DOCUMENT RESUME

ED 081 557 56 RC 007 268

AUTHOR Pryor, Guy C.
TITLE Evaluation of the Bilingual Project of Harlandale Independent School District, San Antonio, Texas, in the First, Second, and Third Grades of Four Elementary Schools During 1968-69 School Year.
INSTITUTION Harlandale Independent School District, San Antonio, Tex.
SPONS AGENCY Bureau of Elementary and Secondary Education (DHEW/OE), Washington, D.C. Div. of Bilingual Education.
PUB DATE Jul 69
GRANT OEG-0-9-530014-3480(280)
NOTE 37p.

EDRS PRICE MF-$0.65 HC-$3.29
DESCRIPTORS *Bilingual Education; *Elementary Grades; *Federal Programs; Grade 1; Grade 2; Grade 3; *Mexican Americans; Minority Group Children; *Program Evaluation; Spanish Speaking
IDENTIFIERS Harlandale; *Texas

ABSTRACT

The document is an evaluation of the Bilingual Instructional Project in the 1st, 2nd, and 3rd grades of 4 elementary schools in the Harlandale Independent School District, San Antonio, Texas, during the 1968-69 school term. Evaluation of the 1st grade included a mental ability and readiness test--pretest and posttest. At the 2nd grade level, the Science Research Associates Achievement Test in Reading was given as a pretest and the Inter-American Series was given as a posttest. For the 3rd grade, the Science Research Associated Achievement Test in Reading was given as a pretest and posttest. Eight conclusions are given--e.g., there was no discernible difference in language achievement by 2nd and 3rd grade pupils between the bilingual and the control groups as measured by reading tests in English. The 11 recommendations encourage better organization, better planning, leadership that is more readily available, closer support by the principals, and more materials. A closer evaluator contact with the program is also recommended. (For related documents, see RC 007 266, 267.) (FF)

EVALUATION OF THE BILINGUAL PROJECT OF HARLANDALE INDEPENDENT SCHOOL DISTRICT, SAN ANTONIO, TEXAS, IN THE FIRST, SECOND, AND THIRD GRADES OF FOUR ELEMENTARY SCHOOLS DURING 1968-69 SCHOOL YEAR

For

Harlandale Independent School District

San Antonio, Texas

Callie W. Smith, Superintendent

By

Dr. Guy C. Pryor

Professor

Our Lady of the Lake College

July, 1969

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I. INTRODUCTION

Statement of the Problem

The purpose of this study was to evaluate the Bilingual Instructional Project in the first, second, and third grades for four elementary schools in the Harlandale Independent School District, San Antonio, Texas during the 1968-69 school term.

Objectives of the Project

The purpose of the project was to provide a bilingual environment to enhance the development of the Spanish-speaking child in cognitive and language abilities. The bilingual environment should give the child a personal and cultural acceptance productive of a self-concept which makes possible those linguistic and communicative successes on which real internalized psychological motivation is built.

It was the further purpose of this project to provide bilingual instruction in some of the classes in the four schools in the first, second, and third grades and to compare these pupils in terms of language development and reading ability, with those who were taught in English only. The study has also sought to determine the correlation between reading ability in Spanish and in English.

Learning objectives are most significant at the functional level, which is in the classroom. Objectives are only implemented to the extent the teacher accepts them and in the manner which the teacher perceives them.

A sampling of the teachers emphasized the following objectives:

1. To assist and reinforce learning in English.
2. To clarify the concepts the pupil does not understand in English.
3. To use Spanish to enlarge and clarify the pupil's understanding of the subject being taught such as arithmetic, science, social studies, etc.
4. To develop within the child an appreciation of his heritage, thus enhancing his own image and sense of personal worth.
5. To help the child to be comfortable using both languages for communication.
6. To help the child to see and understand the relationship between the two languages.
7. To use Spanish for enjoyment and fun.

It can readily be observed that the most important objective of using Spanish in the classroom was to assist pupils in learning English. Some of the teachers find Spanish useful as a means of instruction in subject matter while the pupils are learning English. Some used Spanish because it helped the pupil to adjust to school and gave him pride in his heritage and culture, thus adding to his concept of himself as a person.

Absent from the teacher objectives was any idea of using Spanish as the means of initial language and concept development in school. That is, the language development process was not carried on in Spanish in any of the classrooms. There was no idea of teaching the child to read in his own native language and then using these language skills for teaching English.

One teacher stated that her only reason for teaching Spanish was that it was part of the curriculum and she was told to do it.

It is clearly noted that this program was not bilingual in the sense

that the first instruction was in Spanish, and that English was taught as a second language. English was taught as a first language from the beginning and Spanish was used as a tool for teaching English and for increasing the pupil's understanding of concepts, ideas, and information while he was learning English. Spanish was taught as a separate language through the third grade, and this was an objective accepted by most teachers. The term bilingual instruction as used in this evaluation is always to be interpreted in the sense conveyed by the teachers' perception of the objectives and their implementation of them.

