DOCUMENT RESUME

ED 047 593 FL 002 132

AUTHOR	John, Vera P.; Horner, Vivian M.
TITLE	Early Childhood Bilingual Education.
INSTITUTION	Modern Language Association of America, New York, N.Y.
SPONS AGENCY	Ford Foundation, New York, N.Y.
PUB DATE	71
NOTE	207p.
AVAILABLE FROM	MLA Materials Center, 62 Fifth Ave., New York, N.Y. 10011 ($4.00)
EDRS PRICE	EDRS Price MF-$0.65 HC Not Available from EDRS.
DESCRIPTORS	Behavioral Objectives, *Bilingual Education, Bilingual Students, Bilingual Teachers, *Early Childhood Education, Educationally Disadvantaged, Educational Needs, Educational Objectives, Educational Policy, *English (Second Language), Institutional Role, Language Planning, Multilingualism, Non English Speaking, *Program Descriptions, Second Language Learning, Student Needs, *Teacher Education

ABSTRACT

This book, written from the viewpoint of both the immigrant and the native-born, provides practical information that is helpful to communities attempting to present their demands for better education more cogently and helps educators meet such demands with appropriate programs. The three major groups most affected by bilingual education programs are identified as the Puerto Rican, the Mexican American, and the American Indian. Contents include sections on: (1) demographic information on minorities, (2) language groups, (3) program descriptions, (4) teacher recruitment, (5) curriculum materials, (6) testing and evaluation procedures, (7) research in bilingual education, and (8) models of bilingual education. (RL)

EARLY CHILDHOOD BILINGUAL EDUCATION

CO-DIRECTORS

Vera P. John and Vivian M. Horner

GENERAL EDITOR

Judith Socolov

CONTRIBUTING AUTHORS

Tomi D. Berney

Kae Dakin

Anne Eisenberg

Vivian M. Horner

Vera P. John

Marshall Peller

Judith Socolov

PREPARED BY

The Early Childhood Bilingual Education Project

Library of Congress Catalog Card No. 74-148251
ISBN *87352-068-8*

Copies of this publication may be obtained from:

Materials Center
MLA-ACTFL
62 Fifth Avenue
New York, N.Y. 10011

Text designed by The Etheredges

This book
is dedicated to
the children of America,
including our own,
who help sustain our faith
in the value
of a real education.

PREFACE

"What language do you dream in?" asked the girl across the table at the International School of Geneva. The two girls were adolescents, studying in a tongue foreign to them. The speaker was a citizen of Ethiopia; the other a native of Hungary. They were both studying in French. The latter was Vera John, one of the authors of this book, who has been haunted by this question ever since.

We who have worked on this book have been concerned with many questions relevant to the dreams and thoughts, to the overt and covert languages of the immigrant, the displaced, the wanderer, the citizen of bilingual nations. Even though we recognize some of the limitations of scientific approaches to these questions, the need to know about and to contribute to the development of the bilingual child and adult is the motive force behind much of our work. Is the bilingual child at a disadvantage in confronting his world? Or is it the monolingual child who is deprived of a broader perspective? An-

other author of this book, Vivian Horner, has sought through living and working abroad to complement a Midwestern childhood and thus be freed from the limitations of a monolingual tradition. One possible outcome of living and learning in more than one language may be the acquisition of a broadened perspective.

Our book is written from the perspectives of both the immigrant and the native-born. We have attempted to stress not only the problems inherent in shifting from one language to another during schooling, but have tried also to explore the potential gains of becoming a fluent and confident speaker of more than one language. This work is an attempt to view the issues of bilingualism across several disciplines, but, more importantly, across the varied experiences of several lives.

The collaboration of the senior authors dates back to the first summer of Head Start. We came to realize, during those hectic days of planning, how little was known about the poor, non-English-speaking children of this land. Who are they? Where do they live? What languages do they speak? How can they best be educated? In the course of preparing this book, we have learned that the information is still too limited to answer such questions, but the questions have become more crystallized.

At Yeshiva University, the quest for information relevant to the bilingual and to the disadvantaged has a distinguished history. We were exceedingly fortunate to be able to draw upon its resources. Invaluable help and encouragement were provided by Professor Joshua Fishman, an eminent scholar of bilingualism. The comprehensive work in compensatory education of Professors Edmund Gordon and Doxey Wilkerson gave us a much-needed orientation when we began this survey.

But without the moral and financial support of the Ford Foundation, our interest in early childhood bilingual education would have remained academic. It was Marjorie Martus and Edward J. Meade, Jr., of the Foundation who encouraged us to pursue our concerns beyond the first timid inquiries. In the summer of 1967, with funds from Ford, we started on an information-retrieval effort called the Early Childhood Bilingual Education Project. We could not anticipate, at that point, the increased interest in and rapid growth of bilingual education that would develop. It was our original intention to pull together, describe, and categorize the somewhat scattered efforts to educate the young non-English-speaking child through the greater or lesser use of his

mother tongue. We expected to make a set of recommendations aimed at convincing American educators of the advantages of bilingual education. By now it has become unnecessary to make such a plea; the plea was made by the mothers and fathers of those who most need bilingual schooling. And Congress responded with encouragement in the form of Title VII, Bilingual Education Program, of the Elementary and Secondary Education Act.

As the activity level in bilingual education grew more intense, the need for information became increasingly apparent. In an attempt to provide some assistance, our efforts became focussed more and more upon putting together the practical information that would help communities to present their demands more cogently and help educational professionals to meet such demands with appropriate programs. The information we had assembled at various points along the way formed the basis for replies to hundreds of letters and phone calls, for office and school conferences with teachers, for program lists, and for the two issues of the Project's newsletter DOBLE (*Digest of Bilingual Education*).

The need for information by minority communities and educators, as well as by social scientists, has dictated the final shape of our effort. The information contained here is as thorough and as nearly complete as we could make it, as of June 1969, though clearly much has happened since then to make some of it already obsolete.

We offer this volume as a beginning for what we hope will be a continuing exploration and evaluation of bilingual education for young children, a continuing effort to improve and update the information which guides such educational efforts.

This book has been a group endeavor in every way. The information originally collected and assembled represented the efforts of the entire staff of the Early Childhood Bilingual Education project. We shared responsibilities in designing and administering questionnaires, visiting programs throughout the country, interviewing professionals and non-professionals, talking to community groups, helping teachers with planning, tracking down research, answering phone calls and letters, writing articles, and preparing sections for the final report.

A number of proponents of bilingual education have offered inspiration and support. Professor Fishman and his staff at Yeshiva University directed our efforts toward a critical evaluation of theory and practice in socio-

linguistic research on bilingualism. Bruce Gaarder of the U.S. Office of Education sustained our belief in the devotion and commitment of educators to the cause of the non-English-speaking child. Armando Rodrigue_ and his co-workers in the Mexican-American Affairs Office of the U.S. Office of Education always found time to answer our many questions. Drs. Theodore Anderson and Mildred Boyer of the University of Texas were very gracious in providing us with additional program information based on their own survey. Carmen Dinos of the Board of Education of the City of New York gave us valuable help on teacher recruitment and training programs. Two Navajo educators, Dillon Platero and Anita Pfeiffer of the Rough Rock Demonstration School, showed us, through their daily work, some of the wonders of bilingual innovation in education. Luís Fuentes, embattled principal of P.S. 155, Brooklyn, shared with us his insights about the Puerto Rican child in New York City. In every school we visited, people gave us a glimpse of their views and of their hopes for the future of bilingual and bicultural education. We thank them all.

No amount of information, no amount of inspiration can produce a book. Were it not for our general editor, Judith Socolov, the piles of pages would still be sitting in our offices. She has performed the small miracle of pulling together sections compiled by different individuals, checking and double-checking on information and writing and rewriting. Hers indeed was a *travail extraord'naire.*

The individual chapters, though they have undergone reworking by all of us, evolved from basic documents prepared by our co-authors, all members of the Project staff. Anne Eisenberg did the research for and the draft of the chapter on demographic characteristics of the target populations; she also helped with the research chapter and worked with Vivian Horner in the preparation of the chapter on teacher recruitment and training. The major labor of the chapters on research and testing was done by Tomi Berney. The curriculum materials section was assembled by Kae Dakin and Marshall Peller. Judith Socolov and Mrs. Dakin shared the work of pulling together the program descriptions. Drs. John and Horner prepared the introductory chapter and the chapter on models of bilingual education. Theirs, too, are the biases of this book, implicit and explicit.

A number of graduate students and members of the staff of Yeshiva University have provided us with time and suggestions of immeasurable help

in our work on both the project and the manuscript of this book. Olga Mendez kept us pointed in the right direction and helped us make important contacts in searching out information on Puerto Rican children; Bertha Kuttner, Secretary of the Department of Educational Psychology and Guidance, never found her many other responsibilities too great to lend us a hand when the resources of the Project were strained to the limits. Polly Papageorge similarly provided us with valuable clerical support. Deborah Posner, Rose Ramirez, and James Kimple, Jr., though they have not been involved directly in the preparation of the book, worked diligently as members of the Early Childhood Bilingual Education Project, and their help is gratefully acknowledged.

The support of the Ford Foundation made this project possible. We would like to thank in particular Marjorie Martus of the Public Education Division of the Foundation, who has shared with us her high standards, her strong will, and her endurance for work. Her knowledge of programs, her continuing interest, and her willingness to tackle difficult problems have helped us through each crisis.

And lastly, we would also like to acknowledge the assistance of the Modern Language Association, which provided a grant to underwrite the final preparation of the manuscript. During that last stage of a project, when spirits fail, one is grateful for the enthusiastic support of a man like MLA's André Paquette. We hope this is the beginning of a fruitful collaboration between our two institutions.

VERA P. JOHN AND VIVIAN M. HORNER
Yeshiva University, New York, N.Y.
December 1969

CONTENTS

INTRODUCTION

The United States is akin to many nations in the world in its multi-ethnic and multi-lingual character. In this country, as in a large number of other countries today, ethnic minorities continue to survive and flourish, in spite of government policy to the contrary. In the United States the widespread belief in "the melting pot" has obscured the complex history of minorities here and still clouds understanding of their present status. While English is the national language, it is not native to the United States, but was one of the group of languages brought here by the colonial powers, together with French, Spanish, and Dutch.

Before World War I there was little organized pressure to impose English as the sole language in those communities settled either by the non-English-speaking colonial powers or by later immigrants from Europe. During the nineteenth century bilingual public schools flourished in several states; and, in the state of New Mexico, for example, the Spanish language had equal

constitutional status with English and was in actual use as an official state language.[1]

This tolerant pre-World War I attitude toward the use of languages other than English did not apply, however, to the black slaves from Africa or to many of the Indian tribes. In order to keep the slaves from communicating with one another, to help prevent revolts and escapes, the slaveholders broke up and scattered family units and members of tribes speaking the same tongue.[2] The net result was the total suppression of the African languages spoken by the slaves.

With respect to the Indian tribes, Joshua Fishman notes that the Federal Government has "vacillated between policies oriented toward forced detribalization and tribal autonomy. This on-again, off-again treatment has greatly weakened the ability and interest of Indian tribes to retain their languages."[3] Before their nation was dissolved by Congress in 1906, for example, the Cherokees were a highly literate Indian tribe. They had developed a written form of their language; printed newspapers[4] and other publications in Cherokee; and organized academies where subjects were taught in Cherokee. With "detribalization," their academies were abandoned; their printing presses were dismantled and sent to museums as exhibits; and the Cherokees (who were estimated as being 90 per cent literate in the 1830's)[5] were reduced to an illiterate nation.

With the heightened nationalism kindled by World War I, the existence of different European cultures and languages came to be viewed as a serious threat. Restrictive legislation and other measures were imposed to enforce a policy of "English-only" in schools and institutions. Non-English-speaking immigrants learned that conforming to the political, educational, and language policies of their adopted country was part of the price of citizenship and a down payment toward the American dream.

Among the immigrant groups, however, there were some who fought

[1] Section 170 of the New Mexico State Constitution of 1910, for example, states that teachers should be trained to be proficient in both English and Spanish; Section 207 states that for a period of twenty years, all laws are to be published in both English and Spanish.

[2] E. F. Frazier, *Black Bourgeoisie* (Glencoe, Ill.: Free Press, 1957), p. 12.

[3] Joshua A. Fishman et al., *Language Loyalty in the United States* (The Hague: Mouton, 1966), p. 22.

[4] *The Cherokee Phoenix*, a bilingual weekly newspaper, was published by the tribe from 1828 until 1834, when the press and the type were seized by the Georgia Guard. After the forcible resettlement of the Cherokees in Oklahoma, another newspaper, *The Cherokee Advocate*, appeared in 1844.

[5] Willard Walker, "The Design of Writing Systems for Native Literacy Programs," a paper delivered at the American Anthropological Association, Nov. 1968.

to maintain their mother tongue. This struggle to preserve "immigrant" languages has been well documented by Fishman and others.[6] On the other hand, the struggle against this English-only policy waged by some of the non-immigrant or indigenous groups—the Spanish-Americans and the Indians—has been poorly recorded. Scholars have generally ignored the fact that Indians and Spanish-Americans (who are often part Indian themselves) possess a language, culture, and knowledge of the land that predate the formation of the American states. Indeed, the study of language loyalty among Indians and Spanish-Americans remains extremely fragmentary and does not acknowledge that these are essentially conquered peoples whose attachment to their language is a bond to past independence and a hope for greater self-determination in the future.

Until very recently the literature on minorities in the United States, a literature mainly the work of scholars of Anglo-Saxon or immigrant backgrounds, stressed acculturation and assimilation. With the decreased immigration since World War II and the increased political activity among non-white and non-English-speaking minority groups here, new concepts are being developed and advocated. The notion of a pluralistic society is becoming more and more popular among these groups. Some of their spokesmen advance the model of an egalitarian, pluralistic society in which ethnic minorities maintain and develop their own cultural heritage; other spokesmen are asking for self-determination for their rural and urban communities.

The migration of non-English-speaking groups from rural areas to urban centers was accelerated by the great technological and industrial developments after World War II. This migration to the cities has intensified the concern of some of these groups with their cultural and linguistic survival. Their young spokesmen repeatedly express fear of being members of an uprooted, alienated, and underemployed mass in the urban slums.

The returning Mexican-American veterans of World War II and the subsequent wars have formed political organizations in the *barrios* of Denver, Los Angeles, Albuquerque, San Antonio, and other cities. Through their activities they have developed a new pride in the Spanish language; political meetings are conducted in Spanish, bilingual newspapers in increasing numbers appear in both Spanish and English.[7] Similarly, Indian war veterans, many of

[6] Fishman, *Language Loyalty*.

[7] See, e.g., such publications of the Chicano Press Association as *La Raza*, P.O. Box 31004, Los Angeles, Calif., and *El Papel*, P.O. Box 7167, Albuquerque, N. M.

whom attended college after demobilization, are showing a new interest in their Indian heritage and tribal languages. They have joined the tribal governments of their people and have formed new inter-tribal and pan-Indian organizations.[8] In New York City members of the Puerto Rican community are assuming an important role in the city's political life.[9] Many mainland Puerto Ricans express the hope that New York will become a genuinely bilingual city.

For some of these non-English-speaking communities, the idea of education in both the mother tongue and English is a totally new concept. For others, the demand is for the rebuilding of a former educational system, such as the Spanish-American schools in the Southwest or the Cherokee academies. To understand more fully the reasons for these new and pressing demands for bilingual education programs, it is important to examine the general role of the public school in the United States.

Since the introduction of compulsory public education the schools have served as *the* crucial institution for socialization in the United States. The assumption has been that socialization achieved before school had to be undone and then redone by the school, with all children turned out of the same mold. The literacy goals of early public schools were modest, the stress was on character and citizenship training. The psychological theory and educational practice that accompanied this school system emphasized adjustment, team spirit, and good citizenship as the crucial outcomes of the teaching-learning process.

In the late nineteenth and early twentieth centuries, when a great many manual jobs were available to the native-born and immigrant alike, the schools could operate under simple literacy standards. However, with the great changes in the technological requirements of our economy, especially since World War II, the schools have been challenged to prepare their students for an altered job market in which literacy is essential. Nowhere is this challenge to the schools more critical than in the education of the children from non-white and non-English-speaking minority groups. A serious re-examination of the educational experience of these children has been long overdue.

The values of a school system that considers itself an arbiter of the social and political convictions of its students are being scrutinized on all levels. In the *barrios,* the *colonias,* the reservations and the ghettos, there is increasing

[8] Stan Steiner, *The New Indians* (New York: Harper and Row, 1968).

[9] See, e.g., *National Conference: Meeting the Special Educational Needs of Urban Puerto Rican Youth,* sponsored by ASPIRA, Inc., with the aid of grants from the Carnegie Corporation, New York State Dept. of Education, New York, N. Y., 14, 15, 16 May 1968.

criticism of the schools as hostile and alien institutions. Among Spanish-speaking people, a dramatic example of this "Anglo" hostility is seen in the nearly universal rule in the United States against the use of languages other than English in public schools, a rule enforced until very recently by many forms of punishment, including corporal.

TEN RESOLUTIONS FOR IMPROVING THE EDUCATION OF MEXICAN-AMERICAN CHILDREN

1. Let the poor speak out: provide conferences for them, too.
2. Let our cultures be dual if that is what we need to be effective citizens.
3. Educate us for college, and do not let the fact that none of us has any money to go influence the preparation.
4. Pay us well so that we can consider education in its perspective instead of worrying about the rent and the grocery bill.
5. Do not make school a marking-time institution for us by having us take shop or by throwing us into special education because we do not answer the I.Q. tests correctly when they are not for us.
6. Let those laws that so quietly discriminate against us, such as the crime of not speaking only English at school, be erased from the books.
7. Do not isolate education as a problem, but bring in the other factors involved, such as health, housing, employment.
8. Do not sit on funds, State or Federal, which would really help us to better ourselves, and release those that let the establishment maintain control.
9. Open up the good jobs for the few of us that manage to prepare ourselves for them.
10. Integrate our schools: I don't mean student-wise but teacher-wise. Why must all the Mexican schools have all the bad teachers and bad programs? Why don't we have those who understand our customs and what goes on?

—offered by Abelardo Delgado, Neighborhood Coordinator, at the Texas Conference for the Mexican-American, 1967.[10]

In commenting on the feelings of Spanish-Americans who are not allowed to use their native language, Ulibarri states: "We cannot even conceive of a people without language, or a language without a people. The two are the same. To know one is to know the other."[11]

[10] Cited in D. M. Estes and D. W. Darling, eds., *Improving Educational Opportunities of the Mexican-American,* Proceedings of the First Texas Conference for the Mexican-American, San Antonio, April 1967.

[11] Horacio Ulibarri, "Cultural Heritage of the Southwest," in *The Mexican-American: A New Focus on Opportunity,* testimony presented at a Cabinet Committee Hearing on Mexican-American Affairs, El Paso, Texas, 26–28 Oct. 1967.

In a moving article in a Mexican-American magazine, Antonio Gomez tells of his feelings as a Chicano student:

> *School is where it starts, and school can be a frightful experience for most Chicano children. It was for me. The subtle prejudice and the not so subtle arrogance of Anglos came at me at a very early age, although it took many years to realize and comprehend what took place. The* SPEAK ENGLISH *signs in every hall and doorway, and the unmitigated efforts of the Anglo teachers to eradicate the Spanish language, coupled with their demands for behavioral changes, clearly pointed out to me that I was not acceptable . . . The association between being different and being inferior was quite difficult to resist, and it tortured me for many years.*[12]

Similarly, a young Puerto Rican mother writes about her childhood experiences in a New York City school:

> *Sitting in a classroom with about thirty-three English-speaking kids and staring at words on a blackboard that to me were as foreign as Egyptian hieroglyphics is one of my early recollections of school. The teacher had come up to my desk, and bent over putting her face close to mine.*
>
> *"My name is Mrs. Newman" she said as if the exaggerated mouthing of her words would make me understand their meaning. I nodded yes because I felt that was what she wanted me to do. But she just threw her hands up in a gesture of despair, and touched her fingers to her head to signify to the class that I was dense. Whereupon all thirty-three classmates fell into gales of laughter. From that day on school became an ordeal I was forced to endure.*[13]

In New York City, while almost one out of every four pupils in the elementary schools is of Puerto Rican birth or parentage, Puerto Ricans have less formal education than any other identifiable ethnic group.[14] Statistics made available by the New York City Board of Education show that while ten to twelve per cent of Puerto Ricans graduate from high school with an academic diploma, only two to three per cent go on to college.[15]

The plight of the Mexican-American student in the Southwest is

[12] "What Am I About," *Con Safos*, 1 (Fall 1968), 8–9.

