ED 023 508

RC 002 567

By-Pryor, Guy C.

Evaluation of the Bi-Lingual Project of Harlandale Independent School District, San Antonio, Texas, In the First Grades of Four Elementary Schools during 1966-1967 School Year.

Harlandale Independent School District, San Antonio, Tex.

Pub Date Jun 67

Note - 77p.

EDRS Price MF -\$0.50 HC -\$3.95

Descriptors - Bilingualism, Bilingual Students, Comparative Testing, Data Analysis, English (Second Language), Evaluation Criteria, Evaluation Methods, Evaluation Techniques, \*Experimental Programs, Grade 1, \*Language Instruction, \*Mexican Americans, \*Program Evaluation, Reading Readiness Tests, Reading Tests, Spanish

A comparison of achievement and personal adjustment of Spanish-speaking students in an experimental bilingual school environment at the first grade level was the purpose of the Harlandale instructional project. This evaluation report presents comparative data from the testing program used to establish the effectiveness of bilingual education when compared to traditional English-only instruction. The comparative data also includes behavioral observations by the teacher, attendance and promotion data, and pupil history. Statistical comparisons are made on all test results of the pre- and post-testing periods. The results of the project tend to reflect favorably on bilingual instruction, and recommendations were made to expand and continue research in the program. (DK)



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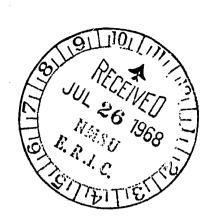
BI-LINGUAL PROJECT OF HARLANDALE

INDEPENDENT SCHOOL DISTRICT,

SAN ANTONIO, TEXAS, IN THE

FIRST GRADES OF FOUR ELEMENTARY

SCHOOLS DURING 1966-1967 SCHOOL YEAR



For

Harlandale Independent School District

John C. Gonder, Superintendent

San Antonio, Texas

By

Dr. Guy C. Pryor

Associate Professor

Our Lady of the Lake College

June, 1967

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#### I. INTRODUCTION

#### Statement of the Problem

The purpose of this study is to evaluate the Bi-Lingual Instructional Project in the first grades of four elementary schools in Harlandale Independent School District during the 1966-67 School Term.

### Objectives of the Project

The purpose of the project was to provide a bi-lingual environment for instructional and affective purposes for one class of first-grade pupils of Mexican-American origin living in Spanish speaking homes and to compare the progress of this group of pupils in communication skills, conceptual development, and social and personal adjustment with the progress of similar classes of first grade pupils in the same school who receive instruction in English only. This project was replicated in identical patterns in each of four elementary schools in the Harlandale Independent School District.

In order to accomplish the central objective, the following subpurposes were set out:

1. To provide for experimental group instruction in both Spanish and English by a competent bi-lingual teacher who will also provide a bi-lingual environment in one first grade class in each of the four elementary schools.



- 2. To provide for the control groups, instruction in English as usual.
- 3. To test and survey the first classes in each school to determine to what extent they are similar or equal in ability and characteristics at the inception of the project.
- 4. To test, survey, and examine at the end of the project all available measurements, data, behavioral observations attendance records, and evidence of parental cooperation to determine differences in social adjustment, reading ability communications, and academic success among the first grade classes in each school.

It should be clearly understood that it was never the purpose of this project to compare school with school but to compare the progress made by pupils in the experimental section with bi-lingual instruction with the progress of pupils in other sections of the first grade in the same school. However, it was necessary to study some of the deviant conditions, such as methods of grouping, which seem to have some relation to the variant results obtained in different schools.

#### Significance of the Project

The most acute educational problem in the Southwest is that which involves Mexican-American children. In the elementary and secondary schools of five states in this region--Arizona, California, Colorado, New Mexico, and Texas--there are approximately 1.75 million children with Spanish surnames. Many of these young people experience academic failure in school. At best, they have limited success. A large percentage become school dropouts.



Little headway is being made against the problem. While teachers and administrators are and have been deeply concerned about it, they are also for the most part perplexed as to just what to do. The traditional approach has been simply to ignore the unique circumstances of children from Spanish-speaking homes, to assume that even with little or no experience in speaking English they would somehow learn as easily as their English speaking classmates. Obviously, this did not happen. As a result, some schools have attacked the problem directly by grouping all their Mexican-American children in a pre-first grade where they would spend a year learning English and laying a foundation for regular school experiences. Such a procedure has the built-in disadvantage of creating an over-age group of students who must then go all the way through school a jump behind peers.

And as recently as March, 1967, the San Antonio Evening News reported that a "BLUE RIBBON group of local educators" found, "The people of San Antonio have the lowest education attainment of any major Texas city." The report further stated that

52 per cent of all Mexican-Americans in Texas over 25 years of age had completed no more than four years of school, and only 11.7 per cent had gone to high school. ... San Antonio (has) an unemployment rate of six per cent which compares with a 3.9 per cent rate for the United States. ... The Mexican-Americans maintain the highest rate of illiteracy, the highest dropout rate, the highest unemployment rate, the lowest educational attainment rate of any minority group.



<sup>&</sup>lt;sup>1</sup>San Antonio Evening News, March 13, 1967, p.1.

<sup>2&</sup>lt;sub>Ibid</sub>

If this ethnic group does not differ in innate ability from the great mainstream of American citizenry, then some problem(s) has existed to keep it from finding a workable compatibility with the dominant culture. While the more subtle cultural differences between this group and its mainstream counterpart may not be apparent to the casual observer, the clearly outstanding difference is the fact that English is not the "mother tongue" for the Mexican-American. Moreover, as Manuel noted, "(since)...there is a strong tendency for them to occupy different residential sections, .. the isolation of Spanish-speaking children tends to defeat their attempts to learn English."<sup>3</sup> This problem of language continues to be both a cause and an effect of isolation, the result of which is that the children of this sub-culture usually enter a school where virtually all of the instruction is in English while at the outset they have only a rudimentary knowledge of Spanish.

It haslong been recognized that starting to school can be a traumatic experience for any child unless careful procedures are used to smooth the transition from home to school. When the Spanish-speaking child enters school for the first time and is thrown into an English-speaking environment, he finds himself in a strange world where even his language is rejected. To be unable to communicate with the teacher, the mother-substitute in the school environment, leaves the child isolated and insecure. To reject one's language is to reject

Herschel T. Manuel, <u>Spanish Speaking Children of the Southwest</u> (Austin: University of Texas Press, 1965), p. 30.

him as a person and to reject his culture. He even begins to feel there is something wrong with his family, for they speak the language and live in the culture which he has found rejected at school. This can be the onset of anomie. This is the name psycholinguists give to the lost feeling an individual may have in belonging neither to his own group or to a new group. Then a child is without price in the first culture and has little or no interest or liking for the second, the combination can destroy the motivation for the child, cause him to become neurotic and chronically disoriented. This condition can even be mistaken for mental retardation or slow learning ability.

On the other hand, a child's first contact with a second language can be an enriching experience. The teacher should welcome the pupil in his first langua e, thus establishing a bond of commonality. A gradual introduction to a second language with instruction for the improvement of the first can be an enrichment for the child in language facility and expression of thought that may exceed that of the child who speaks only one language.

#### Description of the Project

This bi-lingual instructional experiment was conducted in and by the Harlandale Independent School District in San Antonio, Texas. This project was originated because of the keen awareness of John C. Gonder, Superintendent of Harlandale Schools, of the difficulties experienced by the Spanish speaking child in the schools with which he has been associated throughout his school career. As a teacher and principal, Gonder collected empirical evidence of the benefits



of bi-lingual instruction even prior to his becoming superintendent. In the implementation of the project he has involved his co-workers, Callie W. Smith, assistant superintendent; Charles N. Boggess, director of curriculum; William R. Marshall, assistant director of curriculum; Dr. Guy C. Pryor, Consultant form Our Lady of the Lake College; and the principals and teachers from the four elementary schools involved. (See Directory in the Appendix.)

This bi-lingual instructional experiment 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 everywhere evident. Spanish is the language which is spoken predominantly in the area. All of the children in the project spoke Spanish before starting to school Most of them had little contact with English except in the early learning programs, such as, Head Start. Even the radio and television programs are in Spanish.

The extent to which the parents of the area speak Spanish was demonstrated clearly to the consultant in a meeting of the Parent-Teachers Association in one of the schools involved in the bilingual experiment. The Parent-Teacher meeting was well attended with perhaps 175 to 200 parents present. The president, speaking English, laid before the meeting the question of the desirability of having a Spring Fiesta, which she had described in ample detail. Interest was minimal. The vote elicited less than 10 per cent "pros" and "cons". The principal of the school then explained the Spring Fiesta

in Spanish. This time an overwhelming majority voted with obvious enthusiasm for the Fiesta.

It should be evident to even the casual reader that the area in which the four elementary schools lie is indeed a highly appropriate target area for bi-lingual experimentation.

A scope and sequence report and an examination of room schedules indicated some variation in the amount of time spent per day in Spanish instruction but in general it approximated one hour and 20 minutes per day in each school. Obviously instruction in English received much more time.

#### II. DESIGN OF THE EVALUATION

It was deemed desirable to have only one first grade class in each of the four schools taught bi-lingually. This limitation was considered necessary by the number of fully bi-lingual teachers available and the reluctance to involve greater numbers of children and teachers until more empirical evidence validated by research data might justify expansion.

Children were assigned randomly to the experimental first-grade section in each school with some noted exceptions. Students fully competent in the use of English were assigned to control rather than to experimental sections. In Collier Elementary Schools pupils were selected for the experimental section on the basis of their being Spanish-speaking children with inability to speak or understand English. The other students at Collier then were assigned accordingly to readiness and predicted ability to perform in the first grade.

Mrs. Jackson (Section II) received the children who were rated as having the highest ability; Mrs. Love (Section I) received the next highest; Mrs. Cazier (Section III) was assigned the middle group; and those who could speak no Spanish were placed in Mrs. Koegel's room (Section IV) and were considered the lowest group and were designated as the experimental group.

A competent bi-lingual teacher was assigned to each experimental group. The teachers of the control groups were Anglo and Mexican-

American. All of them regardless of ability to speak Spanish, were instructed to teach only in English.

Data were collected on the basis of pre-testing and post-testing and from observations and information concerning each individual pupil.

For pre-testing the following were used:

Otis Alpha Mental Ability Test, Non-Verbal, Short Form: This test was given by reading each specific direction in English and Spanish in quick succession. A translation of the directions into the Spanish vernacular of the area was made so that all testers would be using exactly the same wording. The purpose of this was to enable the pupils to respond regardless of which language they spoke.

Reading Readiness Tests: The tests which were used were PRUEBAS

DE HABILIDAD GENERAL, Serie Interamericano, Nivel I, PRIMARIO, Formas

CES and TESTS OF GENERAL ABILITY, Level 1, PRIMARY, Form CE. Both

the Spanish and English forms were given. Since one of the objectives

for giving these tests was to determine the pupil's readiness in English

and his readiness in Spanish, the two languages were not mixed or used

interchangeably while the tests were being given. It was an effort to

ascertain what language or languages the child functioned in and to

what extent.

