AN IN-SERVICE EDUCATIONAL PROGRAM FOR BEGINNING TEACHERS OF SPANISH IN THE ELEMENTARY GRADES

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AN IN-SERVICE EDUCATIONAL PROGRAM FOR BEGINNING
TEACHERS OF SPANISH IN THE ELEMENTARY GRADES

DISSERTATION

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By

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CHAPTER I

INTRODUCTION

The teaching of modern foreign languages in the public schools is one of the important problems facing American educators at the present time. This is not a new problem, for the study of foreign languages has been included in the curricula of various schools in this country since the Colonial Period. Recent events, however, have focused the attention of American educators on the study of foreign languages in the elementary schools. It is reported that in 1952 there were eighty-seven communities in the United States in which there were foreign language programs in the elementary grades, and that by 1956, there were three hundred fifty-seven such programs in forty-four states. ¹

This widespread growth in the study of foreign languages in the elementary grades has raised many issues that have been the subject of much controversy among educators as well as persons not directly associated with the

teaching profession. Some of the issues arising from this controversy concern (1) the purposes of foreign language study; (2) the ability of elementary grade children to learn a foreign language; (3) the methods of teaching foreign languages; and (4) the organization of an elementary foreign language program.

The organization of such a language program would necessitate a sufficient number of competent foreign language teachers to insure that it would function continuously. Although schools in certain sections of the United States, particularly in the areas which are adjacent to or are largely populated by groups of persons who speak a foreign language, may readily procure an adequate supply of qualified foreign language teachers, other schools in more typical situations would find it difficult to do so. At present, there are too few qualified teachers to meet the needs of an expanded foreign language program in the elementary grades in the United States. It would seem reasonable, therefore, to state that the ability of a school to supply a faculty of adequately prepared teachers of foreign language could be considered one of the first requisites for the establishment of the program in the elementary grades.

A solution to the problem of teacher supply has been sought in different ways. In some instances, foreign language teachers from adjoining secondary schools have come to the elementary schools for one or more periods several days each week. In other instances, the elementary school is departmentalized for certain subjects. Under this plan, a single foreign language teacher may teach several different groups of pupils throughout the day. In some elementary schools foreign language classes are conducted outside regular school hours, thus permitting uncertificated persons to teach. It has been proposed that a revision of the certification rules be made which would allow qualified but previously uncertificated persons to teach foreign languages at a critical time. Another possible solution is to provide a special in-service educational program for elementary teachers who at present are not qualified to teach foreign languages. This study is concerned with the effectiveness of an in-service educational program as a means of providing qualified Spanish teachers in elementary schools.

Fundamentally, this problem is one of teacher education. Although the problem of teacher education is too


4Margit MacRae, Teaching Spanish in the Grades (Boston, 1957), pp. 11, 13.
complex to be studied in its entirety in one investigation, some particular aspect of the problem, such as a foreign language in-service educational program, can be isolated and studied independently.

In the literature of recent years in-service education has been variously defined by students of teacher education. Sometimes the term "in-service training" appears, and at other times "in-service education" is used. The two terms seem to be used synonymously. Herrick described the concept in terms of its purpose, observing that it is designed (1) to help staff members improve their efficiency in performing their professional duties and (2) to improve the educational program of the school.\(^5\) In-service education has been partially defined in terms of description of its activities. It has been described as an enterprise in which teachers study together in a permissive atmosphere, feeling free to make mistakes and to admit the existence of problems for which they do not know the solution. This free atmosphere helps the individual participant in an in-service educational program to think creatively. Haucker and Pendergraft, summarizing the results of some experimentation in group work, state that encouragement and

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assistance given teachers in cooperative group action may
result in lasting improvement in professional performance. 6
Parker implied, in his guidelines for in-service education,
that the success of an in-service education activity depends
heavily upon the individual teacher's ability to sense the
relation of the activity with her own classroom situation. 7

Elsbree and McNally included a workshop among the
aspects of in-service education. They implied that at
times it may be expedient for the staff to meet as a unit
to participate in a professional study, while at other
times the staff may function through committees or small
groups. Physical facilities for both types of procedures
should be available. 8 MacRae wrote that valuable techniques
and materials result from in-service workshops for teachers
of Spanish. 9 This is in keeping with what Gilchrist,
Fielstra, and Davis implied when they wrote, in part, that
one of the objectives of an in-service education program is

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8Millard S. Elsbree and Harold J. McNally, Elementary School Administration and Supervision (Cincinnati, 1951), pp. 417-419.

9MacRae, op. cit., pp. 1-20.
to give to all educational workers an opportunity to
develop professionally to the end that their pupils may
have the environment most conducive to learning.\textsuperscript{10}

The effectiveness of an in-service educational program
should be reflected in the effectiveness of the teachers
who engage in it. A measure of pupil achievement, there-
fore, would be one indirect measure of the in-service
program itself. It becomes necessary, then, in the case of
an elementary foreign language program, to measure the
achievement of the pupils who have been taught a foreign
language by teachers who have participated in such an
in-service program.

The problem of selecting the content for beginning
elementary foreign language study is approached in various
ways. There are several aspects of a language that a pupil
needs to learn almost simultaneously, viz., pronunciation,
tonation, vocabulary, and language usage. It is also
true that practice varies among teachers concerning the
amount of emphasis that should be placed on the various
aspects. If more emphasis is placed by a teacher on one,
less emphasis may be given to the others. It may be said
that the emphasis which a teacher places on the different

\textsuperscript{10}Robert S. Gilchrist, Clarence Fielstra, and Anna L.
Davis, "Organization of Programs of In-Service Education," In-Service
Education, Fifty-Sixth Yearbook of the National Society for the Study of
aspects of a foreign language depends largely on the goals for which the language is being taught. The commonly accepted goals of modern language instruction, as Andersson observed, are: understanding, speaking, reading, and writing. However, these are relative terms and admit much latitude in their interpretation. In an absolute sense, the ability to speak a language may mean the ability to speak it as a native. This goal is hardly attainable under any but the most rigorous pursuits of language study.

One group of pupils may devote most of their study at first to the cultural characteristics of the people whose language they are about to study, while those of another group may spend an equal amount of time acquiring linguistic skills such as pronunciation, intonation, vocabulary, and language usage. Hence, there would seem to be no common grounds for a comparison of their respective achievement.

Just as there may be considerable variation among groups of pupils as to these elements of language study, similarly there may be a wide variation in the efforts exerted by different teachers to motivate language study. It seems logical, therefore, that if the achievement of

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their respective pupils is to be compared, teachers should agree on a common set of purposes or goals, textbooks and other materials, and length of time for pupil instruction.

The use of a valid and reliable measuring instrument is of vital importance to the evaluation of pupil achievement. Conceptually, the validity and reliability of a test presupposes a sampling of the abilities of many pupils. In the absence of validated standardized tests, a list of proposed test items was sent to several persons who were invited to criticize the items and to make suggested changes.

While there are certain limitations inherent in achievement tests, it seems reasonable that tests based upon common areas of study should reveal the comparative achievement of the pupils. The results of this evaluation should be useful to school officials who are studying in-service education as a possible means of providing competent teachers for the foreign language program in the elementary grades.

Statement of the Problem

The problem of the study was to determine the effectiveness of an in-service education program as a means of providing qualified foreign language teachers for elementary schools. Specifically, the problem was concerned with a statistical comparison of the achievement of two groups
of pupils. One group was composed of fourth-grade pupils who were taught Spanish by teachers who had had a maximum of three college hours in Spanish and who had participated in an in-service education program. The other group was composed of fourth-grade pupils whose teachers had had a minimum of twelve college hours in Spanish but had not participated in an in-service education program.

Purposes of the Study

The specific purpose of this study was to compare the achievement in Spanish of (1) an experimental group and (2) a control group of pupils. In the pursuance of this purpose, an effort was made (1) to determine the amount and direction of any difference in the achievement in Spanish of the two groups of fourth-grade pupils after nine hours of instruction; (2) to determine the amount and direction of any difference in the achievement of these two groups after eighteen hours of instruction in Spanish.

These general purposes were stated more specifically in the form of definite questions to be answered, as follows:

1. What was the mean achievement score of each of the two groups of pupils after they had received nine hours of instruction?
2. Was there any significant difference between the scores of the two groups after they had received nine hours of instruction?

3. What were the respective mean achievement scores of the two groups of pupils when they had received eighteen hours of instruction?

4. Was there any significant difference between the net scores of the two groups when they had received eighteen hours of instruction?

Hypotheses

In the pursuance of this study, certain hypotheses were made to be tested by the data obtained. These hypotheses were:

1. After nine hours of instruction, the mean achievement score of the experimental group of pupils and the mean achievement score of the control group will be similar.

The teachers who have participated in the in-service educational program should be able to teach satisfactorily the first steps in language learning. Although their knowledge of Spanish is much less than that of teachers who have had more experience with the language, the in-service educational program should enable them to teach their pupils the basic principles of pronunciation and a simple and limited vocabulary.
2. After eighteen hours of instruction, the respective achievement of the two groups will be similar.

This hypothesis seemed reasonable because the initial feeling of uncertainty which the beginning teachers may have when they first begin to teach a second language should decrease with experience. As the in-service educational program progresses and the teachers acquire greater knowledge and more skills, their competence should increase and more closely approximate those of the regular teachers. Moreover, as the beginning teachers meet actual classroom problems, they should have more definite personal involvement in subsequent sessions of the in-service educational program than they had before the problems occurred.

Definition of Terms

The term in-service educational program as used in this study refers to all the activities involved in an endeavor to develop or increase the professional effectiveness of teachers while they are actively engaged in the teaching profession.

The term experimental teacher of Spanish as used in this study refers to an elementary teacher with a maximum of three college hours in Spanish. It means here one who participated in the in-service educational program of this investigation.
The term regular teacher of Spanish refers to an elementary teacher who has had a minimum of twelve college hours in Spanish. It means here one who did not participate in the in-service educational program of this investigation.

The term initial period of instruction as used in this study refers to the first nine hours of instruction in Spanish given in the fourth grade by the teachers participating in this investigation.

The term experimental group of pupils refers to the group of fourth-grade pupils who were taught by experimental teachers of Spanish as defined above.

The term control group of pupils as used in this study refers to the group of fourth-grade pupils who were taught by regular teachers as previously defined.

The initials FLES refer to the "Foreign Language Program in the Elementary School."

The term achievement tests as used in this investigation refers to the tests that were prepared to measure the achievement of fourth-grade pupils who were beginning the study of Spanish.

Delimitations of the Study

The study was delimited as follows:
1. Data for this study were collected during the scholastic year 1958-1959 in the Fort Worth, Texas, Public Elementary Schools.

2. The two groups of pupils involved in this investigation were equated only with respect to the knowledge of Spanish which they possessed prior to the beginning of this investigation.

3. The pupils involved in this study received a total of eighteen hours of instruction.

4. The teachers who participated in the in-service educational program received approximately sixteen hours of instruction.

5. The achievement tests used in this study were designed to measure aural comprehension of Spanish.

6. The achievement tests used in this study were not standardized in the usual sense of the word. Their only standardization was with reference to a single group of pupils who did not participate in the program in any other way.

Procedures

Pursuant to the purpose of this study, the following procedures were used in collecting and comparing data:

1. A Spanish in-service educational program was organized and conducted for thirteen experimental teachers
of Spanish during the scholastic year 1958-1959 in the public elementary schools of Fort Worth, Texas.

2. Thirteen regular teachers of Spanish in the fourth grade in the Fort Worth, Texas, Public Schools were selected to participate in this investigation.

3. The group of experimental teachers of Spanish and the group of regular teachers of Spanish were asked to teach beginning Spanish to their respective pupils twice each week in periods of twenty minutes for a total of eighteen hours.

4. Both groups of teachers were asked to administer to their respective pupils according to a fixed schedule three separate Spanish tests that were prepared for this investigation. The preparation of these tests is fully described on page 88, and the tests are included in the Appendix.

5. The first of these tests was administered by both groups of teachers to their respective pupils in September, 1958.

6. Both groups of teachers began teaching Spanish to their respective pupils in October, 1958.

7. The second test was administered by both groups of teachers to their respective pupils in January, 1959, after the pupils had received a total of nine hours of instruction in Spanish.
8. The third test was administered by both groups of teachers to their respective pupils in May, 1959, after the pupils had received a total of eighteen hours of instruction in Spanish.

9. An analysis was made of the September achievement scores of each group to determine which students already possessed a significant knowledge of Spanish. The scores achieved by the pupils thus identified were not included in any statistical calculations in this investigation.

10. The hypotheses stated previously in the section entitled "Statement of the Problem" were converted into the following null hypotheses:

   a. There was no significant difference between the January mean achievement scores of the pupils taught by the experimental Spanish teachers and the January mean scores of the pupils taught by the regular Spanish teachers.

   b. There was no significant difference between the May mean achievement scores of the pupils taught by the experimental Spanish teachers and the May mean scores of the pupils taught by the regular Spanish teachers.

11. The mean and standard deviation of the September scores of both the experimental group of pupils and the control group of pupils were then calculated.
12. The critical ratio technique was used to determine whether there was any significant difference between the two groups before instruction began.

13. The mean and standard deviation of the January sets of scores obtained from both groups of pupils were calculated.

14. The critical ratio technique was used again to determine the significance of the difference between the achievement scores of the two groups of pupils after nine hours of instruction.

15. The mean and standard deviations of the two sets of May scores were calculated.

16. The critical ratio technique was used a third time to determine the significance of the difference between the achievement scores of the two groups of pupils after eighteen hours of instruction.

17. The following formula\(^\text{12}\) was used to determine the significance of the difference between the various sets of scores collected from the achievement tests:

\[
CR = \frac{M_E - M_C}{\sqrt{\frac{\sigma_E^2}{N_E - 1} + \frac{\sigma_C^2}{N_C - 1}}}.
\]

The procedures stated above made it possible to determine (1) which group of pupils achieved more during the first nine hours of instruction in Spanish; (2) which group of pupils achieved more during the second nine hours of instruction; (3) whether the achievement of the two respective groups of pupils was more nearly equal after they had been taught nine hours or after they had been taught eighteen hours.

Basic Assumptions

The basic assumptions of this research were as follows:

1. The teachers who participated in this investigation were reasonably representative of all the elementary teachers in the Fort Worth Public Schools during the scholastic year 1958-1959. No unusual or unique method of selecting teachers was used.

2. The pupils in the experimental and control groups in this investigation were reasonably representative of all the fourth-grade pupils of the schools in which they were enrolled. No unique or unusual method was employed to select the pupils beyond the fact that they were members of the classes of the teachers who had volunteered to participate in this investigation.
Background of the Study

The study of foreign language is a part of both the elementary and secondary school curricula of the Fort Worth Public Schools. In the senior high schools, which embrace grades ten, eleven, and twelve, foreign language study is offered in all three years as an elective subject. In order to use it to satisfy high school graduation requirements, a student is permitted to offer a minimum of one credit in any one foreign language. Students who plan to study foreign languages in college are usually advised by their guidance counselors to study the same language for a minimum of three years in high school. In the junior high schools foreign language study is offered on an accredited basis in the ninth grade. A student who successfully completes a foreign language course in this grade is permitted to enroll in the second-year class upon entering senior high school. In the seventh grade, the first grade of the junior high school division, an exploratory course in foreign languages is offered. As its name implies, this course is designed to acquaint the student with the general nature of foreign language study and to assist him and his counselor in planning his future courses. Although a student is still at liberty to elect foreign language, he is usually advised to continue with the study only if he shows some aptitude for it.
French, Latin, and Spanish are the only foreign languages that are offered in the Fort Worth Public Schools at the present time. Spanish is the only foreign language that is offered in the elementary grades. Although the study of Spanish is definitely a part of the elementary curriculum, it is not continuously offered in all of the elementary schools because of the fact that language teachers are not always available. When a principal is unable to find competent teachers of Spanish on his faculty, he is relieved from the obligation to offer the language.

When pupils who have studied Spanish for one or more years in the elementary grades enroll in the junior high schools, an effort is made to place them in classes in which there are other pupils who have had similar language experience. In cases where this procedure is impractical, teachers seek to enrich the regular Spanish course of study for them.

The policy of including Spanish in the curriculum of the elementary schools of Fort Worth is in harmony with the practices of other schools of Texas, and with the general plan of foreign language study throughout the United States. Although the number of schools offering programs of foreign languages in the elementary grades varies from year to year, there has been a phenomenal growth observed in recent
years. As Thompson and Hamalainen point out, however, the elementary language programs begun in the last decade should still be considered experimental, since some programs are discontinued and others are initiated each year.  

Several different modern foreign languages are taught in the various elementary schools of the nation. As Thompson and Hamalainen further imply, there are important circumstances in the communities that influence the choice of which particular language should be taught. The policy of including the study of Spanish in the elementary schools of Texas is understandable in view of the fact that Texas has a common frontier with Mexico and lies close to other Latin-American countries. Equally significant is the fact that the cultural heritage of the state in part can be traced to the days when Texas was a part of Mexico. Too, Texas industry, particularly agriculture, depends to a large extent on Mexican laborers. Annually thousands of Mexican citizens migrate into Texas to work during the harvest season. It is estimated that approximately 20 per cent of the entire population of the state is composed of Spanish-speaking people. Although the heaviest

13 Thompson and Hamalainen, op. cit., pp. 7, 8.
14 Ibid., p. 12.
15 Texas Almanac (Dallas, 1958), p. 62.
concentration of this group of citizens is in the southern part of the state, there are Latin-Americans found in virtually every part of Texas, and they are represented in all the types of industry and professions in which other citizens engage.

In 1925 the Texas State Legislature enacted a civil statute, amended in 1947, authorizing the teaching of Spanish in the elementary grades of Texas and providing free textbooks.16

The Fort Worth Public School system is only one of many systems in which interest has been shown in teaching Spanish in the elementary grades. In many schools of the Southwest the study of Spanish is definitely a part of the elementary curriculum. In some cities such as El Paso, Texas, San Diego, California, and Carlsbad, New Mexico, there seems to be a practical need for an elementary grade Spanish program because of a large population of Latin-Americans. In such cities the language program may be instrumental in improving human relations, as well as providing another useful means of communication.17 In other cities, such as Fort Worth, Texas, there is a greater disparity in the population of English and Spanish-speaking

16Texas State Legislature, Public School Law, Bulletin No. 587 (Austin, 1956), Article 2911 A.

ethnic groups and the need for facility in speaking Spanish is generally less acute. Only in certain areas of the city and under particular circumstances, such as in emergencies involving persons who have recently come to the United States, is a speaking knowledge of Spanish a necessity, for English is spoken by the great majority of the residents of Fort Worth. However, Spanish is definitely a part of the elementary school curriculum in Texas, and therefore provisions are made for teaching it in the Fort Worth Public Schools.