Though not overtly expressed in the objectives, the teachers and all concerned with the program obviously intend that the Mexican-American child shall have a new freedom in speaking and learning his own native language and in finding expression of himself in his own culture. This, it is hoped, will add to a sense of belonging and enhance his ability to learn.

The wide variation in the teachers' perception of the objectives reveals clearly the wide latitude given to each teacher in designing her own program of bilingual classroom instruction and determining for herself the extent to which she would use the curriculum guide and the available materials. The amount of time Spanish was used or taught in each room varied greatly. These multiple divergents were expressive of each teacher's aims and goals.

Description of the Project

The bilingual instructional project in the Harlandale Independent School District has been conducted continuously for 3½ years. This project was originated because of the keen awareness of John C. Gonder, who was then superintendent of Harlandale schools, of the difficulties experienced

by the Spanish-speaking child in the schools with which Gonder had been associated throughout his career. As a teacher and as a principal, Gonder collected empirical evidence of the benefits of bilingual instruction even prior to his becoming superintendent. In the implementation of the project, his co-workers, Callie W. Smith, who is now superintendent of schools; Charles N. Boggess, assistant superintendent; William R. Marshall, director of curriculum; Penny Taylor, reading consultant; Rosena Gayle, director of bilingual instruction; Dr. Guy C. Pryor, consultant from Our Lady of the Lake College; and the principals and teachers from the four elementary schools were involved.

The bilingual instructional program was conducted in four elementary schools; Columbia Heights, Collier, Flanders, and Stonewall. These four elementary schools are located in a section of San Antonio that is 100 per cent Mexican-American where poverty is quite apparent but is interspersed with those who are emerging into lower middle class economically. Spanish is the language which is spoken predominantly in the area. Some English is spoken in the homes where older children have continued in school and in those homes where the wage earner is in the higher pay brackets. Preschool programs have given some of the children some contact with English prior to their starting to school. These have included the Head Start Program, the state program for teaching the "Basic 400" to Spanish-speaking children, regular kindergartens, and the programs conducted by the community service centers in the area. Radio and television programs are available in Spanish, but a casual survey indicated that many of the people, especially the children, prefer to watch and listen to the English-speaking stations.

However, the extent to which the parents in the area speak Spanish is demonstrated in the public meetings where Spanish must be used to conduct the meeting. The use of English in public meetings usually results in apathy and inaction. A switch to Spanish brings animation and action.

Even though there is evidence of some cross-culturation and linguistic change, this is still a most appropriate area for a bilingual instruction program. Actually the community conditions make bilingual instruction an imperative necessity if the learning program in the school is to meet the needs of the pupils. The bilingual interns from Our Lady of the Lake College working in the schools and in the community indicate that the people appreciate this concession to their culture and language. There is no evidence of strangeness or not belonging on the part of the pupils in these schools.

The Harlandale bilingual project was started in the second half of the 1965-66 school year in one section of the first grade at Stonewall Elementary School. During 1966-67 it was expanded to one section of the first grade in each of four schools. During 1967-68 each of these four sections advanced to the second grade with a continuation of bilingual instruction. However, the pupil membership changed so much in some instances that the effectiveness was greatly affected. The starting of new bilingual sections in the first grade varied greatly among the four schools. Flanders and Collier each had one section, Columbia Heights had six, and Stonewall had five with exchange teaching in four of the rooms.

In the 1968-69 school year, bilingual instruction was expanded to include one third grade section in each of the four schools. These were, of course, sections that had bilingual instruction in the first and second grades but the pupil personnel was not kept intact. Some Spanish-speaking children were added to each section who had not received bilingual instruction.

Bilingual instruction was continued in the second grade in 1968-69 for pupils who had been taught bilingually in the first grade but with a reduced number of sections in the second. Stonewall had three sections, Columbia Heights two, Collier one, and Flanders one. In the first grade Stonewall had three bilingual sections but no exchange teaching this year; Columbia Heights had three; Collier and Flanders had one each. This gave a total of 19 bilingual sections; eight in the first grade, seven in the second grade, and four in the third grade. Spanish was used as a teaching and communication tool in some classrooms that were not designated as bilingual instruction classrooms.

All teachers in the bilingual classrooms were Mexican-American and native Spanish speakers. The extent to which the teachers continued to identify with the indigenous Mexican-American culture varied greatly. Consequently, their empathy with and understanding of the Mexican-American child, his social and cultural differences, and his language problems showed great variance.

All four principals were supportive of the program of bilingual instruction. However, the nature of this support varied from laissez-faire goodwill to rather restrictive time prescriptions.

During the summer of 1968 the director of bilingual instruction formed a writing team from among the bilingual classroom teachers. These were teachers who had shown enthusiasm and capability in the bilingual program. Their work produced a teachers guide which not only offered a suggested program outline but contained resource materials and lists of sources. Most of them welcomed this material and found it useful through the year.