Behavioral Observations: This was a record of each pupil's characteristic behavior as observed by the teacher after she had carefully studied each child. This Behavioral Form consisted of 51 characteristic behavioral responses, 24 of which depicted socially adjusted behavior, 15 depicted shyness and withdrawal, and 12 excessive aggressiveness.



The last two categories were weighted to equate each of them in score value with the first category.

Individual Pupil Data: This form requested pertinent demographic data plus the pupil's involvement in early learning programs and the extent of his competence in language performance in Spanish and English.\*

For Post-Testing and Basic Information the following were used:

Reading Tests: TESTS OF READING, Inter-American Series, Level 1, Primary (English Edition), were given to all first grade classes in all four schools. PRUEBAS DE LECTURA, Serie Interamericano, Nivel 1, Primario, (Spanish Edition) were given to all experimental groups. Tests on the basal readers were also used but these were found to be available only at the primer level.

Principal's Data on Each First Grade Classroom: This was a summary of attendance data from the Teacher's Daily Register, the number of pupils promoted and the number retained, and a record of attendance of parents at Parent-Teacher Association meetings for each homeroom.

Individual Pupil Data: This was designed to provide information on each student at the close of the school year to include such items as attendance for each semester, days absent, reasons for absences, reasons for withdrawal, promotion or retention, special problems, and general behavioral patterns. In actuality little information was reported on this form that was not available on other forms. This could have been a valuable addition to the research.

<sup>\*</sup>See Appendix

The tests in each instance were administered by one person in each school to obtain uniformity. However, the basal reader tests were administered by the classroom teacher when each group of pupils had finished the reader. Pre-tests were given the first week in October and post-tests the second week in May.

Since the measurement was designed to compare relative progress of the pupils in the experimental section with the relative progress of pupils in the other sections of the first grade within each elementary school, the data of both the pre-test and post-test have been analyzed and interpreted for each school separately and in succession. This enables the reader to associate the pre-test indications with the post-test results more readily. After each school has been presented, some relevant comparisons have been made among the bi-lingual instructional group from each of the schools because of the variance in grouping policy and other deviant factors as previously indicated.

For the most part, comparisons among the first grade classes within each school and among the bi-lingual instructional classes in the several schools were accomplished by making tables of the usual comparative statistical data with greatest emphasis on the t-ratio or critical ratio of the significance of the difference among the means of the measures. In addition a Pearson's Product Moment Coefficient of Correlation was computed in comparing the reading achievement in English with the reading achievement in Spanish in each of the bi-lingual instructional classes to ascertain whether there was a tendency for pupils who achieved good reading ability in English to also achieve good reading ability in Spanish and whether those who made low scores in English reading



## Insert for page 11

It will be quickly noted that the pre-tests and post-tests are not sequential measurements in sense of measuring learning progress, for example reading ability. Such measurements are highly impractical if not impossible with the first grade without much individual measurement and long periods of observation by trained observers. Such facilities and personnel are not usually available in an operating public school.

It was the design of this research to use the pre-tests to determine the relative status of the various first grade sections in each school in regard to IQ, reading readiness, and behavioral responses. It was the purpose of the post-tests to determine the relative status of the various first grade sections in reading ability (two tests) and to measure the relative progress in learning Spanish in the experimental group. Significant changes in relative status and learning levels may be suggestive of effects of introducing the variable, bilingual instruction in one section of the first grade in each school.



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achievement also made low reading achievement in Spanish. Conclusions and recommendations were made on the basis of the total data and observations in all the schools.

The graduate students in research at Our Lady of the Lake College assisted in the tabulation of the data.



## III. PRESENTATION AND ANALYSIS OF DATA

A description of the population involved in this bi-lingual instructional project has been given in the section titled "Description of the Project." Table I shows the schools, teachers and numbers of pupils involved in the project.

It will be noted that pupil withdrawals and reentries 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. However, vestigal effects of the migrant problem are still shown in Section IV (Koegel) in Collier School, the experimental group that was most exclusively Spanish speaking of all the groups in all four schools.

The Otis Alpha Mental Ability Test, Non-verbal, Short Form was administered in all the first grades during the first week in October. These tests were given by reading each direction in English and in Spanish in quick succession. Table II shows the results of this test in Columbia Heights Elementary School.

It can quickly be noted that Section III has approximately the same mean ability as measured by the Otis Test, as Sections IV, VI, and VII. The t-test shows no significant difference among these sections. However, Sections I and II are significantly lower at the 1 per cent level than all others but Sections I and II are not significantly different from each other. This clearly establishes the status of Section III, the bi-lingual section, in relation to the



TABLE I

SCHOOLS, TEACHERS, AND NUMBERS
OF PUPILS INVOLVED IN THE BI-LINGUAL
INSTRUCTIONAL PROJECT

|                                      | <del></del>   |                               |  |
|--------------------------------------|---|-------------------------------|--|
| Membership<br>Beginning<br>of School | Membership<br>Close of<br>School                          | Additions<br>During<br>Term   | Losses<br>During<br>Term   |
|                                      |   |                               |  |
| 31<br>20<br>29<br>30<br>28<br>29     | 30<br>22<br>26<br>29<br>30<br>29                          | 1<br>8<br>4<br>5<br>5<br>6    | 2<br>15<br>7<br>6<br>3<br>6  |
|                                      |   |                               |  |
| 30<br>29<br>27<br>20                 | 30<br>30<br>29<br>26                                      | 6<br>10<br>12<br>15           | 6<br>9<br>10<br>9  |
|                                      |   |                               |  |
| 29<br>34<br>30<br>31                 | 29<br>30<br>28<br>31                                      | 5<br>2<br>1<br>3              | 5<br>6<br>3<br>3   |
|                                      |   |                               |  |
| 25<br>27<br>25<br>24<br>25           | 27<br>26<br>22<br>22<br>25                                | 2<br>9<br>8<br>8<br>8         | 0<br>10<br>11<br>10<br>8   |
|                                      | Beginning of School  31 20 29 30 28 29 27 20  25 27 25 24 | Beginning Close of School  31 | of School     School     Term       31     30     1       20     22     8       29     26     4       30     29     5       28     30     5       29     29     6       30     30     6       29     30     10       27     29     12       20     26     15       29     29     5       34     30     2       30     28     1       31     31     3       25     27     2       27     26     9       25     22     8       24     22     8 |

<sup>\*</sup>Experimental Section



<sup>\*\*</sup>Section V was excluded from the project because English speaking ability.

ability of all other sections as measured by the Otis. It is important to note that the Mean I.Q. of all the first grades in Columbia Heights Elementary School approximate the mean of the general population, contradicting the prevalent idea that Mexican-American Children begin school with inferior I.Q.

TABLE II
RESULTS OF OTIS ALPHA MENTAL ABILITY TEST, NON-VERBAL,
SHORT FORM, COLUMBIA HEIGHTS ELEMENTARY SCHOOL

|       |        |        |         |         |         | <del></del> |
|-------|--------|--------|---------|---------|---------|-------------|
|       | Sec. 1 | Sec. 2 | *Sec. 3 | Sec. 4  | Sec. 6  | Sec. 7      |
| Means | 92.755 | 93.777 | 103.074 | 102.071 | 102.692 | 101.400     |
| Range | 15     | 21     | 5.7     | 39      | 30      | 34          |
| S.D.  | 3.987  | 6.041  | 5.656   | 8.579   | 7.646   | 9.586       |
| 6 m   | . 74   | 1.44   | 1.11    | 1.65    | 1.56    | 1.92        |

\*Experimental Section

The Inter-American Series, Tests of General Ability, Level 1
Primary, Form CE, were administered in both Spanish and English. The data for the English edition are given in Table III.

Again it is noted that the ability of the students as measured by this test shows that Section 3 the bi-lingual group does not significantly differ from Sections 4,6, and 7 but does differ significantly at better than the 1 per cent level from Sections I and II. The ability status of Section III in relation to the other sections of the first is confirmed by this test to be the same as indicated by the Otis.



TABLE III

COMPARATIVE DATA FOR TESTS OF GENERAL ABILITY,

LEVEL I, PRIMARY, FORM CE, INTER-AMERICAN SERIES

COLUMBIA HEIGHTS ELEMENTARY SCHOOL, FIRST GRADE, OCTOBER

| _ | N   | Sec. I | Sec. II | Sec. III | Sec. IV | Sec. VI | Sec. VII |
|---|-----|--------|---------|----------|---------|---------|----------|
|   | N   | 31     | 25      | 29       | 27      | 25      | 26       |
| ) | R   | 63     | 58      | 41       | 48      | 57      | 56       |
|   | M   | 34.905 | 19.60   | 46.207   | 39.405  | 41.20   | 41.075   |
|   | 5   | 16.740 | 16.195  | 13.865   | 12.275  | 13.015  | 14.550   |
|   | O M | 3.057  | 3.306   | 2.620    | 2.407   | 2.657   | 2.910    |

<sup>#</sup> Bi-lingual Section

It should be noted, however, that both the Otis Alpha Test of Mental Ability and the Inter-American Series, Tests of General Ability, Level I, Primary, when given at the beginning of the year are really readiness. Nevertheless they do yield the desired information in revealing four sections of the first grade beginners are somewhat equated while Sections I and II are measured as being significantly lower.

Results of the Spanish Edition of the Inter-American Test of General Ability are shown in Table IV.

Again Sections 3,4,6 and 7 are not significantly different from one another in readiness ability in Spanish as measured by their means as shown in Table IV. Sections 1 and 2 were significantly lower than all the others and Section 1 was significantly lower than Section 2. This shows the sections of the first grade at Columbia Heights Elementary School were in the same relative position in readiness ability as measured by the Spanish edition of the <u>Inter-American General Ability</u>

Test.



TABLE IV

RESULTS OF PRUEBAS DE HABILIDAN GENERAL, SERIE

INTERAMERICANO, NIVEL I, PRIMARIO,

COLUMBIA HEIGHTS ELEMENTARY, FIRST GRADE, OCTOBER

|    | Sec. 1 | Sec. 2 | *Sec. 3 | Sec. 4 | Sec. 6 | Sec. 7 |
|----|--------|--------|---------|--------|--------|--------|
| N  | 30     | 25     | 28      | 27     | 27     | 26     |
| R  | 59     | 65     | 43      | 49     | 52     | 41     |
| M  | 37.83  | 25.83  | 46.5    | 43.14  | 44.15  | 42.46  |
| SD | 14.10  | 17.54  | 11.18   | 11.73  | 11.43  | 12.28  |
| m  | 2.62   | 3.6    | 2.13    | 2.3    | 2.23   | 2.53   |

\*Bi-lingual Section



as they were when measured by the English Edition of the same test and by the Otis. The three tests confirm the status of the several sections as being in the same relative position on the three tests.

The personal adjustment of the pupils was measured by an evaluative rating of teacher observations of behavioral responses as explained in the "Design of the Evaluation." The instrument is in the Appendix.

Table V shows the mean of the scores for personal adjustment. The purpose here again is to compare the relative status of the various sections of the first grade in terms of adjustment.