The study of Spanish in the Fort Worth Public Schools includes all the activities associated with communication, such as phonics, language usage, oral and written composition, literature, spelling, and writing. In the typical daily schedule in the elementary schools a period of 110 minutes is allowed for language arts. This block of time includes English, spelling, writing, and reading. Although there appears to be no official policy specifying the length of time that should be devoted to the study of Spanish, the general practice is to limit the actual teaching to approximately forty minutes each week.\textsuperscript{18} The usual plan is to proportion the time into four or five sessions during the week. In addition to actual

instruction in the language itself, related studies of the cultural aspects of Spanish-speaking peoples are made in the social science studies course and in the music and art courses.

The generally accepted purpose of teaching Spanish in Fort Worth is "to teach appreciation and understanding of our neighboring people with some simple usage in pronunciation rather than an elaborate technical course in Spanish." Within the latitude of the curriculum, however, the practices vary somewhat, for there is no definite and prescribed course of study which all teachers are required to follow. The same state-adopted textbook is used by all teachers of the same grade, but the extent of the material beyond the textbook is determined by the teachers and principals of the various schools as circumstances and opportunities permit. In some elementary schools in Fort Worth, Spanish is taught at a definitely scheduled period; in other schools it is taught when it appears most logical to do so. The plan followed by certain schools is to devote two twenty-minute periods each week to the study of Spanish. The following excerpts from an intermediate grades schedule indicates the time-allotment and subject correlation typical of all the

\[19\] Ibid., p. 41.
schedules followed in the elementary schools in Fort Worth.²⁰

**TABLE I**

INTERMEDIATE GRADES SCHEDULE SHOWING TYPICAL TIME-ALLOTMENT AND SUBJECT CORRELATION

<table>
<thead>
<tr>
<th>Time</th>
<th>Teacher</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
</tr>
</thead>
<tbody>
<tr>
<td>2:45</td>
<td>Spell</td>
<td>4A</td>
<td>4B</td>
<td>4C</td>
<td>4D</td>
<td>4E</td>
<td>4F</td>
<td>4G</td>
</tr>
<tr>
<td></td>
<td>Writ.</td>
<td></td>
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<td></td>
<td></td>
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</tr>
<tr>
<td>3:40</td>
<td>Span.</td>
<td></td>
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</tbody>
</table>


Many persons assist in administering and supervising the instructional program of the elementary division of the Fort Worth Public Schools. Among this group are included the superintendent of schools, the assistant superintendent of schools in charge of elementary schools, the director of curriculum and research, his assistant, eight area and special consultants, and the principals. The area consultants are responsible for the instructional program in designated areas of the city, while the special consultants

are responsible for the instructional curricular areas for the entire system. The curriculum and research department is under the immediate supervision of one director. The principal is always the chief administrator and supervisor of all the activities of the specific school. The responsibility for the operation for all these functions is vested in the assistant superintendent in charge of the elementary schools, under the general supervision of the superintendent of schools.

The area and special consultants visit the schools regularly and assist the teachers in every way possible. Among their activities are included the procurement of supplemental teaching materials and conducting workshops and in-service educational programs.

The Fort Worth Public School System provides an annual educational workshop for the principals and the members of the supervisory staff. In these workshops, a study is made of various educational problems. Typical of these problems are: (1) school management, (2) pupil accounting, (3) curriculum organization and supervision.

Among the professional organizations of principals and supervisors in the Fort Worth Public School System is the Elementary Principals Association. Each year this organization studies some particular phase of education. In the academic year 1958-1959 a study was made of the problem of
the rapid learner. As a part of this study, a committee of principals made a special study of Spanish in the elementary schools.

Consistent with the practices followed in the Fort Worth Public Schools, a series of in-service educational meetings is held during each academic year for the teaching staff of the Fort Worth Public School System. The purpose of these meetings is to improve the instructional program. The Spanish in-service educational program used in the present investigation was in harmony with the principles and procedures followed in the general in-service educational program of the Fort Worth Public Schools.

Value of the Study

The public schools of the United States are the conscious agents of the people for educating youth. The acceptance of this responsibility requires that the public schools be sensitive to the needs of the society which they serve. Such needs are many and varied, and in recent years new conditions have added to their complexity. Certain problems have arisen which challenge school officials.

The events of recent years have contributed to a growing interest in foreign languages. One of the new developments arising from this interest is the introduction of modern foreign language teaching in the elementary
grades. This development has presented school officials with many practical problems, one of which is that of supplying a sufficient number of competent foreign language teachers.

There have been several suggested solutions to this problem. One solution suggested was the proposal to use a special foreign language in-service educational program. The public schools have a professional obligation to evaluate any proposal before adopting it as a school practice. This obligation implies two procedures:

First, the feasibility of organizing a foreign language in-service educational program should be established. Much effort and time are required on the part of teachers who participate in such an enterprise, and school officials have the responsibility of determining whether this added undertaking is deleterious to their welfare and general professional efficiency.

Second, the effectiveness of a foreign language in-service educational program should be evaluated. The public schools have the obligation to maintain competent instruction in all areas of the curriculum, and if the study of modern foreign languages is placed in the elementary curriculum, it should be conducted in accordance with the best educational principles.

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21MacRae, op. cit., p. 11.
Thus, a study of a foreign language in-service educational program may result in a better understanding of the problem of teacher education, and thus improve the instructional program of public schools.

The foreign language in-service educational program was proposed to assist elementary teachers who had little previous preparation in foreign languages to overcome some of the obstacles with which they are confronted. These obstacles or professional problems are of two general classifications: (1) the acquisition or improvement of the techniques of language instruction, and (2) the acquisition or improvement of linguistic skills.

An analytical evaluation of the achievement of pupils who have been taught by teachers who have participated in a foreign language in-service educational program may assist school administrators to appraise the quality of instruction being given in the elementary schools.

A study of this foreign language in-service educational program may be of value as follows:

1. School officials will become more aware of the problems associated with conducting such a program.

2. School officials will have an additional basis for evaluating the effectiveness of such a program in terms of classroom instruction.
3. This investigation should provide information for further study in the field of education for teachers of foreign languages.
CHAPTER II

RELATED LITERATURE

In the study of the literature related to the present investigation interest was centered in three separate but related areas. In the first of these areas, interest was focused on in-service education, and an effort was made to gain information and increased knowledge and understanding in this field of teacher training. Particularly, more knowledge was sought concerning the purposes and organization of in-service education. In the second area of the related literature, interest was centered on the teaching of modern foreign languages in the elementary grades. In this area there were three concerns about which further understanding was sought. These concerns were based on three specific questions: (1) Why should foreign languages be taught in the elementary grades? (2) What methods of instruction are most efficient for teaching foreign languages to young children? (3) If a foreign language program in the elementary grades is desirable, how can it be established and made to function? The literature reviewed concerning the validity of the idea of teaching a second language in the elementary school was largely
Theoretical in nature, and varying points of view were discovered. Concerning methodology, the readings found were centered around the psychology of language learning, and in this area numerous research studies were found which seemed to apply to the present investigation. Of primary interest in the literature was that of teacher supply. The particular aspect of this interest concerned prospective teachers who have had only minimum training in foreign languages.

The third area of related readings contained studies dealing with the construction of foreign language tests. Inasmuch as the present study was to include a series of measurements of pupil achievement, an early need was felt for tests that would be objective and impersonal measuring instruments. More knowledge concerning foreign language test construction and administration was sought in a study of available tests and other related literature.

Thompson and Hamalainen posed several questions to be considered by those who contemplate the inauguration of the foreign language program in the elementary grades. One of these questions concerned the goals of education that could be realized through the proposed program. A second question was whether the purposes or goals of the program could be accomplished more effectively by other means. A third question was whether the program could be included in the present curriculum in view of the scarcity of qualified
foreign language teachers.¹ Similar questions reported by Lind formed the basis of a discussion at a meeting of the Modern Language Association held in 1953. According to Lind, the discussion at the conference centered around such issues of the foreign language problem as: (1) the value of the program; (2) the necessary teacher supply; (3) methodology of foreign language instruction; (4) the use of mechanical devices in teaching foreign languages; and (5) the necessary requirements for such a program.² Fundamental to the whole question is a consideration of the value of foreign language study. If the program is of little or no value, any amount of time and effort that is spent in putting it into operation, however small it may be, is too much. On the contrary, if the program is valuable, it seems logical that sufficient means should be found to develop it to its fullest potential.

Selvi reported an experiment to determine whether the study of a foreign language could prove to be of value to pupils in public elementary schools. He indicated in his report that he felt that at the present time international consciousness should receive more emphasis in schools than is now the case, and that a study of foreign languages

¹Thompson and Hamalainen, op. cit., pp. 8-9.

would help pupils obtain an understanding of the culture and background of other nations which would be valuable to them. With reference to the question of when the study of foreign languages should begin, his assumption was that the study should begin while the children are young, although a specific age was not mentioned.  

Expressing similar views, Andersson indicated that the two- or three-year program commonly found in secondary schools did not provide enough time for the students to learn to speak a foreign language. He indicated that the optimum time for beginning the teaching of foreign language is when the child is in the elementary grades.  

Girard also held similar views, indicating that only by starting the study early in school could children have sufficient time to attain a reasonable mastery of a foreign language, and that the study of foreign languages could be introduced in the elementary grades easily because the elementary curriculum is flexible.

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Commenting further on the place to begin foreign language study, Andersson held that the study of foreign languages could be considered a part of the language arts study, which is an integral part of the elementary school curriculum. This position seems to have been based on the reasoning that since the term language arts embraces the study of all the skills associated with verbal communication, it includes the study of foreign languages.

A similar view of the FLBS was offered by Kaulfers and others who suggested that the study of a foreign language may be considered a part of the social sciences. They indicated that through foreign language study pupils may acquire a broader understanding of international affairs. Girard pointed out that there is a close relationship between foreign language study and the fine arts as well as between foreign language study and the social studies.

If it is granted that there is a value in the FLBS program, the reasonableness of the program must yet be established. Research was sought to determine this reasonableness or validity. The following questions arose:

Would pupils of elementary age be adversely affected by

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6 Andersson, _The Teaching of Foreign Languages_, pp. 40-41.


8 Girard and Smith, _op. cit._, pp. 270-271.
foreign language study? Is childhood the period in which foreign languages can be taught most advantageously?

The period between the sixth and twelfth year is a key period in the life of a child. There are many developmental tasks confronting him during this period, such as family relationship problems, physical growth, and becoming accustomed to school experiences. Adding a new discipline such as foreign language study to a child's educational task is a matter of considerable concern, and as much information as possible was secured from the literature on the subject. Different points of view were found in the literature.

The first years have been sometimes described by various writers as a period during which children are relatively calm emotionally, having solved many of their earlier problems and not yet having encountered those that sometimes occur in adolescence. Another position seems to have been taken by Gesell and Ilg who characterize the sixth year of childhood as one in which noticeable changes occur. During the first years of school many writers observe an increased interest in various forms of exploration or experimentation. One of the fields of experimentation during this period which is noted by several writers

is in the realm of language when children frequently use various forms of play language such as "pig-Latin." Such an observation was made by Girard who called attention to the phenomenon of inventing "languages" which often occurs during the pre-adolescence period.10

The articulation of foreign sounds and the speaking of a foreign language without excessive accent have long been subjects of interest to linguists. Students of oral language have been particularly interested in the area of pronunciation. More understanding in this area was sought in the literature. In a closely guarded statement, Hobbs conceded that during childhood there is found better linguistic flexibility than is usually found during later years, and that this period is conducive to easy direct learning of second language concepts. The choice of the exact time to begin foreign language study, he observed, may well depend on the purposes or objectives sought.11 With reference to the ease of learning the proper linguistic intonations or accent in childhood, the implication given was that there are other important factors in language learning that should be considered carefully.


For a child who has some language difficulty, it would probably be injudicious to study a foreign language.

If it is granted that childhood is the best time for acquiring a near native intonation, it does not follow that foreign language study is appropriate in the elementary grades. There remains the question of the relative value of a correct accent or intonation compared with other aspects of language learning. Hobbs pointed out the inconsistency of overemphasizing the nicety of correct intonation if the chief purpose of studying a foreign language is that of learning to communicate.12

The linguistic phenomenon of bilingualism was offered by Tomb as evidence that children learn foreign languages readily.13 An observation made by Tomb, based on an experience in India, emphasized the intuitive capacity of children to learn several languages simultaneously. He reported that there had been found in parts of Bengal three- and four-year-old English children who were multilingual. With their parents, the children spoke English; with their nurses, Bengali; with workmen around the home, either Hindustani or Santali. Their parents, however,

12 Ibid.

barely spoke enough of these foreign tongues to give simple
directions to their employees. The children frequently
served as interpreters when it was necessary for the adults
to converse with the servants.14

The validity of the evidence of bilingualism as proof
that young children in elementary school should be taught a
second language, however, is not well established. Bongers
has presented certain problems that arise when a child is
confronted with the task of learning a second language
before he has firmly established the speech patterns of his
native language.15 He reported that research done by Bovet
tended to support the conclusion that the development of
personality is retarded, and that school grades are
adversely affected when children learn two or more foreign
languages simultaneously.16 This conclusion, it was con-
ceded, was based on such insufficient data that it could
not be considered general and definite.17

The question concerning the achievement which pupils
who have studied foreign languages in the elementary school

14Ibid.

15H. Bongers, "Teaching Modern Languages to the
Elementary-School Child," Educational Research Bulletin,
XXXII (September 16, 1955), 144-150.

16Ibid., citing P. Bovet, "Les Problemes
Psychologiques et Pedagogiques poses par le bilingualisme."

17Ibid.
make in other subject areas appears to be important in the consideration of a foreign language program. Of special importance is the achievement in subsequent courses in the same language. The conclusions drawn from an evaluation of such achievement records could be useful in evaluating the foreign language program in the elementary grades. It appears that if it could be shown that pupils do not profit significantly in subsequent language study from the study of languages in the elementary grades, the foreign language program would have to be justified on some basis other than the attainment of linguistic skill. Moreover, it appears that if it could be shown that pupils who study foreign languages in the elementary grades achieve significantly more in subsequent language courses than pupils who have not had this experience, this fact would tend to justify the elementary language program. Conversely, it seems that if it could be shown that the study of foreign languages could be detrimental to the study of other subjects, such as English, science, and mathematics, its place in the elementary curriculum would be considered questionable.

In a research reported by Justman, involving both students of Spanish and French, a study was made of their achievement scores in these languages. The pupils who

studied French in the elementary grades were placed in a high school class with matched pupils who had not done so but had completed the immediately preceding course. The achievement scores of the two groups were not significantly different, but the pupils who had been advanced in their language study generally scored lower than the other pupils. However, the pupils who had studied French in the elementary grades but were not given advanced standing, scored somewhat higher than matched pupils. Still, the difference reported was not considered by Justman to be significant. In the case of Spanish the results seemed to Justman to favor the elementary study. In both paired groups there was a significant difference in Spanish in the direction of those who had previously studied Spanish in the elementary grades. Justman's conclusions in effect were that there is not, in the case of French, any apparent advantage in studying French in the elementary school with respect to achievement in high school; but in the case of Spanish, pupils who studied the language in the elementary grades made better grades in high school during the first term than matched pupils who did not. This advantage, Justman believed, is not permanent.
The question whether there is a danger that the native speech patterns of a young child might be impaired if he attempts to learn a second language before he has mastered his own language was partly answered by Andersson. He reported research that revealed that an average child of five years has an understanding vocabulary of 2,072 words, and that the understanding vocabulary of a first-grade child as measured by a test devised by Seashore and Eckerson, is estimated to be 24,000 words. From these data Andersson concluded that even a first-grade child has already secured a sufficient command of his native language so that the introduction of a second language would not create any serious linguistic problem.

Increased knowledge of the relationship between intelligence and achievement in foreign languages was sought in the literature. If it could be shown that a higher degree of intelligence is required to learn a foreign language than is required to learn other verbal subject matter, more validity, it seems, would be given to the plan of permitting only the academically talented pupils to participate in the foreign language program. Conversely, if it could be shown that there is little or

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21Andersson, *The Teaching of Foreign Languages*, p. 28.
22Ibid.
no correlation between the two elements, greater validity, it seems, would be given to Andersson's position that foreign language study should be considered a part of the common learning.23

The question of the content of a foreign language program arose, for there could be a wide difference of opinion concerning what is meant by "learning" a foreign language. Agard and Dunkel appeared to have considered the relativity of this concept when they described it as a "line formed by a continuous series of points" varying from a complete mastery of the language to only a slight acquaintance with it.24 This seemed to reconcile somewhat the difference between the idea of learning to use a language within certain well-defined limits and gaining something like mastery of a language. The question then arises whether there might be a relationship between intelligence and achievement in foreign languages. If there is a positive correlation between these two, it seems reasonable to assume that there would be a positive correlation between the achievement grades made in foreign languages and those made in other language arts. Research was found that gave more information on these points.

23 Ibid., pp. 40, 41.
Tallent sought to determine the relationship between grades made by students in French, German, and Spanish, and intelligence quotients, English Placement Test Scores, and English grades. The correlation of the foreign language grades and intelligence quotients was found to be .211. The correlation of foreign language test grades and the English Placement Test grades was given as .487. The correlation between foreign language grades and grades made in English was .558.

These data led Tallent to conclude that the chances of predicting whether a student would do equally well or poorly in foreign languages as he does on a test of mental ability were uncertain. Another conclusion was that the higher correlation of achievement in foreign languages and on the English Placement Test suggested greater assurance of equal performance by the students. There were insufficient grounds, however, to make a definite prediction of performance. The .558 correlation indicated to Tallent that there was some relationship between achievement in foreign languages and in English; that is to say, a student who does well or poorly in one of these variables is likely to do approximately the same in the other.

26 Ibid.
These interpretations tend to discredit the proposal to limit foreign language study to the academically talented. They tend to support the proposal to offer foreign languages to all pupils with the implied understanding that the pupils who profit most from other academic studies requiring verbal learning will also profit most from the study of languages.

Methods

In order to discuss in some detail the techniques found in the literature for teaching foreign languages in the elementary grades, two main topics have been developed: (1) the aural-oral approach to language study and (2) the use of audio-visual aids.

The aural-oral approach to language study has been discussed at length, since it has been found in virtually all of the elementary programs that have been investigated. As its name implies, the aural-oral approach to language learning is made with relatively little recourse to written materials, especially in the introductory period of study. The initial contact the pupils have with the language is, for the most part, through hearing it spoken. This introductory period has been found to vary in length among the various schools where this method has been used, but in all
cases investigated, it has preceded the introduction of the reading program.

The aural-oral method is not a single process, for there are two distinct but related activities involved in it, namely, hearing and speaking. There are many component elements in aural comprehension. From an experiment by Carmichael, Hogan, and Walter on the effect of language on visually perceived form, Dunkel stated that perception by means of the sense organs is affected by the meaning conveyed by the perception. This position, apparently, was based on the proposition that there appeared to be some positive correlation between auditory acuity and aural comprehension. This relationship has seemed to be of some significance in the consideration of the aural-oral method of teaching foreign languages, for it implies, apparently, that perception is related positively to a pupil's accuracy in hearing. Since a beginning pupil must depend entirely on what he hears under this method, it becomes increasingly important that he hear only correct pronunciation.