A five-day workshop was held in August for all teachers who wanted

to attend. Even though there was a stipend, not all came. Those who did attend seemed to profit from the experience. Many expressions of enthusiasm were heard. The morale and spirit of expectancy on the part of the teachers was most gratifying. Unfortunately, this commendable esprit de corps was not maintained throughout the year with the necessary professional meetings.

II. DESIGN OF THE EVALUATION

The evaluation through its design has concentrated on the major objective of the bilingual instructional project to increase the language skills of the pupils. The measures used have been concerned with development and maintenance of language skills in English and Spanish and making comparisons with pupils who received instruction in English only.

For purposes of clarification the distribution of bilingual instruction classrooms was as follows:

Collier Elementary School	
First Grade	1
Second Grade	1
Third Grade	1
Columbia Heights	
First Grade	3
Second Grade	2
Third Grade	1
Flanders	
First Grade	1
Second Grade	1
Third Grade	1
Stonewall	
First Grade	3
Second Grade	3
Third Grade	1

The following materials were used as a part of the evaluation:

Grade One

Otis Alpha Mental Ability Tests

Non-Verbal	Pre-test and Post-test
Verbal	Post-test

Pruebas Lectura, Nivel I, Primario, Interamericano Serie	Post-test
Test of Reading, Level I, Primary Inter-American Series	Post-test

Grade Two

Pruebas Lectura, Nivel I, Primario Interamericano Serie	Pre-test
Pruebas Lectura, Nivel II, Primario Interamericano Serie	Post-test
Test of Reading, Level II, Primary Inter-American Series	Post-test
Science Research Achievement Test, Grade Two Reading Only (Plans to use this also as a post-test did not work out)	Pre-test

Grade Three

Science Research Associates Achievement Test, Grade Three, Reading Only	Post-test

The Otis Alpha Test of Mental Ability, Non-verbal, was considered a test that was almost totally culture free except for the language used to give the directions for administering the test, and corrective measures were used to mitigate this. The directions were translated into the Spanish vernacular of the area and were tested out prior to their use for measurement of these pupils. In administering the tests, the directions were given in English and in vernacular Spanish in quick succession. In the post-testing, giving the directions in English was considered sufficient.

Two bilingual student interns, after being properly instructed, gave all the tests except for the SRA Reading Tests which were administered by classroom teachers.

The progress of the pupils who received bilingual instruction was compared

with pupils in sections that were taught in English only through comparison of the means and computation of the significance of the difference by use of the t-ratio. The sections were also ranged by the size of their means to ascertain the changes in the relative position of the rank of the means. Significant changes in mental ability as measured by the Otis Alpha Test of Mental Ability were ascertained and bilingual sections and English sections compared.

A Pearson's r was computed to ascertain the correlation between reading ability in English and in Spanish for the pupils who are taught bilingually.

Teacher opinions and observations also constitute a part of the evaluation.

The data and the comparisons for the first grades have been presented and analyzed first. The second grade and third grade data, comparisons, and interpretations follow in that order.

III. PRESENTATION AND ANALYSIS OF THE DATA AND OBSERVATIONS USED IN THE EVALUATION

A description of the population in this bilingual instructional project has been given in the section titled "Description of the Project". A more detailed analysis at Stonewall Elementary School is repeated from the 1967-68 evaluation, since there is little reason to believe that any measurable changes have taken place in the demographic characteristics of the population and that Stonewall is still somewhat representative of the four elementary schools included in the project.

The population studied was the first grade of Stonewall Elementary school, consisting of 47 boys and 49 girls. The mean age of the group September 1, 1968, was 6 years and 6 months, with a range from 6 years 2 months to 7 years 11 months.

Spanish was the first language of the pupils. Table I shows the extent to which the pupils could speak English when they started to school and the relationship between their English-speaking ability and the scores made on the Otis Alpha Test of Mental Ability, Non-Verbal. The students with least ability to speak English made the lowest scores, and those with the greatest ability made the highest scores. The general difference in readiness scores found between non-English-speaking subjects and English-speaking subjects may truly be a reflection of the language development variable.

TABLE I

RANGES AND MEANS OF MENTAL ABILITY SCORES
OF STUDENTS GROUPED ACCORDING TO THEIR ABILITY
TO SPEAK ENGLISH
STONEWALL ELEMENTARY SCHOOL
FIRST GRADE
OCTOBER, 1967

Ability to Speak English	N	Ranges	Means Test Scores
No English or a few words	29	75-94	84.044
Communicate needs	51	74-97	87.568
Fluent	13	77-98	90.675

Table II presents the mean test scores grouped according to family size:

TABLE II

RANGES AND MEANS OF MENTAL ABILITY SCORES
OF FIRST GRADE STUDENTS GROUPED ACCORDING
TO THE NUMBER OF SIBLINGS
STONEWALL ELEMENTARY SCHOOL
OCTOBER, 1967

Number of Siblings	N	Range	Means Test Scores
1-3	30	77-98	88.540
4-6	45	74-97	86.939
Above 6	20	75-92	84.301

A comparison of the ranges in Table II indicated that the dispersion of test scores is essentially the same for subjects in families of

1-3 and 4-6 children, but those in families with more than 6 children show a narrower and lower dispersion of scores.