An examination of the mean of the personal adjustment scores shows that Section 3, the bi-lingual section, is the highest of all six groups. However, the differences among scores of the groups were so small that the highest mean did not differ from the lowest enough to be significant. According to the measures the various sections do not differ from one another significantly in personal adjustment.

TABLE V

COMPARISON OF PERSONAL ADJUSTMENT SCORES
AMONG THE SECTIONS OF THE FIRST GRADE AT
COLUMBIA HEIGHTS ELEMENTARY SCHOOL, OCTOBER

|    |              | Sec. 1 | Sec. 2 | *Sec. 3 | Sec. 4 | Sec. 6 | Sec. 7 |
|----|--------------|--------|--------|---------|--------|--------|--------|
| ٠. | N            | 31     | 27     | 28      | 30     | 25     | 28     |
|    | R            | 42     | 73     | 77      | 48     | 62     | 44     |
|    | M            | 71.84  | 68.44  | 77.17   | 72.83  | 71.56  | 74.6   |
|    | S.D.         | 11.77  | 18.89  | 19.72   | 12.94  | 19.61  | 11.32  |
| (  | <b>5</b> . M | 2.16   | 3.71   | 3.74    | 2.42   | 4.0    | 2.18   |

<sup>\*</sup>Bi-lingual Section



A summary of pre-testing for Columbia Heights Elementary School indicates that Sections 3,4,6, and 7 do not differ significantly from one another but do exceed Sections 1 and 2 significantly in ability and readiness as measured by three tests. All sections are approximately equal in personal adjustment scores.

The most important set of tests in the <u>post-testing</u> was Tests of Reading, Inter-American Series, Level 1, Primary, English Edition. This test was given in all schools the second week in May.

The results of this test for Columbia Heights Elementary School are compiled in Table VI.

TABLE VI

THE RESULTS OF TESTS OF READING, INTER-AMERICAN SERIES, LEVEL I,

PRIMARY, ENGLISH EDITION,

COLUMBIA HEIGHTS ELEMENTARY SCHOOL, MAY

|          | Sec. 1 | Sec. 2 | *Sec. 3 | Sec. 4 | Sec. 6 | Sec. 7 |
|----------|--------|--------|---------|--------|--------|--------|
| N        | 28     | 21     | 24      | 29     | 28     | 28     |
| M        | 22.54  | 22.72  | 31.58   | 26.83  | 34.14  | 24.855 |
| S.D.     | 9.76   | 12.53  | 12.82   | 11.71  | 9.58   | 12.50  |
| <b>5</b> | 1.88   | 2.82   | 2.68    | 2.21   | 1.84   | 2.21   |

\*Bi-lingual Section

The results in Table VI show Section 6 and Section 3 to be the two highest sections in reading ability at the close of school. Sections 3 and 6 do not differ significantly from one another and Section 4 is close enough to them to not differ significantly. Sections 1,2, and 7 are all significantly lower than Sections 3 and 6 but only Section 1 is



low enough to differ significantly at the 1 per cent. In general it is possible to say Sections 3,4, and 6 occupy the same relative positions as in the pre-testing of ability and readiness but Section 7 has dropped into the lower categories with Sections 1 and 2. Section 3, the bi-lingual section has made as much progress in learning to read as any other section. They spent an average one hour and 20 minutes per day learning to speak and read Spanish. They were still able to learn as much in reading in English as any other Section.

The progress in reading was to be measured further with tests accompanying each book in the basal reader series. However, only the primer Level test was available and not all the pupils took that.

To obtain any evidence of relative progress in reading among the several class sections, a great deal of understanding of the incompleteness and a great deal of interpretation of the somewhat limited evidence obtained from available scores are required. Nevertheless the results of the primer Level reading tests are shown in Table VII.

TABLE VII

RESULTS OF READING-STUDY ACHIEVEMENT TESTS,

PRIMER LEVEL, COLUMBIA HEIGHTS

| <u> </u>       | Sec. 1        | **Sec. 2   | *Sec. 3 | Sec. 4 | Sec. 6     | Sec. 7    |
|----------------|---------------|------------|---------|--------|------------|-----------|
| N              | 15            |            | 21      | 19     | 14         | 7         |
| R              | 68            |            | 97      | 57     | 63         | 57        |
| M              | 94.33         |            | 111.67  | 102.89 | 105.71     | 129.28    |
| S.D.           | 16.12         |            | 25.68   | 15.75  | 21.9       | 15        |
| G M            | 4.31          |            | 5.72    | 3.69   | 6.07       | 6.12      |
| Stude<br>not t | nts 15<br>ak- | 22         | 5       | 10     | 16         | 22        |
| int test       |               | *Bi-lingua | l group | **Test | s not avai | lable for |



A mere cursory examination of Table VII reveals that Section 3, the bi-lingual section far exceeded all others on the basal reading test. The fact that Section 7 had a mean of 129.28 compared with a mean of 111.67 for Section 3 is completely nullified that Section 7 tested only 7 out of 22 pupils compared with 21 pupils tested out of 26 in Section 3. It may be safely assumed that the reason that so many pupils did not take the test was that they were not ready. The wide range of scores made by pupils in Section 3 is indicative of the fact that the teacher of this section gave the test to some who were not ready but the mean of the section was high in spite of this. Section 3, the bi-lingual group is clearly ahead of all others as measured by the basal reader tests, primer level.

A comparison of the scores made by pupils in Section 3, the billingual section, on the Tests of Reading, Inter-American Series,
Level I, Primary, English Edition and Spanish Edition is shown in
Table VIII.

TABLE VIII

COMPARISON OF PUPIL SCORES, BI-LINGUAL GROUP, ON TESTS OF READING, INTER-AMERICAN SERIES, LEVEL I, PRIMARY, AND PRUEBAS DE LECTURA SERIE INTERAMERICANO, NIVEL I, PRIMARIO, COLUMBIA HEIGHTS ELEMENTARY SCHOOL, MAY

|      | Section I<br>English | Section II<br>Spanish |
|------|----------------------|-----------------------|
| N    | 24                   | 24                    |
| R    | 43                   | 26                    |
| M    | 31.585               | 15.125                |
| S.D. | 12.82                | 6.65                  |
| 6 m  | 2.65                 | 1.01                  |



The Table clearly shows that as measured by the means of the scores that the achievement in English far exceeded the achievement in Spanish, but there is some question here as to whether the same things are being measured since a comparison of tests in two different languages was attempted. Furthermore, Pearson's Product Moment Coefficient of Correlation shows an Y of .112 which is almost no correlation between scores made by the pupils in the bi-lingual group on the Spanish and English tests. The important results of these two tests is that they show the bi-lingual section of the first grade, Columbia Heights Elementary School, could read in two languages at the end of the first grade. That is, bi-lingual instruction had actually been done.

The attendance and reasons for absence were explored to see whether teaching bi-lingually made any difference in attendance and kinds of reasons for absence. Tables IXa and IX b show the comparative attendance of the several sections.

TABLE IXA

FIRST SEMESTER ATTENDANCE RECORD

OF FIRST GRADE PUPILS AT COLUMBIA

HEIGHTS ELEMENTARY SCHOOL

|                             | Sec. 1 | Sec. 2 | *Sec. 3 | Sec. 4 | Sec. 6   | Sec. 7     |
|-----------------------------|--------|--------|---------|--------|----------|------------|
| Total Days<br>Membership    | 2774   | 2355   | 2565    | 2600   | 2527     | 2569       |
| Total Days<br>Present       | 2595   | 2127.5 | 2461    | 2444.5 | 1764.5   | 2353.5     |
| Total Days<br>Absent        | 177    | 227.5  | 107     | 155.5  | 173.5    | 178        |
| Percentage of<br>Attendance | 93.61  | 90.33  | 95.94   | 94.05  | 93.13    | 93.05      |
|                             |        |        |         |        | (cont. r | next page) |



| TABLE IXA (cont.) |    |    |    |    |    |    |  |
|-------------------|----|----|----|----|----|----|--|
| Membership        | 31 | 29 | 29 | 30 | 28 | 29 |  |
| Additions         | 1  | 6  | 2  | 1  | 2  | 3  |  |
| Losses            | 2  | 7  | 3  | 3  | 1  | 3  |  |
| Membership        | 30 | 28 | 28 | 28 | 29 | 29 |  |

\*Bi-lingual Section

TABLE IXb

SECOND SEMESTER ATTENDANCE RECORD OF FIRST GRADE PUPILS AT COLUMBIA

HEIGHTS ELEMENTARY SCHOOL

Sec. 1 Sec. 2 \*Sec. 3 Sec. 4 Sec. 6 Sec. 7 Total Days Membership 2520 2128 2386 2421 2460 2424 Total Days Present 2332 1890 2190 2151 2276.5 2153 Total Days Absent 188 238 193 270 183.5 270.5 Percentage of Attendance 92.53 88.81 88.84 91.78 92.54 88.84 Membership 30 28 28 28 29 29 Additions 2 2 4 3 3 Losses 8 4 3 2 3 Membership 30 22 26 29 30 29 \*Bi-lingual Section

There is no evidence that teaching bi-lingually affected atten-dance in any way.

The attendance at Parent-Teacher Association meetings and other evidence of parental cooperation yielded no information worth reporting.

The comments made by teachers on the attitude of pupils and their



behavioral responses at the end of the year were too few to merit reporting, much less evaluating.

The number of retentions in each section ranged from 2-7 with the bi-lingual group having the least along with one other section.

Summary of the Findings for Columbia Heights

- 1. Pre-testing showed that Section 3, the bi-lingual section was approximately equal to Sections 4, 6, and 7 in ability and readiness in early October but exceeded Sections 1 and 2 significantly. Section 5 was not included in the study.
- 2. The post-testing showed the progress of the bi-lingual section was approximately the same as Sections 4 and 6 and exceeded Section 1, 2, and 7 significantly. Only the basal reading tests showed the bi-lingual section greatly exceeding all other sections.
- 3. The fact that the bi-lingual section did as well, or better, than the other section reading in English, even though they had spent an average of one hour and 20 minutes per day studying Spanish, is significant.
- 4. The number of retentions in the bi-lingual section was as low as any section and lower than all except one.
- 5. Tests in both Spanish and English show that the bi-lingual group could speak and read in two languages.



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The first grade pupils in Collier Elementary School were given the same pre-tests and post-tests as those at Columbia Heights which were analyzed and interpreted above.

Table X shows the relative status of the four sections at Collier Elementary School as measured by the Otis Alpha Mental Ability Test, Non-Verbal, Short Form.

TABLE X

RESULTS OF OTIS ALPHA MENTAL ABILITY TECT, NON-VERBAL,

SHORT FORM, COLLIER ELEMENTARY SCHOOL

|                  | Sec. 1 | Sec. 2 | Sec. 3 | *Sec. 4 |  |
|------------------|--------|--------|--------|---------|--|
| R                | 33     | 45     | 42     | 26      |  |
| M                | 101    | 105.7  | 98.1   | 93.2    |  |
| 6                | 8.21   | 9.56   | 9.31   | 6.72    |  |
| 6 <sup>†</sup> m | 1.52   | 1.91   | 1.72   | 1.44    |  |

\*Bi-lingual Section

Distributions and statistical computations were made from I.Q. scores. Section 4 was significantly lower than all the others. This was the section receiving bi-lingual instruction. This is accounted for by the fact that all pupils in this section could speak no English at all. The principal assumed that this was the class with the lowest ability and least readiness of all the four sections. The other three sections were not significantly different from one another. This defines the relative status of the four sections of the first grade at Collier Elementary School as measured by the Otis test.