[13] Alma Bagú, "On the Rim of Belonging," *The Center Forum*, IV (New York: Center for Urban Education, 1969), 13.

[14] Hearings on Bilingual Education: 90th Congress, First Session, Hearings on S. 428, 18, 19, 26, 29, and 31 May, 24 June, and 21 July 1967. Hearings on H. R. 9840 and H. R. 10224, 28 and 29 June 1967 (Washington, D. C.: Government Printing Office), p. 273.

[15] William Labov, "A Sociolinguistic Study of the Puerto Rican Community: A Proposal," mimeo. (New York: Columbia Univ., 1969).

graphically illustrated by figures compiled by Barrett.[16] In 1960 the median school years completed by Spanish surname individuals of both sexes fourteen years of age and over was: 9.0 years in California, 8.6 in Colorado, 8.4 in New Mexico, 7.9 in Arizona, and 6.1 in Texas. It is interesting to note that the income of the Spanish-Americans, though universally low, shows a relatively higher pattern in California than in Texas, where school achievement was lowest.[17]

The statistics relating to the education of Indian children in this country are even more dismal. As recently as twenty years ago, less than half of all school-age Navajo children were in school.[18] The 1960 Census figures show that ten per cent of all Indians over fourteen years of age have had no formal schooling at all, nearly sixty per cent have less than an eighth grade education, and fifty per cent of all Indian schoolchildren drop out before finishing high school.[19] A principal in a Navajo boarding school concludes: "The need for more and better education is seen by many Indians as of utmost importance . . . an education that will enable young Navajos, while continuing to perceive themselves as Navajo, to 'cope' with, if not 'compete' in twentieth century, urbanized, technological America."[20]

The Campaign for Bilingual Education. While a few bilingual education programs were initiated in the 1950's in the Southwest, the campaign for bilingual education did not become widespread until the sixties when increasing pressure was placed on legislators at the city, state, and federal levels to enact bilingual education measures. Support for these new bilingual education programs came not only from non-English-speaking communities but from "Anglo" educators and spokesmen as well.[21]

In 1967 bills were introduced in Congress to amend the Elementary and Secondary Education Act of 1965 to provide for bilingual education programs. Hearings were held in the summer of 1967 in the Southwest by Senator

[16] D. N. Barrett and Julian Samora, "The Movement of Spanish Youth from Rural to Urban Settings," a paper prepared for the Nat'l Conf. on Problems of Rural Youth in a Changing Environment, Nat'l Commission for Children and Youth, Washington, D.C., n.d.

[17] Leo Grebler, *Mexican Immigration to the United States: The Record and Its Implications* (Los Angeles: Univ. of California, 1965).

[18] Wayne Holm, "The Possibilities of Bilingual Education for Navajos: Chinle, Arizona: Rock Point Boarding School," mimeo., Jan. 1969.

[19] *U.S. Census of Population: 1960* (Washington, D.C.: Government Printing Office, 1960).

[20] Holm, "The Possibilities of Bilingual Education."

[21] See, e.g., the report of the NEA–Tucson Survey on the Teaching of Spanish to the Spanish Speaking, *The Invisible Minority* (Washington, D.C.: National Education Association, 1966).

Ralph Yarborough of Texas and in the East by Senators Robert Kennedy and Jacob Javits of New York.[22] At these hearings the Mexican-American and Puerto Rican representatives spoke of the great need for bilingual and bicultural programs. Their testimony reflected both the increasing demand for large-scale bilingual programs and the strong, united support for federal subsidy for bilingual education.

The amendment, known as the Bilingual American Education Act, was passed as Title VII of the Elementary and Secondary Education Act of 1965, effective as of 1 July 1968, administered by the United States Office of Education. The draft of the Guidelines for Title VII states that it is "designed to meet specific education needs of children 3 to 18 years of age who have limited English-speaking ability and come from environments where the dominant language is other than English."[23] Title VII funds "are available for exemplary pilot or demonstration projects in bilingual and bicultural education in a wide variety of settings. These projects should demonstrate how the educational program can be improved by the use of bilingual education."[24]

The Psychological and Educational Rationale of Bilingual Education. Much of the present attention directed toward bilingual education in this country has been sparked by the vocal demands of Spanish-speaking and Indian language groups. The political impact of these groups is increasingly felt on the national scene, as they continue to struggle for the maintenance of their linguistic and cultural identities.

While the demands of these groups reflect socioeconomic and political aspirations, the arguments advanced for bilingual education include psychological and educational concerns as well. It is argued that bilingual education is a more humane and enriched school experience for the non-English-speaking child and a means toward the development of a more harmonious, positive self-image. It is further argued that it is pedagogically sound to teach young children the primary subjects in their native language.

[22] Hearings on Bilingual Education, see n. 14 above.

[23] Guidelines to Bilingual Education Program, Title VII, Elementary and Secondary Education Act of 1965, as amended in 1967 (draft).

[24] Those developing these new bilingual programs should note C. S. Knowlton's observations that "the Spanish-Americans have been cut off from their own history and culture by the public school systems," that the instructional use of the Spanish language in classrooms in New York City, Los Angeles, and many smaller cities and towns was not sufficient in itself to improve the education of these children, and that a new curriculum must be devised with cultural as well as language requirements ("Spanish-American Schools in the 1960's," a mimeographed paper prepared for the 1966 Teacher Orientation Conference at West Las Vegas, N. M., Aug. 1966, p. 4).

The argument that bilingual education is a more humane school experience is supported by both common sense and the testimony of those who have had to give up their mother tongue to become educated in an English-speaking system. However, relevant research here is scant and is likely to remain so for some time. We do not have sufficient information at present to infer cause-effect relationships and to decide definitely the "do's" and "don't's" of individual bilingual programs. It is difficult to predict what the magnitude, inclusiveness, and social consequences of a specific bilingual education program will be. For example, the specific nature of bilingual education in a community usually reflects the community's level of involvement with its native language. Once a bilingual education program is established, however, even in a restricted form, its very existence becomes a social force in itself and affects and changes the community's attitude toward its native language.

On the other hand, the claims for the pedagogical soundness of a bilingual approach in educating the child who is not a speaker of the national language have a more solid basis in the research evidence. In light of the experience with bilingual educational programs of schools in other multilingual nations, a number of American schools are for the first time taking a serious look at the potential of bilingual education. Some limited experiments with bilingual programs have already been started in the United States.

These experiments come at a time when psychologists are probing the role of language in the intellectual development of children. Instruction in the native language assumes particular importance in light of the present shift to a cognitive view of learning to learn as the major task of education for young children. For a long time educators believed that learning was additive and that the earlier a child was exposed to a body of material to be learned (e.g., the English language) the more likely he was to achieve lasting mastery.

The more widely accepted current cognitive view emphasizes the basic process of learning, not the accumulation of information, as the goal of early education.[25] According to the cognitive view, a great deal of a child's early learning consists of ordering the world around him, i.e., reducing ambiguities and simplifying the "buzzing of confusion" that surrounds him; imitating and discovering ordering devices; grouping events and people into classes; learning to recognize regularities in time, sequence, and routines. This view holds that

[25] See John H. Flavell, *The Developmental Psychology of Jean Piaget* (Princeton, N.J.: Van Nostrand, 1963), and Jerome S. Bruner, R. R. Oliver, and P. Greenfield, *Studies in Cognitive Growth* (New York: Wiley, 1966).

language plays a critical (though not exclusive) role in the young child's ordering process.

Between the ages of five and seven, the child's use of language accelerates and words become a medium of learning and problem-solving.[26] It is at this very age that the non-English-speaking child is ordinarily confronted with the demand to learn in English and, indirectly, to think in English.

If we accept the view that language plays an important cognitive role in the child's development, it follows that the introduction of a second, weaker language at this point simply confuses the ordering process. Macnamara found in his studies in Ireland, for example, that children instructed in their weaker language showed deterioration in reading[27] and arithmetic,[28] particularly in the area of problem-solving. Saer found similar retardation in school achievement with Welsh children instructed in a weaker language.[29]

One of the great benefits of bilingual instruction for the young child may be the help it provides in developing the use of his native language for problem-solving. Once the child has learned in his first language the value of words for memory and thought, he can then apply this knowledge to a second language. The acquisition of a second language at this time may, in turn, further extend his intellectual skills. In their study in Canada, Peal and Lambert suggest that bilinguals who have an opportunity to develop two languages fully often demonstrate cognitive skills superior to those of their monolingual peers.[30]

A Statement of Our Bias. If our present schools do not meet the needs of poor children generally they are especially inadequate for the non-English-speaking child. The child who enters school with foreign language skills, which would suggest a richer potential than many children bring, all too often leaves school with more limited propsects than most of his English-speaking peers. His native language has been destroyed or carefully closeted, and his second language has not been well-enough developed to offer him even the

[26] S. H. White, "Evidence for a Hierarchical Arrangement of Learning Processes," in *Advances in Child Development and Behavior*, II, ed. L. P. Lipsitt and C. C. Spiker (New York: Academic Press, 1965).

[27] John Macnamara and T. P. Kellaghan, "Reading in a Second Language," in *Improving Reading throughout the World*, ed. Marion D. Jenkinson (Newark, Del.: International Reading Association, 19—).

[28] John Macnamara, *Bilingualism and Primary Education: A Study of the Irish Experience* (Edinburgh: Edinburgh Univ. Press, 1966).

[29] D. J. Saer, "The Effect of Bilingualism on Intelligence," *British Journal of Psychology*, 14 (1923), 25–38.

[30] Elizabeth Peal and Wallace E. Lambert, "The Relation of Bilingualism to Intelligence," (Washington, D.C.: American Psychological Assoc., 1962).

narrow range of options open to the inadequately educated monolingual.

In this section we have attempted briefly to place in a historical context some of the social and political issues involved in the current campaigns for bilingual education. We have presented some arguments from the perspective of concerned participants, and we have noted some of the research that suggests the soundness of adopting an alternative educational objective—a bilingual and bicultural approach.

We believe that such a bilingual and bicultural approach can facilitate the movement toward an open and varied society, with full and equal participation for all groups. This approach opens a wide range of possibilities and opportunities:

> *With a bilingual and bicultural education, the highly mobile Puerto Rican child can function effectively in either mainland or island schools.*
>
> *The Mexican-American child can participate as a literate member in the broad cultural traditions of the Spanish-speaking world, without being unemployed and isolated from mainstream society.*
>
> *The American Indian child, while coping with modern advanced technological life, can at the same time rediscover and help preserve the oldest of American cultures.*
>
> *The English-speaking child, increasingly exposed to instruction in other languages and cultures, can overcome both the isolation of a one-language education and the false sense of superiority in being English-speaking in this multi-ethnic country and world.*

While some conceive of bilingual education as an efficient approach to the acquisition of the national language and culture by non-English-speaking children, we subscribe to the view that bilingual education can be at its best only as a mutually developed and mutually experienced process of learning and teaching, involving both majority and minority communities.

Being bilingual can be a great asset, for both the individual and the society in which he lives. Being monolingual is increasingly a personal and social handicap. The schools have it within their power to insure that our bilingual citizens are welcome assets, not uneducated and unproductive liabilities.

SOME DEMOGRAPHIC INFORMATION ON MINORITY LANGUAGE GROUPS

Of the three non-English-speaking groups most involved in bilingual education programs in this country, two are Spanish-speaking: the Mexican-Americans in the Southwest and the Puerto Ricans on the East Coast; the third major group consists of American Indians living in different parts of the country. These three non-English-language-background groups account for a substantial student enrollment in the public schools of the United States.

Speakers of Spanish make up the largest non-English-speaking group in the United States. They are concentrated in the Southwest and in some eastern and midwestern cities with large populations from Puerto Rico and Central and South America. It is estimated that more than one-sixth of the school-age population of the Southwest is Spanish-speaking.[1] In New York City, Puerto Rican children comprise the overwhelming majority of students with

[1] *Bilingual Education. Hearings Before the Special Subcommittee on Bilingual Education of the Committee on Labor and Public Welfare.* Ninetieth Congress, First Session on S. 428. Parts I and II, May–July 1967 (Washington, D. C.: Government Printing Office, 1967).

non-English-language backgrounds and make up nearly one-fourth of the city's total elementary public school enrollment. Among American Indians, of the more than 300,000 children aged six to eighteen enrolled in schools in 1968, about two-thirds were in public schools. The exact dimension of the educational problems of the students from these and other minority groups is not known. The need for demographic data here is urgent. Available statistics are meager and outdated; the last census was made ten years ago. The little information available provides us with no specific figures on the numbers of non-English-speaking children, the numbers of bilinguals in these groups, or the rate and grade of school dropout.

The following demographic sketches of the three groups are therefore necessarily limited. They are included here as guides to a general understanding of the background of those students most affected by the bilingual education programs in this country.

THE MEXICAN-AMERICAN POPULATION OF THE SOUTHWEST

The Mexican-Americans have been characterized as "the fastest growing minority in the United States."[2] In 1960 the Mexican-American population, concentrated in the five Southwestern states of Arizona, California, Colorado, New Mexico, and Texas, was 3.4 million;[3] it is now estimated at about 4 million.

[2] Between 1900 and 1964 about 1.3 million Mexicans were reported as having entered the country for permanent residence. Of this number 420,000 arrived between 1955 and 1964. In the years between 1955 and 1964 more people came on immigration visas from Mexico than from any other country. Leo Grebler, *Mexican Immigration to the United States: The Record and Its Implications* (Los Angeles: Univ. of California, 1965).

[3] The following figures from the U.S. Census: 1960 show the "Spanish-Surname Population" in the five Southwestern states.

State	*Mexican-American Population**	*Total State Population*	*Per Cent of Total State Population*	*Per Cent of Total No. of Mexican-Americans in SW*
Arizona	194.4	1,302.2	14.9	6.0
California	1,426.5	15,717.2	9.3	41.0
Colorado	157.1	1,753.9	9.0	5.0
New Mexico	269.1	951.0	28.3	8.0
Texas	1,417.8	9,579.7	14.8	40.0

* *These numbers are in 1000's.*

Note that the term "Spanish-Surname Population" used by the U.S. Census does not indicate the specific background of individual members of that population. See pp. 164–77, "Research," for a further discussion of the term.

Mexican-Americans are a highly differentiated group in origin, ranging from people whose ancestors were living in the Southwest long before Jamestown was settled to recent immigrants from Mexico. Grebler notes that of the total Mexican-American population of 3.4 million in 1960, more than half was made up of persons born in Mexico or of Mexican or mixed parentage; the remainder consisted of descendants of earlier immigrants and of original settlers of Hispano-Mexican origin.[4]

The geographic areas with the greatest concentration of Mexican-American population include: Salt River Valley in Arizona; Central Valley, Los Angeles, and the San Francisco Bay basin in California; Denver County, Colorado; the upper Rio Grande; south central Texas around San Antonio; and the Border, the 1,800 miles that stretch from Brownsville, Texas, to San Diego, California.

Characteristics. Mexican-Americans are an increasingly urban population with a largely unskilled or semi-skilled labor force and a high rate of unemployment and poverty. More than one-third of the Mexican-Americans live in the metropolitan areas of 16 cities in the Southwest. The Mexican-American labor force in California is over 80 per cent urban; in Texas, over 75 per cent; in Colorado, New Mexico, and Arizona, between 55 and 70 per cent. In 1960, less than 20 per cent of male Mexican-Americans, in the five Southwestern states, were engaged in occupations other than hand labor.[5]

About 35 per cent of all the Mexican-American families in the Southwest in 1960 had incomes well below the poverty line. The poorest population was in Texas where more than half the Mexican-American families had incomes of less than $3,000. Mexican-Americans are characterized by large families and a predominantly young population. The 243,000 families with incomes below the poverty line in 1960, for example, consisted of 1,100,000 individuals, about half of whom (530,000) were below 18 years of age.[6]

[4] *Mexican Immigration to the United States.*

[5] Ernesto Galarza, Herman Gallegos, and Julian Samora, "Mexican Americans in the Southwest," Dec. 1966 (mimeo.). Below is a selected list of cities with large Mexican-American populations, showing approximate percentage of the total number of Mexican-Americans in each city:

Laredo, Texas	82 %
San Antonio, Texas	41.4 %
Brownsville, Texas	74 %
El Paso, Texas	45 %
Corpus Christi, Texas	36 %
Albuquerque, N.M.	25 %
Los Angeles, Calif.	10.5 %

[6] *U.S. Census of Population: 1960* (Washington, D.C.: Government Printing Office, 1964).

Education Statistics. According to the 1960 Census figures, the adult Mexican-American averaged 7.1 years of schooling in 1960. The median attainment of Mexican-Americans by state ranged from 8.6 years in California to 4.7 years in Texas. As the table below indicates, the younger the group, the higher the educational achievement. For example, Mexican-Americans 14 years old in 1960 had completed 9.2 mean years of formal education as compared with 7.1 mean years completed by Mexican-American adults.

TABLE 1

1960: Median Number of School Years Completed by Spanish-Surname Population Living in Five Southwestern States

	ADULTS	14 YEARS AND OVER
Arizona	7.0	8.3
California	8.6	9.2
Colorado	8.1	8.7
New Mexico	7.1	8.8
Texas	4.7	6.7

(*U.S. Census: 1960*)

Grebler suggests increasing urbanization as one possible factor in the school progress of Mexican-Americans between 1950 and 1960.[7] Table 2 below indicates that in 1960 in five Southwestern states the urban population remained in school longer than the rural population.

TABLE 2

Urban-Rural Comparison of Median School Years Completed for the Spanish-Surname Population 14 Years Old and Over in 5 Southwestern States and the United States, 1960

	URBAN	RURAL
Arizona	8.3	6.0
California	9.1	7.5
Colorado	8.8	8.2
New Mexico	8.8	7.8
Texas	6.6	4.8
United States	11.1	9.5

(*U.S. Census: 1960*)

Such statistics, revealing the low level of formal education among

[7] *Mexican Immigration to the United States.*

Mexican-Americans, reflect the large number of dropouts among the students. The school dropout rate in general among the Mexican-Americans in the Southwest is one of the highest of any group in the nation; this is particularly true for the rural Mexican-American population. The following table provides a detailed breakdown by age and state.

TABLE 3

Youths Not Enrolled in School, by Residence: Spanish-Surname Youths 14–19 Years Old in 5 Southwestern States and Total U.S. Population, 1960

RESIDENCE AND AGE	ARIZONA	CALIFORNIA	COLORADO	NEW MEXICO	TEXAS	TOTAL U.S. POPULATION
	%	%	%	%	%	%
All classes:						
14–15	10	7	11	7	17	6
16–17	32	26	32	24	41	26
18–19	63	67	66	58	69	58
Urban:						
14–15	9	6	10	7	15	5
16–17	30	24	34	24	40	18
18–19	62	66	66	59	67	68
Rural non-farm:						
14–15	11	11	11	7	22	7
16–17	33	35	29	23	45	22
18–19	64	73	64	56	74	66
Rural farm:						
14–15	15	8	15	4	24	7
16–17	49	42	24	22	48	18
18–19	80	70	69	60	71	61

Source: Low-Income Families in the Spanish-Surname Population of the Southwest (Dept. of Agriculture, Report No. 112, April 1967)

At the recent San Antonio Conference on Bilingual-Bicultural Education, the point was stressed that "the first significant dropout per cent [among Mexican-American children] takes place around the 3rd grade . . . The next [dropout] period of consequence is in the 7th grade or 9th grade."[8]

[8] E. M. Bernal, Jr., ed., *The San Antonio Conference on Bilingual/Bicultural Education: Where Do We Go from Here?* Sponsored by the Bureau of Educational Personnel Development, U.S. Office of Education, and St. Mary's Univ., San Antonio, Texas, 28–29 March 1969.