The average mean scores were higher for subjects with 1-3 siblings and progressively lower with 4-6 siblings and above 6 siblings.

TABLE III

RANGES AND MEANS OF MENTAL ABILITY SCORES
OF STUDENTS GROUPED ACCORDING
TO PRESCHOOL EDUCATION
STONEWALL ELEMENTARY SCHOOL
OCTOBER, 1967

Preschool Program	N	Ranges	Means Test[illegible] Scores
Repeating first grade	15	74-86	80.349
No preschool	22	76-96	88.202
Preschool	58	78-98	88.096

It is interesting to note in Table III the number of pupils repeating first grade, the number with no formal preschool training, and the number with some form of preschool, and how these categories compare in range of scores and means of the mental ability scores.

Table IV shows the ranges and means of mental ability scores for pupils at Stonewall Elementary School when grouped according to the occupations of their parents. There was an apparent tendency of pupils and/or their parents to represent the occupations more favorably on the occupational scale than reality justified. The income levels seem to indicate this..

TABLE IV
RANGES AND MEANS OF MENTAL ABILITY SCORES OF STUDENTS
GROUPED ACCORDING TO PARENTS' OCCUPATION
STONEWALL ELEMENTARY SCHOOL
OCTOBER, 1967

Occupational Classification	N	Ranges	Means
Professional and Managerial	1	- - -	92.00
Clerical and Sales Occupations	5	84-96	88.753
Service Occupations	10	77-92	87.982
Agricultural and Related Occupations	0	- - -	-- -
Skilled Occupations	25	75-97	87.802
Semi-skilled Occupations	13	75-98	86.152
Unskilled Occupations	14	76-96	85.827
Welfare and Unemployed	5	74-92	85.761

The attendance records indicate that pupil withdrawals and re-entries are about as low as will be found in schools composed entirely of Anglos and are much lower than many. Evidently the migrant problem has become minimal in these schools.

The results of the testing in the first grade sections in the four project schools is reported first. The Otis Alpha Test of Mental Ability, Non-Verbal, was given in the fall as a pre-test and another form of the same test was given in the latter part of May as a post-test. The test was given bilingually. The IQ of each student was determined from the non-verbal scores, but trying to establish IQ's was not the purpose of the test.

This test was considered a good, relatively culture-free test of reading readiness or pre-reading concepts, perceptions, and cognitive skills when administered with bilingual directions. The mean IQ's of the various sections of the first grades were ranked and compared for the pre-test and post-test. These comparisons are recorded in Table V.

TABLE V

A COMPARISON OF MEAN IQ SCORES ON THE OTIS ALPHA MENTAL ABILITY TEST (NON-VERBAL) IN NOVEMBER AND MAY WITH RANKS, GAINS AND LOSSES AMONG THE FIRST GRADE SECTIONS IN FOUR ELEMENTARY SCHOOLS

School and Teacher	N	Nov. Mean	Rank	May Mean	Rank	Gain or Loss
Flanders Flores (BL)	20	108.	1	106	1	-1.25
Collier Jackson (C)	23	101.13	2	93.26	10	-7.87
Columbia Heights Minica (BL)	22	100.5	3	102.77	2	+2.72
Stonewall Lozano (BL)	22	100.36	4	98.59	6	-1.77
Stonewall De Soto (BL)	24	100.33	5	102.625	3	+2.292
Columbia Heights Flores (BL)	23	98.478	6	102.304	4	+3.826
Collier Koegel (BL)	14	98.420	7	98.857	5	+ .437
Stonewall Kimbro (C)	14	97.071	8	95.714	7	-1.357
Stonewall Umburn (C)	17	96.647	9	94.292	9	-2.355
Flanders Bailey (C)	15	96.00	10	94.6	8	-1.4
Average		99.694		98.976		- .7118

Many observations can be made concerning the measures recorded in Table V. First, the mean IQ's do not vary appreciably from the general population on which the test was standardized. This could indicate that Spanish speaking children are not shown up unfavorably when tested by a relatively culture-free instrument bilingually. Second, these scores indicate that these children have normal potential. Third, their growth and development through the year was remarkably normal, changing less than one IQ-point in average mean scores from November to May. It should be kept in mind that the IQ is a moving ratio. A lack of appreciable change is indicative of normal cognitive growth. Fourth, the comparison of the scores of the bilingual sections with those taught in English only gave a slight numerical edge to the bilingual sections. All four of the sections taught in English had slightly lower means at the end of the year than at the beginning, while four of the bilingual sections had a small gain and two had very small losses. The t-ratio does not show these differences to be significant.

