- and posttest data on students should be kept as an ongoing record of progress.

7. Experience with the Detroit Bilingual model shows that more than one language group can be included in the same learning center as evidenced in the Bennett Elementary School.

8. Some effort at follow-up for students who leave the program as a result of family migration is needed. These students frequently reappear and should have the benefit of some program contact during their absence.

In summary, it is the considered opinion of this evaluator that any school district anticipating the implementation of bilingual programs would be well advised to consider the systems-managed, individualized instructional model developed by the Detroit Public Schools Title IV-C Program on the basis of its proven ability to deliver sound educational services at a reasonable cost.

PART 5

APPENDIX A

INSTRUMENT DESCRIPTION

California Achievement Tests
Form C
(1977)

A. Objectives:

Product Objectives 1 and 2 for grades 1 and 2.

B. Description:

1. Instrument Measurement:

The project uses the subtests in two areas: reading and mathematics. The reading comprehension subtest measures literal, interpretive and critical comprehension. The mathematics subtests sample computational skills and mathematics concepts. The CAT/C is a widely used achievement test which has been newly adopted by the Detroit public schools.

2. Types of scores used:

Computation is performed on raw scores where possible (when the same form of the test is used pre-post or within a subgroup) and the results are converted to grade equivalent scores using appropriate norms.

3. Instrument Development:

Does not apply.

C. Selection and Development of Objectives:

Does not apply.

D. Validity:

The test selection committee of the Detroit public schools carefully reviewed this test. Representatives of the various curriculum areas as well as the testing department were involved. This test was recommended over all the others under consideration. Based on this recommendation; the test can be considered to have content validity.

Extensive studies were carried out by the test publisher producing, among other measures, intercorrelations for the CATC with the CAT-70. These coefficients appear in Table A1.

Table A1

CAT/A and CAT/C Correlation Coefficients

Subtest	Correlation Coefficient	
	Grade 1	Grade 2
Reading Comprehension	.61	.75
Mathematics Computation	.63	.66
Mathematics Concepts and Applications	.78	.80
Total Mathematics	.80	.82

E. Reliability:

Measures of internal consistency (KR20) for the subtests of the CAT/C used by the project are given in Tables A2 and A3. Values are given for administrations of the test at pretest time (Fall) and posttest time (Spring).

Table A2

Measures of Internal Consistency
for CAT/C Subtests
Grade 1

Subtest	Number of items	KR 20	
		Grade 1.2	Grade 1.8
Reading Comprehension	20	.68	.84
Mathematics Computation	20	.80	.87
Mathematics Concepts and Applications	36	.83	.87
Total Mathematics	56	.88	.92

Table A3

Measures of Internal Consistency
for CAT/C Subtests
Grade 2

Subtest	Number of items	KR 20	
		Grade 2.2	Grade 2.8
Reading Comprehension	20	.89	.91
Mathematics Computation	26	.86	.90
Mathematics Concepts and Applications	40	.87	.90
Total Mathematics	66	.92	.94

Test-retest correlations resulting from administrations of Levels 11 and 12 twice to the same students in grades 1 and 2 during the fall of 1977. The results are given in Tables A4 and A5.

Table A4

Test-Retest Reliability
Coefficients for CAT/C, Level 11
Grade 1

Subtest	Number of subjects	r
Reading Comprehension	287	.50
Mathematics Computation	288	.63
Mathematics Concepts and Applications	293	.80
Total Mathematics	279	.84

Table A5

Test-Retest Reliability Coefficients
for CAT/C, Level 12
Grade 2

Subtest	Number of subjects	r
Reading Comprehension	284	.73
Mathematics Computation	286	.69
Mathematics Concepts and Applications	291	.80
Total Mathematics	285	.85

F. This is a commonly available published test. No copy is included in Appendix B.

Iowa Tests of Basic Skills
Levels 9-11 Form 5
(1971 Edition)

A. Objectives:

Product objectives 1 and 2 for grades 3, 4 and 5.

B. Description:

1. Instrument Measurement:

The Iowa Tests of Basic Skills are eleven separate tests, covering a wide range of skills development. They are organized into six levels. All levels are contained in a single 96 page booklet. Each pupil takes the level which is most appropriate in content and difficulty to his level of educational development. Separate answer sheets, specific to each level but similar in design, are used for recording responses. The time limits and directions for the tests are the same for all levels. Hence, any combination of levels may be administered in any number of grades simultaneously.

The skills tested in the reading instrument are classified under four headings: details, purpose, organization, and evaluation. Because of the close correlation between test performance on items of these four types, it is not considered worthwhile to derive a separate score for each type. However, for the purpose of instruction, it is useful to consider each of these skills separately. The four skills are:

(1) Details: To recognize and understand stated or implied factual details and relationships.

(2) Purpose: To develop skill in discerning the purpose or main idea of a paragraph or selection.

(3) Organization: To develop ability to organize ideas.

(4) Evaluation: To develop skill in evaluating what is read.

There are two subtests in the mathematics test: mathematics concepts and mathematics problem solving. The main headings for the items tested are:

(1) Currency
(2) Decimals
(3) Equations, inequalities and number sentences
(4) Fractions
(5) Geometry
(6) Measurement
(7) Numeration and number systems
(8) Percents
(9) Ratio and proportion
(10) Sets
(11) Whole numbers.

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2. Type of scores used:

Computation is performed on raw scores where possible (when the same form of the test is used pre-post or within a subgroup) and results are converted to grade equivalent scores using appropriate norms.

3. Instrument Development:

Does not apply.

C. Selection and Development of Objectives:

Does not apply.

D. Validity:

A committee of curriculum representatives of the district reviewed the Iowa Tests of Basic Skills and determined that its items could be matched to the curriculum content of the Detroit Public Schools Therefore the instrument can be considered to have content validity. The test manual indicates that the criteria for item selection included:

1. Placement and emphasis in current instructional materials.
2. Recommendations of "authority."
3. Frequency of need or occurence.
4. Studies of frequency of error.
5. Importance or cruciality.
6. Technical characteristics.
7. Feedback from users.