In the literature several observations were found that pertained to the sequential steps in the aural-oral method of instruction. These steps or activities were, first, the

27 Harold B. Dunkel, Second-Language Learning (Boston, 1948), pp. 41-60.
28 Ibid., p. 30.
perception of sound; second, recognition of words and sentences as such; and third, obtaining the meaning of the expression without the consciousness of individual words or word-groups. As will be noted later, this sequence was followed in some of the language programs included in this review.

The oral aspect of the aural-oral method of teaching has been observed to consist of two main divisions: (1) pronunciation and (2) patterns of speech. Although some caution against over-emphasis on pronunciation skills has been expressed, in every program investigated the importance of correct pronunciation in language study was heavily emphasized. Since one of the fundamental tenets of the aural-oral method is that young children have a great ability to imitate the sounds they hear, a definite part of all the programs included in this investigation seems to have been given to the acquisition of correct pronunciation. The methods of accomplishing this goal have been found to vary under different circumstances. Brandenburg reported that the application of the science of phonemics to the teaching of elementary Spanish was used in one plan employed at the University of Texas.

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29 Bongers, op. cit., pp. 144-150.

The aim of this endeavor appears to be that of helping the students fix firmly in their minds a classification of the speech sounds of the foreign language. The first step in establishing this classification implies a formal study of the physiological apparatus of articulation. After acquiring the mental concept of articulation, the student is encouraged to make the vocal sounds before hearing the teacher make them. Apparently, the purpose for this procedure is to enable a student to produce correct vocal sounds without resorting to the direct imitation of the teacher's pronunciation.

In discussing the possible revisions in classroom instruction, Angiolillo wrote that it is believed that emphasis placed on the aural-oral work at the beginning of foreign language study is important. Johnson, in writing about some of the implications contained in an intensive study of French, reported that recordings could be used by the pupils both in and out of the classroom to gain experience in hearing the living language.

The problem of grammar has long been a lively issue in the teaching of foreign languages. Some of the questions


that have provoked much discussion in the past, such as that of mental discipline, have disappeared from the literature, but some consideration of the function of grammar is either stated or implied in present language programs in the elementary grades. Emphasis on the function of grammar rather than on morphology and syntax has been observed in the literature. Mireles indicated that the study of Spanish grammar in an appropriate form is desirable in the elementary grades, but that emphasis should not be placed on it in the first part of the course. It was his thinking that it should be stressed in some detail only after the language has been learned reasonably well. He advocated that the rules of agreement and verb conjugation should be introduced in the fourth year of the study of Spanish in connection with reading, writing, and speaking. Chamberlain also seemed to take this position concerning the method of introducing grammar when he implied that grammatical inflections are learned best when they are presented in narrative form. In none of the language programs investigated was there found a formal grammar method of instruction.

33 E. E. Mireles, unpublished paper on the teaching of Spanish in the Corpus Christi, Texas, Schools, 1959.

The principle of language readiness was found to be operative in all cases examined. First, meaningful experiences in natural surroundings were planned before language instruction was begun. Language was studied in real life situations. The beginning vocabularies were found to center around situations and objects with which the beginners were already familiar. MacRae describes the first experience in the class thus: the teacher says "good morning" in Spanish and then in English. The pupils are encouraged to repeat this salutation. The teacher introduces herself in Spanish, and then introduces one or more pupils. Having established some means of communication, the study continues in experience areas in which children generally manifest interest. Motivation is secured by including Spanish songs, dances, dramatizations, and other similar activities in the Spanish classes. Emphasis is always on the oral use of the language.

The plan of teaching French in the elementary grades as described by de Sauze, includes a variety of activities in language teaching, such as practice in listening, speaking, reading, and writing. This plan contains many of the features enumerated above. The teacher begins by

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35 MacRae, op. cit., p. 46.

teaching the children how to say in French salutations and the other common expressions of greeting and leave-taking. After this, she introduces oral French in the classroom activities. The next step is to include oral French with reading and writing.

In Cleveland, Ohio, as reported by de Sauze and Condon, the study of Spanish is begun in grade seven. The classroom procedure used appears to be a combination of the aural-oral and reading methods similar to the others described. During the first two weeks, a thorough study is made of the principles of pronunciation. During this period, English is used in the classroom, but after this period, the class is conducted in Spanish.

Learning the pronunciation of vowels is the first step in the study of pronunciation. The position of the speech organs and the location of the sound area in which they are produced are presented by means of a diagram. As soon as the pupils have gained a knowledge of how each vowel sound is made, they begin practicing the sounds. The teacher begins by pronouncing the vowels and then the pupils repeat them. The teacher then uses these vowels in words, then writes the words on the board and uses them for practice purposes. From the very first, the pupils are taught a few of the customary words and phrases used in greetings and on each succeeding day other expressions are introduced.
The pupils are introduced to reading and writing simultaneously during the first few days. At first, words and short sentences which have been previously studied are written on the board. In this way the introduction to the study of the first principles of grammar is made.\(^{37}\)

A plan of teaching Spanish in the grades, as described by Babcock and Cooper, contemplated beginning the teaching of Spanish in grade three or four, after the pupils have already learned to read English.\(^{38}\) Although the aural-oral approach is used, reading is introduced at the very beginning of the program. At first, the pupils are directed to listen without consulting their books while the teacher pronounces the words in the lesson and reads the sentences to them. The teacher then says the words and simple sentences and the pupils repeat them after her. After continuing the process for a short while, the pupils are directed to look at the printed page and find the printed symbols of the words they have just heard and spoken. The teacher is urged to use as little English as possible, pointing to the objects in the room or pictures in the book.

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and giving their Spanish equivalents. Dramatization is suggested as a method of giving meaning to the words.

The usual words and phrases of greeting and leave-taking are repeated daily until the pupils make them a part of their vocabulary. The pupils are taught to dramatize situations involving the use of words and phrases which they have learned. The new words of each lesson are written on the board and divided into syllables for study.

Some of the lessons or units in the beginning course are as follows: (1) the colors; (2) the numbers from one to ten; (3) the family; (4) the parts of the body; (5) the clothing; (6) the telling of time; (7) the classroom; (8) the months of the year; and (9) the calendar. There is provided a translation of the sentences in the basic reading material which may be used by the pupils when the meaning is otherwise not clear to them. Children's songs in Spanish are provided, and the pupils are encouraged to sing. Favorite games for children of Latin America are described, and children are encouraged to participate in playing them.

The teaching plan described by Mireles similar introduces Spanish in grade three, and it is continued

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39E. E. Mireles and Jovita G. Mireles, El Español Elemental (Austin, Texas, 1949).
through grade eight. Oral use is encouraged from the first, the ultimate goal being to learn to speak the language.

Mireles's plan introduces the oral materials from the beginning, and although the materials used are conducive to oral usage, apparently an attempt is made to associate the spoken word first with the written word while the pupils listen. Then the pupils are encouraged to read or repeat after the teacher as much as they can. The lessons are, it is reported, conducted in the Spanish language as far as possible.

Single words are selected from the lesson, and the pupils individually make sentences or phrases using each of the key words. The lessons begin with very easy material and increase in content as the course progresses. The theory of this study seems to be that by teaching a few simple words at first and learning them well, translation as such will be unnecessary, for the pupils will learn to think in Spanish. The vocabularies of each lesson or unit contain only a small number of high-frequency words from certain published word-counts.

Flash cards and other devices are recommended as means to assist the pupils in associating the written and spoken words with the objects portrayed. Motivation is increased by the use of songs, games, realia, and notebooks. Some
of the lessons or units are based on: (1) the home; (2) the school; and (3) play. Pupils are encouraged to make original sentences and some use is made of dictation in Spanish.

The plan for teaching Spanish as described by Rivera begins in the first grade and continues through the seventh. During the first two years, the pupils are not provided with any textbooks; the aural-oral approach to language learning is used entirely. After the initial two-year period of study, reading is added to the course. In order to establish the essential similarities and dissimilarities between this plan for the introduction of reading and the plans previously reviewed, an analysis of the Rivera plan for teaching Spanish in the third grade will be presented.

Emphasis is placed on the oral use of Spanish, and a refinement of pronunciation is continually sought. Objects and pictures of objects are identified orally at first. Then the Spanish equivalents of these words are written on the board. The teacher pronounces the words, analyzing the vowel and the consonantal sounds and their combinations. Words with different consonants are then substituted for the first words written. Comparisons of the sounds of the

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different vowels are made. A constant review is made of the basic vowel sounds.

Lists of the words used by the students are made by the teacher who assists the pupils to distinguish the various sound combinations. After a few lessons the pupils are encouraged to make notebooks containing pictures of the objects learned with the Spanish words for the objects. Then the teacher writes short sentences on the board, and the pupils read them with him. The teacher points out various words and the pupils read these words with him. It is to be noted, however, that at this stage the pupils are not required to copy, read, or write long sentences. When errors in pronunciation occur, reference is made to the basic Spanish sounds for remedial work.

When the pupils express themselves in Spanish, the teacher writes the expressions on the board for a reading lesson. By this process the pupils are expected to grow in their ability to write and read the Spanish which they have previously learned to use orally.

The literature is replete with reports of the use of audio-visual devices and techniques. Many aids were found to be used in various elementary language programs. It was observed that textbooks contained many well illustrated lessons. There were attractive pictures in color showing
real people doing interesting things, and pictures of objects which young children are accustomed to seeing.

In some of the language programs flash cards were used which contained pictures on one side and the written word on the reverse side. Pictures and objects of art were used to create an atmosphere of the country whose language was being studied.

Films and slides were sometimes used to bring to the pupils information about the customs of the people about whom they were studying. Taped recordings and disc records often served as aids in acquiring correct pronunciation. In some instances, a combination electric projector and record player provided both audio and visual contact with the second language. By means of this type of apparatus with animated pictures and appropriate dialogues, teachers were able to provide vicarious experiences that were designed to motivate language learning activities. One such audio-visual apparatus which was observed showed pictures of pupils performing the usual schoolroom routine. As the pictures were being viewed, the recorded voices of native speakers were heard saying the words appropriate to the action. A variation of this usage was found in some beginning reading programs. A phrase or short sentence was shown on the screen, and an idiomatic translation was heard simultaneously.
A recorded voice pronounced slowly and carefully syllables and whole words containing difficult sound combinations. Taped recordings were made of the voices of persons who spoke correctly, and after each word-group was spoken, there came a pause for the pupils to repeat or imitate what they had just heard. This was followed by the monitor's voice saying the sentence, phrase, or word again in order to provide the pupils with a means of comparing their own efforts with the spoken language they have heard.

There were found several instances of planning for the development of language laboratories for elementary language programs similar to the language laboratories currently used in some universities. Such plans seemed to contemplate three distinct types of accommodations. Type A was the simplest. It consisted, generally, of a classroom into which there could be brought portable audio-visual equipment, such as a film strip projector, a motion picture projector, slides and films, a record player, and records.

Type B was somewhat superior to Type A, in that a specially equipped room was provided for permanently located apparatus. Earphones were provided for a limited number of pupils in order that they might listen to special recordings while the other students were being directed in different activities by their teacher.
Type C consisted of a specially equipped room with the same apparatus as Type B, but which contained, in addition, one-pupil booths which were equipped with both earphones and a recording device. By using this equipment, a pupil could hear the recorded voice of a well-trained speaker, and, during regular pauses, record his own imitation of what he had heard.

The various audio-visual aids seemed to be considered useful in foreign language teaching, particularly in teaching pronunciation and developing aural discrimination. Their use, as was stated in the report of the Northeast Conference on the Teaching of Foreign Languages, can "supplement and enrich" the work of the classroom teacher.41

In all the foreign language programs for elementary grades observed, there was in evidence a conscious effort to provide rich and varied experiences for the young children before allowing them to begin the reading program. Efforts were made to provide many experiences for the pupils during this period of getting ready that would be conducive to language development. These activities included (1) practice with the newly acquired sounds; (2) acquiring new patterns of speech; (3) learning the

meaning of many new words and expressions; and (4) acquiring a command of some simple oral sentences in the second language that would be commensurate with their experiences. Efforts were made through the use of various techniques to develop both visual and auditory readiness on the part of the pupils. All the things that appeal to the eye and to the ear, and all the experimentation and practice with sounds were found to be in agreement with the reading readiness concept generally used in teaching the English language arts.  

Providing Teachers

The next question about which more knowledge was sought in the related literature concerned the practical problem of providing teachers competent to teach foreign languages. As Thompson and Hamalainen stated, supplying well-prepared foreign language teachers is one of the most serious problems of the entire program.

The ideally qualified teacher, as described by Andersson, would have in addition to the personal qualifications desirable for a teacher of any subject, a thorough knowledge of the second language. This linguistic

42Paul McKee, Reading and Literature in the Elementary School (Boston, 1934), pp. 3-16.
43Thompson and Hamalainen, op. cit., p. 33.
44Andersson, The Teaching of Foreign Languages, pp. 45-66.
attainment, in addition to a well-grounded knowledge of the culture and literature of the country whose language is being studied, would doubtless do much to make the FLES program successful. Although there are probably relatively few teachers with these qualifications among those now teaching in the elementary grades, there are many somewhat less well-prepared persons who are currently teaching foreign languages. Dunkel expressed the hope, which seems to be commonly held by many educators, that every effort should be made to improve the preparation of language teachers. Until there is an adequate supply of well-trained foreign language teachers, the best possible use of the available supply should be made. Dunkel observed that many devices and procedures were currently being used to assist inadequately prepared teachers. The devices described by Dunkel were of two types: (1) those that replace inadequately prepared teachers with mechanical means and (2) those that limit the scope of inadequately prepared teachers, thus preventing them from attempting more than they are competent to teach.

Andersson proposed some measures for supplementing the present supply of qualified language teachers. One

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45 Dunkel, op. cit., pp. 142-146.
46 Ibid., pp. 145-146.
measure suggested was that of utilizing the services of persons who are well trained in the language but lack minor technical credentials. Some of these persons, Andersson implied, could be used in the schools during the critical period of teacher shortage by changing the present rules of certification. A second measure suggested was that of utilizing the regular facilities of colleges for preparing language teachers aided by workshops and special summer sessions. A third suggested measure was that of effecting an exchange agreement with foreign countries whereby American teachers would go there to teach English and foreign teachers would come to the United States to teach their native language. Another suggestion as a possible source of supply for schools needing language teachers was the use of apprentice teachers whose services could be used under supervision of a competent language teacher.

Another source of supply has been reported in the related literature, namely, the use of language teachers from nearby secondary schools. Gessler, reporting an experiment in teaching French, revealed that the teaching was done by high school teachers who came to the elementary

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48 Ibid.

school and taught the experimental class.\(^5^0\) MacRae considered three ways in which Spanish might be made available to the classrooms: (1) by means of the regular classroom teacher, (2) by a language specialist, and (3) by an itinerant consultant in languages who teaches until the classroom teacher feels that she is prepared to assume the responsibilities of instruction.\(^5^1\)

Further reference to the relative merits of a regular classroom teacher language specialist in the elementary grades was made by Miel, who suggested that the classroom teacher might be the teacher in the most favorable position to integrate foreign language study with other phases of the curriculum.\(^5^2\)

The term "in-service education" was again observed in the report of an experiment in teaching German reported by Zagel. The conclusions of the experiment indicated that student teachers learned by means of the tape recorder and other means the basic structure of German, and that when they taught, they were more successful than others who

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\(^{51}\) MacRae, op. cit., pp. 12-13.

\(^{52}\) Alice Miel, "Does Foreign Language Belong in the Elementary Schools?" Teachers College Record, LVI (December, 1954), 139-148.
spoke German natively. This was accounted for apparently by the fact that the student teachers understood the language needs of their American pupils better than those who spoke the language natively. The final observation was that student teachers, under supervision, could do regular teaching with the help of certain auxiliary aids.53

This same thought was expressed by Guerra, who said that he did not "mock the in-service FLES teacher" though he did insist on the teacher's having a good pronunciation, conversational ability, and a willingness to improve this ability.54

Turner reported an experimental program involving the teaching of Spanish in the elementary grades.55 In this program Spanish was taught in connection with the other classroom activities. The purpose of the experiment was, according to Turner, to try ways in which Spanish could be used to enrich the curriculum by integrating it with other subject matter.

The teaching staff, it was reported, consisted of regularly employed teachers and student teachers. The


teaching staff attended workshop for a period of six weeks, observing the elementary pupils studying social studies and "learning the language of the Conquistadores in the process." During the sixth week, the members of the workshop, it was reported, tested with the pupils some of the methods and techniques which they had just learned in the workshop. The teachers and student teachers participating in the experiment had had little or no previous experience with Spanish.

At the conclusion of the experiment, a survey of parental attitude was made which, it was reported by Turner, revealed that 80 per cent of the parents whose children had participated in the project were pleased with the program. It was further reported that subsequently other French and Spanish programs were organized on a basis similar to the one just described. A further observation was made that about one half of the members of the workshop later enrolled in the regular college Spanish classes.56

While this study revealed, among other things, one way in which a workshop can be organized for prospective teachers of foreign languages in the elementary grades, and how foreign language can be integrated into the pattern of classroom activities, particularly social studies, it

56 Ibid.
seemed to leave unexplored the area of student achievement in the foreign language itself. Furthermore, it appears that the college workshop was the only feature of teacher-training that was employed. It seems to have left unexplored other features of teacher education that could contribute toward preparing prospective elementary foreign language teachers. It appears, too, that knowledge about other features of the training program, and an actual measurement of pupil achievement in the foreign language itself, would contribute to a better understanding of the problem of teacher supply as it applies to the elementary grades.

In-Service Education

The third area of related readings has been centered around the subject of in-service education. In this area there were three concerns on which attention was focused. These concerns were expressed in the following theoretical questions: (1) What is the historical development of in-service education? (2) How are in-service education programs organized? (3) What is the nature and function of an in-service education workshop?

The terms "in-service education" and "in-service training" appeared to be used synonymously in the literature. Several definitions of the concept have been given
by various students of education. Some have defined it in terms of its purposes; others have sought to define it by describing its essential characteristics. A satisfactory working definition of the term was given by Hass, who conceived in-service education as all the activities in which professional personnel engage while performing their duties for the purpose of improving the quality of their work.57 Kinnick called it a program by which educators learn and develop together.58

In-service education programs, it is reported by Hass, were in operation in public school systems in forty-eight states, according to a survey made in many large cities in 1952.59 The appearance of this institution, however, was a natural outgrowth of the times. It seems to have been a gradual development that took place over a long period of time. It was an answer to the professional needs of teachers who were interested in improving the quality of their work.


59 Hass, op. cit., p. 31.
The history of in-service education in the United States began with the efforts of nineteenth century educators who sought to solve the educational problems of their day. The educational preparation of the teachers at the beginning of the nineteenth century through the Civil War period has been generally considered inadequate, and the need for some way to improve the educational standards of prospective teachers, as well as those already engaged in teaching, was definitely indicated. To this end there was organized a teacher-training agency which came to be known as the Teachers' Institute. In 1885, Mann described a Teachers' Institute in its twofold purpose of ministering to the needs of student teachers as well as of those who were already teaching. The persons who attended these institutes were given instruction in the fundamentals of the curriculum of the Common School. This instruction was in accordance with the approved methods of the times.