The favorable levels of IQ scores and growth shown in Table V must be viewed in terms of the testing limitations. For example, the N in some of the sections is quite small. This is due to the fact that the scores of those pupils who were pre-tested and post-tested; that is, pupils who remained in school continuously and were present on both testing dates, were used. This eliminated the transients, but it does include pupils who were taught bilingually all year, and it is assumed that the limitation affects bilingual and control sections alike. The control groups were selected as being initially equivalent to the bilingual sections, but it is obvious that this was not true in November. It is interesting to note the change of the relative ranks during the year. At the end, the control sections held the four bottom ranks below all the bilingual sections.

The total IQ scores using both the verbal and non-verbal measures of the Otis Alpha Mental Ability Test given in May were recorded. The means of the sections are compared in Table VI. It is worth noting that the IQ means are lower than those recorded in Table V for the non-verbal test. Factors influencing this may be: (1) the N's are larger because all the pupils in school and present on the testing date are included. This includes those who entered school during the term. These late entries and transfers may have lowered the IQ scores and lessened the effect of the bilingual instruction. (2) It is possible that the verbal portion of the test may reflect more of the effect of experiential deprivation and the effects of being Spanish speaking and not having had sufficient time to become proficient in English.

Table VI shows higher scores for the bilingual sections even more favorably than the non-verbal scores in Table V. On total IQ means only one control section exceeds any bilingual section. The Collier control exceeds the Collier bilingual slightly. Otherwise the total table is favorable to the bilingual. The top ranked bilingual means exceed the control means by a difference significant at 1% level for the top three and lowest three. Since this test was given only in English in May this indicates the bilingual sections progressed more rapidly in cognitive skills in English than those sections who were taught in English only.

The Reading Test, Level I, Primary, Inter-American Series was given to bilingual and control first grade sections, and Pruebas de Lectura, Level I, Primario Interamericano Serie was given to the bilingual sections. The test results have been compiled in Table VII.

TABLE VI

A COMPARISON OF MEAN I.Q. SCORES ON THE OTIS ALPHA MENTAL ABILITY TEST (TOTAL SCORE) IN MAY AMONG THE FIRST GRADE SECTIONS IN FOUR ELEMENTARY SCHOOLS

	N	May Mean Total	Rank
Flanders Flores (BL)	21	99.001	1
Columbia Heights Flores (BL)	27	95.221	2
Stonewall De Soto (BL)	26	95.15	3
Columbia Heights Minica (BL)	25	92.80	4
Stonewall Lozano (BL)	21	92.713	5
Collier Jackson (C)	26	91.114	6
Collier Koegel (BL)	17	89.914	7
Flanders Bailey (C)	21	87.715	8
Stonewall Kimbro (C)	15	87.40	9
Stonewall Umbrum	20	86.5	10

The sections are ranked according to the size of the means. On the reading in English test only one control section exceeded any of the bilingual sections. The other control sections were the lowest in the group. The relative rank of the sections is very similar to the ranking on the Otis Alpha Test of Mental Ability with some notable exceptions. Flores' section at Flanders ranked first on the mental ability test and

TABLE VII

THE MEANS OF THE SCORES MADE BY PUPILS IN THE VARIOUS SECTIONS OF THE FIRST GRADE OF THE FOUR ELEMENTARY SCHOOLS ON TESTS OF READING, LEVEL I, INTER-AMERICAN SERIES, BOTH SPANISH AND ENGLISH EDITIONS MAY, 1969

Section and School	N	English Mean	Rank	Spanish Mean	Rank
Columbia Heights Flores (BL)	27	38.85	1	28.12	2
Collier Koegel (BL)	17	32.0	2	16.41	6
Stonewall De Soto (BL)	28	30.25	3	28.07	3
Collier Jackson (C)	26	30.0	4		
Columbia Heights Minica (BL)	25	28.45	5	19.40	5
Stonewall Lozano (BL))	23	27.22	6	24.83	4
Flanders Flores (BL)	20	25.75	7	31.25	1
Stonewall Umburn (C)	21	21.86	8		
Flanders Bailey (C)	22	21.32	9		
Stonewall Kimbro (C)	21	19.0	10		

seventh on English reading test but ranked first on the Spanish reading test. Cognitive ability, as measured by the mental ability tests, may be reflected in either language and in this case it was Spanish. Koegel's section at Collier ranked second in the English reading test but ranked lower than all others in Spanish. This teacher felt that it was necessary to spend so much time teaching English that she had little time for teaching Spanish. Flores at Columbia Heights had a section that achieved well in both languages. As noted previously, Table V is very favorable to the bilingual sections over the control in reading achievement.

A Pearson's r was computed on the scores made by pupils in bilingual sections on Test of Reading, Level I, Primary, Inter-American Series, and on Pruebas de Lectura, Nivel I, Primario, Interamericano serie. The results are recorded in Table VIII. Four of the sections had an extremely high correlation and two had an insignificant correlation, in fact very small correlations.