THE PUERTO RICAN POPULATION OF NEW YORK CITY

Two-thirds of the Puerto Rican population on the mainland live in New York City, giving it the largest concentration of Spanish-speakers on the East Coast.[9] Other cities in which Puerto Ricans by birth or parentage made up a significant portion of the population in 1964–65 included: Chicago, with over 32,000; Newark, 10,000; and Philadelphia, 14,500.[10]

The 1960 Census lists nearly 900,000 persons of Puerto Rican birth or parentage living on the mainland; of these, 617,000 were born in Puerto Rico. In the late 1940's 90 per cent or more of the migrants from Puerto Rico settled in New York City. While this number declined to about 70 per cent in 1960, the net increase of 367,000 Puerto Ricans from 1950 to 1960 represented a 149 per cent increase in the city's total Puerto Rican population. (During the same years, the white non-Puerto Rican population declined by 12 per cent and the non-white population increased by 48 per cent.)

Characteristics. The demographic data collected on Puerto Ricans in New York City show many parallels with the Mexican-Americans in the Southwest. Puerto Ricans are the poorest group in the city, with a largely unskilled labor force and a high rate of unemployment. In 1960, a third of the Puerto Rican families in New York had incomes of less than $3,000; more than half had incomes below $4,000. A 1964 survey found the average Puerto Rican family income was $3,900.[11] A special tabulation of the 1960 Census showed that 85 per cent of New York City's total Puerto Rican population lived in the city's 400 "lowest-income" neighborhoods.

According to Commonwealth of Puerto Rico statistics, two-thirds of the Puerto Rican migrants between 1957 and 1961 were under age 24 at time of arrival:[12] more than half said they had had no prior job experience, and over 25 per cent said they had been employed either as farm laborers or semi-

[9] Spanish-speaking communities in the Eastern states include a substantial number of people from localities other than Puerto Rico. R. J. Rodriguez, "Concentration of Spanish-Speaking Persons in the United States of America by State" (mimeo.) (Washington, D.C.: Mexican-American Affairs Unit) estimates that an additional 160,000 persons of Spanish language background live in New York State, including, among others: 44,000 Cubans; 31,500 Spaniards; 13,500 Dominicans; 11,000 Mexicans; 8,800 Panamanians; 8,500 Argentinians; 7,000 Colombians; and 3,700 Venezuelans.

[10] *A Summary in Facts and Figures, 1964–65: Progress in Puerto Rico—Puerto Rican Migration* (New York: Commonwealth of Puerto Rico, Dept. of Labor, Migration Div., 1966).

[11] *A Summary in Facts and Figures.*

[12] *Characteristics of Passengers Who Travelled Between Puerto Rico and the United States* (Puerto Rico: Dept. of Labor, Bureau of Labor Statistics), issued quarterly 1958–61.

skilled workers. This pattern is reflected in statistics on the job distribution of Puerto Rican workers in New York City in 1960.[13] A recent Bureau of Labor Statistics study of unemployment among Puerto Ricans living in three New York City poverty areas shows a sub-employment rate of at least 33 per cent.[14]

Statistics also reveal that Puerto Ricans in New York City are a young population, largely first-generation arrivals, with characteristically large, mobile families. In 1960 the median age for Puerto Ricans in the city was 21.9; in 1964, 21.7. Forty-eight per cent of Puerto Rican families in 1960 had four to six members; 11 per cent had seven or more. Of all the ethnic groups questioned in the *Population Health Survey*,[15] Puerto Rican families were the highest in mobility, moving not only within the boroughs of the city but also freely between the mainland and Puerto Rico.[16]

Educational Statistics. In New York City, Puerto Ricans have the most limited formal education of any identifiable ethnic group (*U.S. Census of Pop-*

[13] U.S. Census figures show that 65 per cent of Puerto Ricans in New York City in 1960 were blue-collar workers, with more than half employed in relatively low-paying semi-skilled jobs. Municipal employment in 1964 revealed that less than 3 per cent of New York City's government jobs were filled by Puerto Ricans, seven out of ten working either in a service capacity or as unskilled laborers *(A Summary in Facts and Figures)*.

[14] *Labor Force Experience of the Puerto Rican Worker*, Region[al] Report No. 9 (Washington, D.C.: U.S. Dept. of Labor, Bureau of Labor Statistics, 1968).

[15] *Annual Census of School Population, Dec. 1968* (New York: Board of Education of the City of New York).

[16] *Puerto Rican Migration to the United States Mainland, 1955–68: Total Arrivals and Departures*

YEAR	ARRIVALS	DEPARTURES	NET MIGRATION
1955	218.4	260.7	42.3
1956	264.7	313.6	48.8
1957	311.6	348.2	36.6
1958	338.4	364.4	25.9
1959	439.3	467.4	28.1
1960	491.2	510.3	19.1
1961	536.5	536.3	−1.8
1962	580.4	591.8	11.3
1963	653.6	656.9	−3.2
1964	757.4	761.6	4.2
1965	905.0	932.1	27.0
1966	1,000.3	1,035.4	39.0
1967	1,197.1	1,239.3	42.2
1968	*	*	23.9

Statistics courtesy of the Migration Division of the Commonwealth of Puerto Rico, New York City. Source: San Juan Office, Immigration and Naturalization Service, U.S. Department of Justice, and Puerto Rico Planning Board. Note that in only two years (1961 and 1963) was there a net out-migration.

* Figures not yet available.

ulation, 1960). The New York City Board of Education figures show that only 10–12 per cent of Puerto Ricans are graduated from high school with academic diplomas; only 2–3 per cent go on to college.[17]

A Special Census of School Population, undertaken in 1967 by the New York City Board of Education, classified the city's non-English-speaking students.[18] According to the census Puerto Rican children comprised the overwhelming majority of foreign language background students in New York City's schools. All other pupils born in countries other than the mainland United States and Puerto Rico constituted only 4.8 per cent of the elementary school student body, and this percentage included a substantial number of Spanish-speaking students from localities other than Puerto Rico.

This *Special Census* rated Puerto Rican and foreign-born pupils according to their ability to speak English. The rating of "non-English-speaking" was given to those pupils whose ability to speak English ranged from "must still make a conscious effort to avoid the language forms of his native tongue" and "speaks English haltingly at all times" to "no English." Using these rating scales, 46.1 per cent of the Puerto Rican and foreign-born students in the elementary schools—more than four out of every ten—were classified by the Board of Education as "non-English-speakers."

According to the most recent *Annnal Census of School Population* (December 1968) prepared by the New York City Board of Education, there were 240,746 Puerto Rican students in the city's public elementary, junior, and senior high schools. Of this number, 145,724 were in elementary school, totalling 23.9 per cent of the entire elementary school enrollment. Thus, almost one out of every four children in New York City's public elementary schools is Puerto Rican in origin. If one adds to this number the 18,038 "Other Spanish Surnamed Americans" in the city's public elementary schools, the percentage of students from Spanish language backgrounds rises to 26.9 per cent.

AMERICAN INDIANS

The present American Indian population, including Aleuts and Eskimos, numbers approximately 600,000. About 400,000 Indians live on or near

[17] Quoted in William Labov, "Proposal to Urban Center: A Sociolinguistic Study of the Puerto Rican Community," 1968 (mimeo.).

[18] Margaret Langlois, *Special Census of School Population Classification of "Non-English-Speaking" Pupils, Oct. 31, 1967,* Publication No. 311 (New York: Board of Education of the City of New York, 1968).

TABLE 4

Annual Census of School Population City-Wide, by School Level, 17 December 1968

LEVEL	NUMBER OF PUPILS						PER CENT OF TOTAL REGISTER						
	PUERTO RICAN	OTHER SPANISH SUR. AMER.	NEGRO	AMER. INDIAN	ORI-ENTAL	OTHERS	TOTAL	PUERTO RICAN	OTHER SPANISH SUR. AMER.	NEGRO	AMER. INDIAN	ORI-ENTAL	OTHERS	TOTAL
Elementary	145,724	18,038	209,933	108	8,201	228,595	610,599	23.9	3.0	34.4	0.0*	1.3	37.4	100.0
Junior High	49,732	5,705	75,896	68	2,770	94,275	228,446	21.8	2.5	33.2	0.0*	1.2	41.3	100.0
Academic High	31,285	5,147	59,506	100	3,443	136,395	235,876	13.3	2.2	25.2	0.0*	1.5	57.8	100.0
Vocational High	12,019	735	13,191	41	480	13,736	40,202	29.9	1.8	32.8	0.1	1.2	34.2	100.0
Special Schools	1,986	72	2,954	4	23	1,760	6,799	29.2	1.1	43.4	0.1	0.3	25.9	100.0
CITY-WIDE	240,746	29,697	361,480	321	14,917	474,761	1,121,922	21.5	2.7	32.2	0.0*	1.3	42.3	100.0

** Less than 1/10th of 1 per cent.*
Source: Board of Education: New York City.

reservations in 25 states and are eligible for Federal services; about 200,000 live in cities or towns away from these services.

Although most of the Indians whose lands are under trusteeship of the United States Department of the Interior live in western states, the Indian population is spread throughout the United States. Estimates of Indian populations in states that have Federal reservations are: Alaska, 50,000; Arizona, 85,000; California, 40,000; Montana, 22,000; New Mexico, 57,000; North Carolina, 40,000; Oklahoma, 65,000; South Dakota, 30,000; and Washington, 22,000.[19] Josephy notes that "many other persons also count themselves Indians by blood and cultural heritage, although their tribes are almost extinct, they have no reservations, and they live entirely like white men in urban or rural areas."[20]

Population figures for 1967 for large Indian tribes, according to estimates of the Bureau of Indian Affairs of the Department of the Interior follow:

STATE	TRIBE	ESTIMATED POPULATION
Arizona–New Mexico–Utah reservation of nearly 24,000 square miles	Navajo	110,000
Arizona	Apache	10,000
	Pima-Maricopa	10,000
	Hopi	5,600
	Papago	5,600
	Yuma	1,600
Idaho	Shoshone	2,000
Minnesota	Chippewa	11,000
Mississippi and Louisiana	Choctaw	4,000
Montana	Blackfeet	6,000
	Cheyenne	2,000
	Cree	2,000

[19] The Bureau of Indian Affairs classifies Indians living near the reservation as those with interests in the reservation, occasional residents, and recipients of Bureau services. In 1962, the BIA estimate of this population was 66,565. *U.S. Indian Population (1962) and Land (1963)* (Washington, D.C.: Government Printing Office, 1963).

[20] A. M. Josephy, Jr., *The Indian Heritage of America* (New York: Alfred A. Knopf, 1968).

STATE	TRIBE	ESTIMATED POPULATION
Nevada	Shoshone and Paiute	4,000
New Mexico	Apache	3,000
	Pueblos	20,000
North Carolina	Eastern Cherokee	5,500
Oklahoma	Creek	13,300
	Cherokee	13,200
	Choctaw	7,700
	Chickasaw	3,500
	Seminole	2,300
	Osage	3,000
	Cheyenne and Arapaho	3,700
South Dakota (includes some population from North Dakota and Nebraska)	Sioux	20,000
Washington	Yakima	3,000
Wyoming	Arapaho	2,000
	Shoshone	1,500

The Indians in these states live not only on solid blocks of tribally owned land (the original meaning of reservation), but also on units of land subject to some degree of Federal administration, such as extensive areas allotted to individual tribal members, small ranches in California, colonies in Nevada, native communities or restricted lands in Alaska. Tribal lands today amount to about 40 million acres, with an additional 12 million more acres of allotted lands.

The indices of poverty among American Indians are well known: 50 per cent of all Indian families have cash incomes below $2,000; 75 per cent have incomes below $3,000. The unemployment rate is nearly 40 per cent and one-third of the working Indians are underemployed in temporary or seasonal jobs. The health level is the lowest of any group in the United States, with an infant mortality rate of 34.5 per 1,000 births.[21]

[21] "President's Message to Congress," in *Indian Affairs*, Newsletter of the Association of American Indian Affairs, Inc., No. 69 (Jan.–March 1968).

Educational Statistics. According to the 1960 Census statistics, 10 per cent of American Indians over age 14 had no schooling at all; nearly 60 per cent had less than an eighth-grade education; and 50 per cent dropped out before completing high school.

Indian children attend public, private, mission, and Federal boarding or day schools. The 1968 annual school census of the Bureau of Indian Affairs shows 61.3 per cent of school-aged Indian children attended state public schools, 32.7 per cent attended Federal schools, and 6 per cent were in mission or other private schools. The Bureau of Indian Affairs policy is to encourage public school enrollment. Federal schools are operated by the Bureau for children who lack adequate educational opportunities or who require boarding home care in addition to educational services. In 1968 the Bureau ran 244 schools.

Annual School Census Report of Indian Children, 1968

ENROLLMENT:	CHILDREN AGED 6–18	142,630
	In Federal schools	46,725
	In public schools	87,361
	In mission and other schools	8,544

(From *Statistics Concerning Indian Education: Fiscal Year 1968 Lawrence, Kan.: Haskell Inst., 1968*)

These figures do not reflect the total enrollment of Indian schoolchildren: over 20,000 additional Indian children living in states not included in the Bureau's census attended public school. Thus, during 1968, about two-thirds of all Indian children enrolled in schools—over 100,000 in number—were in public schools.

In the light of former Commissioner Allen's statement of a minimal goal of literacy for all children in this country, the need for a systematic demographic study is urgent. At present, essential information on the language background and language use of children in our schools is neither available nor will it be forthcoming under existing arrangements.

Before this manuscript went to press, a detailed study was made of the demographic information included in the project proposals funded by Title

VII. Contrary to our expectations, these proposals contained little data of value. Despite the Title VII guidelines, the information presented was both diverse and inconsistent.

The lack of relevant demographic information in these Title VII proposals is another indication of the necessity for a thorough analysis, school district by school district, of *what* children speak *what* language. Only then will we be able to determine accurately the extent of the need for bilingual education and the degree of success of the present bilingual programs.

SUPPLEMENTARY REFERENCES

BELLIAEFF, A. *Understanding the Mexican-American in Today's Culture.* San Diego, Calif.: San Diego City Schools, 1966.

Bureau of Indian Affairs. *Answers to Your Questions about American Indians.* Washington, D.C.: Government Printing Office.

——— *Indians of Arizona.* Washington, D.C.: Government Printing Office, 1968.

——— *Indians of New Mexico.* Washington, D.C.: Government Printing Office, 1968.

CUGLIANI, ANNE, and I. SIVIN. *Population Characteristics 1964.* New York: New York City Dept. of Health, April 1966.

The Ethnic Survey. New York: New York City Commission on Human Rights, 1964.

FISHMAN, JOSHUA A., et al. *Language Loyalty in the United States.* The Hague: Mouton, 1966.

GAARDER, A. BRUCE. *Bilingual Education: Hearings Before the Special Sub-Committee on Bilingual Education of the Committee on Labor and Public Welfare.* U.S. Senate, Ninetieth Congress, First Session on S. 428, Part I. Washington, D.C.: Government Printing Office, 1967, pp. 51–55. [Testimony]

GOLDBERG, GERTRUDE S. *Puerto Rican Migrants on the Mainland of the United States: A Review of Literature.* IRCD Bulletin, 4 (Jan. 1968), 1012.

GREBLER, L. *The Schooling Gap: Signs of Progress.* Los Angeles: Univ. of California, 1967.

HAY, D. G., and M. J. WANTMAN. *Mobility of Families, New York City, 1960–1965.* Population Health Survey Research Bulletin RB-P5-68. New York: Center for Social Research, City Univ. of New York, 1968.

KANTROWITZ, N., and D. PAPPENFORT. *1960 Fact Book for the New York–Northeastern New Jersey Standard Consolidated Area: The Nonwhite, Puerto Rican and White Non-Puerto Rican Populations: Selected Characteristics for Cities of 50,000 or More.* New York: Columbia Univ. School of Social Work, 1966.

KENNARD, E. A. "The Bilingual Education Program." Pittsburgh, Pa.: Univ. of Pittsburgh. [Unpublished.]

KOGAN, L. S., and M. J. WANTMAN. *Estimates of Population Characteristics, New*

York City, 1964, 1965, 1966. Population Health Survey Research Bulletin RB-P4-68. New York: Center for Social Research, City Univ. of New York, 1968.

Low-Income Families in the Spanish-Surname Population of the Southwest. Agricultural Economic Report No. 112, April 1967.

MANUEL, HERSCHEL T. *Spanish-Speaking Children of the Southwest: Their Education and the Public Welfare.* Austin: Univ. of Texas Press, 1965.

U.S. Census of Population: 1960. Subject Reports. Puerto Ricans in the United States. Final Report (PC(2)-ID. Washington, D.C.: Government Printing Office.

PROGRAM DESCRIPTIONS*

ROCK POINT BOARDING SCHOOL
Chinle, Arizona

For Navajo children in kindergarten (age 5) and beginners' class (age 6).

FOR INFORMATION CONTACT:
Mr. Wayne Holm, Principal
Rock Point Boarding School
Chinle, Arizona 86503

Experimental Navajo-English bilingual program: kindergarten and beginners classes only; two languages used separately.

Program Description. The children in this experimental Navajo-English bilingual program at the Bureau of Indian Affairs Rock Point Boarding School are almost entirely non-English-speaking Navajos. Some are just start-

* Major individual programs listed alphabetically by state and city, pp. 15–96; comprehensive Indian Head Start programs, pp. 96–101; miscellaneous programs, pp. 101–05; Bulletins and Newsletters, pp. 105–07.

ing school; others have had preschool experience. The program began in February 1967 with the "beginners" class (age 6). There are now 3 experimental bilingual classes at Rock Point: 2 beginners and one kindergarten class (kindergarten was added in the 1968–69 school year).

The program has been designed to keep the two language situations separate: the teacher speaks only English to the children; and the Navajo aides, who are used as "teachers," speak only Navajo to the children. Navajo is used to teach subject content different from or parallel to that taught in English. For part of the school day, through a system of staggered scheduling, the classes are broken into small groups of 6 to 8 children for language instruction in English or Navajo. Mathematics is taught in both languages in separate parallel sessions.

In the 1968–69 school year, all students in grades 2 through 5 (the top grade of the school) were given instruction one day a week in Navajo reading by the Navajo aides in the Programmed Reading component. Locally prepared materials were used. These students also saw a new filmstrip each week, with commentary in Navajo.

Personnel and Teacher Training. The staff for each bilingual class consists of an English-speaking teacher and a bilingual aide. The aides, who are high school graduates, are used as Navajo-speaking teachers. A Navajo speaker, with some college work and teaching experience, serves as program coordinator.

Curriculum and Materials. Emphasis is placed on reading readiness, Navajo reading, and mathematics. *Let's Read Navajo* (Irvy W. Goosen) is used as a point of departure. Locally made materials, including extensive reading readiness materials, have been developed and used.

Parent and Community Role. Parents have been involved in the basic policy of the kindergarten and their Education Committee advises on technical matters.

Testing and Evaluation. Thus far, no testing has been done. However, the first grade (grade 1 is the year after the beginners class) teacher reports that those children who learned to read in Navajo in the beginners class are doing very well in their English reading; and this year's first graders seem to be more advanced than last year's.

Financing. The Rock Point Boarding School is sponsored by the Bureau of Indian Affairs, U.S. Department of the Interior. Some funds for the experi-

mental bilingual project have come from Title I of the Elementary and Secondary Education Act.