In the area of predictive validity, correlations with high school grade point average for students tested in Grade 4 are .53. Higher correlations were obtained for students in higher grades.

E. Reliability:

The split-halves reliability coefficients (Pearson Product Moment Correlation Coefficient using the Spearman Brown formula for estimating the reliability for the entire test) are given in Table A6.

Table A6

Split-Halves Reliability By Level and subtest for the Iowa Tests of Basic Skills

Level	Subtest			
	Reading	Mathematics		
		Concepts	Problems	Total
9	.91	.84	.82	.91
10	.92	.84	.81	.90
11	.93	.82	.80	.89

The equivalent forms reliability data presented in the manual are based on Forms 3 and 4. It is the publisher's contention that Forms 5 and 6 are sufficiently similar to warrant use of these data. Table A7 presents the equivalent forms reliability by level and subtest.

Table A7

Equivalent Forms Reliability By Level and Subtest for The Iowa Tests of Basic Skills

Level	Subtest			
	Reading	Mathematics		
		Concepts	Problems	Total
9	.84	.79	.72	.85
10	.85	.80	.74	.87
11	.86	.83	.73	.87

F. This is a commonly available published test. No copy is included in Appendix B.

Primary Self-Concepts
Inventory
(1974)

A. Objectives:

Product Objective 4.
All grades.

B. Description:

1. Instrument measurement:
The instrument was designed to measure:

Personal - Self Domain

(1) Physical size: Assesses child's perception of his/her relative physical size.

(2) Emotional state: Assesses child's perception of his/her emotional state, i.e., happy or sad, angry or not angry.

Social - Self Domain

(3) Peer acceptance: Assesses the child's perception of his/her acceptance by his/her peer group.

(4) Helpfulness: Assesses the child's perception of himself/herself in the helper - helpee relationship.

Intellectual - Self Domain

(5) Success: Assesses the child's perception of his/her tendency to succeed or fail in task-oriented pursuits.

(6) Student-Self: Assesses the child's perception of his/her ability to conform to classroom behavior expectations.

2. Types of scores used:

Raw scores are used. Items 3-20 are scored. A score of 0-13 indicates a low self-concept. A score of 14-18 indicates the absence of a low self-concept.

3. Instrument Development:

Does not apply.

C. Selection and Development of Objectives

Does not apply.

D. Validity:

The Primary Self-Concept Inventory Test Manual (Douglas G. Muller and Robert Leonetti, 1975) discusses the validity of this instrument as follows:

> "Test validity appears to be high. Repeated analyses yeild highly consistent results, indicating that the test is measuring the six factors outlined (above). As a further check on validity, expert opinion was solicited, regarding the content validity of the test. In the view of five specialists who have done post-graduate study in measurement and evaluation, the test is a valid and useful instrument for assessing self-concept. The strongest criticism came from one specialist who questioned the value of measuring phsical size and helpfulness factors. He felt that these factors were too situationally relative. That is, in certain situations, a child may perceive himself as large, in others, as small.
>
> The judges felt that the PSCI is an easily administered and scored instrument that will be a valuable tool for assessment of self-concept. They indicated that they believe the test has the potential to provide information about children which will assist teachers in developing positive self-perceptions in the child."

E. Reliability:

Test-retest reliability was computed on two samples. The resulting Pearson product moment correlation coefficients are given in Table A8.

Table A8

Reliability Coefficients on Two Samples For PSCI

Sample Size	Reliability Coefficient
372	.91
100	.57

The authors indicate that the second more moderate coefficient may be due to the smaller sample size.

F. This is a commonly available published test. No copy is included in Appendix B.

Comprehensive Tests of Basic Skills/ Español (CTBS/Español) (1978)

A. Objectives:

Product objectives 5 and 6.
All grades.

B. Description:

CTBS/Español is a Spanish-language adaptation of the CTBS/S Reading and Mathematics tests and was developed by the Norwalk-LaMiranda Unified School District in Southern California. In the adaptation of CTBS/S, emphasis was placed on keeping intact the test's content and measurement features. For many reasons, a word-for-word translation was not possible, nor was it desirable. Nevertheless, CTBS/Español was designed to provide a Spanish-language test that is very similar to CTBS/S in both rationale and process/content classification scheme.

The reationale for CTBS required that the tests measure systematically those skills prerequisite to studying and learning subject-matter courses. The tests are not specific to any particular curriculum but are designed to test the possession of relevent knowledge gained as the student progresses through the curriculum.

C. Selection and Development of Objectives:

Does not apply.

D. Validity:

CTBS/Español was designed to provide a Spanish language test that is very similar to CTBS/S in both rationale and content. In the adaptation, emphasis was placed on keeping intact the test content and measurement features of CTBS/S. The reading comprehension and two mathematics subtests provide a good match to the curriculum of the Detroit Public Schools and therfore of the project. The project staff felt that this instrument could be used successfully to measure reading and mathematics skills of students who are Spanish speakers and are learning reading and mathematics skills at least part-time in Spanish.

E. Reliability:

Only internal consistency data were presented in the technical manual for the CTBS/Español. The KR-20's for each level, by grade and subtest are presented in Table A9.

Table A9

Reliability Coefficients (KR 20) for
CTBS/Español Equating Sample

Subtest	Level / Grade	B 1	C 2	1 3	1 4	2 5
Comprensión de Lectura (Reading Comprehension)		.90	.89	.88	.92	.86
Computación de Matemáticas (Mathematics Computation)		.92	.89	.94	.94	.92
Conceptos de Matemáticas (Mathematics Concepts)				.83	.86	.76
Aplicaciones de Matemáticas (Mathematics Applications)				.84	.89	.82
Conceptos y Aplicaciones de Matemáticas (Mathematics Concepts and Applications)		.85	.85			

*Levls B and C do not provide spearate subtest scores for Mathematics Concepts and Applications.

APPENDIX B
INSTRUMENTS

INSTRUCTIONS
Process Objective 1
Reading

Column (1) Record names of all students who received services in the bilingual center.

Column (2) Record the number of hours each student received instruction in the center.