The results of the Inter-American Tests of General Ability, Primary Level, English Edition are shown in Table XI. This table shows that Section 4 has the lowest mean of the four sections. However, this mean is not significantly lower than the mean of Section 3. It is significantly lower than the means of Section 1 and 2 at the 1 per cent level. These results define the relative status of the four groups in readiness and ability as being in the same relative position approximately as was indicated by the Otis test in Table X. The pupils in Section 4 evidently could understand some English in October even though they could speak no English at the beginning of school according to the Principal.

TABLE XI

COMPARATIVE DATA FOR TESTS OF GENERAL ABILITY
LEVEL I, PRIMARY, FORM CE, INTER-AMERICAN SERIES
COLLIER ELEMENTARY SCHOOL, FIRST GRADE, OCTOBER

|      | Sec. 1 | Sec. 2  | Sec. 3 | Sec. 4 |  |  |
|------|--------|---|--------|--------|--|--|
| R    | 45     | 37  | 57     | 58     |  |  |
| M    | 54.0   | 52.833  | 41.0   | 36.074 |  |  |
| S.D. | 11.7   | 10.72   | 14.48  | 14.66  |  |  |
| 6 m  | 2.21   | 2.06  | 2.84   | 2.88   |  |  |
| /    |        | والمستون والمتالك ووالمراه والمارات والمارات والمارات والمارات والمارات والمارات والمارات والمارات والمارات |        |        |  |  |

\*Bi-lingual Section

The ability of the various sections of the first grade at Collier School was also measured by the Spanish Edition of the Inter-American General Ability Test. The results are shown in Table XII.

Again Section 4 had the lowest mean. Section 4 was lower than Section 3 but the difference was not significant. Section 4 was significant-



ly lower than Sections 1 and 2 at the 1 per cent level. The fact that Section 4 was lowest on all three tests, Spanish as well as English, should clearly indicate that the pupils in Section 4 were least ready for school. Peing totally Spanish speaking was apparently not the only factor that caused them to rate low because they ranked lowest on the test in Spanish also. However, being totally Spanish speaking may have contributed to all the factors indicative of a lack of readiness. The relative positions of the groups were the same on the test in Spanish as the two English ability tests.

TABLE XII

RESULTS OF PRUEBAS DE HABILIDAD GENERAL,
SERIE INTERAMERICANO NIVEL I, PRIMARIO AT

COLLIER ELEMENTARY SCHOOL, OCT.

|      | Sec. 1 | Sec. 2 | Sec. 3 | *Sec. 4 |
|------|--------|--------|--------|---------|
| R    | 34     | 70     | 60     | 54      |
| M    | 46.54  | 52.94  | 37.62  | 34      |
| S.D. | 13.36  | 16.56  | 16.70  | 12.20   |
| ♂ m  | 2.52   | 3.19   | 3.20   | 2.39    |

\*Bi-lingual Section

The personal adjustment of the pupils was measured by an evaluative rating of teacher observations of behavior as explained in the "Design of the Evaluation." The instrument is in the Appendix.

Table XIII shows the mean of scores for adjustment. The purpose



here again is to compare the relative status of the various sections of the first grade in terms of adjustment.

TABLE XIII

COMPARISONS OF ADJUSTMENT SCORES

AMONG THE SECTIONS OF THE FIRST GRADE AT

COLLIER ELEMENTARY SCHOOL, OCTOBER

|      | Sec. 1 | _    | Sec. 3 | * Sec. 4<br>A |   |
|------|--------|------|--------|---------------|---|
| R    | 50.0   | 61.0 | 42.0   | 65.0          |   |
| M    | 73.4   | 86.1 | 48.6   | 62.7          |   |
| S.D. | 14.2   | 13.0 | 11.6   | 22.0          |   |
| 6 m  | 3.2    | 2.6  | 2.1    | 4.2           | · |

\*Bi-lingual Section

The relative standing of the sections as indicated by the mean of the adjustment scores is:

Highest: Section 2
Second Highest: Section 1
Third Highest: Section 4
Lowest: Section 3

There is a significant difference between all the means but between 3 and 4 the difference is only at the 5 percent level. It will be noted that the relative standing of sections is the same as was established by the three ability tests except 3 and 4 have changed places. The adjustment scores did not indicate that bi-lingual instruction had caused the children to make noticeably better personal adjustment than



those pupils who were being taught in English. Rather it tends to confirm the findings of the three ability tests; that is, Section 4 is low in ability and readiness. It should be clearly noted that in the pre-test Section 4 was lowest in three measures and next to lowest in one, adjustment, of the sections of Collier Elementary School.

The post-testing at Collier Elementary is reported by first giving the results of Tests of Reading, Inter-American Series, Level I, Primary, English Edition. Table XIV shows the results.

TABLE XIV

THE RESULTS OF TESTS OF READING, INTER-AMERICAN SERIES,

LEVEL I, PRIMARY, ENGLISH EDITION,

COLLIER ELEMENTARY SCHOOL, MAY

|      | Sec. 1 | Sec. 2 | Sec. 3 | *Sec. 4 |
|------|--------|--------|--------|---------|
| n    | 30     | 30     | 29     | 26      |
| R    | 54     | 53     | 34     | 37      |
| M    | 36.67  | 44     | 25.28  | 30.27   |
| S.D. | 12.04  | 10.247 | 10.44  | 10.91   |
| 0 m  | 2.235  | 1.902  | 1.972  | 2.182   |

<sup>\*</sup>Bi-lingual Section

The groups ranked according to the means of the scores from highest to lowest are in the following order: Sections 2, 1, 4, 3. Section 4, the bi-lingual section, is lower than Section 2, significant at 1 percent level or better. It is also lower than Section 1, significant at the 5 per cent level. It is higher than Section 3 but not significantly. This shows that the bi-lingual section did not



significantly change its pre-test relative position among the groups as measured by the reading ability in May. However, Section 4 certainly did not lose ground for it exceeded Section 3 but not significantly.

The results of the tests accompanying the basal readers at the primer level are shown in Table XV.

TABLE XV

RESULTS OF READING-STUDY ACHIEVEMENT TESTS, PRIMER LEVEL

COLLIER ELEMENTARY SCHOOL

|                   | Sec. 1 | Sec. 2 | Sec. 3 | *Sec. 4 |  |
|-------------------|--------|--------|--------|---------|--|
| N                 | 25     | 30     | 27     | 22      |  |
| R                 | 61     | 115    | 66     | 89      |  |
| M                 | 114.08 | 105.5  | 68.856 | 109.955 |  |
| S.D.              | 15.47  | 22.365 | 18.613 | 16.849  |  |
| ⊙ m               | 3.158  | 4.132  | 3.650  | 3.676   |  |
| Number not tested | 5      | 0      | 2      | 4       |  |

<sup>\*</sup>Bi-lingual Section

The basal reading tests show that means of Sections 1, 2, and 4 are not significantly different from one another but Section 3 is significantly lower than all other sections at 1 per cent level. This shows tremendous growth for the bi-lingual group, for according to the pre-test this section was significantly lower than all others but in the latter part of April it was approximately equal to the best in reading ability.



A comparison of the scores made by pupils in Section 4, the bi-lingual group, on Tests of Reading, Inter-American Series, Level I, Primary Edition and Spanish Edition is not summarized in a table because of its being a comparison of scores in two languages. It is sufficient to say that the two means were: English 30.42 and Spanish 24.0 again indicating the English scores were higher as was found also at Columbia Heights.

Pearson's Product Moment Coefficient of Correlation yielded an = .415. This correlation is significant at the 5 per cent level.

This shows that those pupils who score high in English also tend to score high in Spanish. This is more indicative of the results of teaching and basic ability than it is influences of a prior knowledge. To the extent the correlation is positive to this extent the effect of previous knowledge of Spanish is negated.

The attendance and reasons for absence were examined to see whether teaching bi-lingually made any difference in attendance and kinds of reasons for absence. Tables XVIa and XVIb show the comparative attendance of the four sections.

Again, there is no evidence that teaching bi-lingually affected attendance in any way.

The attendance at Parent-Teacher Association meetings and other evidences of parental interest were not adequately reported and were of no value.

The retentions were as follows:

Section 1: 1 Section 2: 0



TABLE XVIa

## FIRST SEMESTER ATTENDANCE RECORD OF FIRST GRADE PUPILS AT COLLIER ELEMENTARY SCHOOL

| )                           | Sec. 1 | Sec. 2 | Sec. 3 | *Sec. 4 |
|-----------------------------|--------|--------|--------|---------|
| Total days<br>Membership    |        | 2767   | 2767   | 2478    |
| Total Days<br>Present       | 2689   | 2565.5 | 2542.5 | 2238.5  |
| Total days<br>Absent        | 145    | 201.5  | 219.5  | 239.5   |
| Percentage of<br>Attendance | 94.869 | 92.685 | 91.987 | 90.297  |
| Membership                  | 30     | 29     | 27     | 20      |
| Additions                   | 5      | 5      | 8      | 14      |
| Losses                      | 3      | 2      | 6      | 4       |
| Membership                  | 32     | 32     | 29     | 30      |

\*Bi-lingual Section



TABLE XVID

SECOND SEMESTER ATTENDANCE/RECORD OF

FIRST GRADE PUPILS AT

COLLIER ELEMENTARY SCHOOL

| .×                          | Sec. 1 | Sec. 2 | Sec. 3 | *Sec. 4  |
|-----------------------------|--------|--------|--------|--|
| Total days                  |        |        |        | and the second s |
| Membership                  | 2548   | 2422   | 2507   | 2461   |
| Total days<br>Present       | 2342   | 2334.5 | 2226   | 1221.5   |
| Total days<br>Absent        | 206    | 187.5  | 281    | 248  |
| Percentage of<br>Attendance | 92.591 | 92.583 | 88.791 | 89.004   |
| Membership                  | 31     | 32     | 29     | 30   |
| Additions                   | 1      | . 5    | 4      | ı  |
| Losses                      | 3      | 7      | 4      | 5  |
| Membership                  | 28     | 30     | 29     | 26   |

\*Bi-lingual Section



Section 3: 2 Section 4: 6

Section 4, the bi-lingual section had the greatest number of retentions. However, it should be noted Section 4, at the beginning of school, was the section with lowest ability and readiness and the most immature. Nevertheless, there is no evidence from this study at Collier to indicate that bi-lingual instruction reduces retentions.