ROUGH ROCK DEMONSTRATION SCHOOL

(Demonstration in Navajo Education)
Bureau of Indian Affairs
Office of Economic Opportunity
Chinle, Arizona

For Navajo children, preschool–grade 8; proposed preschool–grade 9.

FOR INFORMATION CONTACT:
Mr. Dillon Platero, Director
Mrs. Anita Pfeiffer, Director of Educational Services
Mr. Jack Schwanke, Director of Navajo Curriculum Center
Rough Rock Demonstration School
Chinle, Arizona 86503

An innovative boarding school, located in a remote area of the Navajo reservation; the school stresses genuine local control; active school board, all-Navajo; parental and community involvement on all levels of school including "parent teams" in classrooms and dormitory; increasing use of the Navajo language in instruction; strong emphasis on locally developed materials centering around Navajo culture and history.

Program Description. Rough Rock is an isolated community of 1,200 in the heart of the Navajo reservation in northeastern Arizona; the main occupation is sheepherding and the average income is $700. The population of the school district is widely scattered throughout an area of 115 square miles; 95% are non-English-speaking and 90% have no formal education. The Rough Rock Demonstration School was opened in September 1966 with classes from preschool through grade 6. A grade level has been added each year. In the 1968–69 school year there were 408 students in the school.

Classes at Rough Rock are divided into four phases: Phase I, Head Start; Phase II, Follow-Through (kindergarten–grade 2); Phase III, elementary; and Phase IV, upper elementary. Originally the main emphasis in the school was on a locally developed English as a Second Language program, with instruction in Navajo reading for the older children. However, over the years, a

steadily increasing program of spoken Navajo and Navajo culture and history developed and in the school year 1968–69 Navajo was the medium of instruction in Phases I and II. In the proposed program for the 1969–70 term, the school day will be broken down as follows: Phase I—4 hours spoken Navajo, 2 hours spoken English; Phase II—4 hours spoken and written Navajo, 2 hours spoken English; Phases III and IV—2 hours spoken and written Navajo, 4 hours spoken and written English.

Personnel and Teacher Training. In the 1968–69 school year, there were 15 teachers (5 bilingual and 10 English-speaking), 12 bilingual aides, and 23 "other" workers (7 bilingual, 6 English-speaking, and 10 Navajo-speaking); the "other" workers include parents assigned to the classrooms and dormitory. Teacher recruitment has been on a national scale, preference given to bilingual Navajo/English teachers; aides are recruited from the Rough Rock community. It is proposed that one-half the teachers be bilingual.

An annual staff orientation program is held each fall, supplemented by monthly meetings during the school year. In addition, the teachers meet daily to plan the program. Classes are held in the Navajo language for the non-Navajo staff and their children. An innovative staff feature has been the organization of "parent teams" in the dormitories and classrooms. Every five weeks a new team of parents comes to work in the classrooms or dorms with the teachers and aides and to live in the dorms with the children. The new parents are trained for one week by the previous parent teams and attend policy and discussion meetings with the staff.

During the summer, graduate work and extension courses are offered on the reservation by Arizona State University and Northern Arizona University. The staff is encouraged to participate in special summer elementary and secondary school programs, such as the elementary school held in tents atop the Black Mountain wilderness area. As a further means of breaking down barriers between staff and parents, the teachers periodically live in their students' homes, where they participate in such work as helping to herd sheep and fetch water.

Curriculum and Materials. Teachers at Rough Rock have great latitude in developing the classroom curriculum; small-group instruction is stressed. While commercial materials are used at the school, the emphasis on innovative work is strong and materials developed by bilingual teachers and the traditional Navajo speakers in the community are widely used. The Navajo Curric-

ulum Center set up at the school prepares books and classroom materials for Rough Rock and other schools throughout the Navajo reservation. Navajo elders and medicine men come to the Center to record tales and histories which have for centuries been transmitted orally from one generation to the next. The Center has printed these legends in Navajo and translated them into English. Some have been developed into a series of books (e.g., *Coyote Stories, Black Mountain Boy,* and *Grandfather Stories*). While such books are prepared primarily for Navajo children, the school hopes that they will be used by non-Navajo students to broaden their understanding of Navajo culture.

A Navajo primer, the first of its type and the first in a series of Navajo language books, has also been prepared at the Center. It is based on the Navajo orthography developed by Oswald Werner of Northwestern University, Evanston, Illinois. Talks and demonstrations by leading Navajo figures, including craftsmen and artists, are another feature of the Rough Rock curriculum.

Testing and Evaluation. Several types of evaluation have been conducted by Rough Rock. The school staff, as part of its duties, makes regular self-evaluations. A group of Navajo leaders was commissioned by the school to assess "what is happening at the school in light of their Navajo cultural background," and their report is available from the school. During the school year 1968–69 Don Erickson of the University of Chicago conducted an extensive evaluation of the Rough Rock School for the Office of Economic Opportunity.

In the fall of 1969 a major evaluation is planned by Luís Bernardoni of the University of New Mexico. Achievement in both English and Navajo will be measured; for the former the California Achievement Test and the Iowa Test of Basic Skills will be used, and for the latter an achievement test will be developed in Navajo. Attitudes toward Navajos will be measured by a modified Thematic Apperception Test (TAT), and acculturation will be measured with a new instrument now being developed. Change in occupational values and choices, self-concept and attitudes toward the school will be elicited by individual interviews.

Parent and Community Role. Historically, Indian education in the United States has been characterized by outside control of the school on the one hand and parental distrust and antagonism on the other. Rough Rock's innovative philosophy of parental and community involvement was initially met by parents and community with suspicion and a reluctance to participate.

This attitude changed first to one of deference, later to one of critical and concerned involvement.

Rough Rock has attempted to change the traditional separation between school and community. Among the innovations are a 7-member all-Navajo School Board that exercises real authority in the development of school program and policy, a system of "parent teams," and school visits and talks by leading Navajo elders and artisans. Parents who are not members of the teams are encouraged to visit the school, to stay several days, to live in the dorms, to eat in the cafeteria, and to observe in the classrooms. One benefit of parent teams and visiting parents is that every child in the school has a parent or close relative living in the dormitory at some time during the school year. Parents are also encouraged to take children home for the weekend, a policy discouraged in the traditional Indian boarding school where parents have met numerous obstacles in arranging weekend visits. These schools, unlike Rough Rock, have been plagued with a "runaway" problem. The Rough Rock School has had more than 12,000 visitors from 42 states, 8 foreign countries, and 86 Indian tribes.

Financing and Resources. The school is financed through the Bureau of Indian Affairs, the Office of Economic Opportunity, and the Department of Health, Education and Welfare. Resources include, among others: University of Chicago, Northwestern University, San Francisco State, Arizona State University, University of Arizona, University of New Mexico, Northern Arizona University, and Harvard University.

BILINGUAL EDUCATION FOR MEXICAN-AMERICAN CHILDREN

Marysville Joint Unified School District
Marysville, California

For Spanish-speaking children, K–grade 3.

FOR INFORMATION CONTACT:
Dr. Eleanor Wall Thonis
Yuba County Reading-Learning Center
11th Avenue and Powerline Road
Olivehurst, California 95961

Ungraded Spanish-English bilingual program (K–grade 3) for students of Spanish-speaking background; structural English as a Second Language lesson daily.

Program Description. Marysville, California, is a small rural community with a mixed population, including Mexican-American, Chinese, Japanese, East Indian, and Basque. The bilingual program focuses on Mexican-American students, most of whom come from low-income, non-migrant agricultural families.

The program began in 1966 with one ungraded class (kindergarten–grade 3) in one public elementary school. In 1967 another school was added to the program, and in 1968 a third school was added. At present approximately 500 students in the three schools are in the ungraded K–3 bilingual program. Most of the day is devoted to instruction in Spanish for all major subjects. There is a formal daily English as a Second Language lesson and English is also used in music, art, and physical education classes. The children work at their own pace. The stated goal is to provide literacy in Spanish as a background for higher achievement in the content areas of the traditional curriculum.

Personnel and Teacher Training. The bilingual teachers in the program are recruited from the local school district, the bilingual aides from the Mexican-American community. While no formal orientation program is held, classroom visits, summer study courses, and trips to Mexico are encouraged.

Curriculum and Materials. The curriculum is flexible and materials are teacher-made. Math, history, geography, and science materials are adapted in Spanish. Children learn to write their own stories in Spanish. A modified Van Allen's language experience approach is used.

English as a Second Language is presented according to audio-lingual principles: listening, speaking, reading, and then writing. The H 200 Series of *English as a Second Language* developed at the University of California, Los Angeles, has been used here. Nursery school materials (clay and paint) and activities (dancing, singing) are used to build English vocabulary.

Testing and Evaluation. A comprehensive and ongoing evaluation has been conducted. The standard instruments used include: Escala de inteligencia Wechsler para niños (standardized in Puerto Rico), Peabody Picture Vocabulary Test (PPVT) in English and Spanish, Machover Draw-A-Person Test, Bender Gestalt Test for Young Children (for maturation and visual-motor perception), and the Gesell Maturation Index (readiness for visual tasks). In addition, some open-ended stories have been used as projective techniques. Abilities in reading Spanish, handwriting, and arithmetic have been estimated by the teachers. All directions for tests (except English PPVT) have been adapted in Spanish. It is reported that the children in the program show not only increased self-confidence and greater participation in class, but also appear to be more verbal in both languages.

Financing and Resources. This program is financed through local funds. Resource: University of California at Davis.

COMMUNITY PLAY CENTER PRESCHOOL
Redwood City, California

For Spanish-speaking children, ages 3–5.

FOR INFORMATION CONTACT:
Josephine E. Gillaspy, Director
Community Play Center
703 Vernal Way
Redwood City, California 94062

Preschool bilingual program for Spanish-speaking children; large volunteer base; mother of every child in program required to attend adult classes at Center or in home.

Program Description. The population served by the Community Play Center in Redwood City, California, is low-income and urban with a predomi-

nately Spanish-speaking background. The program began as a Head Start preschool in December 1964. It is now functioning at 2 centers with 25 children in one and 30 in the other; all children are non-English-speaking 3- to 5-year-olds. Classes are held 3 mornings a week with instruction divided roughly into 50% in each language. Included in the program are supportive services: social welfare, medical and dental care. The basic practical goal is to prepare the children for the English-speaking environment of the public elementary schools.

Personnel and Teacher Training. The teachers are all English-speaking, assisted by bilingual aides who are recruited from the community. The aides attend a summer Head Start training program at the state college. In addition, there are 150 volunteers in the program who serve a total of 400 hours per week. The volunteers help supervise the school, transport the children, teach English to adults, and raise money to keep the school going. An on-site training program is held for the volunteers.

Curriculum and Materials. Numerous language contacts between children and teachers and among the children themselves are encouraged, with an emphasis on concept formation and verbalization in both lanaguages. Songs, stories, and books are provided in both languages; snack-time is made a "bicultural event." Every mother of a child in the school must attend adult classes at the Center, or, if she works, accept home teaching. The classes, given by the volunteers, include lessons in English, Community Orientation, and Health and Nutrition.

Testing and Evaluation. In the past no formal evaluation has been done. However, an evaluation study is planned by an M.A. candidate from San Francisco State College to compare the overall growth of 12 4-year-old children from the Center and 12 Spanish-speaking children who had no preschool training. Pretests given in November included the Peabody Picture Vocabulary Test (Form A in Spanish and Form B in English) and the Caldwell Preschool Inventory (for 4-year-olds only).

The Center reports that the public schools have rated the performance and attitudes of the Spanish-speaking children who attended the Center superior to that of children from similar backgrounds who did not attend the preschool.

Parent and Community Role. Parents are encouraged to take an active role in the work of the school. All planning and supervision of the school is

done by the Board of Directors of the Center, elected from the volunteers, the families served by the Center, and the community at large. A Parents' Advisory Committee is empowered to discuss and recommend policy changes.

Financing. The program was supported by Head Start funds until June 1968. At present, it depends on private sources to meet its budget of $30,000 a year.

ENGLISH AS A SECOND LANGUAGE BILINGUAL-BICULTURAL PROGRAM

San Diego, California

For Spanish-speaking children; preschool, K, upper elementary, and junior high.

FOR INFORMATION CONTACT:
Herbert Ibarra, Project Director
ESL/Bilingual Demonstration Project Center
2950 National Avenue
San Diego, California 92113

A demonstration English as a Second Language (ESL) program with some instruction in Spanish; preschool, K, upper elementary, and junior high.

Program Description. The ESL/Bilingual Demonstration Project Center was set up to serve Mexican-American students from low-income backgrounds in San Diego. The program is designed to demonstrate the following: methods for teaching English skills to Mexican-American students; effective parent and community supported programs; liaison between the school and the Spanish-speaking home; the encouragement of the Mexican-American student to retain pride in his own language and culture through the use of Spanish as a language of instruction in the classroom. The program began in August 1968 in 2 public schools: one elementary, K–6, and one junior high school. There are 80 Spanish-speaking students in the program and it is expected to last through 31 July 1971. On the elementary level there is one preschool class, one kindergarten class, and one upper class combining students from grades 4, 5, and 6. At the junior high level there are 2 classes that combine students from grades 7, 8, and 9. The preschool and kindergarten children spend one-half hour daily learning basic concepts in Spanish and one-half hour daily

on "English Language Development." The upper elementary class spends one-half hour daily on social studies in Spanish and one-half hour daily on English Language Development. At the junior high level, the students have one hour of math and one hour of social studies in Spanish and 3 hours of English Language Development daily.

Personnel and Teacher Training. The staff includes 5 bilingual teachers, all experienced in English as a Second Language (ESL) techniques, and 2 bilingual aides. A community aide, recruited by local Mexican-American organizations, serves as liaison between the teachers and parents of children in the program. All-day workshops for the staff and 25 other teachers of ESL/Bilingual Programs are held monthly by the ESL/Bilingual Demonstration Project Center. The Center is planning a 6-week summer workshop for 25 ESL/Bilingual teachers in conjunction with California Western University. Workshop participants will visit the *barrios* in San Diego County.

Curriculum and Materials. The program uses the San Diego City Schools Curriculum Digest and the Southwest Regional Laboratory research report on concept development. For all ESL work, it uses "Teaching English Early" (H200). For instruction in Spanish, it uses: Muzzey, *Breve historia de los Estados Unidos;* and Kedger, Colorado, and Kulevzon, *El mundo y sus pueblos.*

Testing and Evaluation. An extensive evaluation program is planned. Student achievement will be measured by the ESL Placement Test, Wide Range Achievement Test, Barsit Rapid Survey Intelligence Test, Common Concept Listening Test, and the Peabody Picture Vocabulary Test in Spanish. Student attitudes will be measured by teacher evaluation and by selecting random students for psychological evaluation. Community attitudes will be measured by a community attitude scale.

Parent and Community Role. Community and parent representatives are on the advisory committee for the program.

Financing and Resources. The program is financed by both local and Title III funds. Resource: California Western University.

A DEMONSTRATION BILINGUAL EDUCATION PROJECT

Stockton Unified School District
Stockton, California

For Spanish-speaking and English-speaking children. Two programs: (1) Bilingual preschool–grade 2; (2) K–grade 6 pull-out system.

FOR INFORMATION CONTACT:
Ricardo Valenzuela, Director of Bilingual Education
Jack Stirton, Director of Federal Projects
701 N. Madison Street
Stockton, California 95202

Two programs: (1) Ott bilingual program, pre-K through grade 2, mixed classes; (2) English as a Second Language program, Spanish-speaking children pulled out of regular classes for 30 minutes a day, grades K–6.

Program Description. Stockton, California, is a densely populated city with many different ethnic groups of non-English-speaking backgrounds. The language background of the student population breaks down as follows: 7% English-speaking Anglo, 45% English-speaking Black, 46% Spanish-speaking, and 2% Filipino. A demonstration pilot project was started in 1967 and became operational in 1968; the stated aim is to provide a bilingual/bicultural educational experience for students from all ethnic groups. It is proposed that the project will eventually be related to a broader program of community action in Stockton.

There are two parts to the project, which serves a total of 300 students. In the bilingual Spanish-English program, there are 6 mixed classes in one elementary school (one preschool, 2 kindergartens, one grade 1, one combination grades 1 and 2 and one grade 2). Language skills are developed first in Spanish; science, social studies, and "self-concept" are taught in both Spanish and English. The second part of the project is an English as a Second Language (ESL) program. In 5 elementary schools in Stockton, small groups of Spanish-speaking students are pulled out of their regular classes for special 30- to 45-minute ESL sessions.

Personnel and Teacher Training. There are 6 bilingual teachers in the bilingual program, 5 bilingual teachers in the ESL program, and 3 bilingual aides. Plans call for a staff of 40 teachers (one-half bilingual) and 40 aides

(one-half bilingual). Teachers have been recruited from the district school, United States colleges, exchange programs, and the undergraduate Teacher Corps Program at the University of the Pacific.

The orientation program for the staff included an extensive ten-day summer workshop. A summer institute is planned and will concentrate on extensive Spanish language study and methods strategies. The ongoing teacher-training program includes 5 full-day curriculum planning sessions, weekly teacher meetings, and trips to programs in San Antonio and San Diego. It has been proposed that Stockton become the West Coast Bilingual Teacher Training and Instructional Center.

Curriculum and Materials. The materials used are those developed by Elizabeth Ott at the Southwest Educational Development Laboratory (SWEDL) in Austin, Texas. These materials aim to develop communication skills through the content areas of science and social studies; equal time is given to Spanish and English. The goal is adaptation of these bilingual materials for children of all ethnic backgrounds.

Testing and Evaluation. The following measures have been used for evaluation: the District Prescribed Testing Program for all students, MaCarta Machine Testing of bilingual students, and soft data feedback from teachers, parents, and students. The students are reported to be responding and participating in class with enthusiasm, speaking in both languages, and improving in their rate of general school progress.

Parent and Community Role. An advisory committee representing a cross-section of the community helps plan and develop project policy. The project reports that more parents are attending PTA meetings and volunteering to help during school and on weekends; the new classes have induced families to remain in the area. The District Superintendent has stated publicly that he would like to see all schools in Stockton become bilingual in the future.

Financing and Resources. All bilingual teachers' salaries are paid from local funds, although Title III funds also support the program. Resources: Undergraduate Teacher Corps, Elbert Covell Spanish College of the University of the Pacific.

CORAL WAY ELEMENTARY SCHOOL

Dade County Public Schools
Miami, Florida

For Spanish-speaking and English-speaking children, grades 1–6.

FOR INFORMATION CONTACT:
Rose G. Inclán
Consultant, Bilingual Education
Dade County Public Schools
Administration Offices
1410 N. E. 2nd Avenue
Miami, Florida 33123

First two-way bilingual education program in public elementary school in the United States; student body mainly middle-income (50% English-speaking, 50% Spanish-speaking Cuban refugees); students divided by language background into separate classes with daily instruction for both groups in native language and second language; team teaching used, one English-speaking, one Spanish-speaking teacher for each class. Staff recruitment facilitated through large number of available experienced Cuban teachers. Goal: literate, educated bilinguals.

Program Description. Dade County in Miami, Florida, covers a sizable metropolitan area with a population of over 1,000,000, including a high concentration of Cuban refugees. Of the more than 119,000 students in over 150 schools of Dade County, 20,756 are from Cuban refugee families. In an effort to cope with the problem of educating these Spanish-speaking children, a bilingual program was started in the Coral Way Elementary School in Dade County in September 1963. The Coral Way School was selected for the bilingual experiment because the student body was evenly divided between children with English-speaking and Spanish-speaking backgrounds; it was in a reasonably stable middle-class community; and the staff, administration, and school parents had shown an interest in a bilingual education program.