Column (3) Record the number of I/O's needed for achievement of objectives 3 for each student. Use the following formula:

$$\text{No. I/O's needed} = \frac{(\#\text{hrs in center}) \times 3}{20}$$

Record whole numbers only.
For example:

$$\text{No. I/O's needed} = \frac{(71\text{hrs}) \times 3}{20}$$

$$= \frac{213}{20} = 10.6$$

10 should be recorded in colum (3).

Column (4) Record the number of I/O's achieved by each student from your records.

Column (5) If the number in column (4) is greater than or equal to (≥) the number in column (3).

Place a check (✓) in column (5). This indicates that the objective was achieved.

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Title IVC
Bilingual Program
Process Objective 1
Reading

Grade _____

Preston _____

Bennett _____

(1) Name	(2) Number of Hours in Center	(3) Number of I/O's needed ($\frac{\#hrs}{20}$ x 3)	(4) Number of I/O's achieved	(5) Objective achieved?

INSTRUCTIONS
Process Objective 2

Mathematics

Column (1) Record names of all students who received services in the bilingual center.

Column (2) Record the number of hours each student received instruction in the center.

Column (3) Record the number of I/O's needed for achievement of objective 4 for each student. Use the following formula:

$$\text{No. I/O's needed} = \frac{\text{hrs in center}}{5}$$

Record whole numbers only.
For example:

$$\text{No. I/O's} = \frac{71 \text{ hrs}}{5} = 14.2$$

14 should be recorded in column (3)

Column (4) Record the number of I/O's achieved by each student from your records.

Column (5) If the number in column (4) is greater than or equal to (2) the number in column (3), place a check (✓) in column (5). This indicates that the objective was achieved.

Title IVC
Bilingual Program
Process Objective 2
Mathematics

Grade _____ Preston _____

Bennett _____

(1) Name	(2) Number of Hours in Center	(3) Number of I/O's needed (#hrs / 5)	(4) Number of I/O's achieved	(5) Objective achieved?

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APPENDIX C

BILINGUAL INSTRUCTION ELIGIBILITY

BILINGUAL INSTRUCTION ELIGIBILITY

In October, 1974, the state legislature passed and Governor Milliken signed P.A. 294, which requires school districts having twenty or more students who are native speakers of the same language (other than English) to provide bilingual instruction for those students.

Pursuant to P.A. 294, the State Department of Education has prepared "Student Eligibility Guidelines for State-mandated Bilingual Education." These guidelines set forth certain requirements and standards which must be applied in determining whether or not a student is eligible for bilingual instruction.

According to the guidelines, our aim is to identify students (1) who are monolingual speakers of a language other than English, (2) whose primary home language is other than English regardless of the language(s) spoken by the student, (3) whose primary environmental language is other than English regardless of the language(s) spoken by the student.

Students thus identified are to be placed in one of four categories.

A. Student has difficulty performing ordinary classwork as a result of the student's language background.

B. Student reasonably may be expected to have difficulty performing ordinary classwork in English as a result of the student's language background.

C. Student has difficulty performing ordinary classwork but the difficulty is not a result of the student's language background.

D. Student is not experiencing difficulty and is not expected to experience difficulty performing ordinary classwork as a result of the student's language background.

All students who fall in groups "A" and "B" are eligible for bilingual instruction.

Documentation should include academic records; standardized test scores indicating achievement to be at least 1.5 grade equivalent units below average; teacher, counselor, parent, or committee evaluations; other documentation.

The attached "Bilingual Instruction Eligibility Questionnaire" is based on the above state guidelines. Use of this form in screening students for bilingual instruction should insure that state requirements are met.

(ORIGINAL)

Detroit Public Schools

PUPIL PROFILE
BILINGUAL/BICULTURAL EDUCATION

Research and Evaluation
August, 1978

Please type or print in block letters the following information:

School _____ Region _____ Date __/__/__

Name _____ Grade ____ ID# __/__/__/__/__/__
Last First Middle

Place of Birth _____ Birth Date _____

Address of Pupil _____ Telephone _____

Father's Name _____ Birthplace _____

Mother's Name _____ Birthplace _____

Guardian _____ Relationship _____

Pupil Lives With _____ Language Spoken In Home _____

Date Tested for Language Dominance _____ Instrument _____

Dominant Language _____

Date Tested for Home Language Proficiency _____ Instrument _____ /Score

Date Tested for English Proficiency _____ Instrument _____ /Score

Date Parents Notified of Eligibility and Placement _____
(Attach Postal Receipt)

Date Parents' Refusal Letter Received (attach copy) _____

TEST RECORD: Record Test Data for Each Year Pupil is Enrolled in Bilingual Program.

School Year	Native Lang. (Oral Proficiency)				English Lang. (Oral Proficiency)				Standardized Test(s) Eng. Lang.*			Standardized Test(s) Nat. Lang.			Optional Test(s)	Lang. Code
	INSTRUMENT	Fluently	Somewhat	Minimally	INSTRUMENT	Fluently	Somewhat	Minimally	INSTRUMENT	Reading (GE)	Math (GE)	INSTRUMENT	Reading (GE)	Math (GE)		

*Instruments: SAT, ITBS, CAT.

SCHOOLS: Send this form to the Region
REGIONS: Send this form to the Department of Bilingual/Bicultural Education

BILINGUAL INSTRUCTION
ELIGIBILITY FORM

Student's Name _____ Age ____ Grade ____

Adress _____ Zip Code ____

Present School _____ Previous School _____

1. Years in the United States _____ Student ID [redacted] (Title I) _____

2. Birthplace: Father _____ Mother _____ Student _____

3. What language is spoken at home most of the time? _____

4. A. What language is spoken most with friends?

English _____ Home Language _____ Both _____

B. What language is preferred for reading (magazines, newspaper, books)?

English _____ Home Language _____ Both _____

5. Most recent report card marks:

Language Arts ____ Mathematics ____

6. Please list the student's latest city-wide test scores as indicated below.

Grades 1-2 SAT Grade Equivalent Pars. Mean. ____ Arith. Con. ____ Date _____

Grades 3-7 ITBS Grade Equivalent

Reading ____ Math Total ____ Date _____

7. In your opinion, which of the following best describes this student? (Circle your choice).

A. Student had difficulty performing ordinary classwork as a result of the student's language background.

B. Student reasonably may be expected to have difficulty performing ordinary classwork in English as a result of the student's language background.