Judging by the criticism of these early institutes one could infer that their usefulness as teacher-training institutions was not entirely satisfactory; however, they were not replaced by other agencies for a long time.

Richey stated that it was not before 1933 that the Teachers' Institute, as originally organized, began to pass away. Then it was replaced by teachers' meetings, orientation conferences, and other teacher-training institutions.

The summer school was another development in teacher-training that occurred in the nineteenth century. This institution, independent of colleges and universities, had a curriculum below the college level that was designed to help students and teachers who formerly attended the Teacher Institutes. More recently there developed in teacher education the teacher normals, departments of education in liberal arts colleges, and teacher colleges. These normals were added to these formal institutions, and through them extended and enlarged services were given to teachers while they were actually engaged in teaching. This was done through extension courses, summer sessions, and correspondence courses.

More recently there occurred another development in teacher education. Because of the introduction of new subject material in the curriculum and because there were too few teachers prepared to teach it, the organization of a formal department of supervision was effected in many of

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61 Richey, op. cit., p. 47.
62 Ibid., pp. 48-49.
the city schools. Personnel who staffed this department had been expert teachers of their respective subjects, and they taught or supervised other teachers who were not properly trained. Another factor, according to Ayer, that gave impetus to the development of the department of supervision in public schools was the increased amount of scientific study concerning methodology of teaching which the average teacher was unprepared to use. 63

The most recent development of supervision encountered in the related literature is the in-service education program. There have been several types of programs discussed in the literature, and it is difficult to differentiate among them. Miles recognized four general types: (1) programs that have a broad base; (2) programs in which primary emphasis is placed upon individual participation; (3) programs designed to increase the general educational background of the teachers; and (4) programs which emphasize some particular phase of the educational program. 64

Any or all of these types may function within the general


area of curriculum revision, according to Miles, or in isolated activities. 65

Some in-service education programs reported were, in effect, only agencies through which the central supervisory staff members operate. Others were found that were teacher-centered. Berge noted this phenomenon when he recognized three basic patterns of in-service education programs. The programs dominated by staff officers, he wrote, utilized the "centralized approach." Those programs that partook of the natures of both, he referred to as "centrally co-ordinated" programs. 66

In-service education has been partially described as an enterprise in which teachers work together in a permissive atmosphere toward the solution of some common problem. The idea of complete freedom and relaxation is basic to the program, for, as Lewis implied, only in such an atmosphere can the members of the in-service education group work creatively. If there is not the freedom to make mistakes and the willingness to admit the presence of problems to which there are no known solutions, and the freedom to

65 Ibid., p. 352.
represent a minority view, the participants will lack the incentive to do creative work.\textsuperscript{67} Maucker, summarizing the results of experimentation in group work, indicated that the results obtained from this type of cooperative action may result in improved professional performance.\textsuperscript{68}

Another observation, made by Parker in his "Guidelines for In-Service Education," was that a person tends to become emotionally involved in a problem when he sees that it has implications for his own system of values. One implication of this thought seemed to be that members of an in-service program should be allowed to choose problems with which they are personally concerned if the best results of the study are to be expected.\textsuperscript{69}

In many of the readings in the area of related literature there were found references to workshops for teachers. Elsbree included it as an integral part of an in-service education program. He described it as a group of people seeking a solution to a common problem. Some of the identifying characteristics of an education workshop listed


\textsuperscript{68}Maucker and Pendergraft, \textit{op. cit.}, pp. 264-282.

\textsuperscript{69}Parker, \textit{op. cit.}, pp. 104-105.
by him are (1) voluntary attendance; (2) freedom in the choice of problems; (3) group control of activities; (4) use of staff members only as resource personnel; (5) adequate provision for informal activities, including recreation; and (6) division of the program into meetings of the whole group and meetings of sub-groups. Maucker lists workshops along with educational conferences and extension classes as possible means of improving in-service education programs of teacher-training institutions.

Tests

One of the major tasks that arose at the outset of this investigation was to provide tests that would measure the aural comprehension of pupils with limited experience in the study of Spanish. There were several standardized tests available, but none were adequate for the purposes of this investigation. In general, they were too broad in their scope and were predicated upon the basis of more extensive linguistic experience than that possessed by the pupils involved in this investigation. The construction of adequate tests, therefore, was a necessity for the pursuit of this study and constituted a large part of the effort put into it.

70 Elsbree and McNally, op. cit., pp. 417-419.
A study was made of the literature relating to the construction of tests in modern foreign languages, and an effort was made to incorporate into the tests constructed for this investigation the principles that have evolved from the data obtained from other studies. Typical of the research reported is that which was reported by Henmon, who conducted extensive testing programs in French, German, Italian, Russian, and Spanish.

A foreign language test, just as in the case of other educational tests, must depend for its statistical usefulness as a measure of pupil achievement on its validity, reliability, comprehensiveness, and administrative practicability. These criteria must be evaluated in relation to the objectives of the foreign language instructional program. These objectives may be classified, according to Agard and Dunkel, into two categories: (1) those pertaining to the actual linguistic skills involved in reading, writing, speaking, and aural comprehension; and (2) secondary objectives that are associated with the linguistic skills. In this second group may be included growth in cultural knowledge and appreciation, improvement of one's native language, and the fostering of a spirit development

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72 V. A. C. Henmon, *Achievement Tests in the Modern Foreign Languages* (New York, 1929), and other sources.

73 Agard and Dunkel, *op. cit.*, p. 16.
of international good will. As desirable as the objectives of this group may be, they are of such an intangible nature that they do not readily lend themselves to quantitative analysis.

The objectives of the first category were divided into nine measurable aspects which Henmon enumerated as follows: (1) vocabulary, (2) reading comprehension, (3) translation into English, (4) translation into the foreign language, (5) written composition, (6) test in grammatical structure, (7) aural comprehension, (8) pronunciation, and (9) oral composition. Many Spanish tests have been standardized in these various aspects. Among these are (1) American Council Alpha Spanish Test, by Milton A. Buchanan, J. P. V. Crawford, Hayward Keniston, and V. A. C. Henmon, World Book Company, Yonkers-on-Hudson, New York; (2) Spanish Audition Test, by M. A. Buchanan, Forms A and B, Experimental edition, Canadian Committee on Modern Languages, Toronto, Canada.\(^\text{74}\)

The validity of a test, as has already been stated in this research, refers to how well the test measures what it claims to measure. In the learning of a foreign language there are several areas of achievement that could be tested, none of which necessarily would be mutually

\(^{74}\)Henmon, \textit{op. cit.}, pp. 3-5.
exclusive. Henmon enumerates five measurable abilities that indicate group as well as individual achievement and progress, as follows: (1) vocabulary, (2) grammar, (3) silent reading, (4) written composition, and (5) aural comprehension.\textsuperscript{75}

The importance of a careful selection of test materials was emphasized in various readings on test construction. Henmon, for example, stated that the selection of test items was vital to the securing of validity and comprehensiveness, and that techniques and length were significant in obtaining reliability, objectivity, and administrative practicability.\textsuperscript{76}

Various techniques for obtaining objectivity and reliability were described in the related literature. For testing word recognition, for example, one technique described by Henmon was the listing of five English words opposite a foreign word. The student shows his recognition of the foreign word by indicating the English word that means most nearly the same thing. This technique has been widely used, but some critics have preferred other ways of obtaining responses from the pupils.\textsuperscript{77}

Descriptions of reading and grammar testing techniques were also found in the related literature. The silent

\textsuperscript{75}ibid., p. 7.  \textsuperscript{76}ibid.  \textsuperscript{77}ibid., pp. 9, 10.
reading tests were of particular interest for this study inasmuch as the techniques employed in them could with some modification be used in tests of aural comprehension. In essence, the silent reading tests described consisted of passages in the foreign language to be read by the students. The students then were requested to mark as true or false statements concerning the content of the passages.

The length of the tests and the time involved in taking the tests were of interest for the present study, and information concerning these matters was sought in the related literature. In a test designed to reveal the reliability coefficients of variant forms of the American Council French Reading Test, as shown by Henmon, it was indicated that the average time to do one of the tests was thirty-two minutes. The number of items included in the test was twenty-eight.

The test format was a matter of interest in the preparation of the aural comprehension tests for this investigation. There seemed to be much similarity among the tests examined regardless of the second language involved. A French aural comprehension test by Agnes L. Rogers, as quoted by Henmon, consisted of a five-response multiple-choice technique. The students were given lists

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78 Ibid., p. 311.
of English words and were directed to underline the words that correctly answered the questions that they would hear in French. Then the examiner would read a question, such as, "Avec quoi scrit-on?"

A Spanish audition test by Milton A. Buchanan, experimental edition, under the auspices of The American Council on Education, according to Henmon, revealed a similar method of measuring the ability of students to "catch the meaning" of Spanish words when pronounced. This test included fifty items, twenty-five of which were individual words and a like number of short phrases or sentences. This, as well as all other tests of aural comprehension examined, was standardized for secondary school or college students.

The problem of avoiding seductive or misleading questions was discussed in the related readings. Incomplete apprehension, inability to distinguish between similar sounds, and faulty association with English words of a similar sound were given by Henmon as frequent causes of error in tests of aural comprehension.

79 Ibid., pp. 309-310.
80 Ibid., pp. 320-321. (Reference to E. L. Thorndike, "Reading as Reasoning," Journal of Educational Psychology, VIII (June, 1917), 323-332.)
CHAPTER III

METHODS AND PROCEDURES

For comparative purposes data relative to an in-service educational program for beginning teachers of Spanish were collected, analyzed, and interpreted through the use of the following methods and procedures:

1. Ten or more elementary teachers with no more than three college hours in Spanish were secured who would cooperate in the following ways:
   a. They would participate in a Spanish in-service educational program;
   b. They would teach Spanish for a specified length of time;
   c. They would administer the prescribed tests according to a plan agreed upon.

2. Ten or more elementary teachers with twelve or more college hours in Spanish were secured who would cooperate in the following ways:
   a. They would teach Spanish at the same level as the experimental group for a specified length of time;
   b. They would administer the prescribed tests according to a plan agreed upon.
3. An in-service educational program was conducted.

4. The achievement scores of the pupils of one group of teachers were compared statistically with the scores of the pupils of the other group.

Permission to conduct the investigation in the elementary schools of the Fort Worth School System during the scholastic year 1958-1959 was secured from the superintendent of schools in Fort Worth, Texas. The approval and cooperation of the assistant superintendent and the director of research and curriculum of the Fort Worth School System were also sought and were given by them for this investigation. The permission and cooperation of the principals of selected elementary schools were also sought and obtained.

The fourth grade was chosen as the proper grade in which to conduct the experimental teaching involved in this investigation. This is the grade in which the study of Spanish is ordinarily begun in the Fort Worth elementary schools offering a foreign language program.

A number of fourth-grade teachers were invited to participate in this investigation. To those teachers who were interested in the study, a letter was sent outlining the general purposes of the project and the nature of the procedures contemplated. Assurance was given, on the authority of the school administration, that their
participation would be entirely voluntary, and that their professional welfare would in no way be affected by it. These teachers were invited to assemble at an appointed place and time during the second week in September, 1958.

A list of proposed objectives for a beginning Spanish course in the fourth grade was prepared and sent for appraisal to persons in various sections of the country. Among those to whom it was sent were teachers of elementary Spanish, a college teacher of Spanish, a consultant of Spanish teaching, and a director of curriculum. Included with the list of objectives was a letter explaining the purpose for which the list had been prepared. Each person addressed was asked to indicate his evaluation of each proposed objective by placing a symbol in the space provided for the purpose. The symbols were as follows: V (Very Important), I (Important), and O (Inappropriate or Unsatisfactory). From the responses received, a list was made of the items marked either "V" or "I."¹ This list was later submitted to and adopted by the teachers participating in the investigation as a general guide for the cooperative endeavor.

At the first meeting of the teachers who volunteered to participate, further explanations concerning the project

¹See Appendix A, pages 125-126.
were made. Plans were made for future meetings. At the second meeting a workshop for the study of Spanish was begun, a tentative schedule of subsequent meetings was adopted, and the proposed list of objectives was approved. In all, there were held eight general study sessions and four scheduled study conferences. In addition to these scheduled assemblies, numerous informal consultations with experimental teachers were held.

Common Agreement

In order to establish a common area of instruction, both groups of teachers agreed as follows:

1. The same state-adopted textbook should be used.

2. The same number of lessons should be taught before tests should be administered.

3. Three tests should be administered by the teachers to their respective pupils, the first test being given prior to the beginning of the pupil instructional program; the second, at the conclusion of nine hours of pupil instruction; the third, at the conclusion of eighteen hours of pupil instruction. The tests should not be scored by the teachers.

4. A syllabus of study materials should be given teachers of both groups.
5. Each teacher would teach Spanish approximately forty minutes each week in two approximately equal periods.

Workshop

The teachers with twelve or more college hours in Spanish did not participate in the in-service educational program. For the teachers with no more than three college hours in Spanish an in-service educational program or workshop was conducted. The workshop consisted of two essential features: (1) the study of Spanish and (2) the study of methodology of Spanish instruction.

The study of Spanish consisted of an intensive treatment of the following items:

1. Pronunciation, syllabication, and intonation.
2. Present tense, indicative mood of the following verbs which were found in the textbook: adornar, cantar, comer, comenzar, escribir, estar, ser, and tener.
3. Agreement, nouns and adjectives, verbs and subjects.
4. Vocabulary, based on the textbook and the syllabus to which reference has previously been made.
5. Possession—adjectives, and de plus a noun or pronoun.
Summary of the Methods of Instruction Used in the In-Service Education Program

1. At first, only simple short words were spoken, and the beginning teachers repeated them after the instructor.

2. Objects in the classroom were indicated and the Spanish words for them were spoken. The beginning teachers repeated the words, pointing to or touching the objects. Example: silla, suelo, libro, lápiz, etc.

3. The verbs were introduced in context as much as possible, but, as often as necessary, English translations and explanations were made. Example: (1) Este es el libro. The beginning teachers touched a book, repeating with the instructor, "Este es el libro." (2) Tengo una falda roja. The beginning teachers touched their own dresses, repeating the Spanish sentence. Different colors in the clothing worn by persons present were identified and the practice sentences were modified to include new words.

4. The instructor frequently wrote single vowels on the chalk board as he was teaching sounds. After a short time all the vowels were listed and studied independently and as diphthongs. The consonantal sounds peculiar to Spanish were likewise studied intensively, especially as they occurred in words found in the textbooks. Examples: roja, hay, tortillas, perro, bueno, niño.

5. As the beginning teachers became increasingly familiar with the written symbols, the simple written
materials of the textbook were introduced. This material was used chiefly for the practice in pronunciation, since getting the meaning of the sentences posed no difficulty. For a ready reference, the beginning teachers were referred to the page-by-page translation found in the last section of the textbook.

6. Magnetic tape recordings of the materials studied in the class sessions were prepared by the instructor and loaned to the members of the workshop. For example, the recorded voice pronounced a letter or syllable twice and paused a moment, during which time the beginning teacher was instructed to imitate the recorded voice. Then the recorded voice repeated what had been previously said. This was done in order that each member of the workshop, in the privacy of her own room, might compare her efforts with those of the instructor. Gradually, the syllables and single words, phrases, and sentences were substituted on the magnetic tape. The tapes were returned to the instructor for new recordings as the course progressed. Each recording was individualized to suit the needs of the member for whom it was made by preparing an exercise on any specific activity requested by her.

In the workshop sessions, the members would assemble by twos or threes for rapid oral practice. The instructor was always near at hand to assist as need arose. After the
beginning teachers felt that they needed additional help on some new steps in the procedure, they reassembled as a group.

Methodology for Teaching Elementary Pupils

A part of each of the last three group sessions was spent in the consideration of methods and techniques of teaching fourth-grade pupils. The general plan of procedure adopted was as follows:

1. Use a modified aural-oral approach to teaching Spanish in the beginning.

2. Use specially prepared tape recordings to assist in the teaching of pronunciation.

3. Introduce the written words very gradually and then only as the written words serve as aids to aural comprehension.

4. Make notebooks, posters, sketches, and pictures to promote interest in vocabulary learning.

5. Read and speak simple Spanish sentences to the pupils, encouraging them to repeat individually and in chorus, words and phrases which they hear.

6. Dramatize for the pupils simple incidents in their daily life, such as greeting their teacher, expressing affection, and the like.

7. Play and sing number games involving counting.
8. Devise and play vocabulary games involving the words upon which special emphasis has been placed.

9. Make a piñata and other party equipment for a class project.

10. Sing several songs in Spanish.

11. Collect interesting realia that tend to motivate the learning of Spanish.

12. Toward the end of the academic year, encourage the pupils to make lists of Spanish words and phrases that they have learned.

13. Introduce reading by the use of flash cards, word charts, and the textbook.

14. Use mechanical cardboard clocks with movable hands for teaching how to tell time.

15. Make name cards for objects of furniture in the room.

16. Prepare a calendar for each month of the year, showing the Spanish names of the days of the week.

The beginning teachers were instructed to begin teaching phrases and short simple sentences to their pupils as soon as they felt that the pupils had a clear understanding of the sounds involved in single words. There was no specified sequence given for the various activities listed above.
Three tests were considered necessary for the purposes of this investigation. Test I was needed to provide a basis for a relative equating of the two groups of pupils with respect to their facility in the use of Spanish. This test was administered in September before the instruction of the pupils began. The second and third tests were given for the purpose of comparing the achievement of the two groups of pupils. Test II was given in January after nine hours of pupil instruction, and Test III was given in May, at the conclusion of eighteen hours of pupil instruction.

Before these tests were finally constructed, three proposed tests were sent, together with a manual for administration and a copy of the objectives of the course, to several persons who were either teaching Spanish personally or were supervising the teaching of Spanish in elementary schools. These persons included some of the individuals who evaluated the objectives previously mentioned. These individuals were asked to delete any proposed item which seemed inappropriate and to offer any criticism or suggestion that would strengthen the tests. With the help of the responses received, the investigator constructed the tests that were used.

Test I was, for the most part, a pictorial type objective test. It was short, and it was designed to indicate
those pupils who already were relatively familiar with the Spanish language. It contained a series of stick figures in various attitudes; pictures of common objects, such as fruit, animals, and toys; phrases; and numbers. Provision was made to minimize the possible limitation associated with inability to read well by the use of pictorial representations and ample oral instruction in the teacher's manual of directions.\(^2\)

Test II and Test III were similarly constructed. They too were, for the most part, pictorial, showing doll-like figures, a furnished school room, clocks indicating various hours, and similar objects. A few incomplete sentences were given which the pupils were to complete with appropriate expressions. A few familiar sentences involving some reading skill were included in Tests II and III. Although the aural-oral method of instruction was chiefly used, it was believed that some reference should be made in the tests to the written element of the language which, it appeared, would inevitably occur. A list of probable responses was supplied the pupils from which they were to select their choices.