The program began in the fall of 1963 with 12 experimental bilingual classes, 4 in grade 1, 4 in grade 2, and 4 in grade 3; at each grade level 2 of the classes consisted of English-speaking children and 2 of Spanish-speaking children. These pupils were to remain in the experimental program throughout their elementary education; a new grade was to be added to the program each school year so that by 1966 the program would run from grades 1 through 6. All children in grades 1–3 were eligible for the program when it began;

admission was voluntary, parents were given the option of putting their children in the bilingual program or in a traditional English-only program, and could withdraw their children from the bilingual program at any time.

In the early grades approximately half the day is spent in each language, with the concepts learned in the morning in the native language and in the afternoon in the second language. Thus, the Spanish-speaking classes receive instruction in Spanish for language arts, math, science, and social studies in the morning, and this instruction is reinforced in English for the same subjects in the afternoon. For the English-speaking children, the process is reversed. Each class is taught by a team of 2 teachers, one native English-speaking, one native Spanish-speaking. The children are brought together in mixed classes (Spanish-speaking and English-speaking) for music, art, and physical education. Mixed play periods are supervised by teacher aides who are free to use either Spanish or English, thereby giving the pupils a chance to hear their second language in a normal, everyday activity. Beginning with grade 3, classes are increasingly mixed, with instruction often depending on the language best suited to the content (e.g., a Latin American history class may be taught in Spanish, a class in the history of colonial New England in English). By grade 6 many of the classes are mixed and taught in either language. A student new to the program is placed in a special Spanish as a Second Language or English as a Second Language class to assist him in coping with the regular bilingual program at his level.

In 1966 a bilingual program was started in a second elementary school in Dade County, the Leroy D. Feinberg Elementary School, 1420 Washington Avenue, Miami Beach. In the 1969–70 school year, the bilingual program is expected to be used throughout the school, with the sixth and final grade becoming bilingual. In 1968 a third bilingual program was established at the Mae Walters Elementary School, 650 W. 33rd Street in Hialeah, a rapidly growing Cuban-populated suburb. The bilingual program here was started simultaneously at all grade levels in the school; the second language curriculum is introduced gradually; the desired goal is a 50–50 program in both languages. In addition, a bilingual program is offered for mixed classes at Shenandoah Junior High, 1950 S.W. 19th Street, Miami, "to enable the bilingual youngsters from Coral Way Elementary to pursue their bilingual and bicultural education."

Personnel and Teacher Training. In September 1963 when the program

began at Coral Way, there were 12 teachers for the 12 experimental classes: 6 teachers were native English-speaking monolinguals and 6 were native Spanish-speaking bilingual Cuban teachers. Three teacher aides also assisted in music, art, and physical education, supervised play periods, and helped with clerical work. At present there are 43 teachers in the program, 21 of whom are bilingual, and 8 aides, all bilingual.

The native English-speaking teachers are selected from the Coral Way faculty and most are trained in English as a Second Language. The native Spanish-speakers are experienced Cuban teachers who have completed a special course at the University of Miami certifying them to teach in Florida. The teachers work in teams with one English-speaking teacher handling instruction in English for one English-speaking and one Spanish-speaking class and one Spanish-speaking teacher working with the same two classes.

In the summer of 1963, before the bilingual program officially began, a 6-week curriculum workshop was organized for all teachers and aides in the program. In the morning, courses were given in basic linguistics and English language structure; the afternoons were devoted to developing plans and materials for use in all phases of the curriculum. A mandatory planning hour for teachers of each grade group is included in the school day, during which time the teachers discuss class problems and review weekly and long-range plans.

Curriculum and Materials. The curriculum follows that used in all Dade County Schools. Special attention has been given to developing seven curriculum areas: English as a Second Language, Spanish as a Second Language, Spanish as vernacular, science, music, art, and physical education.

In grades 1 and 2, the texts used for teaching English to the non-English-speaking children are the Miami Linguistic Readers Series, the reading program developed in Dade County as part of a Ford Foundation project. For instruction in Spanish, the following series of texts are used: Spanish basal readers; a parallel translation of an English science series; a Spanish health series; and a Spanish modern math series.

> *Por el mundo del cuento y la aventura,* Laidlaw Series; *La ciencia lejos y cerca,* by Herman and Nina Schneider, D. C. Heath; *La ciencia en tu vida; Lengua española* (Series 1 through 6), by Almendros-Alvero, Cultural Centroamericana, S.A., Guatemala, and American English Series, D. C. Heath, Nos. 1 & 2; *Medios de conservar la salud,* Laidlaw Series; *Pasos fáciles hacia la salud,* Laidlaw Series.

For Spanish as a Second Language Program Levels I & II, the texts used are: *Let's Speak Spanish,* Levels I through IV, by Conrad J. Schmitt (Webster Division, McGraw Hill).

Original teacher-made materials in Spanish are used in all areas of the curriculum, especially in social studies and science.

Testing and Evaluation. A three-year evaluative study (1964–66) has been made of the Coral Way program; traditionally instructed English-only classes in another elementary school in Dade County were used as controls. Tests included: Stanford Achievement, Otis Alpha, and California Test of Mental Maturity. For measuring proficiency in the second language, pupils in the bilingual program were given parallel English and Spanish editions of the Cooperative Inter-American Reading Tests. Results of the evaluative study showed that the bilingual program is as effective as the regular, traditional curriculum in achieving progress for English-speaking and Spanish-speaking pupils in paragraph meaning, word meaning, spelling, arithmetic reasoning, and arithmetic computation. Although at the end of the third year the students were not as proficient in their second language as in their native language, they had made impressive gains in learning their second language. This evaluation has been continued and updated; a new report is expected to be available sometime in 1970.

Parent and Community Role. In the late spring of 1963, before the program began, a series of meetings were held with parents during which the goals of the bilingual program were explained and discussed, including the voluntary nature of the bilingual classes. Paul W. Bell, then Supervisor of Bilingual Education in Dade County, reported that while a number of parents did not enroll their children in the program when it began, one year later these parents asked to have their children transferred to the program. The school thereafter abandoned its regular English-only program and now has only a bilingual program.

Financing. The Coral Way bilingual program is now financed by local funds. The program was originally financed in part by a three-year Ford Foundation grant, given to the Dade County School Board to develop bilingual education. Projects included the establishment of a bilingual school program for 3 years and the production of materials for the instruction of Spanish-speaking children at the primary level.

BILINGUAL LANGUAGE DEVELOPMENT PROGRAM

Clark County School District
Las Vegas, Nevada

For Spanish-speaking children, grades 1–6.

FOR INFORMATION CONTACT:
Joan C. Bass, Program Assistant
Office of Compensatory Education
Clark County School District
2832 E. Flamingo Road
Las Vegas, Nevada 89109

Spanish-speaking students with severe language difficulties are taken out of regular class daily for bilingual instruction.

Program Description. The Spanish-speaking population of Las Vegas is low income in background and includes migrants, some of whom are recent arrivals, from Mexico, Puerto Rico, South America, and Cuba. The Bilingual Language Development Program seeks to identify, evaluate, and assist those Spanish-speaking students who have severe difficulties in the English classroom. This supplementary bilingual program was initiated in the fall of 1967 and is now functioning in 3 elementary schools. In 1968 there were 60 participating students selected from all 6 elementary grades, priority being given to those who scored low on the Metropolitan Reading Readiness Test or were behind one or more grade levels. The program's goal is to raise the level of achievement in all areas and to reduce the linguistic, and consequent social, isolation of the Spanish-speaking students.

The students in the program are dismissed from their regular classes for daily small-group (no more than 5 members) instruction. Children are grouped according to individual problems. Initial instruction is in Spanish, with English introduced as a second language at the teacher's discretion.

Personnel and Teacher Training. There are 3 bilingual teachers in the program and one bilingual family aide, who works with parents by explaining the program, counseling, interpreting, and generally attempting to increase parental involvement in regular school activities. An orientation program is held for both the bilingual and regular staff in each school. Plans for an ongoing teacher-training program include monthly sessions, each session to be a full teaching day with workshops and demonstrations in the morning and discus-

sion groups and planning in the afternoon. The subjects covered will include guidance, language development, creation of materials, methods of evaluation, and teaching techniques.

Curriculum and Materials. In the small-group sessions most of the materials used are teacher-made, including pictures, dramatic stories, and experience charts. Records, tapes, and films are used as supplementary materials.

Testing and Evaluation. At the outset of the program the Spanish translation of the Wechsler Intelligence Scale for Children (WISC) and the Wechsler Adult Intelligence Scale (WAIS) were revised for Southwest Spanish dialect and used to evaluate the students' verbal performance. The proposed evaluation design for the program in Las Vegas will consist of both standardized tests and instruments and narrative reports from the staff and parents. Standard tests will include: the Metropolitan Readiness Test; the Lee Clark Reading Test, Primer and First Reader (California Reading Test, Upper Elementary); and the Short Test of Educational Ability, Spanish Edition. The subjective evaluative techniques will include: a locally constructed Parent Opinionnaire, case studies developed by teachers, and the Coordinator's appraisal.

Financing and Resources. The program is financed through Title I funds. Resource: A foreign language consultant from the State Department of Education assisted in the initial planning stages and in-service training.

BILINGUAL EDUCATION FOR SPANISH-SPEAKING STUDENTS

Englewood Public Schools
Englewood, New Jersey

For Spanish-speaking elementary school children.

FOR INFORMATION CONTACT:
John W. DeSane, Director
Liberty School
51 Englewood Avenue
Englewood, N.J. 07631

Spanish-speaking children (mostly new arrivals) are taken out of regular classes for one hour three times a week for special tutoring in both English and Spanish.

Program Description. Englewood is a suburb of 26,000 people, located a few miles across the Hudson River from New York City. The student

population is approximately 50% white middle class, 40% Negro, and less than 10% Spanish-speaking. In all 13 grades of the public school system, it is reported that only 90 Spanish-speaking students, new arrivals from Cuba, Spain, and Central and South America, need extra help.

When the Englewood Elementary Schools began their non-graded multi-age-level grouping, a general language development program was incorporated into the system; the bilingual program, which began in February 1968, was an outgrowth of this. It was felt that rather than separate the Spanish-speaking children from their classmates, it was preferable for them to be in a regular classroom for most of the day and then taken out for special tutoring in Spanish and English language arts.

Four elementary schools in Englewood are in the bilingual program. A bilingual teacher works with the children in 2 of the schools and a bilingual aide works with those in the other 2 schools. An individual program is prescribed for each child, and the children work in groups of 2 or 3. Since the program's goal is to maintain and improve the children's Spanish while they are gaining skills in English, the tutors work to build up a grade 3 proficiency in Spanish before moving the children to reading in English.

Personnel and Teacher Training. The paid supplemental staff for this program includes one bilingual teacher and one bilingual aide. In addition there are volunteer mothers from the community who help the children with English. The regular classroom teachers meet daily (4 teachers in a group or team) to discuss problems. The Language Consultant works closely with them on language development theory, especially as it applies to the bilingual program. Because the bilingual program is part of the total language development program there is close coordination between the two.

Curriculum and Materials. In the tutoring sessions heavy emphasis is placed on developing oral language skills in both languages; to do this, the teachers make use of word games, filmstrips with Spanish voices, books, and tapes. A library of over 60 Spanish language tapes has been developed, including games, lessons, American stories, and folk tales from Spain. The *Chandler Reading Series* has been translated into Spanish, and the translations inserted into the English book page by page. The Sylvia Ashton-Warner approach is used for beginning reading in English.

Testing and Evaluation. There has been no formal evaluation done on the program. Both the Gates Reading Readiness Test and the Peabody Pic-

ture Vocabulary Test (English and Spanish versions) have been used; however, results are not available.

Parent and Community Role. Parents are not directly involved in the program, but they are kept informed through parent meetings and a newsletter in Spanish, and are encouraged to enroll in adult English classes.

Financing and Resources. Funding has been through a Title I Grant of $21,000, most of which is used to pay one teacher three-fifths time and one aide full time. Nancy Modiano of the Education Study Center, Washington, D.C., has been consultant.

ASSIMILATION THROUGH CULTURAL UNDERSTANDING

Board of Education
Hoboken, New Jersey

For Spanish-speaking children, grades 1 and 2; proposed through grade 3.

FOR INFORMATION CONTACT:
Mr. Peter F. Vecchio, Director, Title III
Mr. Harry A. Galinsky, Administrative Assistant
Board of Education
524 Park Avenue
Hoboken, New Jersey 07030

A Spanish-English experimental bilingual program, grades 1 and 2. Emphasis on improving the understanding of *all* teachers, not only those in the bilingual program, through teaching trips to Puerto Rico. Bilingual student aide program pays junior and senior high students (mainly potential dropouts) as tutors; Human Resources Center organized to assess new non-English-speaking students and to help orient them to school, community, and the use of the English language.

Program Description. Hoboken, New Jersey, is a densely populated city, predominantly industrial and low-income, located directly across the Hudson River from New York City. About 50% of the population is foreign-born and/or non-English-speaking (40% Spanish-speaking background).

An experimental Spanish-English bilingual program was started in Hoboken in September 1967 in one grade 1 public school class of 33 children. Only children with little or no knowledge of English were allowed in the class;

in 1968 these children entered a new grade 2 class and 2 new grade 1 classes were begun. Grade 3 of the program will be added in the 1969–70 school year.

In grade 1 almost all instruction is in Spanish; in grade 2 two-thirds of the instruction is in Spanish. It is planned that by grade 4 the children will be able to enter regular classes; a Spanish language-arts program will be developed for grades 4 to 6.

Spanish and Italian honors classes are planned in the Hoboken public schools for those junior and senior high students whose command of the language is native or near-native. These honors classes, organized around a core of language and social studies, will be set up in 3-year cycles so that students may enter at any time. It is also proposed that similar classes be organized as clubs for the upper elementary grades.

A Human Resources Center has been established to help new non-English-speaking children and their families, many arriving mid-term from Puerto Rico and abroad. At the Center these children are organized in groups of 30 for a 3-week orientation program. They are taken on trips throughout the community to acquaint them with the firehouse, the church, etc.; they are also given an intensive "survival" course in daily English. The Center evaluates the children for class placement, and when they enter their assigned classes, they receive additional help from special orientation teachers.

Personnel and Teacher Training. There are 3 bilingual teachers, one for each class in the program, and 2 bilingual aides shared by the 3 classes. In addition, there are 2 bilingual teachers at the Human Resources Center, as well as a psychometrician and guidance counselors. A number of orientation teachers are also used throughout the elementary schools, including 3 teachers who come from Puerto Rico under a Hoboken–Puerto Rico teacher exchange program.

In 1968, 46 bilingual students from junior and senior high school were employed under the Hoboken Student-Teacher Bilingual Aide Program. These students, most of them potential dropouts, are released from their classes for two consecutive hours to assist and tutor in the Hoboken elementary schools (including the bilingual classes) and the Human Resources Center. The students help at parent-teacher conferences with non-English-speaking parents. Of the 46 bilingual students in the program in 1968, 38 were Spanish-speaking, 4 Italian, and 4 Yugoslav. The students are paid $1.50 an hour and receive high school credit toward graduation for their work.

A continuing teacher-training program is maintained. Seminars are held every 2 weeks, attended by teachers in the bilingual program, the bilingual student aides, and those teachers in regular classes who were in the Puerto Rican Visitation program. This "Puerto Rican Visitation" program was organized to send teachers from the Hoboken public schools to Puerto Rico for a 3-week intensive teacher-training program. The teachers are selected by seniority, those with the longest tenure going first. About 80 teachers and administrators have been sent to Puerto Rico since the program began (for reports on changes in teacher attitudes see *Testing and Evaluation* below). Free after-school Spanish conversation classes are also held for the teaching staffs of the Hoboken public schools.

Curriculum and Materials. The regular school curriculum has been adapted for instruction in Spanish. A curriculum committee develops materials in Spanish, and Hoboken teachers visiting Puerto Rico are alerted to look for helpful materials. The bilingual program uses the language-experience approach to reading. For example, at morning "news" the children tell about some event in Spanish; the teacher writes this news in Spanish and then translates it orally into English. The Key Vocabulary Method is also used for teaching English. A 30-minute TV tape of a demonstration class in the bilingual program has been converted to 16 mm. film.

Testing and Evaluation. Control groups of Spanish-speaking children were set up to parallel the experimental groups in the bilingual program. Both groups are being tested and evaluated. The children in the bilingual classes are also being compared to English-speaking children in regular classes at the same grade level. The assessment of the program is planned to cover a 3-year period. At the end of the first year of the program in June 1968, the Science Research Associates (SRA) Short Test of Educational Ability was administered in Spanish to the bilingual grade 1 class, and in English to all other grade 1 classes. Normative tables are applicable to both groups. With the scores of 3 over-age students removed from the sample, the bilingual class scored slightly higher on mean IQ with a narrower IQ range than did the control groups. The teachers report that students in the bilingual classes are eager participants and have demonstrated a more positive self-image.

It is reported that the "Puerto Rican Visitation" program has dramatically changed the attitudes of those teachers who go to Puerto Rico, and it is hoped that the attitudes of those teachers who do not go will be changed as

the teachers who return from Puerto Rico tell of their experiences. A *Teacher Attitude Survey* has been developed to determine attitude shift in teachers who stay in the United States. In a survey comparing October 1967 with May 1968 there was a softening of attitudes and less tendency to identify Puerto Ricans as a homogeneous ethnic group. The survey reported also that teachers asked for help and suggestions and generally adopted a more positive attitude toward school problems.

Parent Role. Parents have been involved in the plans for this program from the beginning; they are kept informed about new developments through periodic meetings.

Financing and Resources. Elementary and Secondary Education Act Titles I and III funds have helped to support the Hoboken program. Nancy Modiano, Education Study Center, Washington, D.C., has been consultant.

BILINGUAL PROGRAM FOR SPANISH-SPEAKING STUDENTS

Garfield School
Long Branch, New Jersey

For Spanish-speaking children, grades 1–2, proposed through grade 4.

FOR INFORMATION CONTACT:
Donald T. Donofrio, Principal
Garfield School
196 Garfield Avenue
Long Branch, New Jersey 07740

Bilingual Spanish-English program for Spanish-speaking students; non-graded grades 1 and 2.

In Long Branch, New Jersey, a pilot bilingual program for Spanish students was started at Garfield Elementary School in September 1968. There are 25 children and one bilingual teacher involved in an ungraded first- and second-grade level group. The standard grade 1 curriculum is used. In the beginning all instruction for content areas is in Spanish while oral English is taught in a structured sequence of lessons. As the children's English skills improve, more content areas are taught in English. The Spanish-speaking chil-

dren are grouped with the English-speaking children in the school for such activities as music, art, and sports.

A kindergarten English as a Second Language program for Spanish-speaking students entering school for the first time is planned.

SUSTAINED PRIMARY PROGRAM FOR BILINGUAL STUDENTS

Las Cruces School District No. 2
Las Cruces, New Mexico

For Spanish-speaking children, K–grade 3.

FOR INFORMATION CONTACT:
Mrs. Mary T. Keith, Project Coordinator
301 West Amador
Las Cruces, New Mexico 88001

Experimental bilingual program; emphasis on language and reading development in both Spanish and English; continuing teacher training; teacher-made curriculum; active parental involvement; 200-day year-round school, plus 25 days teacher in-service time, short vacations throughout the year.

Program Description. Las Cruces, New Mexico, is an agricultural community in the Mesilla Valley along the Rio Grande River. The population of 55,000 inhabitants is approximately 50% Spanish-American and 50% Anglo-American. Ninety-five% of the children in the K–grade 3 Project are from low-income families. In order to qualify for the experimental classes children must come from Spanish cultural/linguistic backgrounds.