# Summary of Findings for Collier

- 1. Pre-testing showed that Section 4, the bi-lingual group, was the lowest of the four groups on all tests and in most instances the difference was significant. It was even the lowest on the test given in Spanish even though it purported to be the Spanish-speaking group.
- 2. The post-testing showed the bi-lingual group had developed more rapidly in reading ability than the other groups. On the Inter-American tests of reading it exceeded Section 3 and approached Section 1 but was very significantly exceeded by Section 2. However, on the basal rading tests it ranked with the top groups. Ability in Spanish was more evident than the group at Columbia Heights and correlated positively with English ability.
- 3. The fact that the bi-lingual section improved its relative status in reading ability in English among the other groups, even though they had spent an average of one hour and 20 minutes per day in study of Spanish, is strongly indicative of success of bi-lingual instruction.
- 4. The comparison of retentions was unfavorable to the bi-lingual group,
- 5. Tests in both Spanish and English show the pupils in the bilingual group can speak and read in two languages.



Pre-testing and post-testing at Flanders Elementary School followed the same pattern as at Columbia Heights and Collier.

Table XVII shows the relative status of the four sections at Flanders Elementary School as measured by the Otis Alpha Mental Ability Test. Non-verbal, Short Form.

TABLE XVII

RESULTS OF OTIS ALPHA MENTAL ABILITY TEST,

NON-VERBAL, SHORT FORM

FLANDERS ELEMENTARY SCHOOL

|       | Sec. 1 | Sec. 2 | *Sec. 3 | Sec. 4 |
|-------|--------|--------|---------|--------|
| n     | 33     | 34     | 31      | 32     |
| R     | 44     | 21     | 44      | 39     |
| M     | 90.91  | 87.56  | 100     | 103.84 |
| s. D. | 8.597  | 6.1796 | 10.1378 | 9.928  |
| ø m   | 1.52   | 1.076  | 1.851   | 1.783  |

Distributions and statistical computations were made from I.Q. scores.

Section 3 and 4 had the highest means and their means were not significantly different from each other even though Section 4 was numerically higher. Sections 3 and 4 were both higher than 1 and 2 and this difference was significant at the 1 per cent level, but 1 and 2 did not differ significantly from each other. It is possible to say here that Section 3, the bi-lingual group, significantly exceeds Sections 1 and 2 in ability as measured by the Otis Test and



does not differ from Section 4 significantly.

The results of the Inter-American General Ability Test, Primary Level, English Edition are shown in Table XVIII. This table shows

TABLE XVIII

COMPARATIVE DATA FOR TESTS OF GENERAL ABILITY,
LEVEL I, PRIMARY, FORM CE, INTER-AMERICAN SERIES
FLANDERS ELEMENTARY SCHOOL, FIRST GRADE, OCTOBER

|             | Sec. 1  | Sec. 2 | *Sec. 3 | Sec. 4 |
|-------------|---------|--------|---------|--------|
| N           | 33      | 34     | 31      | 32     |
| R           | 69      | 42     | 54      | 39     |
| <b>м</b>    | 43.46   | 48.74  | 45.5    | 52.2   |
| S.D.        | 17.68   | 9.6    | 13.65   | 10.0   |
| *Bi-lingual | Section |        |         |        |

the means to rank in this order from highest to lowest by sections:

4, 2, 3, 1, Section 3 is lower than Section 4, significant at the

5 per cent level. Section 3 does not differ significantly from Sections

1 and 2. The relative status of the bi-lingual section is somewhat

different from that shown by the Otis test. Here, Table XVIII, the

bi-lingual section is exceeded by Section 4 and somewhat equated with

Sections 1 and 2.

The ability of the various sections of the first grade at Flanders

Elementary School were also measured by the Spanish Edition of the

Inter-American General Ability Test. The results are shown in

Table XIX. The means are the same rank order here, except Sections 4

RESULTS OF PRUEBAS DE HABILIDAD GENERAL SERIE INTERAMERICANO NIVEL I, PRIMARIO AT

| **<br>*P | Sec. 1 | Sec. 2 | *Sec. 3 | Sec. 4 |
|----------|--------|--------|---------|--------|
| N        | 33     | 34     | 31      | 32     |
| R        | 63     | 48     | 39      | 4'5    |
| M        | 38.54  | 52.77  | 42.23   | 48.25  |
| s. D.    | 15.528 | 12.18  | 10.91   | 10.18  |

and 2 have exchanged ranks, as in the English Edition. Section 3 the bi-lingual, is exceeded significantly at the 1 per cent level by Section 2, but does not differ significantly from Section 1 and is exceeded by Section 4, significantly at the 5 per cent level. The relative position of the bi-lingual section is lower than Sections 2 and 4 and higher than Section 1.



The personal adjustment of the pupils was measured by an evaluative rating of teacher observations as previously explained.

TABLE XX

COMPARISON OF ADJUSTMENT SCORES

AMONG THE SECTIONS OF THE FIRST GRADE AT
FLANDERS ELEMENTARY SCHOOL, OCTOBER

|                | Sec. 1  | Sec. 2 | *Sec. 3 | Sec. 4         |
|----------------|---------|--------|---------|----------------|
| N              | 34      | 35     | 31      | 32             |
| R              | 60      | 60     | 83      | 65             |
| M              | 75.29   | 72.22  | 80.90   | 88.5           |
| S. D.          | 15.01   | 12.07  | 20.10   | 1 <b>9.</b> 95 |
| σ <sub>m</sub> | 2.60    | 2.07   | 3.61    | 3.64           |
| *Bi-lingual    | Section |        |         |                |

AA A ranking of the means of the adjustment scores produces from highest to lowest the following placement: Sections 4, 3, 1, 2, Section 3 falls approximately midway in the range of the means. The t-ratio was computed for each pair of sets of scores. These data were devoid of any relevance pertinent to the evaluation of bi-lingual instruction.

The post-testing at Flanders Elementary School is reported by first giving the results of Tests of Reading, Inter-American Series, Level I, Primary, English Edition.

The scores are measures of reading achievement. The mean of the bi-lingual group is second only to the mean of Section 4. Section 4 exceeds Section 3 by a difference that is significant at the 1 per cent level.





TABLE XXI

THE RESULTS OF TEST OF READING, INTER-AMERICAN SERIES,

LEVEL I, PRIMARY, ENGLISH EDITION,

FLANDERS ELEMENTARY SCHOOL, MAY

|             | Sec. 1 | Sec. 2 | *Sec. 3 | Sec. 1 |
|-------------|--------|--------|---------|--------|
| M           | 29     | 30     | 28      | 31     |
| M           | 25.68  | 23.21  | 31.63   | 40.0   |
| S. D.       | 12.68  | 12.74  | 8.6     | 14.08  |
| *Bi-lingual | 2.32   | 2.41   | 1.69    | 2.31   |

Section 3 exceeds Sections 1 and 2 by a difference that is significant at the 1 per cent level. The relative status of the four sections is approximately the same as indicated by two ability and readiness tests given in October. The bi-lingual group has continued in the same relative position in reading achievement even though one hour and 20 minutes per day was used in Spanish instruction. This really means that the bi-lingual instructional group held its relative position in reading achievement even though it spent less time learning to read in English.



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A comparison of the scores made by pupils in Section 4, the bi-lingual group, on Tests of Reading, Inter-American Series, Level I, Primary and Spanish Editions is not summarized in a table because of its being a comparison of scores in two languages. It is sufficient to say that the two means were: English 36 and Spanish 25.6. Again the English scores were higher than the Spanish scores as was the case in other schools. These scores indicate that this group of pupils functioned well at the first grade in both languages.

Pearson's Product Moment Coefficient of Correlation yielded an = .47. This is another significant positive correlation.

The results of the tests accompanying the basal readers at the primary level are shown in Table XXII. A valid Comparison of these TABLE XXII

RESULTS OF READING-STUDY ACHIEVEMENT TESTS, PRIMER LEVEL, FLANDERS ELEMENTARY SCHOOL

|                | Sec. 1  | Sec. 2 | *Sec. 3 | Sec. 4 |
|----------------|---------|--------|---------|--------|
| N              | 14      | 25     | 17      | 15     |
| R              | 25      | 79     | 26      | 4.1    |
| M              | 111.36  | 103.68 | 123.12  | 130.2  |
| s. D.          | 7.451   | 7.94   | 7.606   | 6.72   |
| √ m            | 2.07    | 1.58   | 1.9     | 1.74   |
| lo. not tested | 15      | 7      | 13      | 7.6    |
| *Bi-lingual S  | Section |        |         | 16     |



groups as measured by tests accompanying the basal reader is impossible from the data in Table XXII. There are so many untested that the assumption must be made that they either had not completed the primer or were reading at a level so low that the teacher did not include their scores. The untested pupils nullify confidence in any high means attained. The bi-lingual section is among those with excessive numbers untested. These data reveal no evidence favorable to bi-lingual instruction. It would even be rational to assume that Section 2 has the greatest achievement in reading ability at this point even though the mean of this group is the lowest. This teacher tested the highest per cent of her pupils

The attendance and reasons for absence were examined to see whether teaching bi-lingual made any difference in attendance and kinds of reasons for absence. Tables XXIIa and XXIIIb are records of this.

TABLE XXIIa
FIRST SEMESTER ATTENDANCE RECORD OF FIRST GRADE PUPILS AT
FLANDERS ELEMENTARY SCHOOL

|                              | Sec. 1  | Sec. 2 | *Sec. 3 | Sec. 4 |
|------------------------------|---------|--------|---------|--------|
| Total Days<br>Membership     | 2974    | 3044   | 2856    | 2564   |
| Total Days<br>Present        | 2770    | 2833   | 2618.5  | 2318   |
| Total Days<br>Absent         | 177     | 211    | 237.5   | 246    |
| Percentage of<br>Attendance  | 93.99   | 93.07  | 91.68   | 90.4   |
| Membership<br>Beginning of S | Sem. 29 | 34     | 30      | 31     |
| Additions                    | 5       | 2      | 2       | 1      |
| Losses                       | 2       | 6      | 0       | 1      |
| Membership<br>Close of Sem.  | 32      | 30     | 32      | 31     |

\*Bi-lingual

It is most obvious that the section receiving bi-lingual instruction had the lowest percentage of attendance of any of the groups.

There is nothing in these tables to indicate that bi-lingual instruction better attendance or greater cooperation on the part of the pupils and their parents. The bi-lingual group also had more pupils with excessive absences

TABLE XXIIIb

SECOND SEMESTER ATTENDANCE RECORD OF
FIRST GRADE PUPILS AT
FLANDERS ELEMENTARY SCHOOL

|                                       | Sec. l  | Sec. 2 | *Sec. 3 | Sec. 4 |
|---------------------------------------|---------|--------|---------|--------|
| Total Days<br>Membership              | 2570    | 2538   | 2501    | 2564   |
| Total Days<br>Present                 | 2342    | 2366   | 2192    | 2318   |
| Total Days<br>Absent                  | 288     | 172    | 309     | 246    |
| Percentage of<br>Attendance           | 91.13   | 93.22  | 87.64   | 90.41  |
| Membership<br>Beginning of Semes      | ster 29 | 30     | 32      | 31     |
| Additions During<br>Semester          | 3       | 0      | 0       | 1      |
| Losses During<br>Semester             | 3       | 0      | 4       | 1      |
| Membership at<br>Close of<br>Semester | 29      | 30     | 28      | 31     |
| *Bi-lingual S                         | Section |        |         |        |



The teachers at Flanders School provided the comments on absences, on student attitude, and on behavioral responses as requested. These comments were ample for this type of evaluation. These comments were carefully analyzed and evaluted. They revealed nothing that was indicative of better attitude and more adequate personal adjustment in the bi-lingual instruction group.