If the reason for the two small correlation coefficients were known, it might be possible to generalize that when pupils are taught bilingually achievement in both languages will be somewhat comparable. This could have many implications. It would be interesting to investigate this more extensively with larger samples.

TABLE VIII

CORRELATION BETWEEN READING SCORES IN ENGLISH AND READING SCORES IN SPANISH MADE BY PUPILS IN VARIOUS FIRST GRADE SECTIONS OF THE FOUR PROJECT ELEMENTARY SCHOOLS

Schools and Sections	(r)	Significance
Columbia Heights Flores	.802	1%
Columbia Heights Minica	.840	1%
Stonewall De Soto	.97	1%
Flanders Flores	.882	1%
Collier Koegel	.202	NS
Stonewall Lozano	.173	NS

The tests for the first grade pupils in the four schools indicated that the pupils who were in the sections that were taught bilingually made more progress in cognitive development and in reading achievement when considered as a whole. However, some individual sections did not indicate this.

The pupils in the second grade in the four project elementary schools took the Science Research Achievement Test, Grades 1-2, in November, 1968. The composite reading scores of the pupils in various sections were compared. Even though one second grade bilingual section at Columbia Heights made a mean that was one complete grade level above any other section in any school in reading achievement in English, the means of the other sections were so interspersed in ranks that there was no discernible difference in reading ability between the bilingual and the control group sections. These results were so inconclusive that they were not considered worth putting in a table.

The second grade classes were also tested with the reading tests of the Inter-American Series. The sections participating in bilingual instruction were tested with Pruebas de Lectura, Nivel 2, Primario, Interamericano Serie and with Tests of Reading, Level 2, Primary, Inter-American Series, while the control groups were tested with the English edition only. A comparison of the means of the scores for each is shown in Table IX.

There are several observations that can be made concerning the measures in Table IX. Lopez's section at Columbia Heights exceeded all other sections in both Spanish and English by a variation so great that it is significant for both languages at better than the 1% level of confidence. McDaniel was next and her pupils exceeded all other sections in reading ability in Spanish by better than the 1% level of confidence.

TABLE IX

A COMPARISON OF THE MEANS OF THE SCORES MADE BY PUPILS IN THE SECOND GRADE OF THE FOUR ELEMENTARY SCHOOLS ON TESTS OF READING, LEVEL II, PRIMARY, INTER-AMERICAN SERIES, SPANISH AND ENGLISH EDITIONS MAY, 1969

School and Section	N	Mean English Reading	Rank	Mean Spanish Reading	Rank
Columbia Heights Lopez (BL)	29	73.89	1	45.24	1
Columbia Heights McDaniel (BL)	30	55.33	2	38.24	2
Collier Salazar (C)	28	52.54	3		
Stonewall Rodriguez (C)	26	50.27	4		
Flanders Hernandez (BL)	25	47.20	5.5	26.84	3
Flanders (C) Saenz	25	47.20	5.5		
Stonewall Garza (BL)	19	41.74	7	23.77	6
Columbia Heights Miranda (C)	27	38.48	8		
Collier Alvarez (BL)	15	37.00	9	25.42	4
Stonewall Gaona (BL)	19	36.47	10	21.28	7
Stonewall Rives (BL)	22	36.09	11	24.61	5

McDaniel's mean exceeded all other sections in reading in English, but the difference was not significant even at the 5% level from those means closest to hers. The fact that two bilingual sections led all the sections is impressive until it is noted that the three lowest sections were also bilingual. Other bilingual sections ranked 5.5 and 7. There is no demonstrated superiority of one method of teaching over the other by a comparison of these means in reading ability.

The rank order of the means for reading ability in Spanish and in English has observable homogeneity. Spearman's rank order correlation formula yields a coefficient of .679, which is a very significant correlation. Again the pupils who are taught bilingually tend to develop competence in both languages to a comparable degree.

The third grade pupils were tested with the Science Research Associates Achievement Test in May. The purpose was to be able to compare the reading ability in English of the pupils who had been taught bilingually for three years with those who had been taught in English only. Several factors, however, prevented this from being a true comparison. The bilingual sections had not been kept intact completely. Spanish in the third grade was taught somewhat as a separate subject and not as an integrated bilingual program. Some of the pupils in the control sections of the third grade had been taught bilingually in previous years.

Even a cursory examination of Table X shows that there is no discernible difference in the reading ability in English of the bilingual and non-bilingual pupils as measured by the means of the sections. The comparative ranks are interspersed. The composite mean for the bilingual sections is a grade level of 2.9 and the composite mean for the non-bilingual section

is a grade level of 2.9. It may be worthy of note that these third grade children in the four elementary schools near the end of the school year are approximately one-year behind the national norm in reading ability in English as measured by the Science Research Achievement Test. The differences among the four schools is not enough to be significant.