In July 1967, 4 kindergarten teachers and 4 grade 1 teachers began to develop a "culturally centered" curriculum for kindergarten through grade 3. The next month, the program was implemented in 4 kindergarten classes and 4 grade 1 classes, a total of 240 students in 4 public elementary schools in the Las Cruces School District. At 2 schools 2 kindergarten classes and 2 grade 1 classes followed an experimental English/Spanish instructional program; at 2 schools 2 kindergarten classes and 2 grade 1 classes followed an experimental English as a Second Language instructional program. A control group composed of all the other children of similar age and grade level in the 4 project schools (approximately 265 pupils) followed a traditional basal reader in-

structional program. In the 1968–69 school year, the previous kindergarten classes moved to grade 1, grade 1 classes moved to the new grade 2, and a new group began kindergarten classes. A total of 360 students were in the 2 experimental groups; 180 English/Spanish, 180 experimental English, and 380 in the control basal reader group. During the 1969–70 school year, the third grade was added and a new kindergarten group began.

To insure continuity in the program children have the same teacher from kindergarten through grade 3. No new children are added to the class once the initial unit is set up. The basic goal of the program is to increase the achievement levels of students through a sustained bilingual language arts program.

Initially in the English/Spanish instructional program the day was divided in half, instruction in Spanish in the morning and in English in the afternoon. However, as the program evolved, the teachers developed their own class schedules. While about half the day continues to be spent in each language, individual instruction varies; in some classes both languages may be mixed in one lesson, or a lesson in English may directly follow a lesson in Spanish. In both experimental groups the bilingual aide assists the teacher in ascertaining that comprehension takes place by supplying the correct translation whenever necessary.

Personnel and Teacher Training. Some difficulty has been experienced in recruiting teachers for the program, because of the 200-day instructional year with no long summer vacation, plus the 25 days of teacher in-service time. In the 1968–69 school year, the personnel for the experimental classes included a Project Coordinator, 8 licensed teachers in grades 1 and 2 (4 of whom are bilingual and assigned to the 4 bilingual classes in grades 1 and 2) and 10 bilingual aides. Students from the New Mexico State University Cooperative Education Program worked in teams of 2 (one member of each team Spanish-speaking) in the 4 experimental kindergarten classes.

The K–3 staff has an intensive teacher-training schedule covering both orientation and in-service training. The teachers meet every Monday to discuss curriculum, materials preparation, and program evaluation, or to listen to a guest lecturer. New concepts in early childhood education are assessed and discussed. A sensitivity training program, the "Human Development Program," is part of the teachers' ongoing training. The teachers also make

half-day visits on a rotating basis to each other's classes. A one-week workshop, held every summer for both teachers and aides, centers on the teaching of language patterns, community culture, and skills of classroom management. Workshops devoted to the program and to future policy are held twice a year for teachers, aides, and parents.

Curriculum and Materials. Curriculum units were developed by the K–3 staff under the direction of the Project Coordinator. The units serve as guides to correlate all content areas around a central theme, e.g., the family, school, holidays. Suggested materials and activities accompany each unit. A conceptual framework is thus established and the children learn through inquiry and guided discovery methods.

The language-experience approach to reading is used for both languages, with stress placed on discovering the structure of language. The teachers develop many of their own materials including stories, experience charts, and books in Spanish and English based on the children's own stories. Commercially produced materials are also used in classes: the Peabody Kit, the Ginn Pre-Reading Set, and the KELP materials.

Listening centers in each classroom utilize taped lessons based on the Curriculum Units and recordings of the children's stories in Spanish and English. The English language tapes and transparencies developed by the Applied Language Research Center in El Paso, Texas, are used for work on sentence patterning.

Testing and Evaluation. Evaluation procedures are being used to determine (1) the effectiveness of an instructional program for bilingual students; (2) any change in pupils' IQ's after receiving bilingual instruction, or traditional basal reader instruction; (3) the effects of a 200-day school year with short vacations; (4) the relationship between parental involvement and student achievement; (5) the relationship between parental attitude and student achievement; (6) improvement in reading readiness; (7) change in reading level.

Various instruments are employed to assess these factors, including both standardized and teacher-made tests. The measures developed by the staff include (1) the Readiness Checklist; (2) the Language Arts Checklist, which measures sequential development of sub-skills needed for reading; (3) the Parent Attitude toward Education Scale, and (4) the Parent Participation Rec-

ord. The following standardized tests have also been used: Draw-A-Man, Metropolitan Reading Readiness, KELP criteria, Metropolitan Achievement Test, California Test of Mental Ability, and the Iowa Test of Basic Skills.

Parent and Community Role. One of the primary goals of the Las Cruces K–3 bilingual program has been to involve parents as both learners and advisors. Many different methods are used to promote interest. Parents are free to visit the classrooms at any time. Periodic home visits are made by teachers and aides. At the monthly parent meetings, conducted in Spanish and English, parents are encouraged to discuss questions of educational philosophy and school policy. At these meetings, parents are also taught how to make and use teaching aids for the classroom (such as simple conceptual development materials), which they are then urged to use at home with their children. The parents meet twice a year with teachers and aides at workshops dealing with the problems and policies of the program.

The program is publicized in several ways. The newsletter, *El Mirasol,* printed in both Spanish and English, keeps parents informed of school activities. News releases in Spanish over local radio station KOBE stress home-school relations and the importance of the parents' contributions to school.

The FM station KRWG at New Mexico State University is also involved in a bilingual-oriented language program, *Project Adelante.* The program is directed mainly toward migrant children and emphasizes English sentence patterns and includes lessons in Spanish. It is planned for use not only in the classroom but any place where there is an FM radio and a trained bilingual aide. At present, KRWG has a 150-mile broadcasting radius, but, through federal funding, it hopes to reach one million students via color TV in kindergartens, homes, and hospitals, where instruction will proceed under the guidance of a trained bilingual person.

Financing and Resources. Most of the funding for the Las Cruces K-3 Program has come from Title III, Elementary and Secondary Education Act funds. Grades 1–3 are financed by both federal and state funds, but since the state of New Mexico does not provide for kindergartens, the kindergarten program has been totally supported by Title III. Resources: New Mexico State University, Las Cruces, New Mexico.

TEACHING SPANISH TO THE SPANISH-SPEAKING CHILD

West Pecos Elementary School
Pecos, New Mexico

For Spanish-speaking and English-speaking children, grades 1–6.

FOR INFORMATION CONTACT:
Mr. Tito Herrara, Principal
Pecos Independent Schools
Pecos, New Mexico 87552

Spanish language-arts program, one-half hour a day for all classes. Program serves as demonstration center for teaching Spanish to Spanish-speakers (Spanish S).

Program Description. Pecos, New Mexico, is a small mountain village with a fairly constant population, 94% Spanish-speaking in background and more than half low-income. The West Pecos Elementary School has a student body of 470, 85% of Spanish-speaking background. All children, Spanish-speaking and English-speaking, are mixed together, with 2 classes on each grade level from 1 to 6. In 1965 a Spanish language arts program was started. Each class has a one-half-hour lesson in Spanish every day. The lessons are held in a special building located next to the regular school.

Personnel and Teacher Training. There is one bilingual teacher in the program, a native of Chile with 6 years elementary teaching experience outside the United States. The program has served as a demonstration center, and in January 1968 a workshop held there was attended by more than 100 college professors, administrators, and teachers.

Curriculum and Materials. A variety of materials has been employed in this program, including the basic Spanish reader *Por el mundo del cuento y la aventura* published by Laidlaw Bros. Picture charts and vocabulary cards are used to stimulate speaking and listening activities; audio-visual materials, records, reference books, and periodicals are used for vocabulary growth; dramatizations are used for improving language skills; and the children's oral stories have provided material for their written work. The teacher has also made records of children's songs and stories in Spanish.

Testing and Evaluation. The program evaluation has been based on the following measuring devices: administrative observation, parent and stu-

dent reactions, teacher-made diagnostic and achievement tests, and sample tests from the teachers' manual of the reading series.

Parent and Community Role. The non-English-speaking elder population is reported to be particularly appreciative of the Spanish language arts program. The Pecos community has reacted enthusiastically to the programs in Spanish presented by the children.

Financing and Resources. This is a Western States Small Schools Project (WSSSP) for New Mexico. It was funded by the Ford Foundation from 1965 to 1968, and at present is financed by Title I, Elementary and Secondary Education Act. Resources: Henry Pascual, Consultant, Specialist in Modern Foreign Languages, State Department of Education, Santa Fe, New Mexico 87501.

SANTA FE COMMUNITY SCHOOL
Santa Fe, New Mexico

For Spanish-speaking, English-speaking, and Indian children, 3–9 years old.

FOR INFORMATION CONTACT:
Mrs. Marie Kimmey, Executive Secretary
P.O. Box 2241
Santa Fe, New Mexico 85701

A privately-run non-graded Spanish-English bilingual school for children from various economic and cultural backgrounds.

Program Description. The 65 children in this urban school are selected in proportion to their different backgrounds as represented in Santa Fe: low and middle income, English-speaking (white and black), Spanish-speaking, and Indian. The program began in September 1968 with tuition on a sliding scale. The school is divided into a Lower School (3–6 years old) and an Upper School (5–9 years old). It is hoped that the school will eventually include children up to 12 years old. The entire school program is bilingual, with English and Spanish used in all classes. All children are required to learn to read, write, and speak two languages. The children in the Lower School begin by learning basic concepts in both Spanish and English. For 15 minutes daily all

Lower School children are brought together for "Circle Time" which includes games and songs in Spanish. Indian songs and dances are also learned. The Upper School children supplement the oral Spanish program with texts. The basic stated goal of the school is to combine a multi-lingual, multi-cultural experiment with individualized instruction.

Personnel and Teacher Training. The staff includes 4 bilingual teachers. Most of the non-teaching services at the school are performed by parents in lieu of tuition. Parents are allowed to work off all but $6 in tuition per month.

Curriculum and Materials. The curriculum is a developing one. The school is ungraded and organized into "clusters"; each child is assigned to one main cluster and to sub-clusters within it. There are neither report cards nor direct testing. For teaching in Spanish, the school uses the *Somos Amigos* workbooks (Scott, Ginn & Co.) and beginner books in Spanish and English (Random House).

Parent and Community Role. The school was started through the joint efforts of parents and educators. Parents elect members to the Board of Trustees of the school and also serve on various committees. For a small fee the school provides a Day Care service for working parents. One Saturday each month the parents attend school with their children and engage in a variety of activities ranging from repair jobs to picnics. Parents are also free to come on school trips, such as visits to Indian pueblos for celebrations and dances.

Financing. Annual tuition is on a sliding scale from $500 down. There are a limited number of full scholarships. Contributions of both money and materials supplement fund-faising activities.

BICULTURAL ORIENTATION AND LINGUISTIC DEVELOPMENT (BOLD)

Silver City Consolidated Schools
Silver City, New Mexico

For Spanish-speaking and English-speaking children. Two programs; (1) grades 1–2 (proposed 1–3); (2) grades 1–6.

FOR INFORMATION CONTACT:
Mrs. Maria Spencer
Project Coordinator
Bin #1060
Silver City, New Mexico 88061

Two programs: (1) "English as a Second Language (ESL) bilingual" program for Spanish-speaking children, grades 1–2, stresses ESL and provides instruction in Spanish for science and social studies, 30 minutes a day; (2) elementary Spanish language program, one hour a week instruction, for mixed classes in grades 1–6.

Program Description. Silver City, New Mexico, is predominantly English-speaking and middle-income; 26% of the population is non-English-speaking. In 1967 Project Bicultural Orientation and Linguistic Development (BOLD) was started in Silver City to provide English-speaking children with a foundation in Spanish, and Spanish-speaking children with a better command of communicative skills in English.

There are two parts to the project: (1) *The "ESL-bilingual" program,* organized in 3 classes (2 grade 1 and one grade 2) with a total of 90 students from Spanish-speaking low-income backgrounds. A grade 3 class is planned. The children are taught science and social studies in Spanish for 30 minutes a day. Grade 1 has ESL instruction for 2 hours a day; grade 2 for one hour a day. (2) *The Elementary Spanish Language program,* organized in 4 elementary schools for mixed classes (grades 1–6) of English-speaking- and Spanish-speaking-background children. The Spanish language is studied in these classes for one hour a week.

Personnel and Teacher Training. The 7 bilingual teachers in the 2 programs were recruited from both the local teaching staff and Western New Mexico University. Of these teachers 5 were beginners. Emphasis has been placed on orienting the beginning teachers to the 2 programs and the school system itself. Attention has been given to developing understanding and rapport between the bilingual teachers and the teachers in the regular classes.

The ongoing training program includes staff meetings, visits to schools with related programs, and participation in meetings on bilingual education in New Mexico and elsewhere. The staff is also encouraged to attend relevant university courses in linguistics and culture. The BOLD staff reports that "while it is extremely difficult to locate, innovate, or create instructional materials for such an effort as this, it is of equal importance to give attention to staffing the program with individuals who possess the positive attitudes that are needed, and who are willing to undergo the rigors of in-service training."

Curriculum and Materials. The English program is based on the University of California at Los Angeles English 200 program, with a language laboratory and an electronic classroom used to reinforce patterns learned in the classroom. Materials prepared by the Applied Language Research Laboratory in El Paso, Texas, are used. Science and social studies are taught in Spanish with teacher-made materials based on the series by Ediciones Aguilar, S. A., 1958, Madrid; Ginn's science series for Puerto Rico; and Hilda Taba, *Teachers' Handbook for Elementary Social Studies*. The staff has also written some bilingual stories for the classes.

Testing and Evaluation. All first graders in Silver City are given the Metropolitan Readiness and the Stanford Achievement Test; all second graders are given the Otis Check Test and the Stanford Achievement Test. In addition to these, the children in the "ESL-bilingual" program are given the Leiter Test and the Peabody Picture Vocabulary Test.

The project reports that through the Spanish language program, the English-speaking children are learning a basic command of Spanish and an understanding of Spanish culture; through the "ESL-bilingual" program, the Spanish-speaking children are developing positive attitudes toward themselves, toward the English-speaking children, and toward education and society in general.

Parent and Community Role. Meetings have been held with both parental and community groups to interpret and explain the BOLD program, with special separate programs prepared exclusively for the parents of children in the "ESL-bilingual" program.

Financing. The BOLD programs are financed by local funds and by Title I funds.

EAST HARLEM BLOCK SCHOOLS
New York, N.Y.

For Spanish-speaking and English-speaking children from age 3 through grade 2.

FOR INFORMATION CONTACT:
Dorothy Stoneman, Director
94 East 111th Street
New York, N.Y. 10029

There are three Block Schools: two preschools for children 3–5 years, sponsored by Day Care; and one Day School for grades 1–3, financed mainly by small foundations; heavy parental involvement; 70% Spanish-speaking children; Spanish used in classrooms.

Program Description. The East Harlem Block Schools are located in "El Barrio," a crowded, low-income neighborhood on the Upper East Side of New York City, the area in which many newly arrived Puerto Ricans settle. Of the 150 children in the Block Schools, over 90% of the 3-year-olds enter speaking only Spanish. The remaining 10% enter speaking either English or Italian.

The Block Schools were started in 1965 by a group of East Harlem parents. They began with one small nursery school; today the school includes 2 preschools for children ages 3–5 and one Day School for grades 1–3. The Day School was started in 1967 and the parents hope to add new grade levels to it in the future.

The bilingual programs in the preschools are flexible and non-structured. There is an English-speaking teacher and a bilingual assistant in each class. Often two activities go on simultaneously in the classroom—one in English and one in Spanish—and the children are free to choose between them.

In the Day School the emphasis is on English as the main language of instruction; Spanish is used at story time.

Personnel and Teacher Training. The schools report that because of difficulty in recruitment, there is only one bilingual teacher on the staff; the other 7 are English-speaking. Most of the 14 assistants, parents of children in the program, are bilingual. Three Parent Coordinators help with social services. The staff has an orientation program every fall. Throughout the year the teachers meet daily to discuss current problems and 2-hour staff meetings are held each week.

Parent and Community Role. The parents help plan the program. Policy decisions are made by the all-parent Board of Directors working in conjunction with the staff on matters of educational philosophy and methodology. Parents work as paid assistants and as parent volunteers; 20 of the 37 employees at the schools are parents.

Financing. The preschools were originally funded as a Community Action Program. They were subsequently supported by Head Start. At present there are financed by Day Care. The Day School is funded by small foundations and private individuals.

ESCUELA HISPANA MONTESSORI*

New York, N.Y.

For Spanish-speaking and English-speaking children from ages 3 to 5.

FOR INFORMATION CONTACT:
Miss Susan Lai, Director
Escuela Hispana Montessori
18 Avenue D
New York, N.Y. 10009

Montessori preschool; 50% Spanish-speaking and 50% English-speaking.

Program Description. The Escuela Hispana Montessori is a preschool for children 3–5 years old, located on the Lower East Side of New York City. Of the 150 Head Start children attending the school, 50% are from Spanish-speaking backgrounds and 50% from English-speaking backgrounds. The school was organized in 1965 by a group of mothers who were anxious for all the children in the area to have a good preschool education. A primary goal was to prepare the Spanish-speaking children for grade 1 in public school by helping them to learn English. It was hoped that the English-speaking children would learn Spanish as a result of the mixed classes. The school is working on developing a structured bilingual program. It provides, at present, "a prepared

* The Escuela Hispana Montessori was one of the first of the preschools to include bilingual aspects in its program. While the vicissitudes of funding have forced the school to limit its program and, consequently, its bilingual work, the school hopes to expand its bilingual activities in the future.

bilingual environment in a Montessori classroom." The classes meet 5 days a week, 4 groups in the morning and one group in the afternoon.

Personnel and Teacher Training. The staff consists of 10 teachers and 8 assistants and Neighborhood Youth Corps Workers. A majority of the teachers are Montessori trained. All staff members have participated in an In-Service Training Program; one-day workshops are held periodically for the staff to discuss new developments in educational techniques and methods.

Curriculum and Materials. The Montessori curriculum is the basis of the program; a team teaching approach is used.

Testing and Evaluation. There is no overall testing program, but the Peabody Picture Vocabulary Test (in English and Spanish) has been used for individual evaluation.

Parent and Community Role. The parents make up the Board of Trustees and help set policy and administer the program. Parents also assist with the maintenance of equipment and classrooms.

Financing. At various times the school has been funded by Head Start and by private tuition.

THE FLEMING SCHOOL
New York, N.Y.

For English-speaking children from nursery school through grade 8.

FOR INFORMATION CONTACT:
Mme. Eric Correa, Director
The Fleming School
1209 Park Avenue
New York, N.Y. 10028

A private French-English bilingual grammar school for middle-class and upper-middle-class children; students learn to read French first, in kindergarten; then English in grade 1.

Program Description. The Fleming School is a private bilingual French-English elementary school located on Manhattan's Upper East Side. Students

are from middle- and upper-middle-class homes and almost all are monolingual English-speakers upon entering nursery school. The school continues through grade 8: the children are bilingual by grade 3 or 4.

The school started in 1957 as a nursery school for both French and American children. Pressure on the part of the parents has led to constant expansion of the school, with the addition of new grade levels each year; grade 8 was recently added. From the beginning the goal has been to establish a completely bilingual learning situation combining some of the scholarly aspects of European education with the more informal, creative ways of United States teaching.

All children are expected to learn both French and English, and they begin doing so at age 4 in nursery school. In pre-kindergarten through grade 1 half the day is spent in each language; the languages are kept separate; there are 2 teachers (one French-speaking and one English-speaking) for each class. The French teacher teaches French sounds and vocabulary, moving into reading through phonetics in kindergarten. After learning to read French in kindergarten, the children begin reading English early in grade 1. From grades 2 to 8 the children spend two 45-minute periods a day on French language arts with special French-speaking teachers; the remainder of the instruction is in English.

Personnel and Teacher Training. The staff has approximately 40 full-time and 20 part-time teachers; native French and Belgian teachers and teachers certified in the United States are employed. French-speaking teachers are recruited mainly by word of mouth. Before teaching in the classroom the European teachers may work in the office for a few months in order to get an understanding of the American educational system, and may be required to take a few education courses. Workshops conducted every summer for the Fleming School teachers are occasionally attended by teachers from other private bilingual schools.