\(^2\)Tests II and III were similarly constructed. They were objective type tests and also contained pictorial representations which provided a basis for testing aural comprehension with a minimum reference to reading. (See Appendix.)
Administration of Tests

Since the tape recorder had been used by the teachers of the experimental groups, consideration was given to the possibility of using taped recordings for the tests. Due to the fact, however, that not all the teachers of the control group had used the tape recorder as a teaching medium, this method of presenting the tests seemed inappropriate. Furthermore, technical difficulties rendered this method of testing nearly impossible.

It was decided that the teachers should administer the tests to their respective groups, following the directions in the manuals. It was realized that some meaning is almost invariably conveyed by inadvertent gestures and intonations, but it was concluded that if the teachers carefully followed the script of the manuals, the testing procedure would be equally fair for all pupils.

Validity and Reliability of Tests

In the absence of any standardized Spanish tests for aural comprehension normalized for elementary pupils with limited experience in Spanish, an effort was made to construct tests which would possess a considerable measure of validity and reliability. Provision for face validity of the tests was made by a careful study of the contents of
the course of study. Limited reliability was effected through the application of the test-retest techniques.

The Division of Participants into Groups

The participants of this investigation composed the following groups: (1) experimental Spanish teachers; (2) pupils taught by experimental teachers; (3) regular Spanish teachers, known as the control group of teachers; and (4) pupils taught by the control group of teachers, known as the control group of pupils.

Table II shows the number of pupils to whom Test I was given and the number of teachers who administered it.

<table>
<thead>
<tr>
<th>TABLE II</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>NUMBER OF TEACHERS AND PUPILS TAKING PART IN TEST I</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Group</th>
<th>Teachers</th>
<th>Pupils</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental</td>
<td>13</td>
<td>340</td>
</tr>
<tr>
<td>Control</td>
<td>13</td>
<td>336</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>26</strong></td>
<td><strong>676</strong></td>
</tr>
</tbody>
</table>

There were thirteen teachers in the experimental group of teachers and 340 pupils in the experimental group of pupils. There were thirteen teachers and 336 pupils in the control group.
In January, after the pupils had been given nine hours of instruction in Spanish, Test II was administered for the purpose of comparing the achievement of the two groups. The distribution of the pupils and teachers who participated in Test II is shown in Table III.

TABLE III
NUMBER OF TEACHERS AND PUPILS TAKING PART IN TEST II

<table>
<thead>
<tr>
<th>Group</th>
<th>Teachers</th>
<th>Pupils</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental</td>
<td>12</td>
<td>286</td>
</tr>
<tr>
<td>Control</td>
<td>12</td>
<td>278</td>
</tr>
</tbody>
</table>

There were 286 pupils in the experimental group and 278 pupils in the control group of pupils who took Test II. This test was administered to the two groups of pupils by their respective teachers, twelve teachers in each group.

In May, after the pupils had received eighteen hours of instruction in Spanish, Test III was administered in order to compare the achievement of the two groups of pupils. At this time there were 228 pupils in the experimental group and 234 pupils in the control group of pupils. There were at this time eleven experimental and twelve control teachers.

This distribution is summarized in Table IV.
TABLE IV
NUMBER OF TEACHERS AND PUPILS TAKING PART IN TEST III

<table>
<thead>
<tr>
<th>Group</th>
<th>Teachers</th>
<th>Pupils</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental</td>
<td>11</td>
<td>228</td>
</tr>
<tr>
<td>Control</td>
<td>12</td>
<td>234</td>
</tr>
</tbody>
</table>

Since the administration of Test II, one member of the experimental group of teachers took a leave of absence from teaching. This reduced the membership of the experimental group of teachers from twelve to eleven. The difference between the number of pupils who took Test II and the number who took Test III may be accounted for by the withdrawal of one entire class and by the usual factors that affect school attendance, such as change of residence of pupils and absence from school because of illness and other reasons. There were 228 pupils in the experimental group and 234 pupils in the control group who took Test III.

It will be observed that the number of pupils in the respective groups varied at each test administration. The usual contingencies relative to school attendance caused this fluctuation in the number of pupils who participated in the experiment.
The respective group performance or achievement was measured by the several tests. It is likely that the variance in the personnel of the groups affected to some extent the relative achievement means which were used in the statistical calculations. However, since this variation in attendance was distributed without conscious bias among all the participating fourth grades, it was felt that the relative status of the experimental and control groups of pupils was not significantly affected.

Statistical Procedures

Comparison of Achievement Scores

Test I.—It was known that there were several nearly bilingual pupils in some of the classes within the two primary groups of pupils. In addition to these bilingual pupils there were other pupils who had acquired a considerable knowledge of Spanish. Some of them had traveled extensively and thus had learned many Spanish words and phrases. Others had learned Spanish words and phrases from incidental Spanish teaching in the primary grades. A few pupils came from cities where Spanish was formally taught in the primary grades. Also, by means of radio, television, motion pictures, and other media, a few pupils had acquired some knowledge of Spanish.

When the results of Test I were analyzed, it was observed that one class of twenty-four pupils in the
experimental group and one class of twenty-six pupils in
the control group were composed largely of pupils who were
almost bilingual. It was considered wise to exclude these
two classes entirely from further statistical consideration
in this investigation.

Of the remaining 626 pupils, 54 scored 50 per cent or
more on Test I, and 572 pupils scored below 50 per cent.
Most of the 54 pupils scored between 80 and 100 per cent,
while most of the 572 pupils scored between 0 and 20 per
cent. By excluding all pupils who made a score of 50 per
cent or more on Test I from any further statistical con-
sideration, there remained 291 pupils in the experimental
group and 281 pupils in the control group of pupils. Of
the 572 pupils whose test scores were included in the
statistical computations of Test I, there were 98 pupils
in the experimental group and 72 in the control group who
scored 20 per cent or less. The difference between the
two groups of pupils was greatest on this stratum. There
were 29 pupils in the experimental group and 32 pupils in
the control group who scored from 80 to 100 per cent. In
the other categories also there was a close agreement of
test scores. For the purpose of equating the two groups
of pupils, a statistical comparison of the respective
scores of the two groups on Test I was made by the appli-
cation of the following formula:
The initial CR are used here to represent critical ratio. \( M_E \) is used to represent the mean score of the experimental group of pupils, and \( M_C \), the mean score of the control group of pupils. The figure \( \sigma \) is used here to represent standard deviation. The letter \( N \) is used here to represent the number of individual scores in the test, i.e., the number of pupils participating in the test. The critical ratio obtained by means of this formula indicated the significance of the difference between the mean achievement of the two groups of pupils.

Tests II and III.—Precisely the same procedure was used to determine the significance of the difference between the achievement of the experimental and control groups of pupils in January after they had received nine hours of instruction in Spanish and again in May after they had received eighteen hours of instruction.

The same formula, the critical ratio, was used to make a statistical comparison of the respective scores of the two groups of pupils after Tests II and III that was used
for this purpose after Test I. On Test II there were 286 pupils in the experimental group and 278 in the control group. On Test III there were 228 pupils in the experimental group and 234 pupils in the control group.

Test Reliability

For the purpose of establishing the reliability of Test II and Test III, each test was administered twice to a group of pupils within a period of a few days. A comparison of the scores obtained from this procedure was then made. The following formula was used:

\[ r = \frac{\sum X Y}{\sqrt{\left(\sum x^2\right)\left(\sum y^2\right)}}. \]

The meanings of the symbols are as follows:
- \( X \) — the first administration of the test
- \( Y \) — the second administration of the test
- \( r \) — the product moment coefficient
- \( \sum \) — summation sign
- \( x \) — the deviations of \( X \) scores from the mean of Test \( X \)
- \( y \) — the deviation of \( Y \) scores from the mean of Test \( Y \)

Perfect correlation by this formula is represented by 1; therefore, an obtained correlation coefficient (\( r \)) is

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interpreted as indicating the measure of correlation that exists between two administrations of the same test. Hence, an obtained coefficient of correlation is interpreted as indicating the reliability of a test.
CHAPTER IV

PRESENTATION AND ANALYSIS OF DATA

There were two basic purposes which were considered vital to this investigation. They were: (1) to determine the significance of the difference in the comprehension of oral Spanish between the experimental and control groups of fourth-grade pupils after they had received nine hours of instruction and (2) to determine the significance of difference in the comprehension of oral Spanish between the same groups of pupils after they had received eighteen hours of instruction. Although the tests were designed to measure the comprehension of spoken Spanish, it was deemed necessary to employ a few written expressions. This was done for the purpose of providing a context for oral responses. The responses did not require original responses, but merely the recognition of certain written forms which appeared in the text which was used. Implied in this comparative analysis of pupil achievement was the equality of the two groups of pupils in their comprehension of oral Spanish prior to the beginning of this investigation. It was necessary, therefore, to equate the two groups of pupils in this respect in order to compare their
subsequent achievement. Since standardized tests were not available for comparing the achievement scores of the pupils, it was necessary to establish the validity and reliability of the tests that were used for this purpose. The validity of the tests was not established by statistical procedures, but an effort was made to establish the reliability of the tests by statistical procedures.

The procedures employed for the accomplishment of these purposes consisted of the following steps: (1) to determine the reliability of the two achievement tests; (2) to equate the two groups of pupils; (3) to compare the respective achievement scores of the two groups of pupils after they had studied Spanish for nine hours and again after eighteen hours.

Reliability of Achievement Tests Used

Consistent with the procedures described in Chapter III, the coefficients of reliability were established for Test II and Test III. For this purpose the test-retest technique was used and the Pearson Product Moment formula was employed. This formula is symbolized as follows:¹

\[ r = \frac{\sum XY}{\sqrt{(\sum x^2)(\sum y^2)}}. \]

As indicated previously on page 96, the symbols used here have the following meaning:

- **X** — the first administration of the test
- **Y** — the second administration of the test
- **r** — the product-moment coefficient
- **Σ** — summation sign
- **x** — the deviation of X scores from the mean of Test X
- **y** — the deviation of Y scores from the mean of Test Y.

A class of twenty-five fourth-grade pupils was used as the sample for this test of reliability. Each of the two achievement tests was administered twice to this class, once during the fall semester of the 1958-1959 scholastic year and again during the spring semester. A few days elapsed between the two administrations of each test.

Each pupil was identified by an assigned number which he placed on his test paper at each administration. The mean score of each administration was calculated, and the Pearson Product Moment Formula, as symbolized by the above formula, was then applied to these data.

A summary of the data obtained from the application of this formula to the scores obtained from the two administrations of Test II is shown in Table V. The raw data are contained in Appendix 0.
There were twenty-five pupils used in this sample. On the first administration of Test II, the mean score was 38.64 and on the second administration, or re-test, the mean score was 39.44. The correlation of the two administrations (r) of Test II was .81. In the Pearson Product-Moment Formula the coefficient 1 represents perfect correlation. Since the correlation on Test II was .81, it may be interpreted to mean that the same results obtained from the two administrations of this test may be expected eighty-one times out of each hundred times the test is administered under the same conditions. Test II was considered sufficiently reliable for the purposes of this investigation.

A summary of the data obtained from the application of the Pearson Product-Moment Formula to the scores obtained from the administrations of Test III is shown in Table VI. The raw data are contained in Appendix P.
Twenty-nine pupils composed the sample used in this measure of the reliability of Test III. On the first administration of the test, the mean score was 26.13 and on the second, or re-test, the mean score was 27.21. The correlation (r) of the two administrations of Test III was .74. This coefficient of correlation indicated that the reliability of this test was sufficiently high for the purposes of this investigation.

Equation of Groups of Pupils

For the purpose of equating the experimental and control groups of pupils with respect to their comprehension of oral Spanish, a preliminary achievement test was administered to 676 fourth-grade pupils in September, 1958. These pupils composed twenty-six separate classes, thirteen of which were taught respectively by the thirteen teachers of the experimental group of teachers, and a like
number of classes were taught by the thirteen teachers of the control group of teachers. One class of the experimental group of pupils and one class of the control group of pupils were composed almost entirely of bilingual pupils. The pupils of these classes scored nearly 100 per cent on the test; consequently, both classes were excluded from further statistical consideration in this investigation. Of the remaining 626 pupils, 54 scored 50 per cent or more on Test I. The remaining 572 pupils scored less than 50 per cent, most of the scores ranging from zero to 20 per cent. This sharp cleavage in the distribution of scores was interpreted to indicate that those pupils who comprehended oral Spanish scored very high on the test, and those whose scores were achieved by chance scored low on the test. After the pupils who scored 50 per cent or more on the test were arbitrarily excluded from any further statistical consideration, the mean score of the experimental group of pupils and the mean score of the control group of pupils were compared to determine the significance of difference between them.

Of the 572 pupils who were thus left in the experimental and control groups, 291 were in the experimental group, and 281 were in the control group. The critical ratio was used to test the significance of difference between the mean scores of the two groups of pupils.
remaining. This statistic was deemed appropriate for this purpose because it reveals the ratio between the mean scores of the experimental and control groups of pupils and the standard error of the respective scores of the two groups of pupils.

The critical ratio of the respective scores of the two groups of pupils was calculated by means of the formula symbolized as follows:

\[ CR = \frac{M_E - M_C}{\sqrt{\frac{\sigma_E^2}{N_E - 1} + \frac{\sigma_C^2}{N_C - 1}}} \]

In this formula the initials \( CR \) represent the critical ratio. The symbols \( M_E \) and \( M_C \) represent the respective means of the experimental and control groups of pupils. The denominator of the fraction is the square root of the sum of the squared standard error of the two sets of scores divided by the number of scores minus one in each of the two populations. As McNemar\(^2\) observes, when the number of cases is not too small, the critical ratio will follow the unit normal curve. This fact permits one to discover in

the table of normal curve functions the probability of a deviation as great as that observed. (In this case the deviation is the difference between the observed means of the two samples.)

Table VII indicates the number of pupils taking Test I, the means of the experimental and control groups of pupils, the difference between the respective means of the two groups of pupils, the standard deviations, and the critical ratio.

<table>
<thead>
<tr>
<th>Groups</th>
<th>N</th>
<th>M</th>
<th>Difference of Means</th>
<th>S</th>
<th>CR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental</td>
<td>291</td>
<td>1.50</td>
<td></td>
<td>1.35</td>
<td></td>
</tr>
<tr>
<td>Control</td>
<td>281</td>
<td>1.67</td>
<td>.17</td>
<td>1.32</td>
<td>1.55</td>
</tr>
</tbody>
</table>

The mean score achieved by the experimental group of pupils was 1.50, and the mean score achieved by the control group of pupils was 1.67. The standard deviation of the experimental group was 1.35, and the standard deviation of the control group was 1.32. The difference between the
mean scores of the two groups was .17. The greater score was achieved by the control group of pupils.

A critical ratio of 1.55 indicates that a difference between the two means as great as .17 would occur approximately 12 per cent of the time by chance alone. It was concluded, therefore, that the experimental and control groups of pupils were matched.

Results of Test II

After the pupils of the experimental and control groups had received nine hours of instruction, Test II was administered. At this time there were 286 pupils in the experimental group and 278 pupils in the control group. There were several factors that contributed to this difference in the number of pupils who took Test I and Test II. One hundred and four pupils were rejected from further statistical consideration after they scored 50 per cent or more on the preliminary test. Others had changed schools or were absent from school on the day the Test II was given. The scores of pupils in the various classes who participated in Test II but had not participated in Test I were not considered in the statistical calculations.

After Test II was scored, and the score of each pupil was recorded, a comparison of the respective scores of the two groups of pupils was made by the use of the same critical ratio formula used for Test I.
Table VIII shows the summary of the data obtained from the application of this critical ratio formula.

**TABLE VIII**

**NUMBER OF PUPILS, MEANS, DIFFERENCE BETWEEN MEANS, STANDARD DEVIATIONS, AND CRITICAL RATIO**

**TEST II**

<table>
<thead>
<tr>
<th>Groups</th>
<th>N</th>
<th>M</th>
<th>Difference of Means</th>
<th>$\sigma$</th>
<th>CR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental</td>
<td>286</td>
<td>37.17</td>
<td></td>
<td>7.26</td>
<td></td>
</tr>
<tr>
<td>Control</td>
<td>278</td>
<td>35.49</td>
<td></td>
<td>8.73</td>
<td>2.47</td>
</tr>
</tbody>
</table>

The mean score achieved by the experimental group of 286 pupils was 37.17, and the mean score of the control group of 278 pupils was 35.49. The standard deviation of the experimental group was 7.26, and the standard deviation of the control group was 8.73. The difference between the mean scores of the two groups of pupils was 1.68. The greater score was achieved by the pupils of the experimental group.

The critical ratio was determined by dividing the difference between the two means by the square root of the sum of the quotients obtained by dividing the squared standard deviation of each group divided by the number of pupils in each corresponding group minus one. The resulting critical
ratio was 2.47. A critical ratio of this magnitude was interpreted to signify that the difference between the two means of this test would occur between 2 and 3 per cent of the time by chance alone, and was therefore statistically significant near the 2 per cent level.

Results of Test III

After the pupils of the experimental and control groups had received eighteen hours of instruction in Spanish, Test III was administered to them in May, 1959. At this time there were 228 pupils in the experimental group and 234 pupils in the control group. The same factors that contributed to the variation in the membership of the two groups of pupils at the time Test II was administered contributed to a similar variation in May when Test III was administered.

Precisely the same procedures were used in the treatment of the data obtained from the administration of Test III that were used for Test II. A summary of these data are presented in Table IX.

Table IX indicates the number of pupils in each group, the respective means of the two groups of pupils, the difference between the means, the standard deviations, and the critical ratio.
**TABLE IX**

NUMBER OF PUPILS, MEANS, DIFFERENCE BETWEEN MEANS, STANDARD DEVIATIONS, AND CRITICAL RATIO

**TEST III**

<table>
<thead>
<tr>
<th>Groups</th>
<th>N</th>
<th>M</th>
<th>Difference of Means</th>
<th>σ</th>
<th>CR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental</td>
<td>228</td>
<td>21.44</td>
<td></td>
<td>4.06</td>
<td></td>
</tr>
<tr>
<td>Control</td>
<td>234</td>
<td>19.80</td>
<td></td>
<td>4.66</td>
<td>4.07</td>
</tr>
</tbody>
</table>

The mean score achieved by the experimental group of 228 pupils was 21.44, and the mean score of the control group of 234 pupils was 19.80. The standard deviation of the experimental group was 4.06, and the standard deviation of the control group was 4.66. The difference between the mean scores of the two groups of pupils was 1.64. The greater score was achieved by the pupils of the experimental groups.

The critical ratio was determined by dividing the squared standard deviation of each group divided by the number of pupils in each corresponding group minus one. The resulting critical ratio was 4.07. A critical ratio of this magnitude was interpreted to signify that the difference between the two means would occur by chance alone less than 1 per cent of the time, and was, therefore, statistically significant.
Summary of Purposes and Procedures

The purpose of the present investigation was to make a statistical comparison of the achievement in Spanish of two groups of fourth-grade pupils. One group was taught by teachers who participated in a Spanish in-service educational program, and the other group was taught by teachers who did not participate in the program. The teachers who participated in the program had a maximum of three college hours in Spanish. These teachers are referred to as the experimental group of teachers. The teachers who did not participate in the Spanish in-service educational program had a minimum of twelve college hours in Spanish. These teachers are referred to as the control group of teachers.