The record of total attendance at Parent-Teacher Association meetings for the year was as follows:

Section 1: 60

Section 2: 42

Section 3: 80

Section 4: 85

The groups are in the same relative position here as they were in academic achievement. These data and other data indicate nothing favorable or unfavorable in regard to parent attitude toward bi-lingual instruction of their children.

The number of retentions in each room was as follows:

Section 1: 6

Section 4: 4

Section 3: 5

Section 4: 3

Section 3, the bi-lingual section, had the next to the highest number of retentions. This is rather unfavorable to bi-lingual instruction at Flanders.

# Summary of Findings For Flanders

- 1. Pre-testing showed that Section 3, the bi-lingual group, was second highest in ability and readiness in October. This section was exceeded only by Section 4.
- 2. Post-testing revealed that the bi-lingual group developed at approximately the same rate as the other sections in development of reading ability and remained in the same relative position among the groups at the end of school as at the beginning.
- 3. Even though the bi-lingual group did not improve its relative standing among the groups in reading ability, the pupils in the group did learn to speak and read Spanish in addition.
- 4. The comparison of retentions was unfavorable to the bilingual group.
- 5. The data in regard to attendance and pupil and parent attitude and cooperation were not favorable to the group receiving bi-lingual instruction nor were they particularly unfavorable.



The pupils at Stonewall Elementary School were given the same pre-tests and post-tests as those at the other schools already reviewed.

Table XXIV shows the relative status of the five sections at Stonewall Elementary School as measured by the Otis Alpha Mental Ability Test, Non-Verbal, Short Form. Again these tests were given by reading each direction in English and then reading it again in Spanish as translated into the vernacular.

TABLE XXIV

RESULTS OF OTIS ALPHA MENTAL ABILITY TEST,
NON-VERBAL, SHORT FORM, STONEWALL ELEMENTARY SCHOOL, OCTOBER

| - Angle - Angl | *Sec. 1 | Sec. 2 | Sec. 3 | Sec. 4 | Sec. 5 |
|--|---------|--------|--------|--------|--------|
| N  | 25      | 22     | 24     | 21     | 22     |
| R  | 47      | 35     | 38     | 53     | 38     |
| M  | 105.08  | 104.09 | 101.62 | 99.14  | 92.64  |
| . D.   | 10.63   | 9.02   | 8.61   | 11.94  | 10:99  |
| 0 m  | 2.17    | 1.97   | 1.80   | 2.67   | 2.40   |

Distributions and statistical computations were made from I. Q. scores. It will be noted that Section 1, the group receiving bilingual instruction, is as hin as any of the sections as measured by the mean of ability and readiness. In fact, here is a high degree of equivalence among the means of Sections 1, 2, 3 and 4. Section 5 is lower than all the others, significant at the 1 per cent level,



with the exception of Section 4 where the difference, though numerically apparent, is not quite significant. These data clearly establish the relative position of the bi-lingual section among the sections in ability and readiness as measured by the Otis Test in October.

The results of the Inter-American Test of General Ability, Primary Level, English Edition are shown in Table XXV. By a comparison of the TABLE XXV

COMPARATIVE DATA FOR TESTS OF GENERAL ABILITY, LEVEL I, PRIMARY, INTER-AMERICAN SERIES, FIRST GRADE AT STONEWALL ELEMENTARY SCHOOL

|      | *Sec. 1 | Sec. 2 | Sec. 3 | Sec. 4 | Sec. 5 |
|------|---------|--------|--------|--------|--------|
| N    | 25      | 27     | 25     | 24     | 25     |
| R    | 48      | 44     | 39     | 62     | 55     |
| М    | 54.75   | 44.0   | 54.77  | 44.43  | 38.23  |
| . D. | 12.06   | 12.41  | 11.24  | 17.25  | 14.11  |
| 0 m  | 2.51    | 2.7    | 2.46   | 3.86   | 3.08   |

means, it is noted that Section 1 and Section 3 have almost identical Sections 2 and 5 are lower, significant at the 1 per cent level. Section 4 is lower, significant at 5 per cent level. It is possible to say here that the mean ability and readiness of the bi-lingualinstruction section is equivalent to Section 3 and exceeds all other significantly. The relative position of the bi-lingual section is confirmed as being the same as was indicated by the Otis Test.



The ability and readiness of the various sections of the first grade at Stonewall Elementary School was also measured in Spanish by means of the Spanish Edition of the General Ability, Inter-American Series, Level 1, Primary. These results are tabulated in Table XXVI.

#### TABLE XXVI

RESULTS OF PRUEBAS DE HABILIDAD GENERAL, SERIE INTERAMERICANO, NIVEL I, PRIMARIO, AT STONEWALL ELEMENTARY SCHOOL, FIRST GRADE OCTOBER

| *Sec. 1 | Sec. 2                    | Sec. 3   | Sec. 4   | Sec. 5  |
|---------|---------------------------|--|--|---|
| 25      | 27                        | 25   | 24   | 25  |
| 50      | 51                        | 62   | 57   | 46  |
| 51.5    | 34.35                     | 44.0   | 37.67  | 35.76   |
| 12.86   | 14.70                     | 14.36  | 15.11  | 11.91   |
| 2.68    | 3.13                      | 3.21   | 3.38   | 2.66  |
|         | 25<br>50<br>51,5<br>12.86 | 25 27<br>50 51<br>51,5 34.35<br>12.86 14.70<br>2.68 3.13 | 25     27     25       50     51     62       51,5     34.35     44.0       12.86     14.70     14.36       2.68     3.13     3.21 | 25     27     25     24       50     51     62     57       51.5     34.35     44.0     37.67       12.86     14.70     14.36     15.11       2.68     3.13     3.21     3.38 |

The pupils in the bi-lingual section clearly exceeded all other sections as measured by the means of the scores on this test. Section 1 exceeded Sections 2, 4, and 5 by a difference that was significant at the 1 per cent level and also exceeded Section 3 by 7.5 mean score points but this difference was not quite significant. The bi-lingual section clearly exceeded all others in ability to understand Spanish and make the proper readiness responses.

It should be pointed out that the teacher of the bi-lingual section at Stonewall had experience in bi-lingual instruction at first





grade level in the project the preceding year. She had materials, p.ans, and enthusiasm ready and apparently began the Spanish much more quickly than the teachers of the bi-lingual groups in the other schools.

The personal adjustment of the pupils was measured by an evaluative rating of teacher observations of behavior as explained in the "Design of the Evaluation". The instrument is in the Appendix.

The results of these personal adjustment and behavioral observations have been complied in Table XXVII.

Section 1, the bi-lingual section, exceeded all others in adjust-ment. The amount by which the mean of Section 1 exceeds the mean of Section 2 is not significant. However, the amount which the mean of Section 1 exceeds the means of Section 3, 4, and 5 is significant at the 1 per cent level.

This indication of a better personal adjustment could have been influenced by the fact that the bi-lingual section at Stonewall was the only one in which bi-lingual instruction was practiced without hesitation from the first day of school. This does not mean to say that Spanish was not used in the bi-lingual section in each of the other schools on the first. The teacher at Stonewall approached bi-lingual teaching with confidence because of her previous experience in the program.

The personal adjustment scores are influenced somewhat by the variation in the observation of child behavior and the evaluation of the behavior by different teachers.



TABLE XXVII

COMPARISON OF ADJUSTMENT SCORES AMONG THE SECTIONS OF THE FIRST GRADE AT STONEWALL ELEMENTARY SCHOOL,

| *Sec. 1 | Sec. 2               | g., 2                               |  |   |
|---------|----------------------|-------------------------------------|--|---|
| -       |                      | Sec. 3                              | Sec. 4   | Sec. 5  |
| 25      | 24                   | 25                                  | 21   | 22  |
| 60      | 61                   | 60                                  | 42   | 41  |
| 82.68   | 79.61                | 62.08                               | 62.14  | 64.77   |
| 14.42   | 15.88                | 18.32                               | 11.26  | 10.68   |
| 2.94    | 3.31                 | 3.82                                | 2.52   | 2.33  |
|         | 60<br>82.68<br>14.42 | 60 61<br>82.68 79.61<br>14.42 15.88 | 60 61 60<br>82.68 79.61 62.08<br>14.42 15.88 18.32 | 60 61 60 42<br>82.68 79.61 62.08 62.14<br>14.42 15.88 18.32 11.26 |

A summary of the pre-testing at Stonewall would point out that Section 1, the bi-lingual group, was highest or equivalent to the highest in all the measures.

The post-testing at Stonewall Elementary School, as in all other schools, is reported by first giving the results of Tests of Reading, Inter-American Series, Level 1, Primary, English Edition. XVIII shows the results.

TABLE XXVIII

THE RESULTS OF TEST OF READING, INTER-AMERICAN SERIES, LEVEL I, PRIMARY, ENGLISH EDITION, STONEWALL ELEMENTARY SCHOOL

|       | *Sec. l | Sec. 2 | Sec. 3 | Sec. 4 | Sec. 5 |
|-------|---------|--------|--------|--------|--------|
| N     | 26      | 26     | 22     | 22     | 25     |
| M     | 59.79   | 28.32  | 40.0   | 43.19  | 33.67  |
| s. D. | 9.06    | 11.14  | 12.98  | 13.9   | 11.42  |

\*Bi-lingual Section



These tests indicate that Section 1, the bi-lingual section, in a comparison of the means of the scores, exceeds all others in reading ability by a sizable margin, significant in all instances at better than the 1 per cent level. This result was obtained in spite of the usual retarding effects of changing teachers between semesters.

A comparison of the means of the scores of the English Edition and the Spanish Edition of the Inter-American Tests of Reading, Level I, Primary is as follows:

English mean; 59.79

Spanish mean: 69.30

Even though the mean of the bi-lingual group, as indicated in Table XXVIII, is higher than all other sections, the mean in Spanish is even higher. This is exactly opposite of the findings in all other schools.

A Pearson's Product Moment Coefficient of Correlation was computed to determine the correlation between the scores made on the reading test in English and the reading test in Spanish. A correlation of positive 364 was found. This is a positive correlation but not high enough to be significant.

The results of the tests accompanying the basal readers at the primary level are shown in Table XXIX.

The results of the tests accompanying the basal reader, primer level, show that Section 1, the experimental bi-lingual section, was the lowest of all sections as measured by a comparison of means. Section 4 was almost equally low. It is most noteworthy that these sections were the only ones to test all their pupils. If the scores



TABLE XXIX

THE RESULTS OF READING-STUDY, ACHIEVEMENT TESTS, PRIMER LEVEL. STONEWALL ELEMENTARY SCHOOL

|          | *Sec. 1 | Sec. 2 | Sec. 3 | Sec. 4 | Sec. 5 |
|----------|---------|--------|--------|--------|--------|
| N        | 27      | 23     | 18     | 22     | 17     |
| R        | 84      | 81     | 75     | 124    | 61     |
| M        | 86.85   | 109.78 | 121.27 | 89.55  | 107.35 |
| s. D.    | 24.8    | 22.43  | 20.54  | 33.22  | 15.54  |
| 0 m      | 4.86    | 4.78   | 4.99   | 7.23   | 3.88   |
| Not test | ed 0    | 3      | 4      | 0      | 8      |

\*Bi-lingual Section

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of the pupils omitted were zero in the sections with the high means, the picture would change drastically. In view of this possibility the data do not justify pointing to anything unfavorable to the bi-lingual section.