TABLE X

RANK OF MEANS OF COMPOSITE READING RAW SCORES AND GRADE LEVEL SCORES ON SCIENCE RESEARCH ASSOCIATES ACHIEVEMENT TEST BY THIRD GRADERS IN BILINGUAL AND NON-BILINGUAL INSTRUCTIONAL SECTIONS IN FOUR ELEMENTARY SCHOOLS OF THE HARLANDALE INDEPENDENT SCHOOL DISTRICT

School Teacher	N	Grade Level Mean $\bar{X}$	Raw Score Mean $\bar{X}$	Rank (Intra-School)	Rank (Inter-School)
Columbia Heights					
Terry	32	2.0	24.94	2	11
Peche*	25	3.8	51.24	1	1
Collier					
Alanis	29	2.3	28.86	3	10
Estrada	28	3.6	48.75	1	2
Garza*	23	2.5	31.56	2	9
Flanders					
Donathan	26	2.9	41.15	2	5
Perez	22	3.6	48.68	1	3
Mora*	24	2.8	39.38	3	6
Stonewall					
Delaney	24	2.6	34.62	3	8
Lopez	26	3.2	45.11	1	4
Calonge*	23	2.7	38.22	2	7

* bilingual

An analysis of the data to this point points to these evaluative statements: (1) The bilingual sections of the first grade showed a greater increase in readiness and cognitive development and a greater skill in reading in English than the control sections which were taught in English only. This difference was measurable but not great enough to justify generalization. (2) There was no discernible difference in language achievement by second and third grade pupils between the bilingual and the control.

Teacher opinions are always most important to the evaluation of any on-going learning program and have implications for future planning. Selected statements from teachers are included here.

From the first grade:

"The children enjoyed Spanish in the classroom and learned English more rapidly."

"Besides learning to read and to communicate better in Spanish, the children became more free to express their real selves. They developed a pride in their own language and culture."

"I do believe that bilingual programs are the best way to teach but I do worry that bilingual instruction is not being carried on properly in the higher grades. It should continue to high school."

"Teachers need to feel that the administration is close by while they are trying to reach the non-English speaking in their mother tongue."

The second grade teachers said:

"Bi-lingual instruction is the best thing that has happened to the Mexican-American child. I would like to see bilingual instruction through the elementary school and required in high school. Spanish gives the child an appreciation of his own heritage and thus his own self image is enhanced. More books and materials are needed. Teaching Spanish does not detract the child from learning English but enables him to learn English more readily.

"A bilingual program will only be effective if it is well planned, taught by trained people, has qualified leadership, has material available, and is well coordinated. Our program was none of these".

"The children who knew the least English profited most from bilingual instruction. It is a good way to teach the Mexican-American Child".

"When Spanish is accepted and used, the children are more free in their participation in class discussion.

A third grade teacher said:

"There is a definite need for more bilingual materials and a better method of coordinating the program. There is too much indecision as to how much Spanish should be taught and how it should be taught. Teachers need more training and should have more opportunity to exchange ideas and discuss the benefits of the program".

It becomes apparent that most of the teachers believe in the program and some are enthusiastic. However, the program does have dissenters, one of whom is impressively emphatic. The teachers clearly see the need for more materials, more training, better planning and coordination, and closer administrative support.

IV. SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

The purpose of this study was to evaluate the Bilingual Instructional Project in the first, second, and third grades of four elementary schools, in the Harlandale Independent School District, San Antonio, Texas, during the 1968-69 school term.

The purpose of the project was to provide a bilingual environment to enhance the development of the Spanish-speaking child in cognitive and language abilities. The bilingual environment should give the child a personal and cultural acceptance productive of a self-concept which makes possible those linguistic and communicative successes on which real internalized motivation is constructed.

It was the further purpose of this project to provide bilingual instruction in some of the classes in the four schools in the first, second, and third grades and to compare these pupils in terms of language development and reading ability, with those who were taught in English only. The study also sought to determine the correlation between reading ability in Spanish and in English.

Efforts were made to ascertain the objectives at the functional level; that is, the objectives as the teachers perceived them and planned for their implementation. The teachers, insofar as a generalization can be made, perceived the use of Spanish in the classroom as a tool to assist in teaching

English and for clarifying understanding in subject matter areas when English was inadequate. The teachers also accepted the bilingual program as a means of enhancing the child's self-concept, easing personal adjustments, and creating a cultural pride.

The evaluation of the first grade included a mental ability and readiness test in the fall as a pre-test and repeating the test in another form in May as a post-test. At the end of the year the pupils were given a reading test in both English and Spanish. Both bilingual and control groups were tested. Comparisons were made in terms of developmental progress between bilingual and control sections and between pre-test and post-test. The pre-test used was the Otis Alpha Test of Mental Ability, Non-Verbal, with directions in both English and the Spanish vernacular of the area. The post-test was the Otis Alpha Test of Mental Ability, Non-Verbal, for pre-test--post-test comparisons but the Verbal was given also so comparisons could be made between the verbal and non-verbal results. The reading tests were Tests of Reading, Level I, Primary, Inter-American Series in both the English and Spanish editions.