C. Student had difficulty performing ordinary classwork but the difficulty is not a result of the student's language background.

D. Student is not experiencing difficulty and is not expected to experience difficulty performing ordinary classwork as a result of the student's language ~~background~~.

8. Teacher Comments:

_____

_____

_____

_____

_____

_____

_____

_____

_____

Teacher's Name

_____

Date

Teacher's Name	Is Teacher Bilingual?	If "Yes," What Languages?	School / Region
	☐ Yes ☐ No		

IDENTIFICATION OF EACH PUPIL WHOSE PRIMARY OR HOME LANGUAGE IS OTHER THAN ENGLISH

(1) Six-Digit Pupil I.D. Number[1]	(2) Pupil's Name	(3) Grade	(4) Primary or Home Language[2] (Other than English)	(5) Pupil's Language Code[3] (A, B, or C)	(6) Special Program Service(s)[4] (If Known)	(7) Reading Test Score (Enter Latest Available Data)				
						Test Name[5]	Test Date	Grade When Tested	Score: Grade Equiv.	Score: Percentile
Examples:										
5 3 2 8 4 1	Paul Ruff	5	German	A	Ch. 3	ITBS	1977	4	3.1	
2 1 8 3 2 4	William Kee	12	Spanish	C		TAP	1975	9		29
1.										
2.										
3.										
4.										
5.										
6.										
7.										
8.										

[1]Col. (1): The pupil I.D. number can be secured from the computer-printed Membership Roster sent to your school in September. If no I.D. number is available, leave this column entry blank.

[2]Col. (4): The native language (other than English) that the mother or father usually speaks

[3]Col. (5): Code Letter A = Pupil speaks mostly or only the home language.
Code Letter B = Pupil speaks the home language and English equally well.
Code Letter C = Pupil speaks mostly or only English.

[4]Col. (6): Special program services are Title I, Chapter 3, Bilingual, ESL, Learning Consultant, etc.

[5]Col. (7): Enter SAT for Stanford Achievement Test, ITBS for Iowa Tests of Basic Skills, or TAP for Tests of Academic Progress, and report the student's latest reading test score.

[6]Col. (7): Enter grade equivalent scores for pupils in grades 1-7, percentile scores for pupils in grades 9 and 11.

This form must be completed by September 30, 1977. Principal's Signature _____

Bilingual/Bicultural Education

Criteria for Pupil Eligibility

Pupils eligible for Bilingual/Bicultural Education must meet the following criteria:

1. Have a language background in a language other than English.
2. All pupils having this background in grades K thru 2 are eligible.
3. Pupils with this language background and speaking mostly or only the home language. (A category)
4. Pupils in grades 3 thru 12 having this language background but with no available reading test scores are eligible.
5. Pupils in grades 3 thru 12 having this language background and scoring in the bottom three staninès on their reading test are eligible.