The attendance and reasons for absence were examined to see whether teaching bi-lingually made any difference in attendance and kinds of reasons for absence. Tables XXXa and XXXb show the comparative attendance for the four sections.

It is evident that the bi-lingual section did not have the best percentage of attendance but it was among the better sections and did have a very commendable percentage of attendance. There is nothing . that is unfavorable, to say the least, to the group receiving bi-lingual instruction.



TABLE XXXa FIRST SEMESTER ATTENDANCE REGORD OF FIRST GRADE PUPILS AT STONEWALL ELEMENTARY SCHOOL

|  | *Sec. 1     | Sec. 2 | Sec. 3 | Sec. 4 | Sec. 5 |
|--|-------------|--------|--------|--------|--------|
| Days of<br>Membership                  | 2303        | 2196   | 2058   | 2077   | 2152   |
| Total Days<br>Present                  | 2183.5      | 2158.5 | 1871   | 1928.5 | 1902   |
| Total Days<br>Absent                   | 119.5       | 37.5   | 187    | 148.5  | 250    |
| Membership<br>Beginning of<br>Semester |             | 27     | 25     | 24     | 25     |
| Additions                              | 1           | 2      | 3      | 3      | 1      |
| Losses                                 | 0           | 4      | 3      | 3      | 3      |
| Membership<br>Close of<br>Semester     | at<br>26    | 25     | 25     | 24     | 23     |
| Percentage<br>Attendance               | of<br>94.81 | 98.29  | 90.91  | 92.82  | 88.68  |



TABLE XXXD

SECOND SEMESTER ATTENDANCE RECORD OF
FIRST GRADE PUPILS AT STONEWALL ELEMENTARY SCHOOL

|                               | *Sec. 1 | Sec. 2 | Sec. 3 | Sec. 4 | Sec.       |
|-------------------------------|---------|--------|--------|--------|------------|
| Days of                       |         |        |        |        |            |
| Membership                    | 2230    | 2205   | 2174   | 2005   | 2148       |
| Total Days<br>Present         | 2062.5  | 2057.5 | 2063   | 1850   | 1905       |
| Total Days<br>Absent          | 167.5   | 147.5  | 111    | 155    | 243        |
| Membership at<br>Beginning of |         |        |        |        |            |
| Semester                      | 26      | 28     | 25     | 24     | 26         |
| Additions                     | 1       | 4      | 5      | 5      | <b>)</b> . |
| Losses                        | 0       | 6      | 8      | 7      | 5          |
| Membership at Close of        |         |        |        |        |            |
| Semester                      | 27      | 26     | 25     | 22     | 25         |
| Percentage of                 |         |        |        |        |            |
| Attendance                    | 92.48   | 93.31  | 94.89  | 92.26  | 88.68      |



The comments of the teachers were much too limited to be used in any evaluative comparison of the sections.

A comparison of attendance at Parent-Teacher Association meetings is also given here by sections:

#### Total Attendance

Section 1: 66

Section 2: 17

Section 3: 23

Section 4: 32

Section 5: 11

The attendance of parents of children experiencing bi-lingual instruction at Parent-Teacher Meetings was far greater than those in sections where the children were receiving instruction in English only. This is most favorable to the bi-lingual instruction section in so far as this is a valid measure of one aspect of parental cooperation.

The record of retentions is as follows:

Section 1: 0

Section 2: 3

Section 3: 6

Section 4: 6

Section 5: 6

No pupils in Section 1, the bi-lingual section, were retained.

In so far as this is a criterion of successful instruction the advantage lies most favorably with the bi-lingual instruction group.



### Summary of the Findings for Stonewall

- 1. Pre-testing showed that Section 1, the bi-lingual, was the highest of the four groups on all tests and in most instances the difference was significant.
- 2. Post-testing showed the bi-lingual group had developed much more rapidly in reading ability than the groups who were taught only in English. The bi-lingual group exceeded all others by a difference that was significant at better than the 1 per cent level.
- 3. The bi-lingual group at Stonewall scored higher in reading Spanish than in reading English.
- 4. The comparison of retentions was most favorable to the bi-lingual group.
- 5. The data in regard to attendance were inconclusive but evidences of parental cooperation were most favorable to the bi-lingual group.
- 6. Taken as a whole the evidence favorable to bi-lingual teaching at Stonewall is preponderant.

# Comments on Bi-lingual Teaching by Various Persons Involved

Some persons were asked to comment and others commented without being asked.

Selected comments from Mrs. Rosena Gayle, Principal of Columbia Heights Elementary School, were:

Socially, they (the pupils taught bi-lingually) seem to be better adjusted than most first graders. Even the shy child seemed to adjust sooner.



They also covered as many or more basic readers in English as the other classes, as well as participating in the Learning of reading, writing and correctly speaking Spanish.

This class also had the highest attendance record for the year.

This class was not "hand-picked", but was chosen in the same manner as other classes.

I believe that with the teaching of both languages, together, (not as a separate subject), the child can develop better understanding, and better comprehension of both languages, thereby, creating a feeling of confidence. An attitude of confidence and understanding tends to make a better and quicker learning situation.

Parents were pleased with the program and the progress made by the children in the two languages (Spanish and English).

I would like to see this bi-lingual plan tried in a situation of half Spanish-speaking and half-non-Spanish speaking children. I believe that with this procedure, we would have an even better learning condition as the students would tend to learn from each other. Also, a better, more tolerant understanding of various cultures would be created; thus helping to lessen discrimination and better public relations among the peoples of this nation and perhaps the world.

E. E. H. Gilbert, Principal of Collier Elementary School, submitted the following statement:

The pupils who know the least amount of English on entering school were placed in the bilingual class. As a result of the bilingual program the pupils:

- (1) Adjusted to the school routine easier and quicker than had been the case in previous years,
- (2) Were happier in their work and were absent less than had been the case in previous years,
- (3) Learned to express themselves more freely in the English language,



- (4) Were much less hesitant to speak up in class and other places, and
- (5) Made comparable scores on tests with the control groups in English.

Mrs. Bonnie P. Velten, Principal of Flanders, commented as follows:

During the school year of 1966-67, we have had the privilege of being part of the Bi-lingual Project.

I feel the program has great possibilities and that much help can be given these handicapped children by this method.

I know more progress could have been made by the capable teacher and the useful aide if there had been more pre-organization and each had known what to do and also had had the necessary materials and equipment when the classes started.

In Flanders School, the A.D.A. was very low in this group; next to the lowest in the school and the lowest of the first grades.

I feel the program will be of little value if we stop here, without extending it as the children climb the grades.

Eddie Paredes, Principal of Stonewall wrote as follows:

The bi-lingual program was begun at Stonewall Elementary School in the Harlandale School District on January 24, 1966. The work of the four months following its inception achieved more than the hoped for results.

At the writing of this analysis we will have completed eight and one-half months of the program for the 1966-67 school year.

In this time we have witnessed the disappearance of some of the reservations which were entertained by many at the initiation of the program into our school system. Admittedly, there are still those who harbor some doubts as to the true value



of the program. Those directly connected with the program feel these doubts could be removed permanently if it were explained to other teachers and the general public in lay language. No program can be successful until it has received the full understanding of the entire community. We, who work directly with the children, know the true worth of such a program and understand the necessity for its continuance. This knowledge, gained through experience, must be passed on to the interested citizens in order to obtain their support.

Through misinterpretation of the program's purpose, too frequently, the student participants are expected to demonstrate a far greater ability than non-participating students. This assumption or expectation is erroneous. Those involved in the planning of this particular program should guard against having it used as an "intelligence test." Should this occur, the proven value of the program will be lost. We would succeed in the removal of one obstacle while inflicting another.

The program was begun for the purpose of aiding the Spanish speaking child. It must be continued in this manner; the welfare of the child being of primary importance.

It should <u>not</u> be stressed that the program was conceived, because of the indigent Spanish speaking families. This is not entirely the case; however, it has been noted that numerous articles that have been written concerning the "Bi-lingual Program" point out that it is aimed toward the "underprivileged." Such pronouncements can prove detrimental to a worthy program as the majority of these people possess a deep-rooted pride. We must allow and encourage them to keep this pride intact.

In past years children entered school knowing little or no English and were denied the use of the language they did understand. The end results being a total dislike for school, a high percentage of absenteeism and an ever growing number of drop-outs. These children acquired an inferiority complex, they were ill at ease and possessed a feeling that they were infringing. We can rightfully assume that those youngsters actually loathed the prospects



of continuing school since their presence there offered them nothing more than an insecure, unhappy experience.

With the program beginning in school in September, we have seen insecurity replaced by assurance and unhappiness replaced by a genuine liking for school. In our present bi-lingual class no child is too shy to speak up for himself. In fact, we find them to be extremely vociferious in expressing their likes or dislikes. They are enjoying what every child is entitled to, a happy, uncomplicated introduction to school life. They have learned there is no shame or stigma attached to speaking Spanish. At the same time they are learning to speak correct English and are realizing the importance to them of learning English. They are being impressed with the fact it is good to know more than one language. The result is a group of youngsters who maintain a respect for both languages and do not hesitate using either one.

The ultimate goal we are striving for is to give them a better understanding of English vernacular and grammar through the use of Spanish. This has been achieved to some extent.

We at Stonewall know that the acceptance of school and the enjoyment of school life can be instilled in children if the proper inducement is used. This fact was proved through a change of personnel at mid-term with no appreciable decline in enthusiasm on the part of the students. If, through creating a pleasant, <u>familiar</u> atmosphere for the children to look forward to daily, this program accomplishes nothing more than instilling within these first grade students a desire for more and better education, the program will have more than proved its worth. It is our firm belief that through its continuance a noticable lack of dropouts is in the foreseeable future.

The fact that teacher aides were used in this project has not been evaluated or so far mentioned in this project. Mrs. Fraga, at Stonewall Elementary School, was chosen to speak for all of them.



I feel that there is a definite place in education for a teacher's aide. With the help of my aide, I found more time to do necessary research for better teaching methods and techniques. I also had more time to give individual attention to students who needed help in certain areas of their academic work. I was very fortunate to have an aide who is genuinely interested in helping children and eager to work.

The following is a list of duties that an aide might perform in the classroom. The ones that I used in my classroom are starred.