At the second grade level, the Science Research Associates Achievement Test in Reading, 2-4, was given as a pre-test, but the district could not give it as a post-test. The Test of Reading, Level II, Primary, Inter-American Series, in both Spanish and English editions, was given at the end of the year. Comparisons were made between bilingual and control sections of the second grade in the four schools. Correlations were determined between reading achievement in English and in Spanish.

At the third grade level, the Science Research Associates Achievement Test in Reading, 2-4, was given at the end of the year. Comparisons were made between bilingual sections and control sections to ascertain their

comparative ability to read in English.

Conclusions

1. The Harlandale bilingual program has always been very flexible and rather permissive. A curriculum guide was prepared, but how it was used was left to the teacher's option. The amount of time devoted to bilingual instruction was somewhat optional and very varied. The methodology was completely each teacher's option. Very little control was exercised from the central office and the principals varied according to their own individualized administrative pattern.

2. The bilingual sections of the first grade showed a greater increase in readiness and cognitive development and a greater skill in reading in English than the control sections which were taught in English only. This was in most instances a significant difference but the mothod for selecting control sections limits generalizations.

3. There was no discernible difference in language achievement by second and third grade pupils between the bilingual and the control groups as measured by reading tests in English.

4. There was a significant correlation between the ability of the pupils in English and their ability in Spanish in the bilingual sections. Pupils tend to have comparable ability in both languages if they have been taught bilingually.

5. Most of the pupils in the sections that were taught bilingually are bilingual in that they can listen, read, write, and speak in two languages. This certainly has merit, even though not all persons agree how valuable this is. Many agree that it has economic and social value and enhances good citizenship and patriotism. Some research shows that bilingual language development, when properly done, contributes to increased cognition and intellectual development.

6. The teachers, with one exception, believe in and endorse the program, and some are enthusiastic. They see it as an aid to teaching English and subject matter as well as enhancing the pupil's self concept and giving him a pride in his culture. The teachers clearly see the need for more materials, more training, better planning and coordination, and closer administrative support.

7. Progress was made in developing the curriculum guide and having more bilingual materials available.

8. This bilingual program may have long range effects which are not now measurable.

Recommendations

1. Better organization, better planning, leadership that is more readily available, closer support by the principals, and more materials are strongly recommended. Present plans for next year's bilingual project show promise of accomplishing these plans.

2. It is strongly recommended that a structured core program of language development be designed and made available to all teachers. The program should continue to provide creative flexibility for the use of language in functional natural settings that have the most meaning to pupils--this means a use of language with which pupils can have some personal identity.

3. This year's experience has made it evident that a frequent, continuous, and well-planned program of in-service training is essential to the effective on going of the bilingual program.

4. It is strongly recommended that all classrooms where bilingual instruction is carried on be made a part of the evaluation. Some teachers have felt ignored and overlooked.

5. It has previously been recommended that the Spanish-speaking child's first contact with formal language development be in Spanish. This means total immersion in Spanish until the child has gone through oral language development, a reading readiness program, and is able to read in Spanish to some extent. Once a child has learned the process of using orally his first language to make sentences, to ask questions, to answer questions, and to transfer from statement to question, to answer, and has learned the process of expressing his thoughts through spoken (phenemes) and written (morphemes) symbols; that is, he has learned to speak and read, then he can begin to learn English as a second language. If this cannot be done with all Spanish speaking sections, then it should be done experimentally to whatever degree seems feasible.

6. It is recommended that, if and when possible, oral language development in both Spanish and English be taught in an early language development program; that is, pre-first grade. The effectiveness of this approach has been rather well established. Texas' new pre-school program offers a magnificent opportunity for the implementation of this approach. Plans should be made now to use this pre-school learning program effectively.

7. It is again recommended that all attempts to teach children to read in a language they cannot speak be discontinued. Symbols can have no meaning until a child knows and understands the word, idea, or concept for which the symbol is used. Trying to teach reading without oral language development develops dropouts, pushouts, and educational cripples. The Harlandale reading consultant, Mrs. Penny Taylor, is to be commended for her efforts to improve oral language development.

8. After the pupils have passed from the first grade, it is recommended that all pupils who are in a section that is to be taught bilingually be pupils who were taught bilingually the preceding year. Sections that have a minimum change of pupils personnel are better able to benefit from bilingual instruction and also afford a better opportunity for measurement of the quality of learning resulting from the instruction.

9. It is recommended that the evaluators have closer contact with the program.

10. It is recommended that only teachers who are capable and willing be included in the bilingual program.

11. It is recommended that Mrs. Rosena Gayle be commended for her persistent and continuing interest in bilingual instruction and its proper implementation and that William Marshall, the curriculum director, be commended for his buoyant enthusiasm and strong support of all effective learning programs in the district.

As a final word, an expression of thanks is extended to all persons connected with the program for their confidence in it and their willingness to be involved, and especially to the teachers for their very frank and thoughtful evaluations and comments on their own program.