Specifically, the purposes of the present investigation were as follows:

1. To determine whether there was any significant difference between the achievement in comprehending Spanish made by the group of pupils who had been taught for nine hours by the experimental teachers and the achievement made by the group of pupils who had been taught Spanish by the control teachers for the same length of time.
2. To determine whether there was any significant difference between the achievement of the two groups of pupils after having received eighteen hours of instruction in Spanish.

In order to provide a statistical basis for accomplishing the stated purposes of this study, the following null hypotheses were formulated to be investigated by the data obtained from the administration of two achievement tests:

1. There was no significant difference between the January mean scores of the pupils taught by the experimental Spanish teachers and the January mean scores of the pupils taught by the regular Spanish teachers.

2. There was no significant difference between the May mean scores of the pupils taught by the experimental Spanish teachers and the May mean scores of the pupils taught by the regular Spanish teachers.

Consistent with hypothesis number 1, the following questions were formulated:

1. What was the mean achievement score made by the experimental group of pupils in January after having received nine hours of instruction in Spanish?

2. What was the mean achievement score made by the control group of pupils in January after having received nine hours of instruction in Spanish?
3. What was the significance of the difference between the mean scores achieved by the two groups of pupils after having received nine hours of instruction in Spanish?

Consistent with hypothesis number 2, the following questions were formulated:

1. What was the mean achievement score made by the experimental group of pupils in May after having received eighteen hours of instruction in Spanish?

2. What was the mean achievement score made by the control group of pupils in May after having received eighteen hours of instruction in Spanish?

3. What was the significance of the difference between the mean scores achieved by the two groups of pupils after having received eighteen hours of instruction in Spanish?

Summary of Procedures

It was decided to compare the pupil achievement in beginning Spanish in the fourth grade under the experimental program with the pupil achievement of a similar group of pupils under the regular program. The experiment was conducted over a period of approximately one year.

There are many factors that operate in an experiment in the area of instruction, and it is with considerable difficulty that they are controlled. It is believed,
however, that the following factors were controlled to a satisfactory degree in this study.

1. Instruction time. Equal time was given in both the experimental and control programs for the teaching of Spanish. In each program instruction in Spanish was given for two twenty-minute periods each week.

2. Class size. The classes as a whole were very similar in size. The maximum and minimum numbers of pupils in the various classes were nearly the same and the number of classes in the experimental program was also very similar to the number in the control group.

3. Teachers. One of the factors most difficult to control in an experiment in teaching often concerns the teachers themselves. The questions of professional training, general teaching competence, and enthusiasm for the experiment are some of the matters that must be considered when teaching-learning is to be evaluated. In this study, however, all the teachers had previous teaching experience. All held at least a Baccalaureate degree, and about an equal number in each program held the Master's degree. All were regularly employed teachers in the Fort Worth Public Schools and were assigned to teach in the fourth grade. None were native Spanish-speaking persons.

4. Inasmuch as all the teachers who participated in the experiment were fully informed beforehand about what
participation in the study would involve, and all entered into it voluntarily, it is presumed that personal or professional motivation and enthusiasm would be comparable in both groups of teachers. The difference in the specific knowledge of Spanish and how to teach it is a basic part of this experiment. In all other respects, it is felt that the teachers in both groups were equal.

5. In-service education. Basic to the present experiment was the Spanish in-service educational program. An intensive study of Spanish and methods and materials for teaching it was made by the teachers of the experimental group. The same methods and materials were made available to the teachers of the control group. However, the teachers in this latter group, as has previously been mentioned, did not participate in the in-service Spanish education program. The same textbook was used in all the classes.

6. The problem. The problem of the study was to determine the effectiveness of an in-service education program as a means of providing qualified foreign language teachers for elementary schools. Specifically, the problem was concerned with a statistical comparison of the achievement of two groups of pupils. One group was composed of fourth-grade pupils who were taught Spanish by teachers who had had a maximum of three college hours in Spanish and who
had participated in an in-service education program. The other group was composed of fourth-grade pupils who were taught by teachers who had had a minimum of twelve college hours in Spanish but had not participated in an in-service education program. The null hypotheses tested were as follows: (1) there was no significant difference between the achievement of the two groups of pupils at the conclusion of nine hours of instruction; and (2) there was no significant difference between the achievement of the two groups at the conclusion of eighteen hours of instruction.

7. The procedure. In order to test the achievement of the two groups of pupils, it was necessary to equate them with respect to their knowledge of Spanish before the instructional program was initiated. For this purpose a test was administered to all pupils in the fourth-grade classes who were prospective participants in the experiment. Those pupils who achieved about 40 per cent on the test were arbitrarily eliminated from further statistical consideration.

For the purpose of measuring the achievement of the two groups of pupils after nine and eighteen hours of instruction, two other achievement tests were administered. Test II was administered by the various teachers after nine hours of pupil instruction. Test III was similarly administered after eighteen hours of pupil instruction.
8. Results. The statistical technique used to establish the reliability of Tests II and III was the Pearson Product-Moment Coefficient of Correlation method described in Statistics for Teachers.\(^1\) The analysis of the results of the two applications of this technique revealed the following findings:

a. By comparing the initial measure with the re-test measure, it was found that the coefficient of correlation of the two administrations of Test II was .81.

b. By comparing the initial measure with the re-test measure, it was found that the coefficient of correlation of the two administrations of Test III was .74.

The critical ratio technique used to test the null hypothesis for Tests II and III is described by Walker in Elementary Statistical Methods.\(^2\)

The critical ratio of the two sets of scores on Test II was 2.43. This result indicated that this difference between the means of the two groups on Test II reached significance near the 2 per cent level. This was interpreted to mean that each group of pupils achieved approximately the same scores as the other after they had received nine hours of instruction.

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\(^{1}\)Nelson, Denny, and Coldarci, op. cit., pp. 95-97.

The critical ratio of the two sets of scores on Test III was 4.07. This result indicates that this difference between the means of the two groups on Test III reached significance near the 1 per cent level. Since the experimental group of pupils had achieved the larger mean, this result was interpreted to indicate that the experimental group of pupils achieved significantly more on Test III than the pupils who composed the control group.

The procedures used in this investigation were as follows:

1. A group of thirteen fourth-grade teachers with a maximum of three college hours in Spanish were secured to participate in a Spanish in-service educational program.

2. A Spanish in-service educational program was conducted for these teachers in the elementary schools of Fort Worth, Texas. This program consisted of the following steps:
   a. A list of guiding principles and objectives for beginning Spanish in the fourth grade was formed.
   b. Twelve study sessions in an in-service educational program were held.
   c. Taped recordings of certain instructional materials were made available to the teachers throughout the year.

3. A group of thirteen fourth-grade teachers was secured to function as a control group. These teachers had
a minimum of twelve college hours in Spanish. They agreed to teach Spanish to their pupils according to a schedule followed by the teachers in the experimental group. The teachers in the control group did not participate in the in-service educational program.

4. Three achievement tests were administered by the experimental and control teachers to their respective classes of pupils. The first test was administered in September; the second, in January; and the third, in May during the scholastic year 1958-1959. The September test was administered before the pupils had received any instruction in Spanish. The purpose of this test was to equate the experimental and control groups of pupils. The January test was given after the pupils had received a total of nine hours of instruction in Spanish. The May test was given after the pupils had received a total of eighteen hours of instruction in Spanish. The reliability of the January and May tests was determined by the application of the Pearson Product-Moment Formula which is symbolized as follows:

\[ r = \frac{\sum xy}{\sqrt{(\sum x^2)(\sum y^2)}} \]

5. The data collected from the administration of the September test were used to equate the experimental and
control groups of pupils with respect to the comprehension of oral Spanish before they had received any instruction in Spanish during the scholastic year 1958-1959.

6. The data collected from the administration of the January test were used to compare the achievement of the two groups of pupils in the comprehension of Spanish after they had received nine hours of instruction in the language.

7. The data collected from the administration of the May test were used to compare the achievement of the two groups of pupils after they had received eighteen hours of instruction in Spanish.

Conclusions

The following conclusions can be drawn from the data obtained in the present investigation:

1. After receiving nine hours of instruction in Spanish given by experimental teachers, *viz.*, teachers with a maximum of three college hours in Spanish who have participated in a Spanish in-service educational program, a group of fourth-grade pupils will achieve as well on a test of comprehension of Spanish as a similar group of pupils who have been taught the same length of time by regular teachers of Spanish, *viz.*, teachers with a minimum of twelve college hours in Spanish who have not participated in a Spanish in-service educational program.
This finding is interpreted to mean that the quality of the instruction given by the beginning teachers during the first nine hours they taught was as effective as that given by the regular Spanish teachers. In the workshop of the in-service education program, an intensive study was made of pronunciation and the fundamental grammatical constructions of Spanish that could be expected in the course of study agreed upon for this experimental teaching. This intensive study of the language and methods of teaching beginning Spanish, including the use of specially prepared tape recordings, assisted the beginning teachers to overcome to some extent the lack of training that might be expected from a long period of formal study in college.

2. After eighteen hours of instruction, the pupils taught by the experimental teachers will achieve as well as or better on a test of comprehension of Spanish than the pupils who have been taught by the regular teachers of Spanish.

This finding is interpreted to mean that the effectiveness of the teaching done by the beginning teachers continued throughout the entire duration of the experiment.

From these findings it may be concluded that if teachers with the usual qualifications for teaching Spanish are not available, it is not necessary to postpone indefinitely the introduction of the Spanish program in the
elementary grades. The results of this study also indicate that it might be desirable to provide an in-service education program for all beginning teachers of Spanish including those who have more than the minimal number of college hours.

This study does not imply that improvement cannot be made in the control-type program employed in the present experiment. Other techniques might prove more effective than those used in this project. The findings of this study do not justify the conclusion that the procedures used here are the only ones that could be used in a Spanish in-service educational program.

It cannot be inferred from the findings of this study that a Spanish in-service education program is superior to or is the equivalent of the more formal training that is given in college classes. This study does not imply that beginning teachers who participate in an in-service education program such as the one employed in this project will have a knowledge of Spanish comparable with that of teachers who have twelve or more college hours in Spanish.

It is believed that if the regular teachers had received the same guidance and assistance as the experimental teachers received from the in-service education program, the pupils of the control group would have surpassed the pupils of the experimental group. Also, it is
probable that participation in the experimental teaching itself gave to the experimental teachers a feeling of personal involvement and enthusiasm which could have been lacking among the teachers of the control group.

It is the conclusion of this study, however, that a Spanish in-service education program can assist teachers to teach beginning Spanish in the elementary grades and that it can be useful in the initiation of the Spanish program in the elementary grades where teachers with the usual amount of formal college training are not available.

Educational Implications

This study of a Spanish in-service education program carries with it the following implications:

1. In-service education should be considered as a means of assisting beginning teachers of Spanish in the elementary grades.

2. The use of any method or mechanical aid, such as the tape recorder and record player, which assists the teacher or pupils should be considered.

3. The use of an in-service education program as a possible means of improving the teaching of Spanish in the elementary schools should be considered.

4. The necessary skills for improving the teaching of Spanish may possibly be acquired through a variety of methods.
5. The use of in-service education programs may be useful in the general teacher education program.

Recommendations

1. In the present investigation no attempt was made to equate the two groups of pupils with regard to intelligence quotients or any other learning capacity. This is justified on the assumption that in such a large number of pupils chosen from the same sections of the population for both groups, economic and sociological factors would have an equal chance to operate without prejudice against either group. The two groups of pupils were equated only on the basis of grade placement and the ability to comprehend oral Spanish prior to the beginning of the instructional phase of this study. An equation of pupils on the bases of intelligence quotients and causal relationships that might affect their learning of a foreign language should become the center of further study, for it is not entirely clear how such factors influence learning in foreign language study. Such an investigation might be useful to counselors and others who have the responsibility of pupil guidance.

2. The present investigation included tests for which there were no established norms. Although an attempt was made to achieve approximate reliability and validity for the tests, the samples were too small to warrant more than approximate reliability. The use of standardized tests in
a similar study should yield additional knowledge concerning the achievement of two groups of pupils taught under different circumstances. Therefore, it is recommended that a similar study be made in which more accurate measurements of achievements are used.

3. The close degree of achievement of the two groups of pupils who participated in this investigation may not accurately represent their true achievement. The limited area of study which characterized the instructional program of this study may not have allowed the pupils to demonstrate their full achievement. Although the instructional requirements used in this study were comparable with the requirements or materials usually found in various textbooks, manuals, and courses of study, further study in which a broader curricular base is used should reveal additional knowledge of the relative achievement of similar groups of pupils.
APPENDIX A

OBJECTIVES ADOPTED FOR A BEGINNING SPANISH COURSE FOR GRADE IV

A. Pupil

1. Growth in the ability to distinguish Spanish sounds, words, and expressions when heard.

2. Growth in the ability to understand simple spoken Spanish.

3. Growth in the ability to repeat or imitate simple Spanish words and expressions.

4. Growth in the ability to express in Spanish simple numerical concepts from one to fifty.

5. Growth in the ability to understand and use orally the common adjectives of color and size.

6. Growth in the ability to speak and understand simple expressions of courtesy.

7. Growth in the understanding and skill in the aural use of the principles of agreement of articles, adjectives, verbs, nouns, and pronouns.

8. Growth in the knowledge and oral use of the principles of pluralization.

9. Growth in developing a functional vocabulary of simple, common, and useful words pertaining to the family,
the home, the body, the clothing, school, food, transportation, and communication.

10. Growth in the knowledge of Mexican folk customs.

B. Teacher

11. To teach entirely or almost entirely on an aural-oral basis.

12. To provide oral learning experiences in learning Spanish similar to those provided in learning the native language.

13. To emphasize the importance of vocal stress.

14. To provide definite periods of approximately twenty minutes two or three times each week for the teaching of Spanish.

15. To provide instruction in keeping with the experiences of the children.

16. To encourage good listening habits.

17. To encourage pupils to seek to imitate the pronunciation of Spanish sounds.

18. To provide for the social and emotional growth of the pupils in the elementary Spanish program.
### APPENDIX B

**SAMPLE OF PROPOSED AREAS OF STUDY FOR BEGINNING SPANISH COURSE IN FOURTH GRADE**

<table>
<thead>
<tr>
<th>Greetings Directions Courtesies</th>
<th>Home and Community</th>
<th>School Room</th>
<th>Food and Drink</th>
<th>Clothing</th>
<th>Body</th>
</tr>
</thead>
<tbody>
<tr>
<td>Buenos días</td>
<td>Abuela</td>
<td>Lápiz</td>
<td>Agua</td>
<td>Calcetines</td>
<td>Boca</td>
</tr>
<tr>
<td>Buenas tardes</td>
<td>Abuelo</td>
<td>Maestra</td>
<td>Carne</td>
<td>Camisa</td>
<td>Cabeza</td>
</tr>
<tr>
<td>Adiós</td>
<td>Amiga</td>
<td>Mesa</td>
<td>Fruta</td>
<td>Chaqueta</td>
<td>Cuerpo</td>
</tr>
<tr>
<td>Hasta la vista</td>
<td>Amigo</td>
<td>Pizarrón</td>
<td>Leche</td>
<td>Falda</td>
<td>Brazo</td>
</tr>
<tr>
<td>¿Cómo está Vd.?</td>
<td>Casa</td>
<td>Fuerta</td>
<td>Mantequilla</td>
<td>Vestido</td>
<td>Nariz</td>
</tr>
<tr>
<td>Muy bien, ¿y Vd.?</td>
<td>Hermana</td>
<td>Papel</td>
<td>Manzana</td>
<td>Sombrero</td>
<td>Mano</td>
</tr>
<tr>
<td>Gracias</td>
<td>Hermano</td>
<td>Tiza</td>
<td>Naranja</td>
<td>Blusa</td>
<td>Pie</td>
</tr>
<tr>
<td>De nada</td>
<td>Madre</td>
<td>Ventana</td>
<td>Pan</td>
<td>Zapatos</td>
<td>Dientes</td>
</tr>
<tr>
<td>Tráigame Vd.</td>
<td>Padre</td>
<td></td>
<td>Plátano</td>
<td>Pantalones</td>
<td>Lavar</td>
</tr>
<tr>
<td>Ponga Vd. la mesa</td>
<td>Señor</td>
<td></td>
<td>Beber</td>
<td></td>
<td>Oídos</td>
</tr>
<tr>
<td>For favor</td>
<td>Señora</td>
<td></td>
<td>Tomar</td>
<td></td>
<td>Peinarse</td>
</tr>
<tr>
<td>Dispénseme Vd.</td>
<td>Señorita</td>
<td></td>
<td>Comer</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Con permiso</td>
<td>Tía</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feliz Navidad</td>
<td>Tío</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prospero Año nuevo</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Felices Pascuas</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feliz Cumpleaños</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Buen viaje</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Enséñeme</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### APPENDIX C

**PRONUNCIATION GUIDE—VOWELS**

<table>
<thead>
<tr>
<th>Spanish</th>
<th>Similar English Sounds</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Father</td>
<td>Sala</td>
</tr>
<tr>
<td>E</td>
<td>They</td>
<td>Me, le</td>
</tr>
<tr>
<td>I, Y</td>
<td>Police, me</td>
<td>Libro, y</td>
</tr>
<tr>
<td>O</td>
<td>Police</td>
<td>Libro</td>
</tr>
<tr>
<td>U</td>
<td>Rude</td>
<td>Muchos</td>
</tr>
</tbody>
</table>

**PRONUNCIATION GUIDE—CONSONANTS**

<table>
<thead>
<tr>
<th>Spanish</th>
<th>Similar English Sounds</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>Before &quot;a,&quot; &quot;o,&quot; &quot;u,&quot; or a consonant, has the &quot;k&quot; sound as &quot;c&quot; in &quot;cut.&quot;</td>
<td>Café</td>
</tr>
<tr>
<td>C</td>
<td>Before &quot;e&quot; or &quot;i,&quot; pronounced as &quot;c&quot; in &quot;city.&quot;</td>
<td>Centro, cinco</td>
</tr>
<tr>
<td>Ch</td>
<td>As the &quot;ch&quot; in &quot;church.&quot;</td>
<td>Mucho</td>
</tr>
<tr>
<td>D</td>
<td>At the beginning of a word, pronounced as it is in English.</td>
<td>Dolor</td>
</tr>
<tr>
<td>D</td>
<td>Between vowels and in the final position, pronounced as &quot;th&quot; in &quot;then.&quot;</td>
<td>Sed, dado</td>
</tr>
<tr>
<td>G</td>
<td>Before &quot;a,&quot; &quot;o,&quot; &quot;u,&quot; or a consonant, pronounced as &quot;g&quot; in &quot;give.&quot;</td>
<td>Ganar</td>
</tr>
</tbody>
</table>

1 Similar guides may be found in any standard treatment of Spanish pronunciation.
## Pronunciation Guide—Consonants—Continued