#### NON-INSTRUCTIONAL FUNCTIONS

- 1. Collecting lunch and milk money.\*
- 2. Collecting supplementary books and materials for instruction.\*
- 3. Collecting and displaying pictures, objects and models.\*
- 4. Correcting standaridized and informal tests and preparing profiles.\*
- 5. Collecting money for charity drives, pupil pictures, etc.\*
- 6. Correcting homework and workbooks, noting and reporting weak areas.\*
- 7. Ordering and returning films, filmstrips, and other A-V materials.
- 8. Telephoning parents about routine matters.\*
- 9. Filing correspondence and other reports in children's records.\*
- 10. Distributing and collecting specific materials for lessons, such as writing paper, art paper, and supplies.\*
- 11. Procuring, setting up, operating, and returning instructional equipment.\*
- 12. Requisitioning supplies.
- 13. Sending for free and inexpensive materials.
- 14. Completing necessary records and bringing other information up to date for cumulative records.
- 15. Keeping records of books children have read.
- 16. Supervising the classroom when the teacher has to leave it.\*
- 17. Arranging and supervising indoor games on rainy days.\*
- 18. Supervising cleanup time.
- 19. Organizing and supervising the intramural athletic program.



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- 20. Accounting for and inventorying non-consumable classroom stock: books, textbooks, dictionaries, reference books, athletic gear, etc.
- 21. Supervising seatwork.\*
- 22. Typing teacher correspondence to parents.\*
- 23. Typing and duplicating mass communications.\*
- 24. Typing and duplicating scripts for plays and skits.\*
- 25. Keeping and maintaining a folder of representative work for each pupil.\*
- 26. Displaying pupil work.\*
- 27. Attending to housekeeping chores.\*
- 28. Setting up and maintaining controls on seating arrangements.\*
- 29. Routine weighing, measuring, and eye testing (by chart).\*
- 30. Administering first aid and taking care of sick or hurt children, telephoning parents to pick up a sick or hurt child, taking home a child who does not have a telephone.
- 31. Telephoning parents of absent children.\*
- 32. Telephoning parents to verify notes requesting that children leave early.\*
- 33. Helping with children's clothing.\*

#### SEMI-INSTRUCTIONAL FUNCTIONS

- 1. Observing child behavior and writing reports.
- Preparing instructional materials: cutouts, master copies, concrete teaching aids for arithmetic.\*
- 3. Arranging interesting and inviting corners for learning: science, reading, or recreational reading.\*
- 4. Tutoring individual children: the bright or the less able.\*
- 5. Teaching children the missed instruction because they were out of the room for remedial reading or speech therapy; repeating assignments.\*
- 6. Assisting children with their compositions and other writings; spelling, punctuation, and grammer assistance.
- 7. Settling pupil disputes and fights.
- 8. Teaching good manners.
- 9. Storytelling.\*
- 10. Helping with the preparations of auditorium plays and programs.\*



Dr. Thomas P. Carter, Director of the Mexican-American Study
Project at the University of California at Los Angeles, after visiting
bi-lingual instructional projects all over the Southwest from
California to Texas, on May 22, 1967 wrote to the evaluator as follows:

Your bi-lingual project struck me as one of the best I have observed--best in the sense of student involvement and flexibility--congratulations. If you collect any hard data on its success, I would greatly appreciate a copy.



#### SUMMARY, CONCLUSIONS, AND RECOMMEDNATIONS

This is an evaluation of an experimental Bilingual Teaching
Project in the Harlandale Independent School District, San Antonio,
Texas.

The purpose of the experiment was to provide competent instruction in both Spanish and English by a bi-lingual teacher in one beginning section of a first grade in each of four elementary schools and to compare the learning, behavior, personal adjustment of pupils and attitudes of parents with these same aspects of growth and learning in the other sections of the first grade in which instruction was entirely in English. The section of the first grade that was taught bi-lingually was the experimental section and the other sections of the first grade in the same school were the control groups.

Pre-tests and post-tests were used as well as personal adjustment rating sheets, personal data sheets, attendance record, report of observers, and indications of pupil and parental attitudes. The design was to determine to what extent the sections of the first grade were equal or different at the beginning of the school term and how much relative change had taken place at the end of the term. That is, it was the design to determine the relative status or position of the experimental (bi-lingual) section of the first grade among all the sections of the first grade in the same school and to determine the extent of the change of relative status or position among the groups at the end of school. Along with a change of the relative status of various sections of the first, several pertinent findings and observations

were made as a result of the application of the several measures.

Some of these findings were:

- 1. The section of the first grade which was instructed bi-lingually at Stonewall Elementary School clearly made more progress in practically every aspect of the measures than the sections which were taught in English only.
- 2. This was also true at Columbia Heights and Collier Elementary Schools but the degree of difference was not nearly so pronounced.
- 3. There was no dependable evidence in favor of bi-lingual instruction at Flanders Elementary School.
- 4. The experimental group at Stonewall scored higher in reading Spanish than it scored in reading English; that is, if tests can validly compare ability in two languages. It should also be noted that this bi-lingual section also exceeded the other sections of the first grade significantly in reading English.
- 5. The extent of the planning, organization of materials, and availability of the curriculum materials at the beginning of the year may greatly influence the result. Stonewall had an experienced bi-lingual teacher who had been in the project the preceding year.
- 6. A multitude of variables, other than the presence or absence of bi-lingual instruction, may be operative in an experiment such as this and bias the findings.
- 7. The extent and direction of many aspects of the findings that tended to reflect favorably on bi-lingual instruction in three schools should justify continued experimentation and some cautious expansion of the program.



8. The pupils in the bi-lingual sections of all four schools could speak, read, and write in two languages at the end of the first grade. This in itself might be considered a justification for the program. This is considered highly important in European schools.





APPENDIX



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# TEACHER.'S OBSERVATION OF PUPIL BEHAVIOR

|          | Name of Pupil   | Homeroom  |
|----------|---|---|
|          | School_   |   |
|          | In the blank space adjacent to each behadindicating the extent to which each behadine behavior of this pupil according to | vioral characteristic accurately described                              |
|          | Symbol Symbol   | Extent of the Characteristic  |
|          | 0   | Never behaves this way  |
| 1        | 1   | Has behaved this way at least once                                      |
|          | 2   | Sometimes behaves this way  |
|          | . 3   | Frequently behaves this way   |
|          | <b>4</b>  | Behaves this way characteristically                                     |
|          | 1 Is alert to all that happens  | Behaves this way as a dominant pattern  16 Seeks attention aggressively |
|          | around him  2 Stands up for himself   | 17 Is impudent to the teacher   |
|          | 3 Is helpful to other children  | 18 Easily angered or irritated  |
|          | 4 Seeks favorable attention   | 19 Is quiet and tries to escape notice                                  |
|          | 5 Is courteous to the teacher   | 20 Shows resentment toward the teacher                                  |
|          | 6 Shows even temper   | 21 Yells in a loud voice  |
|          | 7 Fits into group easily  | 22 Likes school   |
|          | 8 Shows love and appreciation   | 23 Does only what he wants to do  |
|          | toward teacher  9 Talks in moderate tones   | 24 Cries  |
| <b>A</b> | 10 Resents school   | 25 Lies   |
| *        | 11 Cooperates with others   | 26 Is isolated (left alone) by classmate                                |
|          | 12 Has smiling or pleasing ex-  | 27 Exhibits evidence of fears   |
|          | mea a a i an  | 28 Is usually invited to join the group                                 |
|          | 14 Works independently  | 29 Is easily discouraged  |
|          | 15 Stays to himself   |   |
|          |   |   |

|          | 30. | is usually with one or more friends                      | 41 Is rejected by others             |
|----------|-----|--|--------------------------------------|
|          | 31. | Fights other children                                    | 42 Has a friend or friends           |
|          | 32. | Exhibits self confidence                                 | 43 Completes his work or tasks       |
|          | 33  | Prefers to play alone                                    | 44 Leaves work or tasks unfinished   |
| <b>~</b> | 34. | Plays with others  | 45 Is usually sober and serious      |
| 47       | 35. | Pouts  | 46 Laughs easily and freely          |
|          | 36  | Accepts correction pleasantly                            | 47 Is inattentive                    |
|          | 37. | Is loud and noisy  | 48 Respects rights of other children |
|          | 38. | Is well behaved  | 49 Disrupts class                    |
|          | 39  | Works when he receives assist-<br>ance if he is directed | 50 Steals                            |
|          | 40  | Daydreams a great deal                                   | 51 Respects property of others       |
|          |     |  |                                      |



## INDIVIDUAL PUPIL DATA

| Pupil's Name* Homeroom  |
|---|
| Age: yrs Mos as of Sept. 1, 1966. Date Entered School                       |
| Name of Parent or Guardian  |
| Occupation of Parent  |
| Did this pupil speak English when he started to school in September, 1966   |
| None at all: a few words: well enough to make his needs and wishes          |
| known: as fluent in English as most first grade Anglos                      |
| (Check one)   |
| Is Spanish this pupil's first language? Yes No                              |
| Did this pupil attend Head Start in the Summer of 1966? Yes No              |
| Has this pupil attended any other pre-school program other than Head Start? |
| Yes No If "Yes", what program?  |
| Is this pupil repeating the first grade from a previous year? Yes No        |
| Date the pupil withdrew   |

1 7.

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## PRINCIPAL'S DATA ON EACH FIRST GRADE CLASSROOM

| Sci | 1001                              | rea                                     | cner   |  |  |
|-----|-----------------------------------|---|--|--|--|
|     | Membership and                    | Pupil                                   | Attendance   |  |  |
|     |                                   | First                                   | Semester   | Second   | Semester   |
| To  | tal Days of Membership            |   | the state of the s |  | ·  |
| To  | tal Days Present                  |   |  |  |  |
| To  | tal Days Absent                   |   |  |  |  |
| Pe  | rcentage of Attendance            |   |  |  |  |
| Me  | mbership September 1 (first week) |   |  |  |  |
| Ad  | ditions During Semester           | سيالة المراجع المرسيدي                  |  | <del></del>  |  |
| Lo  | sses During Semester              | ·                                       |  |  |  |
| Me  | mbership at Close of Semester     |   |  |  | ·  |
|     | •                                 |   |  |  |  |
| Nu  | mber of Parents at PTA            |   |  |  |  |
|     | First Meeting                     | *************************************** |  |  |  |
|     | Second Meeting                    |   |  | فستواط والوائد ويناسبوا والويواواوي  |  |
|     | Third Meeting                     |   |  |  |  |
|     | Fourth Meeting                    |   |  |  |  |
|     | Fifth Meeting                     |   |  | and the second seco   |  |
|     | Sixth Meeting                     |   |  | المنافعة الم |  |
|     | Seventh Meeting                   | ·                                       |  |  | - Voice - Control - Contro |
|     | Eighth Meeting                    |   |  | Approximate the second  |  |



# INDIVIDUAL PUPIL DATA SHEET

## END OF SCHOOL

| Pupil              | School            |
|--------------------|-------------------|
| Teacher            |                   |
| ,                  | Date of Withdrawl |
| Days of Membership |                   |
| Days Present       |                   |
|                    |                   |
|                    |                   |
| Promoted           | Retained          |
| Apparent Reason    | ns for Absences   |
|                    |                   |
|                    |                   |
|                    |                   |
|                    |                   |
|                    |                   |
|                    |                   |

Teacher Comments on This Child

(These include anything unusual, good or bad, about this child.)