Curriculum and Materials. The bilingual program is organized within the framework of a United States school curriculum. Extensive work in French is done from nursery school through grade 1. From grade 2 on there are 2 periods of French language arts each day. All reading is taught by phonetics. Many of the materials in French are made by the French teachers themselves; for example, in grade 1 a special drill card is made for each

child every day to correct his own errors. The school plans to install a "reading machine" that will program for the needs of the younger children in learning French.

Testing and Evaluation. For the past 3 years, the various tests of the Educational Records Bureau have been given to the children. The results have been reported excellent and are available to appropriate agencies or individuals upon official request.

Financing and Resources. The school is financed through private donations and tuition.

P.S. 25, BRONX—"THE BILINGUAL SCHOOL"

Board of Education of the City of New York
New York, N.Y.

For Spanish-speaking and English-speaking children, K–grade 5, proposed K–grade 6.

FOR INFORMATION CONTACT:
Mr. Hernan LaFontaine, Principal
Muriel Pagán, Assistant Principal
Arthur Raggio, Assistant Principal
P.S. 25, Bronx
811 East 149th Street
New York, N.Y. 10455

The first totally bilingual Spanish-English public elementary school in New York City; the goal is to develop "functional bilinguals" who can speak, understand, read, and write with equal proficiency in Spanish and English.

Program Description. P.S. 25, located in the southeastern section of the borough of the Bronx, is in a school district with the highest concentration of the Spanish-speaking population in New York City. The 890 students at P.S. 25 are from low-income families, 14% English-speaking background and 86% Spanish-speaking background. Of this 86%, 20% speak only Spanish, 15% speak only English, and the remainder speak both languages in varying degrees. Admission to the school is voluntary and is open to all children in the district.

The bilingual school began in September 1968 with classes set up from

kindergarten through grade 5; grade 6 will be added in the future. In the original planning for the school, a very tight theoretical model was proposed, to be phased-in grade by grade, with native language instruction ranging from 95% in kindergarten to 50% in grade 6. However, because the school opened to all grades (K–5) at once, rather than adding a grade a year, the theoretical model had to be modified. Spanish-dominant and English-dominant classes were organized; the children were screened and placed in classes geared to their native language dominance pattern.

Personnel and Teacher Training. The principal, 2 assistant principals, and the 39 teachers in the school are all bilingual. Teachers were recruited in various ways. A few were already in the New York City schools. Recruitment teams went to Puerto Rico and gave certification exams; about 22 teachers were recruited in this manner. A few teachers were hired from letters of application from other parts of the country. The most experienced teachers in the program tend to be those from Puerto Rico.

A two-week orientation program was held before the school opened. Ongoing training includes a two-credit in-service program for enrolled teachers and weekly staff seminars dealing with curriculum, Puerto Rican culture, plays, songs, and poems in Spanish. In addition, a new Masters program in Bilingual Education has been proposed for P.S. 25 teachers, to be given by the School of Education at New York University. For a description of this program see p. 117.

Curriculum and Materials. In general the school follows the New York City Board of Education schedule, but the teachers do have considerable flexibility in administering the curriculum. Second-language instruction for all students is concentrated in science and math. Many teacher-made materials are used, particularly in the area of social studies. Commercial materials from Puerto Rico, Mexico, South America, and Spain are being used and tested on a trial basis.

Testing and Evaluation. While no formal evaluation has yet been conducted, a comprehensive evaluation of the various components of the program will be undertaken during the 1969–70 school year.

Financing and Resources. The school receives regular funding as a public school in New York City. Beginning with the 1969–70 school year, P.S. 25 received additional funding under the Elementary and Secondary Education Act, Title VII.

BILINGUAL SUB-SCHOOL, P.S. 155, BROOKLYN

Ocean Hill-Brownsville School District
Brooklyn, New York

For Spanish-speaking children; K–grade 5, proposed K–grade 8.

FOR INFORMATION CONTACT:
Mr. Luis Fuentes, Principal
P.S. 155
1355 Herkimer Street
Brooklyn, New York 11233

A comprehensive, voluntary English/Spanish Bilingual Sub-School organized in a large New York City public elementary school in the experimental Ocean Hill-Brownsville School District. Goal: to create literate, bilingual children who can learn with equal facility in either language. Parental involvement encouraged; program designed to minimize problems of highly mobile Puerto Rican students; other classes in regular school program have daily Spanish language arts lessons.

Program Description. The low-income community served by P.S. 155 in Ocean Hill-Brownsville is 65% English-speaking (predominantly black) and 35% non-English-speaking (predominantly Puerto Rican, many of whom are recent arrivals). The school population turnover is high. The Bilingual Sub-School was started at P.S. 155 in April 1968 with voluntary admission. Parents in the area may place their children in the bilingual school or in regular classes at P.S. 155. In the school year 1968–69 there were 180 children in the bilingual program, of whom only 1% were English-speaking. (Of the small number of children in the program who do not speak Spanish, some are there because their parents want them to learn the language; others, including some Italian children and French-speaking Haitians, were placed in the program because their parents felt they would gain more than in the regular classes.)

In the Bilingual Sub-School there are 2 kindergarten classes, and one class on each level from grades 1–5. It is proposed that classes be added to grade levels 6–8. In kindergarten and grades 1–2, all formal instruction is in Spanish; English is spoken but not stressed in any instructional way. In grades 3–5 instruction is in both Spanish and English, and varies from teacher to teacher. Thus, one teacher may instruct in a running bilingual commentary; another may teach the bulk of the lesson in one language, then close with a five-

minute summary of the lesson in the other language. In grade 3 an oral-aural approach to English is used. There are daily intensive English as a Second Language sessions for those children in the program who need them; a bilingual corrective reading teacher gives daily help in Spanish for 45-minute periods to children requiring it.

In addition to the Bilingual Sub-School program, there are lessons in Spanish language arts for the regular classes in the school. These lessons, given daily for three-quarters of an hour, are taught through a system of cluster teachers.

Since many of the families of children in the program migrate between Puerto Rico and the mainland, the program aims to minimize the educational problems caused by frequent moves. A two-way exchange of records is in effect for students coming to P.S. 155 from Puerto Rico and vice versa.

Personnel and Teacher Training. P.S. 155's principal was the first Puerto Rican principal in a New York City public elementary school. One of the 3 Assistant Principals, also Puerto Rican in background, coordinates the Bilingual Sub-School program. There are 6 bilingual classroom teachers (some native English-speakers) and 2 monolingual English-speaking teachers in the program. Of the 5 aides, 2 are bilingual, one is English-speaking, and 2 Spanish-speaking. There is also a bilingual corrective reading teacher and a bilingual guidance counselor. The teachers were recruited from New York City and Puerto Rico; recruiting of Puerto Rican-trained teachers was difficult because they had to pass New York City certification. The teacher aides were recruited from the community. In the summer of 1968, a pilot bilingual program at P.S. 155 provided the teachers with experience in teaching in two languages. The teachers, most of whom had never taught in Spanish, were helped by the children in the summer program to develop terminology in the new teaching language. The teachers also exchanged materials in Spanish that they had discovered or created in their work.

An ongoing teacher-training workshop held weekly covers such topics as techniques of language training (e.g., use of "body responses" as initial indicator of "understanding" the new language), exchange of teaching experiences, assessment of bilingual personnel, and self-evaluation by the teachers.

Curriculum and Materials. Although attempts are made to follow the New York City standard curriculum, no specific procedure is set forth for the teachers and they are given a great deal of latitude in implementing the curric-

ulum. Because of the wide range of ability among the children at all grade levels, the curriculum and approach are modified to meet varied needs.

Many materials are created by the teachers, often with the help of the students. The program uses cultural materials centering around the geography, customs, and history of Puerto Rico. Native language materials are imported from Puerto Rico, Latin America, and Spain.

Testing and Evaluation. The organizers of the program believe that large-scale evaluations of its effectiveness are inappropriate until procedures and materials are relatively fixed, approaches are consistent, and something is known about what works in bilingual programs in large urban schools. The focus now is on "self-evaluation" to help the teachers to grow and to develop their own skills. Each teacher prepares a bi-weekly statement of his teaching goals in behavioral terms, and at the end of each two-week period assesses his effectiveness on the basis of his daily log and the children's performance in relation to these goals.

Reports by parents and teachers show greater student interest and participation in class, reading growth in both Spanish and English, easing of problems of discipline and human relations, lower absence rates, and sizable reduction in family mobility.

Parent and Community Role. Parental and community involvement in the bilingual program is encouraged in several ways. A Bilingual Advisory Committee of Spanish-speaking parents makes recommendations on curriculum and guidance. Parents, community, and outside visitors are encouraged to visit the classroom at any time to observe the program. The school has a regular parents' "coffee hour" which serves as a workshop and information center. Spanish-speaking parents are now able to discuss their children's problems with teachers who also speak Spanish. Announcements and notices sent to parents are in Spanish and English.

Before the Bilingual Sub-School could be started, it had to be approved by the Governing Board of the Ocean-Hill-Brownsville School District. It is felt that the predominantly black Governing Board, in approving the bilingual program, not only showed a concern for the problems of the Puerto Rican students, but also helped to improve relations between the blacks and Puerto Ricans in the community.

Financing and Resources. The program is financed by the Ford Foundation through, and with the approval of, the local Governing Board. Resources: the Early Childhood Bilingual Education Project, Yeshiva University.

U.N. INTERNATIONAL SCHOOL

Bilingual Education Program
New York, N.Y.

For children of varied language backgrounds in mixed classes, Kindergarten through grade 2, proposed through grade 6.

FOR INFORMATION CONTACT:
Mr. Maurice Pezet
U.N. International School
418 East 54th Street
New York, N.Y. 10022

Private school (K–grade 12); about 55% are children of U.N. delegates; 74 groups and nationalities represented; French-English bilingual program in kindergarten through grade 2.

Program Description. The United Nations International School was started in New York in 1947 to meet the educational needs of the children of United Nations delegates. The original enrollment of 20 students has grown to 850, from kindergarten through grade 12; of these about 55% are children of United Nations delegates. Middle-class native Americans constitute about 30% of the enrollment. The teachers represent all geographic areas.

Although English has been the principal language of instruction, there has always been a heavy emphasis on French as a second language. In September 1968 a new experimental program was instituted for three groups, one each in kindergarten, grade 1, and grade 2. In the kindergarten a French-speaking assistant present at all times teaches a special oral French lesson for 20 minutes daily. In grades 1 and 2, there are 2 teachers for each class; in the morning the children are instructed by their French-speaking teacher in the French classroom; in the afternoon they are taught in the English classroom by their English-speaking teacher. While children of all nationalities are mixed together, a child placed in a bilingual class must have some background in French or English.

The goal of the new program is to make the children literate bilinguals. It is planned that the experimental bilingual program will run parallel to the regular French as a Second Language program through grade 5; at this point all students in the school will study French language arts as a subject.

Personnel and Teacher Training. The teaching staff is representative of

all the geographic areas in the United Nations. When a vacancy occurs, a decision is made as to which geographic area needs more representation; a teacher is then hired through the education ministries and journals in that area. A one-week orientation session is held each summer for all staff members.

Curriculum and Materials. The school combines in its curriculum educational methods used throughout the world. Because the average child remains here only two and one-half years, the goal is to prepare each child for transfer to a school in his own or another country. The experimental bilingual classes have a particularly flexible and evolving curriculum.

Testing and Evaluation. The constant turnover of students is a major obstacle in the way of any long-term evaluation. At this time no formal evaluation is planned.

Financing and Resources. The school is financed through tuition, with limited help from the United Nations. New facilities are planned, for which the Ford Foundation has given $7.5 million and the Rockefeller Foundation, $1 million.

BILINGUAL FAMILY SCHOOL
(Terminated)
Adair County, Oklahoma

For Cherokee children, ages 2–5

FOR INFORMATION CONTACT:
Florence McCormick, Program Specialist
South Central Region Educational Laboratory
44 Palmer Avenue
Little Rock, Arkansas 72701

Bilingual preschool for Cherokee children and mothers; parental involvement; bilingual, bicultural curriculum.

Program Description. This pre-kindergarten pilot project drew its 20 Cherokee children (ages 2–5) and their mothers from the non-reservation Cherokee population of rural northeastern Oklahoma. The area has the largest number of non-reservation Indians in the United States—over 12,000 families.

The program began in March 1968 and continued through May 1969. The 20 children enrolled in the program were bussed to school with their mothers. Three-quarters of the children did not speak English when they began school. The project sought to insure the children's cognitive growth both in Cherokee and in English and to enable them to function in both languages when they entered grade 1. The program also attempted to reduce home-school alienation through direct parental involvement, and through using and strengthening parent-teaching and child-rearing styles.

Personnel and Teacher Training. There were 2 teachers in the program, one of whom was bilingual. All 3 aides, recruited from the community, were bilingual. Two bilingual members of the community also assisted in the classes. One teacher and 2 aides worked with each group of 6 children; one teacher and one aide worked with mothers. Staff training included a one-week orientation program and in-service meetings that concentrated on program planning, evaluation, and self-analysis.

Curriculum and Materials. The 5-day school week was divided into 3 parts: 3 days a week the children and mothers attended classes, one day a week was spent in staff development, and the fifth day was used for home visits.

Classroom materials, designed for conceptual growth in both languages, stressed Cherokee legends, language development in Cherokee, perceptual skills, and number concepts. Cherokee language materials were developed by the project based on the Michigan Migrant Inter-Disciplinary Program. Cherokee legends were translated from English versions. Formal English was taught, using sections of *Beginning English Fluency* (Houghton Mifflin).

Parent Involvement. Parents observed and participated in school and were given materials for use at home. The home-school coordinator visited each family regularly to encourage the use of these materials.

Testing and Evaluation. The school utilized video-taped observations for feedback on program effectiveness. Foreign Language Innovative Curriculum Studies (FLICS) tests, the Peabody Picture Vocabulary Test (PPVT), the Draw-A-Person (DAP), and the Wechsler Preschool and Primary Scale of Intelligence (WPPSI) were also explored for use.

Sponsoring Agency and Funding. The South Central Region Education Laboratory and the Adair School District were project sponsors. The school was funded through Title IV of the Elementary and Secondary Education Act.

THE JEFFERY SCHOOL
Austin, Texas

For English-speaking children, ages 3–5.

FOR INFORMATION CONTACT:
Mrs. Inez C. Jeffery
The Jeffery School
1903 Robbins Place
Austin, Texas 78705

Private preschool; student body, 90 predominantly white, middle-class, and English-speaking; daily instruction in Spanish for all students.

Program Description. The Jeffery School is a private preschool located in the university neighborhood of Austin, Texas. Of the 90 children in the school 98% are English-speaking. The children come from all over the city, and while most are middle-class Anglo-Americans, the student body also includes Negro, Mexican-American, Hindu, and Chinese children. About 6% of the school's population is low-income.

In September 1960 the school was started as a nursery school–kindergarten for research in early childhood learning. The program has always been experimental. From the beginning, one of the school's goals has been to encourage the possibility that all children in the bordering states become bilingual. The children are taught Spanish before they learn to read. Spanish is taught for 15 minutes daily to the 3-year-olds; for 20 minutes to the 4-year-olds; and 30 minutes to the 5-year-olds. In addition, the bilingual aide speaks with the children in Spanish continuously.

Personnel and Teacher Training. A bilingual teacher and a bilingual aide are used in the program. The present bilingual teacher is a senior Spanish major at the University of Texas. In the past, Spanish-speaking teachers have been recruited from Argentina and Chile. Aides are recruited locally. Informal orientation sessions are held; originality and new methods are stressed.

Curriculum and Materials. The staff has made its own materials. Children begin by learning the Spanish for familiar objects: pictures, clothing, parts of the body, games, music, and riddles.

Testing and Evaluation. While no standard testing has been conducted, it is reported that practical tests have shown that the children act as good inter-

preters for their parents while traveling in Spanish-speaking countries. The staff has observed that the 3-year-old increases his vocabulary faster and retains it longer than the child who starts learning Spanish at 4 or 5 years old.

Financing. The program is financed through private tuition.

SOUTHWEST EDUCATIONAL DEVELOPMENT LABORATORY LANGUAGE-BILINGUAL EDUCATION PROGRAM

Austin, Texas

For Spanish-speaking children, grades K–6.

FOR INFORMATION CONTACT:
Dr. Elizabeth Ott, Director
Language-Bilingual Program
SWEDL
Commodore Perry Hotel
Austin, Texas 78701

Dr. Thomas D. Horn
Department of Curriculum and Instruction
University of Texas
Austin, Texas 78712

Spanish-English bilingual program for elementary school Spanish-speaking children, content based on materials developed by the American Association for the Advancement of Science; social studies and self-concept development; English as a Second Language techniques and pattern drills; program materials and techniques now used in New York City, San Antonio and a number of cities in the Rio Grande Valley, Texas, two parishes in Louisiana, Philadelphia, and two school districts in Central California.

Program Description. The SWEDL Language-Bilingual Education Program evolved from a research program started in 1964 by Thomas D. Horn. The program was originally designed to teach English as a Second Language to Spanish-speaking children, using materials developed by the American Association for the Advancement of Science. As the project developed, the goal of developing the learning potential of children by improving their oral language skills remained, but the content widened to include social studies and self-concept development.

The language component utilizes techniques developed in the field of teaching English as a Second Language: highly structured language dialogues emphasize development of both syntactical and phonological elements in English. The project also utilizes a "discovery approach," to establish concepts developed first through drill. It is felt that in order to internalize content meanings, the child must first have the language symbols and patterns. Sentence structures are modeled by the teacher, then repeated, first by the class, then by small groups, and last by individuals. Language structures are developed from the context of the science and social studies lessons. Reading begins only after oral language skills are developed.

The first group of children, Sample I, began the program in 1964 in San Antonio at the first-grade level. Sample II children began in 1965 in grade 1 and Sample III in 1967 in grades 1 and 2.

Sample I (1964, grade 1). Science content was used to develop oral language skills. Between 1964 and 1966 4 treatments were used: (1) Audio-lingual techniques in Spanish for science materials; (2) Audio-lingual techniques in English for science materials; (3) No audio-lingual techniques, but science instruction; (4) Control groups taught according to the regular district curriculum, with no experimental language or science components.

Sample II (1965, grade 1). The four treatments employed in Sample I were used for the children in Sample II. At the end of 2 years, the experimental language treatment involving oral-aural English and oral-aural Spanish was shown to have resulted in a growth in oral language skills, and the experimental science treatment yielded a growth in science concepts. Even limited instruction in Spanish proved to be beneficial. However, reading growth in the experimental groups was not increased.

Based on these results, the treatment groups for Samples I and II were modified in 1967: (1) children were taught science by the "discovery method," and structured language by audio-lingual techniques in English; (2) children were taught science by the discovery approach and structured language by audio-lingual techniques in Spanish; (3) the control groups were taught according to the regular district curriculum. The latter groups represented class populations similar to those involved in the experimental groups.

Sample III (1967, grades 1 and 2). Treatments were modified as a result of the research findings on Samples I and II. Content was expanded to include social studies. The teaching methodology remained the same. There

were four treatment groups: (1) A bilingual teacher gave intensive language instruction daily, 40 minutes in English and 40 minutes in Spanish. Subject matter presented in one language was repeated in the other. (2) Bilingual teams provided the 80 minutes of bilingual instruction with a Spanish-speaking teacher for the Spanish section, and an English-speaking teacher for the English section. (3) One section received intensive instruction in English as a Second Language for 80 minutes a day; no Spanish. (4) A control group used the district curriculum.

The materials and techniques developed in this project are now being used in 4 urban demonstration centers: San Antonio, McAllen, and Edinburg, Texas; and New York City. They are used to teach more than 4,000 children both their native Spanish and English as a second language.

Teacher Training. The in-service program includes monthly sessions that concentrate on such topics as developing psychological and sociological insight about Spanish-speaking children; discussing the rationale underlying materials and techniques used in the project; encouraging teachers to develop new materials; studying new methodologies and techniques; and clarifying the sociology of language learning.