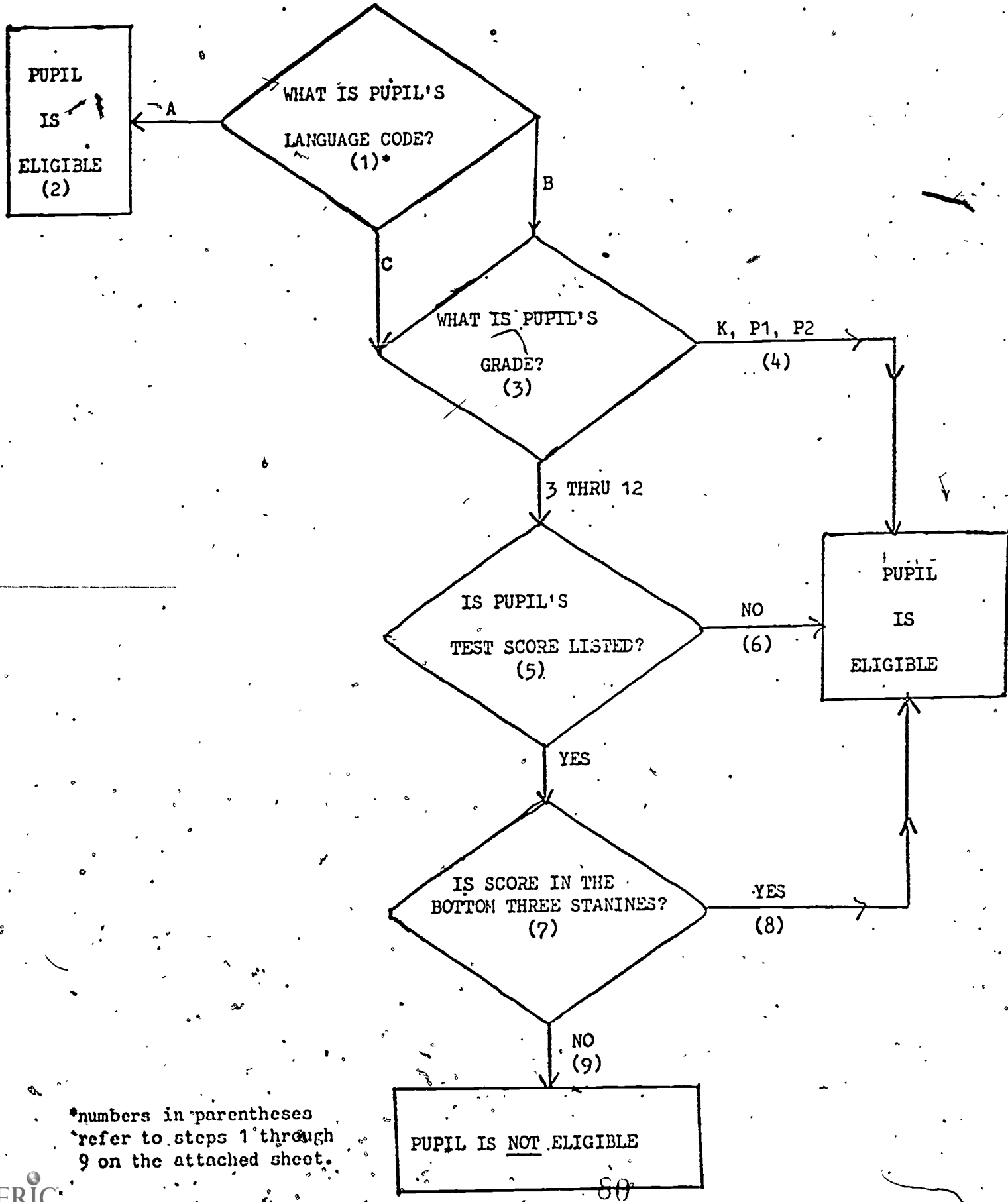
STEP ONE

Determine Pupil Eligibility

1. Determine pupil language code (from column 5 of the survey).
2. If the language code is A, the pupil is eligible.
3. If the language code is B or C, determine the pupil's grade (from column 3 of the survey).
4. If the grade is K, P1, or P2, the pupil is eligible.
5. If the grade is 3 through 12, determine if the test scores are listed (column 7 of the survey).
6. If no test score is listed, the pupil is eligible.
7. If a test score is listed, determine if it is in the bottom 3 stanines. (Use the chart provided for this purpose. Be sure to use the proper grade level on the chart. This grade level appears in column 7 of the survey under "grade when tested.")
8. If the test score is in the bottom 3 stanines, the pupil is eligible.
9. If the test score is not in the bottom three stanines, the pupil is not eligible.

STEP ONE

DETERMINE PUPIL ELIGIBILITY



*numbers in parentheses refer to steps 1 through 9 on the attached sheet.

APPENDIX D

Student Record Book Pages

RANDOM HOUSE
Educational Systems Division

High Intensity Learning Systems—READING

Classroom Management System

NAME _____

SCHOOL _____ CLASS _____

OBJECTIVES PREDICTED:

Word Study	Vocabulary	Comprehension	Study Skills

KEY

000 Not Needed

(000) Needs Work

(000) Completed

This booklet contains computer-processed prescriptions.

WORD STUDY

Aud Disc

01 02 03 04
05 06 07 08
09 10 11 12
13 14 15 16
17

Alph Know

18 19 20 21
22 23

Vis Disc

24 25 26 27
28 29 30 31

Encod

32 33 34 35
36 37 38 39
40t 40t 41t 42t
42t

Sight Wds

43t 44t 45 46
47 48v 49v 50v
51v 52v 53 54
55 56 57 58m
59t 59t [59t] 60t
60t

Beg Cons

61m 62 63 64
65 66 67 68
69 70 71 72
73 74 75 76
77 78 79 80

Beg Blnds

81m 82 83 84
85 86 87 88
89 90 91 92

Beg Digrphs

93m 94 95 96
97 98 99

End Cons

100m 101 102 103
104 105 106 107

End Blnds

108m 109 110 111
112 113 114

Med Cons, -le,

115 116 117 118m
119

Long-Short Vows

120m 120m 121 122
123 124 125 126
127 128 129 130
131m 132 133 134
135

Vow Digrph, irr vow

136m 137 138 139
140 141 142 143
144 145 146 147

Vows + r, vows l

148m 149 150 151
152 153

Silent Let

154 155 156 157
158 159 160m

Variants

161 162 163 164
165 166 167 168
169

Syllab

170 171 172 173m
174 [174] 175 [175]
176 177 178 179
180m 181 182 [182]
183m

VOCABULARY

Comp Wds

184 185 186 187
188 189 190 191
192 [193]

Contions

194 195 196 197
198 199 200 201
202 203

Prefix

204 [204] 205 [205]
206 [206] 207 208
209 [209] 210 211
212 213 214 215
216 [216] 217

Suffix

218 219 220 221
[221] 222 [222] 223
224 225 226 227
[227] 228 229 230
231 232 233 234
235 236

Roots & Affix

237 [237] 238 [238]
239 [239] 240 [240]
241 242

Inflect End

243 244 245 246
247 [247] 248 249
250 251 252 253
254 255 256 257
258 259 260

VOCABULARY continued

Possess
261 262 263 264
265 266

Homonyms
267 268 269 270
271 272

Homographs
273 274 275 276
277 278 279 280

Synonyms
281 282 283 284
285 286 287 288
288 289 289

Antonyms
290 290 291 291
292 293 294 295
296

Concep Vocab
297 297 298 298
299 299 300 300
301 302 303

COMPREHENSION

Context
304 304 304 305
305 306 307 308
308 309 310 310
311 311 312 312
313

Basic Comp
314 315 315 316
317 318 319 320
321 322 323 323
324 324 325

Detail
326 327 327 327
328 329 330 330
331 332 333 334
334 334

Main Ideas
335 336 336 336
337 337 337 338
339 339 340 340
340 341 341

Inferences
342 342 343 343
343

Pred Out
344 344 344 345
345

Draw Conclu
346 347 348 348
348 349 349

Cause & Effect
350 350 350 351
351 351 352

Sequence
353m 353m 354 355
356 356 357 358
359

Crit Think
360 360 360 361
362 363 364 365
366m

Lit
367t 367t 367t 368t
368t 368t 369t 369t
369t 370t 370t 370t
371t 371t 371t 372
372 372 373t 373t
374t 374t 375t 375t
375t

Idioms
376 377 377 378
378

Fig Lang
379 379 380 380
381 381 382 382
383 383 383

STUDY SKILLS

Learn Cent Proced
384t 384t 384t 385t
385t 385t 386t 386t
386t 387t 387t 387t
388t 388t 388t 389t
389t 389t 390t 390t
390t 391t 391t 391t

Follow Dir
392 393 393 393
394 394 394 395
395 396 397 397
398

List and Fol Dir
399 400m 400m 401
402

Oral Read
403t 404t 404t 404t

Rate
405t 405t 406t 406t

Pict Dic Skills
407 407 408 409
410 411 412 413
414 415 416 417

Alphbt Order
418 419 420 421
422 423 424

Dict Skill
425 426 426 427
427 428 428 429
429 430 430 431
431 432 432 433
433 434 434 435
435 436 436 437
437 438 438 439
439 440 440 441
441 442 442 443
443 444 444 445
445 446 446 447
447 448 448