<table>
<thead>
<tr>
<th>Spanish</th>
<th>Similar English Sounds</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>G</td>
<td>Before &quot;e&quot; or &quot;i,&quot; pronounced as &quot;h&quot; in &quot;heavy&quot;</td>
<td>General</td>
</tr>
<tr>
<td>H</td>
<td>Silent in Spanish</td>
<td>Habana</td>
</tr>
<tr>
<td>J</td>
<td>&quot;H&quot; as in &quot;hero&quot;</td>
<td>Jarro</td>
</tr>
<tr>
<td>L</td>
<td>Same as in English</td>
<td>Los</td>
</tr>
<tr>
<td>Ll</td>
<td>&quot;Y&quot; in &quot;ye&quot; or &quot;ll&quot; in &quot;William&quot;</td>
<td>Llave</td>
</tr>
<tr>
<td>M</td>
<td>Same as in English</td>
<td>Más</td>
</tr>
<tr>
<td>N</td>
<td>Same as in English</td>
<td>No</td>
</tr>
<tr>
<td>Ñ</td>
<td>&quot;Ny&quot; as &quot;ni&quot; in &quot;onion&quot;</td>
<td>Señor</td>
</tr>
<tr>
<td>P</td>
<td>Same as in English</td>
<td>Papá</td>
</tr>
<tr>
<td>Q</td>
<td>&quot;C&quot; in &quot;can&quot;</td>
<td>Que</td>
</tr>
<tr>
<td>R</td>
<td>In the initial position, strongly rolled; in other positions, only slightly rolled</td>
<td>Remar</td>
</tr>
<tr>
<td>RR</td>
<td>Strongly rolled</td>
<td>Jarro</td>
</tr>
<tr>
<td>T</td>
<td>&quot;T&quot; in &quot;tip&quot;</td>
<td>Todo</td>
</tr>
<tr>
<td>V, B</td>
<td>Usually almost identical in sound; like the English &quot;b.&quot;</td>
<td>Burro, vaca</td>
</tr>
<tr>
<td>X</td>
<td>&quot;X&quot; in &quot;examine&quot;; sometimes &quot;h&quot; in &quot;hero,&quot; in Mexico</td>
<td>Examien, México</td>
</tr>
<tr>
<td>Y</td>
<td>&quot;Y&quot; in &quot;yet&quot;</td>
<td>Yo</td>
</tr>
<tr>
<td>Z</td>
<td>&quot;S&quot; in &quot;some&quot; (in Latin-America)</td>
<td>Cabeza</td>
</tr>
</tbody>
</table>
**PRONUNCIATION GUIDE-DIPHTHONGS**

<table>
<thead>
<tr>
<th>Spanish</th>
<th>Similar English Sounds</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>ai, (y)</td>
<td>&quot;ai&quot; in &quot;Kaiser&quot;</td>
<td>aire, mayo</td>
</tr>
<tr>
<td>au</td>
<td>&quot;ou&quot; in &quot;out&quot;</td>
<td>causa</td>
</tr>
<tr>
<td>ei, (y)</td>
<td>&quot;ey&quot; in &quot;they&quot;</td>
<td>ley</td>
</tr>
<tr>
<td>ia</td>
<td>&quot;ya&quot; in &quot;yarn&quot;</td>
<td>viaje</td>
</tr>
<tr>
<td>ie</td>
<td>&quot;ye&quot; in &quot;ye&quot;</td>
<td>bien</td>
</tr>
<tr>
<td>io</td>
<td>&quot;yo&quot; in &quot;yore&quot;</td>
<td>yo</td>
</tr>
<tr>
<td>iu</td>
<td>&quot;ew&quot; in &quot;ewe&quot;</td>
<td>ciudad</td>
</tr>
<tr>
<td>oi, (y)</td>
<td>&quot;oi&quot; in &quot;oil&quot;</td>
<td>soy</td>
</tr>
<tr>
<td>ua</td>
<td>&quot;wa&quot; in &quot;waffle&quot;</td>
<td>cuanto</td>
</tr>
<tr>
<td>ue</td>
<td>&quot;we&quot; in &quot;wean&quot;</td>
<td>mueble</td>
</tr>
<tr>
<td>ui</td>
<td>like word we</td>
<td>fuimos</td>
</tr>
<tr>
<td>uo</td>
<td>&quot;wo&quot; in &quot;wove&quot;</td>
<td>averiguo</td>
</tr>
</tbody>
</table>

It is recommended that students of Spanish who wish to gain a thorough mastery of the phonology of the language make a study of Spanish phonemics. In a course of study involving a limited vocabulary, such as the present one, careful imitation of the Spanish words which have been recorded on magnetic tape is urged. As a further guide for
pronunciation, particular attention is called to the following notes:

1. The letter e has two sounds. When it is the final member of a syllable, the letter e is pronounced like the e in the English word they pronounced without diphthongization. When e is followed by r or rr, it has a more open sound, similar to the e in the English words set and met.

2. The letter c has two distinctive sounds. When it precedes i or e, it has the sound of a in the English word sir. (In certain parts of Spain c has the sound of th in the English word think.) When c precedes a, o, or u, it has the k sound as in English.

3. The letter n is usually pronounced as it is in English, but before b, v, or p, it is pronounced like m.

For a more precise and detailed treatment of Spanish phonology, the student is referred to a standard manual of pronunciation. It will be noted that for the sake of simplicity, certain details of pronunciation, such as the open and closed e and the voiced g, have been omitted in this guide. A treatment of these important aspects of phonology would be expected in a more complete study of Spanish sounds.

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APPENDIX D

SAMPLE RECORDING FOR CLASSROOM USE

Expressions of Courtesy

*Buenos días, niños y niñas.* Did you understand what I said? I am sure you know that I said, "Good Morning, boys and girls." Listen again, "Buenos días." "Buenos días." Repeat this after me: "Buenos días." Every day when I begin the Spanish lesson, I shall say, "Buenos días, niños y niñas," and you will want to say to me, "Buenos días." I said "niños y niñas." You boys are "niños," and you girls are "niñas." Say after me: "niños," (pause) "niñas." No, I am not a "niña"; I am a "maestra." Say after me: "maestra," "maestra."


When you do me a favor or a courtesy, I shall say, "Gracias." You know what I say when you hand me the book, do you not? Yes, now say it in Spanish. Yes, "Gracias." The polite answer is "De nada." Say it—"De nada."

How are you this morning, John? In Spanish, I would ask, "¿Cómo está usted?" You would reply, "Muy bien,
gracias." Just these three words. Repeat them, please: "Muy bien, gracias." Now, let's try this again: John (or Juan), ¿Cómo está usted? You say—(pause) "Muy bien, gracias." Now, all of you niños y niñas reply: "Muy bien, gracias."


Let's practice what we have learned. Answer me in Spanish.

Buenos días, niños y niñas. (Pause) Say it again with me. "Buenos días, maestra." "¿Cómo está usted, niño?" Answer, "Muy bien, gracias."

Gracias. What do you say when I say "gracias"? Yes, you should say, "De nada." Adiós, niños y niñas. Adiós.

NOTE TO THE TEACHER: It will be observed that in these materials usted with its proper verb form is frequently employed when in all probability, Spanish-speaking natives would use tú with the second-person verb form. The Ud. form is employed here for the sake of simplicity, and it is consistent with that found in textbooks prepared for use in the elementary grades.

This arbitrary restriction in the form of address is pedagogically justified in view of the fact that the student will be practicing Spanish for the next few years in a
formal classroom situation, and it may be presumed that with increased fluency he will become familiar with the exigencies of grammar in this respect.

Many times the names of pupils in the class have counterparts in Spanish. When this is the case, the teacher may find it advantageous to use the Spanish forms of the names as a means of developing interest among the pupils. It will be noted, however, that many American proper names do not have exact counterparts in Spanish.
APPENDIX E

EXERCISES IN PRONUNCIATION

To the pupils: Pronounce the words after me which you hear.

To the teacher: Please observe the words and sentences on this mimeographed page. You will probably wish to write them on the board or mimeograph them.

Boys and girls, are you ready? I shall pause after each word long enough for you to repeat it.

María  tango
llamo  tiene
llama  manos
soy  ella
dice (says)  está
niña  es (is, are)
niñita  de (of)
su (his, her, your, their)  Esta es la niña.
Inés  Ella es niñita.
mi  Ella se llama María.
olla  La niña tiene una
llevo  hermana.
lleva  La hermana de la niña
hermana  se llama Inés.
Exercise on Syllabication, Accent and Stress

1. There are as many syllables in a word as there are vowels or diphthongs: "ge-ne-ral."

2. Between two vowels a single consonant is pronounced with the following vowel: "ca-sa," "pa-pel."

3. When two consonants appear together, they are usually separated in pronunciation, the first going with the preceding syllable and the second going with the succeeding syllable. The consonants "ch," "ll," "rr," or a combination of consonants ending in l or r are not separated from each other.

4. Words ending in a vowel, or in "n" or "s," are stressed on the next to the last syllable: me-sa, e-la-ses. In words that terminate in any consonant except "n" or "s" stress is received on the final syllable: pa-pel.

5. Words in which these rules do not apply have a graphic accent over the stressed vowel.

---

1 Babcock and Cooper, op. cit., p. 4, and any other standard guide for syllabication and stress.
## Exercise in Pronunciation Prepared on Magnetic Tape

(Stressed syllables are underlined)

<table>
<thead>
<tr>
<th>Words</th>
<th>Syllabication and Stress</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>clases</td>
<td>cla-se</td>
<td>class</td>
</tr>
<tr>
<td>comienzas</td>
<td>co-mien-za</td>
<td>begins</td>
</tr>
<tr>
<td>cuando</td>
<td>cuan-do</td>
<td>when</td>
</tr>
<tr>
<td>ocho</td>
<td>o-cho</td>
<td>eight</td>
</tr>
<tr>
<td>dice</td>
<td>di-ce</td>
<td>says, tells</td>
</tr>
<tr>
<td>escuela</td>
<td>es-cue-la</td>
<td>school</td>
</tr>
<tr>
<td>en punto</td>
<td>en-pun-to(^2)</td>
<td>exactly</td>
</tr>
<tr>
<td>hora</td>
<td>ho-ra</td>
<td>hour</td>
</tr>
<tr>
<td>media</td>
<td>me-dia</td>
<td>half-past</td>
</tr>
<tr>
<td>minutos</td>
<td>mi-nu-tos</td>
<td>minutes</td>
</tr>
<tr>
<td>llama</td>
<td>lla-ma</td>
<td>calls</td>
</tr>
<tr>
<td>reloj</td>
<td>re-loj</td>
<td>clock, watch</td>
</tr>
<tr>
<td>adiós</td>
<td>a-diós</td>
<td>good-bye</td>
</tr>
<tr>
<td>lápiz</td>
<td>lá-piz</td>
<td>pencil</td>
</tr>
<tr>
<td>termina</td>
<td>ter-mi-na</td>
<td>ends</td>
</tr>
<tr>
<td>perro</td>
<td>pe-rro</td>
<td>dog</td>
</tr>
</tbody>
</table>

\(^2\)Pronounced "em-pun-to." "N" before "b," "v," or "p" sounds like "m."
APPENDIX F

EXERCISE ON PRONUNCIATION OF NUMBERS

DIRECTIONS TO TEACHER: Pronounce the following words, observing the stressed syllables. Let pupils repeat both the words and sentences as they hear the recording.

<table>
<thead>
<tr>
<th>Words</th>
<th>Syllabication</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>once</td>
<td>on-ce</td>
<td>11</td>
</tr>
<tr>
<td>doce</td>
<td>do-ce</td>
<td>12</td>
</tr>
<tr>
<td>trece</td>
<td>tre-ce</td>
<td>13</td>
</tr>
<tr>
<td>catorce</td>
<td>ca-tor-ce</td>
<td>14</td>
</tr>
<tr>
<td>quince</td>
<td>quin-ce</td>
<td>15</td>
</tr>
<tr>
<td>diez y seis</td>
<td>diez-y-seis</td>
<td>16</td>
</tr>
<tr>
<td>veinte</td>
<td>vein-te</td>
<td>20</td>
</tr>
</tbody>
</table>

EXERCISE ON TELLING TIME

<table>
<thead>
<tr>
<th>Spanish</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. ¿Qué hora es?</td>
<td>What time is it?</td>
</tr>
<tr>
<td>2. Es la una.</td>
<td>It is one o'clock.</td>
</tr>
<tr>
<td>3. Son las dos, etc.</td>
<td>It is two, etc.</td>
</tr>
<tr>
<td>4. Son las dos y media.</td>
<td>It is half-past two.</td>
</tr>
<tr>
<td>5. Son las tres menos diez.</td>
<td>It is ten past three.</td>
</tr>
</tbody>
</table>
### EXERCISE ON TELLING TIME—Continued

<table>
<thead>
<tr>
<th>Spanish</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>6. Son las cuatro en (em) punto.</td>
<td>It is four sharp.</td>
</tr>
<tr>
<td>7. Diez para las doce.</td>
<td>Ten till twelve.</td>
</tr>
<tr>
<td>8. La escuela comienza a las nueve en punto.</td>
<td>School begins at nine sharp.</td>
</tr>
<tr>
<td>9. La clase termina a las tres en (em) punto.</td>
<td>The class ends at three sharp.</td>
</tr>
<tr>
<td>10. ¿A qué hora comienza la clase?</td>
<td>At what time does the class begin?</td>
</tr>
<tr>
<td>11. La clase comienza a las diez y quince.</td>
<td>The class begins at ten-fifteen.</td>
</tr>
</tbody>
</table>

Teacher adjusts the clock to read five after eight o’clock.

T. ¿Qué hora es? What time is it?
P. Son las ocho y cinco. It is five after eight o’clock.

Teacher adjusts the clock to read five minutes till three.

T. ¿Qué hora es? What time is it?
P. Son las tres menos cinco. It is five minutes till three.

Teacher adjusts the clock to read eight minutes past five.

T. ¿Qué hora es? What time is it?
P. Son las cinco y ocho. It is eight minutes past five.
The teacher should read or say the entire dialogue several times before the pupils are asked to participate. The pupils should reply in a chorus the first time, and then individual pupils should be encouraged to participate.

T. ¿A qué hora termina la escuela?
   At what hour (time) does school close?
P. La escuela termina a las tres y cuarenta (or a las cuatro menos veinte).

T. ¿A qué hora comienza la escuela?
P. La escuela comienza a las nueve menos diez.

T. ¿Qué dice el reloj?
P. El reloj nos dice la hora.

T. ¿Qué hora es cuando termina la clase?
P. Es la una y media cuando la clase termina.

T. De la tarde—in the afternoon
   De la noche—in the evening or night
   De la mañana—in the morning

Son las ocho de la noche. It is eight (o'clock) P.M.
A las ocho de la mañana—at eight a.m.
APPENDIX G

MATERIALS SUPPLIED TO TEACHERS IN MICROGRAPHED
FORM AND ON MAGNETIC TAPE

PURPOSES

1. To teach the vocabulary of the classroom.

2. To apply the skills already partially acquired, i.e., numbers, telling time, days of the week, etc.

PROCEDURE

Touch or point to the objects in the room and say them in Spanish. Associate implied action with the words.

Have pupils cut out, draw pictures of the objects and put them in their Spanish notebooks. It is most important that notebooks be kept, for this helps pupils organize their learning.

Repeating the words and phrases several times, using exactly the same words and phraseology, before permitting pupils to reply.

Use the taped records several times, requiring that pupils (a) listen, and (b) imitate.

After the oral approach, read the printed words.
SYLLABICATION AND STRESS

<table>
<thead>
<tr>
<th>Spanish</th>
<th>Syllabication</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>sala de clase</td>
<td>sa-la de cla-se</td>
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</tr>
<tr>
<td>el pizarrón</td>
<td>pi-za-rón</td>
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<td>me-sa</td>
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</tbody>
</table>

(The stressed syllables are underlined. The graphic accent is used when required according to the rules for Spanish orthography.)

(The teacher will please refrain from "translating," or saying in English the words of the lesson. Repeat the Spanish word every time an explanation is asked.)

T. (Touching chalkboard)

Este es el pizarrón.
¿Qué es éste?
Este es el pizarrón.
Niños, ¿Qué es éste?

P. Este es el pizarrón.

(The children should answer first in concert, then individually.)

T. El pizarrón es verde (negro).

¿De qué color es el pizarrón?
El pizarrón es verde (negro).
Niños, ¿De qué color es el pizarrón?

P. El pizarrón es verde (negro, etc.).

T. (Writing on board) Yo escribo en el pizarrón.
   I write on the board.

¿Qué hago yo?

P. Usted escribe en el pizarrón. You write on the board.
   (Note the change in the verb form when the subject changes.)

T. ¿Qué escribo en el pizarrón? What do I write on the board?

P. Usted escribe el español en el pizarrón.

T. (Indicating paper) ¿Qué es éste?

P. Este es papel blanco.

T. (book) ¿Qué es éste?

P. Este es el libro.

T. ¿De qué color es el libro?

P. El libro es azul.

   ¿Qué es ésta?

P. Esta es la silla.

T. (Sitting down in the chair, you would say:) Yo me siento en la silla.
   (Rising and again sitting, say:) Yo me siento en la silla. ¿Qué hago? Yo me siento en la silla.

Niños, ¿Qué hago?
(Have an individual pupil perform the act of sitting while saying just what you have been saying, i. e.,
¡Qué hago? Yo me siento en la silla.
T. ¿Qué hace usted, niño? What are you doing, child?
(Note that "hace" is used with "usted," while "hago" is used with "yo.")
P. Yo hago esto. (I am doing this.) Yo me siento en la silla.
T. ¿Qué hace usted, Pablo? What are you doing, Paul?
P. Yo me siento en la silla.
T. (Pointing to the table) Esta es la mesa. ¿Qué es ésta?
Esta es la mesa. Niños, ¿Qué es ésta?
P. Esta es la mesa.
T. (Sitting) Yo me siento en la mesa. (I am seating myself at the table.) ¡Qué hago yo, niños?
P. Usted se sienta en la mesa. (Please note that "me" changes to "se" and "siento" changes to "sienta," when the subject becomes "usted."
T. Esta es la mesa. La mesa es grande. (Large) La mesa es bonita.
Hay libros sobre (on) la mesa. ¿Cuántos libros hay sobre la mesa?
Hay diez libros sobre la mesa.
El papel es blanco. La mesa es redonda (round).
Yo escribo con (with) mi lápiz. ¿Con qué escribo yo?
Yo escribo con mi (my) lápiz en mi papel. Yo leo el libro. (I read the book.) ¿Qué hago yo? Yo leo mi libro. ¿Lee usted el libro? (Do you read, or are you reading the book?) Sí, yo leo el libro. (Yes, I read [or am reading] the book.) ¿De qué color es el pizarrón? El pizarrón es verde. El pizarrón es negro. Niños, ¿De qué color es el pizarrón? Sí; el pizarrón es verde. ¿Qué hay en el pizarrón? Hay números en el pizarrón.

dos y dos son cuatro 2 + 2 = 4
tres y dos son cinco 3 + 2 = 5
cuatro y seis son diez 4 + 6 = 10
cinco y siete son doce 5 + 7 = 12
seis y ocho son catorce 6 + 8 = 14
seis y nueve son quince 6 + 9 = 15
quince

ocho y diez son diez y ocho 8 + 10 = 18
nueve y once son veinte 9 + 11 = 20
diez y diez son veinte 10 + 10 = 20
dos por dos son cuatro 2 x 2 = 4
tres por dos son seis 2 x 3 = 6
cuatro por cuatro son diez y seis 4 x 4 = 16
cinco menos tres son dos 5 - 3 = 2
seis menos uno son cinco 6 - 1 = 5
ocho dividido por dos son cuatro 8 ÷ 2 = 4
Buenos días, Pablo, ¿Cómo está usted? Muy bien, gracias, ¿Y usted?