Locate Ans
449 449 450 450
451 451 452 452
453 454 454 455
456t 456t 457t

Verify Ans
458 458 459 459

Category & Class
460 461 462

Content Areas
463m 464m 465m 465
466 467m

Maps, Dig & Pics
468m 468m 469 469
470m 470m 471 472
472 473 473 474
474

Student Record Book

High Intensity Learning Systems—MATH
Classroom Management System

Contents:
Diagram of Math Diagnostic Inventory (MDI)

Prescriptions for Instructional Objectives

Strand	Subsystem
1: Numbers, Numeration, and Place Value	I II III
2: Addition and Subtraction	I II III
3: Multiplication and Division	I II III
4: Fractions	I II III
5: Geometry	I II III
6: Decimals	III
7: Logic and Number Theory	I II III
8: Probability and Statistics	I II III
9: Sentences, Functions, and Rational Numbers	I II III
10: Measurement	I II III

Recording the Subsystem: Circle the Subsystem in which you place the student. When he completes the Subsystem, mark it with a slash.

KEY: / not needed (II) completed (II) placed

RANDOM HOUSE Educational Systems Division

Diagram of Math Diagnostic Inventory (MDI)

000 Critical I-O
000 Non-Critical I-O

T: Test requires teacher participation.

Suggested Criteria for Mastery:
Critical I-O's: 90%
Non-Critical I-O's: 80%

KEY
~~000~~ Not Needed
(000) Needs Work
~~(000)~~ Completed

STRAND 1 NUMBERS, NUMERATION, AND PLACE VALUE

Subsystem I

Numbers (0 to 10)	Ordering Numbers (0 to 10)	Number Names (0 to 10)	Ordinals	Numeration (to 100)	Numeration (to 1000)
13	21	22	23T	31	39
12	20		11	30	38
10	19			29	37
9	18			28	36
8	17			27	35T
7	16			26T	34T
6	15			25	33
5	14T			24	32
4					
3					
2					
(1)					

Subsystem II

Number Names (0 to 20)
40

Continued

Subsystem II Continued

Numeration (to 10,000)	Numeration (to 1,000,000)	Roman Numerals	Rounding Numbers
46	51	53	54
45	50	52	47
44	49		
43	48		
42			
41			

Subsystem III

Sets	Roman Numerals	Numeration	Numeration (other bases)
61	62	67	69
60		66	68
59		65T	
58		64	
57		63	
56			
55			

STRAND 2 ADDITION AND SUBTRACTION

Subsystem I

☐+☐ (sums through 6)	☐ (sums through 6)	☐☐+☐☐ (sums through 6)	Applying Facts (sums through 6)	☐+☐ (2 digits, no renaming)	☐ (2 digits, no renaming)	☐☐+☐☐ (sums through 18)	Applying Facts (sums through 18)
80	85	91	94	100	102	109	113
79	84	90	93	99	101	108	112
78	83	89	92	97	98	107	111
77	82T	88		96		106	110
76		87		95		105	
75		86				104	
		81				103	

Subsystem I Continued

☐+☐ (up to 3 digits, no renaming)	☐ (up to 3 digits, no renaming)	☐+☐ (2 digits, renaming ones)	☐ (2 digits, renaming tens)
118	121	124	128
117	120	123	127
115	119	122	126
114	116		125

Subsystem II

Estimation	☐☐+☐☐ (up to 6 digits, renaming)	Properties	Relating Addition and Subtraction
136	143	144	145
135	142		131
	141		129
	140		
	139		
	138		
	137		
	134		
	133		
	132		
	130		

Subsystem III

Estimation	+ − (up to 10 digits, renaming)
146	148
	147

Subsystem I

(products through 25)	Introduction
160	161
159	
158	
157	
156	
155	
154T	

Subsystem II

(products through 25)	(products through 50)	(products through 50)	(products through 81)
165	167	174	177
164	166	173	175
163		172	
162		169	
		168	

Subsystem II Continued

(products through 81)	(3-digit by 1-digit)	(1-digit divisor, 3-digit quotient)	(2-digit by 2-digit)	(2-digit divisor, up to 2-digit quotient)
182	185	190	195	198
181	184	189	194	197
180	178	188	192	196
179	176	187	191	193
	171	186		
	170	183		

Subsystem III

(3- or more digit factors)	(2- or more digit divisors, any quotient)
203	211
202	210
201	209
199	208
	207
	206
	205
	204
	200

STRAND 4 FRACTIONS

Subsystem I

Introducing Fractions
225
224
223
222
221
220
219
218
217

Subsystem II

(like denominators)	Properties of Fractions	(like denominators, lowest terms)
229	237	238
228	236	234
227	235	233
226		232
		231
		230

Subsystem III

(mixed numerals, like denominators, renaming)
242
241
240
239

Continued

Subsystem III Continued

(mixed numerals, like denominators, renaming)	(lowest terms)	(up to 3 mixed numerals, unlike denominators)	(mixed numerals, unlike denominators, 2 renamings)	(mixed numerals)	Ratio and Proportion	Per Cent
246	252	259	263	273	275	280
245	251	258	262	272	274	279
244	250	257	261	271	269	278
243	249	256	260	270	268	277
	248	255		265	267	276
	247	254		264	266	
		253				

STRAND 5 GEOMETRY

Subsystem I

Open and Closed Figures	Plane Figures	Congruence	Space Figures	Segment	Polygons
288	289	290	291T	292	293
287T		286T			

Subsystem II

Ray, Segment, and Line	Triangle	Polygons	Circle	Simple Closed Figure	Parallel and Intersecting Lines	Symmetry
296	300	302T	304	308	309	310
	297	301		294T		

Subsystem II Continued

Congruence	Perimeter	Area	Volume
312	313	314	315
311	305	306	307
303			
299			
298			
295			

Subsystem III

Congruence	Angle Measurement	Area	Circle
327	328	329	331
324	319	320	330
323	318		321
322	317T		