Muchas gracias, María. De nada, Roberto.

Adiós, Señora Smith. Hasta la vista.

* * * * * * *

Interesting words for those who want additional knowledge.

1. La estufa--stove
2. estufa de gas--estufa eléctrica
3. refrigerador de gas--refrigerador eléctrico
4. el abanico--the fan
5. los trastes--dishes
6. Lave usted los trastes--Wash the dishes.
7. Prenda usted el gas. Light the gas.
8. Apague usted el gas. Turn off the gas.

**EXERCISE ON DAYS OF WEEK**

**Purposes**

1. To increase knowledge of numbers (1-31)
2. To learn days of week.
3. To learn physical features of a classroom.

**Procedure**

1. Mimeograph, draw on the board, or have pupils prepare calendar for January showing the days of the week. Each day write "Hoy es _____________" on board and leave all day.
2. Pronounce and have pupils repeat after you the new words in the vocabulary.

**VOCABULARY**

<table>
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<tr>
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<th>Syllabication and Stress</th>
<th>Meaning</th>
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<tr>
<td>semana</td>
<td>se-ma-na</td>
<td>week</td>
</tr>
<tr>
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<td>do-min-go</td>
<td>Sunday</td>
</tr>
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<td>lunes</td>
<td>lu-nes</td>
<td>Monday</td>
</tr>
<tr>
<td>martes</td>
<td>mar-tes</td>
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</tr>
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<td>miér-co-les</td>
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</tr>
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<td>enero</td>
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</tr>
<tr>
<td>día</td>
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**NUMBERS**

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<td>twenty-four</td>
</tr>
<tr>
<td>veinticinco</td>
<td>twenty-five</td>
</tr>
<tr>
<td>treinta</td>
<td>thirty</td>
</tr>
<tr>
<td>más</td>
<td>more</td>
</tr>
</tbody>
</table>
Practice Exercise

Hoy (oi) es lunes.  Today is Monday.
¿Qué día es hoy (oi)?  What is today?
Hoy es lunes.  Today is Monday.
Hoy es martes.  Today is Tuesday.
Hoy es miércoles.  Today is Wednesday.

Note: Let the class repeat this in chorus and then individually. Use this process employing the other days of the week. Point to the day of the week on a calendar and say, "¿Qué día es hoy?"

T. La semana tiene siete días.
Los días de la semana son: - - - - - - -
Repeat these two sentences several times, requiring the pupils to listen carefully. Then say: "¿Qué día es hoy? ¿Qué día es éste," pointing to your calendar to a certain day.
P. Hoy (oi) es lunes, etc.

(Review lesson on clocks, or telling time, using procedures given for that lesson.)

La Escuela (The School)

T. (Touching the door) ¿Qué es ésta? Esta es la puerta.
¿Qué es ésta? Esta es la puerta. Niños, ¿Qué es ésta?
P. Esta es la puerta. (First in concert and then individually.) Repeat this routine several times.

Using the same procedure, either touching or pointing to the objects, say: ¿Qué es ésta? Esta es la ventana. Niños, ¿Qué es ésta?

P. Esta es la ventana.

T. Este es el techo, ¿Qué es éste? Este es el techo.

Niños, ¿Qué es éste?

P. Este es el techo.

Use the same procedure for "la pared," "el suelo," etc. Let the pupils touch the objects when feasible; otherwise, point to them. Direct the pupils to cut out pictures of these objects or draw them for their notebooks. Also, flash pictures of these objects, and practice identification in rapid succession.
APPENDIX H

CLASSROOM GAMES

1. "Pablo Dice" (Paul says)

Two teams of pupils compete. A pupil from each team alternately serves as leader of the game. The leader says, "Pablo dice," and names an article of clothing or a part of the body as listed in the vocabulary in the textbook. For example, he says "Pablo dice 'la boca.'" Every member of both teams should touch his own mouth. If the leader simply says, "La boca" and touches his mouth, any member who touches his mouth makes a "Fault," for he should make the motion only when the leader first says "Pablo dice." A "fault" constitutes a score point for the opposing team, and the pupil making the "fault" is out of the game.

2. "¿Qué es esto?" (What is this?)

The leader thinks of some object well known to the pupils for which the Spanish word should be known to the class. For example, "la blusa de Alicia." The pupils take turns asking leading questions which the leader must answer

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1For these or similar games see Margit MacRae, Teaching Spanish in the Grades (Boston, 1957), and Edna E. Babcock and Catherine Cooper, Children of the Americas, Spanish Series (San Francisco, 1958).
in Spanish sentences. The object of the game is to guess what the object is. Some sample questions are: a. ¿Es ropa?  b. ¿Es verde?  c. ¿Es blanca?  d. ¿Es de un niño? (niña, maestra)  e. ¿Es su libra?  f. ¿Es la falda de Betty? etc.

3. Place pictures or real objects on a table. Let representatives of each team take turns holding up the object or pointing to the picture, saying "¿Qué es?" Then he himself says, "Este (esta) es—whatever the object is." If he misses, the "point" goes to the opposing team, and the next leader is chosen for the other team.

4. "¿Qué miro? (what am I looking at?)

This game is played by letting a leader say, "¿Qué miro? (What am I looking at?)" Others take turns guessing what it is that he sees. The dialogue is approximately this:

L. "¿Qué miro?"

P. "Usted mira una casa" or "¿Mira usted una casa?"

L. "No. No miro una casa."

P. "¿Mira usted una falda?"

L. "Sí. Miro una falda," etc.

Finally, if someone guesses the correct object, for example, "una falda amarilla," the leader says, "Sí, miro una falda amarilla." Then the one who has guessed
correctly is the leader, and the process continues. Many variations can be utilized.
Teacher reads to pupils:

Please write your name, the name of your school, and the date at the top of the page in the spaces provided for the purpose.

Now look at the example. In this example you see a row of objects. Each object is numbered. At the left side of the row you will see a box or square. I shall read a sentence or ask a question in which I shall refer to one of these objects. You are to decide which object this is, and then you are to write the number of this object in the box or square at the left side of the page. I shall now begin.

1. "En el río hay muchos peces." If you know that "peces" means "fish," you know that I am referring to object number 4. Now you are to write this number in the box at the left. See, it is already there. Follow these same directions as I read the following sentences:

1. En la mano yo tengo una manzana.
2. El niño está sentado.
3. ¿Cuál reloj indica la hora de acostarse?
4. El libro está debajo de la mesa.
5. ¿Cuál número sigue catorce?
6. Nuestra bandera tiene tres colores; uno es rojo; uno es blanco. ¿Cuál es el tercero?
7. La muchacha tiene una falda.
8. Hay muchas hojas en una de estas cosas. ¿Cuál es?
9. En las noches claras, ¿qué ve usted en el cielo?
10. El niño da el palo a su amigo.
APPENDIX J

TEST I, ADMINISTERED BEFORE INSTRUCTION BEGAN

1. Star
2. Bird
3. Chair
4. Fish

1. Fork
2. Spoon
3. Apple
4. Plant

1. Clock
2. Clock
3. Clock
4. Clock

1. Table
2. Book
3. Basket
4. Basket

1. Chair
2. Table
3. House
4. Cup

1. Verde
2. Blanco
3. Rojo
4. Azul

1. Tree
2. House
3. House
4. Baseball Bat
Teacher reads to pupils:

Please write your heading in the spaces provided at the top of the page.

1. In Item I you see a column of English words for certain colors. Then I shall say the Spanish words for certain colors. When I say a Spanish word, I shall indicate its number. You are to place this number in the box on the left side of the English word that means the same thing. Are you ready?

   a. amarillo.  b. blanco.  c. verde.  d. pardo, or café.  e. azul.  f. rojo.

2. Now look at column II. It is a list of letters. I shall say in Spanish a series of numbers. When you hear me say a number in Spanish, write this number, not the word, in the proper box. Begin with box "A," and continue down the list. Are you ready?

   a. tres.  b. cinco.  c. dos.  d. ocho.  e. diez.
   f. siete.  g. seis.  h. cuatro.  i. nueve.

3. Item III is a similar column of letters and boxes. These numbers refer to the picture of the dolls you see near the top of the page. Certain articles of clothing and
parts of the body in this picture are numbered. I shall read some sentences in Spanish. Each sentence will refer to one part of the body or article of clothing. Decide which of these articles you hear me refer to, and write its number in the box which I shall indicate. Are you ready?

a. El niño tiene el pelo amarillo.
b. Ella tiene la boca abierta.
c. ¿Tiene usted zapatos nuevos?
d. Panchito tiene pantalones azules.
e. La falda de la niña es roja.
f. La camisa del niño es blanca.
g. La blusa de la niña es blanca.
h. Ella tiene los ojos verdes.
i. ¿Qué tiene usted en la mano?
j. Ella tiene un sombrero bonito.

4. Item IV consists of a list of Spanish sentences. These sentences refer to the pictures shown. Each picture is numbered. Write the number of each picture in the box of the sentence to which it refers. Are you ready?

a. Mi casa es grande.
b. Este es mi gato.
c. Mi hermano tiene un perro.
d. Las flores son bonitas.
e. La gallina tiene muchos pollitos.
5. In item 5 you see a column of incomplete sentences. Below the column is a list of words and expressions. With these you can complete all the sentences. Select one word or expression for each sentence and place its number in the box of the sentence it completes. Are you ready?

a. ¿De qué es la falda?
b. ¿Cómo la niña?
c. ¿Cuántos años -el?
d. ¿Qué -es?
e. ¿Qué come la niña? __________
f. ¿Qué -la piñata?

6. In item VI you see a list of questions. Below this list is a list of expressions in Spanish. You are to select the Spanish expression which will answer each question. Place the number of the expression you select in the box of the question you are answering. Are you ready?

a. What should I say in the morning?
b. What should you say when I say, "thank you"?
c. What should I say on Christmas morning?
d. What should I say when you do me a favor?
e. What should I say when I leave a friend?
APPENDIX L

TEST II, GIVEN AFTER NINE HOURS OF INSTRUCTION

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<td>A</td>
</tr>
<tr>
<td>Red</td>
<td>B</td>
<td>B</td>
</tr>
<tr>
<td>Yellow</td>
<td>C</td>
<td>C</td>
</tr>
<tr>
<td>Gray</td>
<td>D</td>
<td>D</td>
</tr>
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<td>Green</td>
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<tr>
<td>Blue</td>
<td>F</td>
<td>F</td>
</tr>
<tr>
<td>Brown</td>
<td>G</td>
<td>G</td>
</tr>
<tr>
<td>Gray-</td>
<td>D</td>
<td>D</td>
</tr>
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<td>E</td>
</tr>
<tr>
<td>Blue</td>
<td>F</td>
<td>F</td>
</tr>
<tr>
<td>Brown</td>
<td>G</td>
<td>G</td>
</tr>
</tbody>
</table>

IV

A | Mi casa es grande.
B | Este es mi gato.
C | Mi hermano tiene un perro.
D | Las flores son bonitas.
E | La gallina tiene muchos pollitos.
F | Mi abuela es buena.
G | Es la hora de comer.

V

A | ¿De qué--es la falda?
B | ¿Cómo--la niña?
C | ¿Cuántos años--él?
D | ¿Qué--es?
E | ¿Qué come la niña?
F | ¿Qué--la piñata?

(See below)

Vocabulary
1. tiene 5. color
2. es 6. bonita
3. para la cena 7. hora
4. se llama 8. días

VI

What should I say in the morning?
What should you say when I say, “thank you”?
What should I say on Christmas morning?
What should I say when you do me a favor?
What should I say when I leave a friend?
Teacher reads to pupils:

Please write your paper heading in the spaces provided at the top of the page.

You see rows of various objects, numbers, and English words on this test. When I read, you are to decide which item represents the best response to what you hear me read. Then you are to write the letter which you see by the side of each item in the box at the left side of the row of items. Are you ready?

1. Which clock says, "Son las ocho en punto"?
2. Which clock says, "Son las cinco y cuarto"?
3. Which clock says, "Diez para las tres"?
4. Which clock indicates the time of day in this sentence, "La escuela comienza a las nueve"?
5. Which item answers this question, "¿Cuántos días hay en la semana "?
6. Which item says when "el niño va a la iglesia"?
7. Which item says, "¿En dónde escribe la maestra los números"?
8. Esta es la puerta.
9. La silla está delante de la mesa.
10. Las luces cuelgan del techo.
11. Hay números en el pizarrón.
12. El libro está sobre la mesa.
15. Now you see three statements. Which one is the best answer for this question, "¿En qué escribe usted con lápiz?"
16. Which item means, "¿Cómo se llama la niña?"
17. Which item means, "Apague usted la luz, por favor"?
18. Which one of the items here best answers the question, "With what 'comienza la clase'?"
19. Which of the amounts of money do you hear me say, "Yo pago un dolar y diez centavos"?
20. Which item answers, "¿A qué hora termina la escuela?"
21. Here is some arithmetic. "¿Cuántos son nueve y tres?"
22. "¿Cuántos son veinte y cinco?"
23. Which item provides the best answer to the statement, "Mi hermano toma jugo de toronja"?
24. Which item provides the best answer to the statement, "Mi gato bebe leche"?
25. Which of these items do you hear me say that I have? "Yo tengo un vaso de agua."

26. Which of the items answers the question, "When?" "Yo no voy a la escuela el sábado."

27. Which of the items answers the question, "When?" "Yo voy a la escuela el viernes."

28. You have been reading about a boy and a girl. Which item here best describes your opinion about their food and clothing?

29. Which item here represents your opinion about their food and clothing?

30. Which item here represents your opinion about their parties, songs, games, pets, etc.?
APPENDIX N

TEST III, GIVEN AFTER EIGHTEEN HOURS OF INSTRUCTION

1.  
   A.  
   B.  
   C.  

2.  
   A.  
   B.  
   C.  

3.  
   A.  
   B.  
   C.  

4.  
   A.  
   B.  
   C.  
   2:30  
   3:10  
   9:00  

5.  
   A.  
   B.  
   C.  
   7  
   31  
   365  

6.  
   A.  
   B.  
   C.  
   Tuesday  
   Sunday  
   Friday  

7.  
   A.  
   B.  
   C.  
   On the blackboard  
   On the wall  
   On the floor  

8.  

9.  

10.  

11.  

12.  

163
<p>| 13. |  |  |
| 14. |  |  |
| 15. | A. on the pencil | B. in the book | C. on the paper |
| 16. | A. Her name is Mary | B. How old is the girl? | C. What is the girl's name? |
| 17. | A. Light the gas | B. Put out the light | C. Pay the bill, please |
| 18. | A. with a sarape | B. with a song | C. with a hat |
| 19. | A. $2.50 | B. $1.10 | C. 75 cents |
| 20. | A. 9:00 | B. 12:00 | C. 3:40 |
| 21. | A. 12 | B. 18 | C. 15 |
| 22. | A. 16 | B. 15 | C. 25 |
| 23. | A. scrambled eggs | B. bacon | C. grapefruit juice |
| 24. | A. tea | B. meat | C. milk |
| 25. | A. vase | B. glass of water | C. avocado |
| 26. | A. Monday | B. Wednesday | C. Friday |</p>
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<thead>
<tr>
<th></th>
<th>A.</th>
<th>B.</th>
<th>C.</th>
</tr>
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<tr>
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<td><strong>Thursday</strong></td>
<td><strong>Saturday</strong></td>
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<tr>
<td>28.</td>
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<td>B.</td>
<td>C.</td>
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<td>quarrelsome</td>
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<td>A.</td>
<td>B.</td>
<td>C.</td>
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<td></td>
<td>ours</td>
<td>for them</td>
<td>them</td>
</tr>
<tr>
<td>30.</td>
<td>A. They are like ours</td>
<td>B. Everybody should prefer ours</td>
<td>C. They enjoy theirs about as we enjoy ours</td>
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## APPENDIX 0

### RAW DATA FROM RELIABILITY TEST II

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\[ M_X = 38.64, \quad M_Y = 39.44, \quad R = 0.81 \]
### APPENDIX P

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N 29
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M (Y) 27.21
R .74
APPENDIX Q

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Standard deviation 1.35

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Standard deviation 1.32
CR 1.55

170
### APPENDIX R

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|        | 286 |  113 | 1715 | N278 |  48 | 2361 |

M (A) 37.17  M (B) 35.49  GR 2.47
σ (A) 7.26  σ (B) 8.73
APPENDIX S

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C  .72
M  21.44
I  2.00
S  4.06

OR 4.07
APPENDIX T

Dear Mrs. ______________,

Pursuant to our recent conversation relative to your participating in a Spanish in-service educational program and subsequently teaching beginning Spanish in the fourth grade in your school, I wish to thank you for the interest you have manifested.

As was previously stated, the in-service educational program will consist of a series of study sessions in which the rudiments of the Spanish language and methods and procedures of teaching it in the fourth grade will be studied. After this intensive study has been made, you will be asked to teach Spanish to your pupils for a minimum of eighteen weeks. Too, you will be asked to administer three tests with which you will be supplied. You will not be asked to score these tests.

Permission has been granted by the superintendent, the director of curriculum and research, and the assistant superintendent in charge of the elementary schools to conduct this project with the clear understanding that it is entirely voluntary on your part and with the further understanding that your participation will in no way affect your professional status.

173
Thank you again for your interest in this endeavor.

Our study sessions will be held in the library of the

West Van Zandt Elementary School.

Sincerely yours,
BIBLIOGRAPHY

Books


Sweet, Samuel N., *Teachers' Institutes or Temporary Normal Schools*, Utica, H. R. Hawley and Company, 1948.

Teacher's Handbook, D. MacRae Elementary School, Fort Worth, Fort Worth Public Schools, 1950.


**Articles**


Miel, Alice, "Does Foreign Language Belong in the Elementary Schools?" *Teachers College Record*, LVI (December, 1954), 139-148.


Rindome, O., "Learning a Foreign Language in Childhood—a Must," Hispania, XXVII (May, 1944), 146-172.


Reports


Publications of Learned Organizations


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Unpublished Materials

Brandenburg, Hugh, "Beginning Spanish Techniques," unpublished paper read before Lone Star Chapter of Teachers of Spanish and Portuguese, Fort Worth, Texas, March 14, 1959.

Mireles, E. E., unpublished paper on the teaching of Spanish in the Corpus Christi Schools, Corpus Christi, Texas, 1959.