Subsystem III Continued

Polygons and Prisms	Volume	Symmetry	Segment and Angle Bisector	Parallel and Perpendicular Lines	Motion Geometry	Similarity	Pythagorean Theorem
332	333	334	336	338	339	342	344
326			335	337		341	343
325				316		340	

Subsystem III Metric	Numeration	Addition and Subtraction	Multiplication	Division	Per Cent
355	360	363	368	375	378
	359	362	367	374	377
	358	361	366	373	376
	357	356	365	372	
	352	354	364	371	
	351	353		370	
	350			369	

STRAND 7 LOGIC AND NUMBER THEORY

Subsystem I Patterns	Even and Odd Numbers	Sequencing
386	389	390T
385	388	
384	387	

Subsystem II Even and Odd Numbers	Primes	Denial	And/Or	If . . . Then	G.C.F.
391	393	394	396	397	398
	392		395		

Subsystem II Continued L.C.M.
400
399

Subsystem III Denial	Primes	Divisibility	Sequencing	All, Some, None	And/Or	If . . . Then
401	403	404	405	407	409	410
	402			406	408	

STRAND 8 PROBABILITY AND STATISTICS

Subsystem I Graphs
418T
417
416T

Subsystem II Graphs	Probability
426T	427
425	422
424	421
423	
420T	
419	

Subsystem III Graphs	Statistics	Probability	Sampling
429	430	431	432
428T			

STRAND 9 SENTENCES, FUNCTIONS, AND RATIONAL NUMBERS

Subsystem I Graphs of Ordered Pairs
438

Subsystem II Properties of Whole Numbers	Basic Facts	Equations and Inequalities	Integers	Graphs of Ordered Pairs	Functions
444	445	450	452	454	455
443	441	449	451	453	
442	440	448			
	439	447			
		446			

Subsystem III

Integers	Rational Numbers Addition and Subtraction	Properties of Rational Numbers	Equations and Inequalities	Rational Numbers Multiplication and Division	Graphs of Functions
462	468	472	475	476	479
	467	471	474	470	478
	465	466	473	469	477
		464	461		463
			460		457
			459		456
			458		

STRAND 10 MEASUREMENT

Subsystem I

Size Comparisons	Dozen	Capacity	Perimeter	Area	Volume	Length	Weight
489T	496	501T	502	503	504	506	507T
488T		500T				505	
487		499T				495	
486						494T	
485							

Subsystem I Continued

Time	Money
508	510
498T	509T
497	492
493	491
	490

Subsystem II

Capacity	Weight	Temperature	Time	Money
516	517	518	520	523
			519	522
				514
				513
				512
				511

Subsystem II Continued

Length	Applications
527	528
526	
525	
524	
521	
516	

Subsystem III

Temperature	Length	Operations and Measurements
533	534	539
532	531	538
	529	537
		536
		535
		530

APPENDIX E

Distributions of Students

Project Students
(all objectives)

Table E1 below indicates the number of Project students by grade and LAS level. The LAS (Language Assessment Scales) was administered in September, 1978. Scores indicate English oral proficiency on a scale of 1 through 5 with 1 the lowest and 5 the highest.

TABLE E1
Distribution of Project Students by Grade and LAS Level.

Grade	LAS 1	2	3	4	5	NOT TESTED
1	3	1	2	1	0	0
2	2	1	3	2	2	0
3	0	2	1	3	8	0
4	0	0	2	0	9	3
5	0	0	0	0	5	1
Totals	5	4	8	6	24	4

Title VII Comparison Group
(Product Objectives 1,2,4,5,6)

Table E2 below indicates the number of Title VII Comparison group students by grade and LAS level. The LAS (Language Assessment Scales) was administered in September, 1978. Scores indicate English oral proficiency on a scale of 1 through 5 with 1 the lowest and 5 the highest.

TABLE E2
Distribution of Title VII Comparison Group Students by Grade and LAS Level.

Grade	LAS 1	2	3	4	5	NOT TESTED
1	14	4	2	0	2	2
2	14	3	4	3	0	2
3	2	0	2	10	1	1
4	1	0	3	5	7	2
5	2	2	5	8	2	2
Totals	33	9	16	26	12	9

Comparison Group A
(Product Objectives 1,2,5,6)

Table E3 below indicates the number of comparison group A students by grade and LAS level. The LAS (Language Assessment Scales) was administered in September, 1978. Scores indicate English oral proficiency on a scale of 1 through 5 with 1 the lowest and 5 the highest.

TABLE E3
Distribution of Comparison Group A Students by grade and LAS Level.

Grade	LAS 1	2	3	4	5	NOT TESTED
1	0	0	2	7	3	0
2	0	1	5	1	1	0
3	0	1	0	4	1	1
4	2	0	0	3	7	0
5	1	1	0	1	4	0
Totals	3	3	7	16	16	1

Comparison Group B
(Product Objective 4)

Table E4 below indicates the number of comparison Group B Students by grade and LAS level. The LAS (Language Assessment Scales) was administered In September, 1978. Socres indicate English oral proficiency on a scale of 1 through 5 with 1 the lowest and 5 the highest.

TABLE E4
Distribution of Comparison Group B Students by grade and LAS Level.

Grade	LAS 1	2	3	4	5	NOT TESTED
1	3	0	2	2	2	6
2	6	2	3	3	9	4
3	0	1	1	3	2	1
4	1	1	0	1	5	0
5	0	1	0	2	4	0
Totals	10	5	6	11	22	11

Appendix F

Means and Standard Deviations of Pre- and Posttest Measures for Objectives 1, 2, 5, and 6

Table F1

Pretest means and standard deviations in English reading for project, Title VII, and Comparison Group A students in Grade Equivalent Units by Grade.*

Grade	Project			Title VII			Comparison Group		
	n	$\bar{x}$	sd	n	$\bar{x}$	sd	n	$\bar{x}$	sd
1	8	0.9	0.6	18	1.7	0.3	11	1.0	0.5
2	5	0.9	0.7	13	1.2	0.6	4	1.7	0.2
3	14	2.8	0.9	10	2.5	0.5	6	2.2	0.5
4	10	3.1	0.6	16	2.9	0.7	4	2.6	0.3
5	7	3.1	0.9	19	3.3	0.9	4	2.9	0.5

*See Objective 1 for dates and instruments used

Table F2

Posttest Means and Standard Deviations in English Reading for Project, Title VII, and Comparison Group A students in Grade Equivalent Units by Grade.*

Grade	Project			Title VII			Comparison Group A		
	n	$\bar{x}$	sd	n	$\bar{x}$	sd	n	$\bar{x}$	sd
1	8	1.3	0.5	18	1.7	0.2	12	2.0	0.6
2	5	1.1	0.7	13	1.8	0.6	4	2.8	1.6
3	13	2.6	0.5	10	2.9	0.6	6	3.1	0.8
4	9	3.5	1.0	16	3.8	0.8	5	3.2	0.8
5	6	3.7	1.0	19	4.7	0.8	3	4.7	1.1

*See Objective 1 for dates and instruments used

Table F3

Pretest Means and Standard Deviations in Mathematics (English Instrument) for project, Title VII, and Comparison Group A students in Grade Equivalent Units by Grade.*

	Project			Title VII			Comparison Group A		
Grade	n	$\bar{x}$	sd	n	$\bar{x}$	sd	n	$\bar{x}$	sd
1	8	0.7	0.4	18	1.7	0.2	11	0.8	0.5
2	5	1.2	0.7	13	1.5	0.4	4	1.5	0.8
3	14	2.3	0.6	10	2.5	0.5	6	2.9	0.4
4	10	3.0	0.7	16	3.2	0.7	6	2.7	0.6
5	7	4.0	0.5	19	3.6	0.8	4	3.1	0.9

*See Objective 2 for dates and instruments used

Table F4.

Posttest Means and Standard Deviations in Mathematics (English Instrument) for project, Title VII, and Comparison Group A students in Grade Equivalent Units by Grade.*

	Project			Title VII			Comparison Group A		
Grade	n	$\bar{x}$	sd	n	$\bar{x}$	sd	n	$\bar{x}$	sd
1	8	1.2	0.5	18	2.5	0.5	12	1.7	0.4
2	5	1.9	0.4	12	2.7	0.5	4	2.7	0.9
3	13	2.8	0.8	10	3.6	0.7	6	3.4	0.5
4	9	3.7	0.5	15	4.6	0.8	5	3.6	0.9
5	6	4.3	0.6	18	5.6	0.8	3	4.2	0.4

*See Objective 2 for dates and instruments used

Table F5

Pretest Means and Standard Deviations in Spanish Reading for Project, Title VII and Comparison Group A students in Raw Score Units By Grade.*

	Project			Title VII			Comparison Group A		
Grade	n	$\bar{x}$	sd	n	$\bar{x}$	sd	n	$\bar{x}$	sd
1	3	7.7	1.5	12	8.0	2.7	7	6.3	2.4
2	6	4.8	1.2	12	5.9	4.7	5	3.2	1.8
3	10	11.2	4.2	15	9.7	2.9	2	10.5	2.1
4	8	12.5	2.6	14	12.6	6.8	6	8.3	4.5
5	4	12.0	2.8	16	11.2	4.1	6	15.2	5.6

*See Objective 5 for dates and instruments used.

Table F6

Posttests Means and Standard Deviations in Spanish Reading for Project, Title VII, and Comparison Group A students in Raw Score Units By Grade.*

Grade	Project			Title VII			Comparison Group A		
	n	$\bar{x}$	sd	n	$\bar{x}$	sd	n	x	sd
1	4	10.5	2.4	12	21.5	2.0	8	7.1	3.0
2	6	7.0	1.4	12	8.6	4.8	4	4.0	2.4
3	10	10.9	2.3	12	11.5	5.4	2	13.5	5.0
4	8	13.0	2.8	15	9.9	4.8	6	7.0	3.2
5	4	11.8	3.0	16	14.6	4.7	5	18.4	8.9

*See Objective 5 for dates and instruments used.

Table F7

Pretest Means and Standard Deviations in Mathematics (Spanish Instrument) for Project, Title VII and Comparison Group A Students in Raw Score Units By Grade.*

	Project			Title VII			Comparison Group A		
Grade	n	$\bar{x}$	sd	n	$\bar{x}$	sd	n	x	sd
1	3	27.3	8.5	12	25.0	4.9	8	23.0	5.8
2	6	19.0	4.3	12	19.2	4.7	5	24.2	4.1
3	10	33.6	14.2	11	34.0	7.9	2	32.5	13.4
4	8	43.4	10.6	15	56.8	12.7	6	34.5	9.9
5	4	37.0	12.9	15	43.9	11.4	6	35.5	8.0

*See Objective 6 for dates and instruments used.

Table F8

Posttest Means and Standard Deviations in Mathematics (Spanish Instrument) for Project, Title VII and Comparison Group A Students in Raw Score Units By Grade.*

Grade	Project			Title VII			Comparison Group A		
	n	$\bar{x}$	sd	n	$\bar{x}$	sd	n	x	sd
1	4	21.8	8.1	12	46.3	6.0	7	30.9	5.6
2	5	22.0	11.7	12	31.5	5.6	5	29.0	8.3
3	10	36.5	16.5	12	48.8	17.7	2	43.5	12.0
4	8	44.6	14.3	13	20.4	4.0	4	38.5	7.8
5	4	32.3	6.1	16	47.7	11.9	4	51.3	11.5

*See Objective 6 for dates and instruments used.

APPENDIX G

Inservice Training Workshops

Below is a list of in-service training workshops provided by the Project during 1978-1979. This list includes the workshop title, dates and participating schools.

"Effective Use of the ITBS Score Analysis"
November 15, 22, and 29, 1978
Preston School

"Shared Caring Through Home Visits"
November 27 - December 18, 1978
Preston and Holy Trinity Schools

"Parents in the Learning Process"
April 2, 4, 9, 11, June 4, 6, 1979
Preston School

"Preparation for Fall Start-Up 1979"
July 23, 24, 25, 26, 1979
Preston School