A staff-training program is now being developed in conjunction with the University of California at Berkeley to include a training film and coding system for teacher self-evaluation.

Recent summer institutes have included 6-week seminars in curriculum development during which teachers wrote new materials and revised existing ones.

Curriculum and Materials. The materials, prepared by Elizabeth Ott, Director of the Laboratory's Language-Bilingual Program, are at varying stages of development. Oral language lessons have been developed in science and social studies, grades K–6. Materials and techniques in reading and mathematics are being pilot-tested. The Laboratory plans to develop complete instructional units in Spanish-English and French-English for grades K–6. Instruments to assess language, reading, and self-concept are also being devised along guidelines suggested by sample findings.

Testing and Evaluation. The program reports that it has been undergoing constant evaluation and that its design has been modified by evaluation findings throughout its operation. In 1967, the instruments used to measure growth in learning for grades 3–4 were the Ott-Jameson SELF Tests and the

Iowa Tests of Basic Skills. The SELF Tests and the Brengelmen-Manning Test were used for grades 1 and 2 samples. Measures of intelligence included the Lorge-Thorndike for grades 3–4, and the Goodenough-Harris for grades 1 and 2.

Financing. The Southwest Educational Development Laboratory is supported by funds from the U.S. Office of Education.

BANDERA SCHOOL BILINGUAL PROGRAM

Bandera Independent School District
Bandera, Texas

For Spanish-speaking and English-speaking children, grade 1.

FOR INFORMATION CONTACT:
Marvin Schnelle, Superintendent
Box 727
Bandera, Texas 78003

A grade 1 bilingual program conceived of as a bridge from Spanish to English; mixed class.

Program Description. Bandera is a rural town in southern Texas; 10% of its population is Spanish-speaking in background, and many are recent arrivals from Mexico. The program in Bandera began in September 1966 and is limited to grade 1. The goal is to assist Spanish-speaking children to learn English so that they can be promoted to grade 2, instead of spending 2 years in grade 1. The class has an English-speaking teacher, who follows the regular English curriculum, and a bilingual aide, who teaches as "needed throughout the day" in Spanish. The bilingual aide is in the classroom at all times to help those children who do not understand the lesson.

Testing and Evaluation. The testing material used in this program is the Test of Primary Mental Abilities (SRA) K–1. It is reported that the Spanish-speaking-background children make enough progress in the class so that they move on to grade 2 at the end of the school year.

Financing. The program is financed by both local and Title I funds.

ST. PAUL'S EPISCOPAL SCHOOL

St. Paul's Episcopal Church
Brownsville, Texas

For Spanish-speaking children, ages 3–6.

FOR INFORMATION CONTACT:
The Rev. George W. Graydon, Priest-in-Charge
Mrs. John English, Principal
St. Paul's Episcopal School
1626 Taft Street
Brownsville, Texas 78520

Private preschool program for low-income Spanish-speaking children; program includes Spanish language arts study; emphasis on English.

Program Description. St. Paul's Episcopal School is located in the border city of Brownsville, Texas. The community served by the school is predominantly rural, low-income, and Spanish-speaking. The population is largely migrant and includes some new arrivals from Mexico.

The half-day preschool program began in March 1968. In February 1969, there were 51 children in the program, ranging from 3 to 6 years of age, and divided into 3 classes. The school hopes, with additional funds, to add 2 more classes and bring the enrollment up to 75 children.

The stated goal of the program is to help Mexican-American children learn Spanish better, while gaining increasing control of English in preparation for grade 1. At the beginning of the program the children have 2 to 3 weeks' intensive instruction in English. After they learn to respond to English words and commands, the teacher begins instruction in Spanish vocabulary and grammar for 15 minutes each day. Instruction in English, 2 hours daily, concentrates on vocabulary, colors, math, and science.

The school also conducts an after-school tutorial program for children already in elementary school. A remedial program, planned for these school-age children, will include field trips and instruction in mathematics and phonics.

Personnel and Teacher Training. There are 5 teachers (3 bilingual, 2 English-speaking) and 2 bilingual aides on the staff. The teachers were recruited from the neighborhood and Texas Southmost Junior College. While

not all the teachers have a college education or the equivalent, the school hopes to get further accreditation for its staff.

In September 1968 a 3-day staff orientation session was held. An ongoing training program includes weekly lectures on lesson plans, methods, and building of language skills. During the winter vacation a special 2-week training session observed kindergartens for migrant children.

Curriculum and Materials. The curriculum is developed by the staff to meet the specific needs of the children. Materials in Spanish have been created from the children's experiences and vocabulary.

Evaluation and Testing. An evaluation is planned for the future.

Financing and Resources. The school is financed through the following sources: St. Paul's Episcopal Church, Brownsville, Texas; The Episcopal Diocese of West Texas, P.O. Box 6885, San Antonio, Texas; the Episcopal Church in the United States, 815 Second Avenue, New York, New York; and donations from individuals and groups. The weekly tuition is $1.50 per child with allowance made for families with more than one child in the program.

DOS MUNDOS SCHOOL
A BILINGUAL EARLY SCHOOL
Corpus Christi, Texas

For Spanish-speaking and English-speaking children, 3½–5 years old.

FOR INFORMATION CONTACT:
Mr. James Larick, Director
Dos Mundos School
878 Oak Park Avenue
Corpus Christi, Texas 78408

A private Spanish-English bilingual early school for preschool children, mixed classes, half-day sessions.

Program Description. Dos Mundos School is a Spanish-English bilingual early school sponsored by the Coastal Bend Christian Service Association. It is located in the South Texas city of Corpus Christi. The children are from Mexican-American, Negro, and Anglo-American homes, many of them low-income.

The school was started in September 1968 for the stated purpose of bridging the cultural and language gap by helping the children to become "coordinate bilinguals." The school attempts to prepare children for public school by teaching basic math concepts and reading in two languages. The school's orientation is that children learn their first language better while gaining a control of the second. There are 3 classes: one each for 3½-year-olds, 4-year-olds, and 5-year-olds. The classes meet 5 mornings a week; about 50% of the time is spent learning and playing in each language.

Personnel and Teacher Training. The staff includes one teacher and one aide for each class (aides must be high school graduates), a Home-School Coordinator, and Volunteers (teenagers and mothers from the community). The orientation program for the Volunteers includes child development, working with the culturally different child, preparation of materials, cultural anthropology, and basic education methods. Weekly in-service training continues throughout the year.

Curriculum and Materials. The curriculum is an "undifferentiated" preschool one, with the addition of Spanish as a language of instruction. The program introduces the children to math concepts, health, folklore, social studies, science, and ethical principles. Teachers make many of their own materials; Foreign Language Innovative Curriculum Studies (FLICS) materials are also used.

Testing and Evaluation. An extensive testing program is under way. The tests include: Metropolitan Readiness Test, Ginn & Company Pre-Reading Test, Peabody Picture Vocabulary Test, Goodenough Draw-A-Man, Winter-Haven Perceptual Form Test, Columbia Mental Maturity Scale. Supplementary tests include the Wechsler Preschool and Primary Scale of Intelligence (WPPSI), the Test of Basic Language Competence in English and Spanish, and the Listening Section of the Cooperative Primary Tests in English and Spanish.

Parent and Community Role. Parent Volunteers can enroll their children free and can attend free "basic education" evening classes. Because of problems of transportation to Dos Mundos, "satellite schools" have been proposed. These small schools would be located in nearby homes or churches, with 2 or 3 staff members working with family units of mothers and very young children.

Financing. Financing is mainly through the Coastal Bend Christian

Service Association. Additional funds come from a tuition charge of $2 per week for the first child of each family and $1 per week for each additional child, plus grants-in-aid.

FOLLOW-THROUGH PROJECT
Corpus Christi, Texas

For Spanish-speaking children, K–grade 3.

FOR INFORMATION CONTACT:
Antonio Perez, Director
Follow-Through Project
Corpus Christi Public Schools
Box 110
Corpus Christi, Texas 78403

A Spanish-English bilingual Follow-Through Project; Spanish-speaking children K–grade 3; emphasizes audio-lingual techniques and parental involvement.

Program Description. This Follow-Through Project is located in the South Texas city of Corpus Christi. The majority of the students involved in this K–grade 3 program are from low-income Mexican-American homes. The main goal of the project is to demonstrate an innovative bilingual instructional approach to early childhood education, while extending the ancillary services provided in Head Start through the early elementary grades. The program started in 1967. In 1968–69 there were over 260 children in the program in 4 elementary schools. There were 8 bilingual Head Start classes (K) and 2 bilingual classes in grades 1 and 2. In 1969–70 grade 3 level will be added.

Concepts are taught in the kindergarten classes first in Spanish and later in English. In grades 1 and 2 instruction in language arts, art, and music is bilingual. In mathematics, social studies, and science, the students are grouped according to their proficiency in English; Spanish is used according to the pupils' needs. At all 3 levels there is an intensive oral language program utilizing audio-lingual techniques in both Spanish and English. English is taught as a second language.

The school reports that "The use of the Spanish language as a vehicle

of instruction decreases with the child's increasing ability to understand and communicate in the English language, but the Spanish language will be utilized in those instances where the child's learning can be aided by its use."

Personnel and Teacher Training. There are 8 bilingual teachers and 6 aides, 5 of whom are bilingual. Orientation includes attendance at a bilingual institute organized at St. Mary's University in San Antonio, Texas. An ongoing in-service program is conducted by a Follow-Through Consultant.

Curriculum and Materials. Materials include language master cards, slides for oral language development, and tapes prepared by teachers. Printed materials consist of the Laidlaw Reading Series, Houghton Mifflin Readiness Books, and textbooks from Mexico. Teacher-made materials include experience charts in Spanish and English, and Spanish and English aural-oral activity developed by a committee of Corpus Christi teachers and consultants.

The following publications used in the bilingual program may be purchased through the Corpus Christi Public Schools: *Vamos a platicar*, grade 1; *¿ De qué platicamos?*, grade 2; and *Texas y sus riquezas*, Aural-Oral Activity Grade Guide.

Testing and Evaluation. To compare the effects of a bilingual curriculum with an English as a Second Language curriculum over a 3-year period, control groups instructed in English only have been set up at grades 1 and 2 levels. Among the instruments used for testing are the California Achievement Test, California Test of Mental Maturity, Cooperative Listening Test (English and Spanish), the Linguistic Capacity Index, and Score Teach Answer Record (STAR).

The Director observes that both pupils and parents are proud of the bilingual program, that there is significant parent interest and participation in school activities, that pupils are more self-confident, and that there is a growing awareness in the community that Spanish is now acceptable in school and pupils will not be punished for speaking it.

Parent and Community Role. Parents are reported interested and participating in many school activities. Parents serve as classroom volunteers, Policy Advisory Committee Members, lunchroom supervisors, field trip supervisors, participants in small-group discussions, and participants in educational and vocational classes.

Financing. This Follow-Through Project is sponsored by the Office of Economic Opportunity and the U.S. Office of Education.

DEL RIO BILINGUAL PROGRAM

Garfield Elementary School
Del Rio Independent School District
Del Rio, Texas

For Spanish-speaking and English-speaking children, grades 1–3; proposed grades 1–6.

FOR INFORMATION CONTACT:
Mr. R. J. Waddell, Principal
Garfield Elementary School
Del Rio, Texas 78840

A Spanish language arts program designed for mixed classes. Goals: to give children of Spanish-speaking background proficiency in both languages and to give children of English-speaking background a minimum proficiency in Spanish.

Program Description. The city of Del Rio, Texas, 150 miles west of San Antonio, has a population of 25,000, 65% with Spanish surnames. At the Garfield Elementary School about 80% of the students are of Spanish-speaking background. A bilingual program was started in September 1966 in grade 1, with 4 experimental and 4 control classes; a grade level will be added each year through grade 6. Although the program was designed for mixed classes, because of the relatively small number of children of English-speaking background in the school, only one class of the first 4 experimental classes was mixed (50% Spanish-speaking background, 50% English-speaking background).

At the beginning of the term, the children had 30–45 minutes daily instruction in Spanish language arts; music, physical education, and health safety were also taught in Spanish. By the fourth month, the children were instructed for 60 minutes daily in Spanish and by the end of the year, for 90 minutes daily.

In the school year 1969–70 the program will involve 20 of 32 sections in grades K–4 in the Garfield Elementary School. During 1969–70 4 new grade 1 sections will be started in the Del Rio Independent School District; 2 at North Heights Elementary School, and 2 at East Side Elementary School. In addition, personnel from Garfield are developing one grade 1 section for

the Sacred Heart Academy, a Del Rio parochial school. It is proposed that all these classes will continue to participate in the program through grade 6.

Personnel and Teacher Training. There were 4 bilingual teachers in the Garfield Elementary School in 1966; two of the 4 aides were bilingual. The same teacher instructs the class in both Spanish and English. During the summer of 1968 both teachers and aides attended the NDEA Institute for Bilingual Teachers and Aides at the University of Texas, Austin. Teachers and aides plan to attend a similar summer institute in 1969. Pre-service and in-service training is provided by the administrative and supervisory members of the staff for the 25 teachers and 10 aides now associated with the program.

Curriculum Materials. There is no formal schedule for Spanish instruction; class needs determine the curriculum. The teachers develop posters and tape recordings. Spanish and English versions of storybooks are used; the basic Spanish reader series for the classes is Shepperd's *Horas felices.* A variety of library books, textbooks, workbooks, and tapes have been acquired and are available for classroom and library use.

Testing and Evaluation. In 1966–67 comprehensive testing in this program was carried out by Edward Cervenka as a part of his study to develop a battery of instruments for measuring both bilingualism and bicultural socialization. Pre- and post-tests were administered both to the children in the experimental bilingual program and to those in the control (English instruction only) group. Three sets of instruments were used in this study: a series of 6 tests for measuring linguistic competence in English (ECS), a series of 6 tests for measuring linguistic competence in Spanish (SCS), and a series of 3 instruments for measuring socialization or adjustment (IOS). From the resulting data both the validity and the reliability of the measures were ascertained and revisions made.

The results of this testing indicated the effectiveness of the experimental bilingual program. While there was no significant difference between the experimental and the control groups with respect to English competence, the experimental group showed superior socialization and adjustment. Indications were that superior results were achieved when English-speaking and Spanish-speaking children were mixed rather than segregated. In comparisons across age differences, the younger children did better in bilingual classes and the older children did better in monolingual English classes.

Financing. U.S. Office of Education (Education Professions Development Act) and local funds.

CREEDMOOR BILINGUAL SCHOOL

Del Valle Independent School District
Del Valle, Texas

For Spanish-speaking and English-speaking children, grades 1–5.

FOR INFORMATION CONTACT:
Director, Title III
Creedmoor School
Del Valle Independent School District
Del Valle, Texas 78617

A small non-graded rural school; all students, both English- and Spanish-speaking, learn in two languages.

Program Description. The town of Creedmoor is about 15 miles southeast of Austin, Texas. Its population of 550 is mostly low-income farm laborers and construction workers, more than half Spanish-speaking in background. The Creedmoor elementary school district covers 35 square miles. The non-graded school has 126 students with one class for each grade level (parallel to grades 1–5). Of the Creedmoor students 56% come from families of Spanish-speaking background; 7% of the English-speaking children are Black.

Creedmoor first adopted a graded bilingual program throughout the school in September 1967. In 1968 the bilingual program was changed to a non-graded one and the children were grouped for homeroom by age, maturity, and needs. The children move 3 times a day, all the levels having the same amount of bilingual instruction: roughly 60% of the day in English, the remainder in Spanish.

The day begins with one hour of bilingual instruction in science. The next 2 hours are devoted to reading, language arts, and social studies. Most of the instruction is in English, though Spanish is often used as "a teaching tool." For the next 1½ hours, the younger children work mainly in their second lan-

guage, with the time divided into instruction periods for reading, speaking, and listening. The younger Spanish-speaking children have oral English as a Second Language work with emphasis on vocabulary development; the younger English-speaking children have oral Spanish as a Second Language work; the older children, both English-speaking and Spanish-speaking, spend this time on reading in Spanish, with advanced Spanish-speaking children receiving individual work in Spanish reading. In the afternoon the children are taught math and social studies. There is free communication and instruction in both languages.

Personnel and Teacher Training. The director of the program is bilingual. There are 6 teachers in the program, all bilingual, one of whom serves as visiting team teacher. There are 5 classroom aides. Some of the teachers were recruited from Head Start programs in the Del Valle Independent School District. Others had secondary certificates as language teachers and have since completed all, or nearly all, of the elementary education hours needed for certification. They are all reported "highly competent" in both English and Spanish. There is a persistent problem in recruiting bilingual teachers in Texas, where, until recently, there were no teachers' colleges that emphasized Spanish at the elementary school level (see pp. 116–17).

The small staff at Creedmoor works very closely and maintains an informal teacher-training program during the school year. Before the bilingual program officially began, an orientation course was given for the teachers in the summer of 1967. In the summer of 1968 all the teachers attended some training program; two went to the NDEA Institute for Bilingual Teachers at the University of Texas at Austin; the rest attended a six-week Title III workshop held at the Creedmoor School, where they developed materials dealing mainly with English as a Second Language and Spanish as a Second Language phonics.

Curriculum and Materials. Reading is taught with a strong phonetic approach in both languages. The teachers develop many of their own materials, especially in Spanish. They have set up a combination language laboratory and library with language masters, teaching machines, an overhead projector, and a listening post for the children.

Testing and Evaluation. A comprehensive evaluation of the Creedmoor Bilingual School was conducted by Edward Cervenka during 1967–68. Pupils were pre- and post-tested for general ability, reading ability in English and

Spanish, and language competence in English and Spanish. Each child was given the tests of Basic Language Competence in English and Spanish and an Inventory of Socialization in the form of a taped interview. Parents were interviewed by questionnaire.

The following preliminary findings were reported: By the end of the first year all 3 ethnic groups (Spanish-speaking, English-speaking White, English-speaking Black) were performing educationally better than comparable groups of pupils in Texas receiving monolingual education. Generally, the parents viewed the bilingual program with enthusiasm. Students showed consistent improvement in their second language. Although the program achieved results comparable to or better than a typical FLES program, it seemed doubtful that by the end of the first year the English-speaking children could receive a substantial part of their instruction in Spanish. The major reported accomplishments of the first year were high morale, an excitement about education, and a better emotional adjustment to school among the pupils.

Parent and Community Role. Parental interest in the school has been developed through a home visiting program in which all teachers and aides participate. One of the teachers also serves as an official "home visitor." It is planned that a coordinator will conduct adult classes in home management and finances.

Financing and Resources. Title III funds finance the Director, 5 aides and 3 teachers, including the visiting team teacher. Local funds pay for the 3 other teachers. During 1968–69, Title I paid for a library aide, omitted in 1969–70. Resources: University of Texas, Austin; Southwest Texas College, San Marcos; and Southwest Educational Development Laboratory.

ELEMENTARY SPANISH LANGUAGE PROGRAM

Edinburg Consolidated Independent School District
*Edinburg, Texas**

For Spanish-speaking children in the elementary grades.

FOR INFORMATION CONTACT:
Mr. Sam Evins
Edinburg Consolidated Independent School District
Edinburg, Texas 78539

Spanish language arts program for Spanish-speaking students ½ hour a day. Goal: to improve children's expectancies of learning English by developing readiness in basic Spanish skills.

Program Description. The community served by the bilingual program of the Edinburg Consolidated Independent School District is 70% Spanish-speaking, low-income, both migrant and non-migrant. The Elementary Spanish Language Program began in the summer of 1965. Under this program, the students are given one-half hour daily instruction in speaking, reading, and writing in Spanish. In 1967 there were 577 students in this program in 20 classes in 7 schools.

There are 4 teachers in the program, one of whom is an exchange teacher from Guatemala. The program is supervised by a teacher-chairman. Materials in Spanish used in the program are obtained from Florida (*El pequeño paquete*); from Mexico (*Juegos de observación para el Jardín de Niños y los Primeros Grados*); and from Spain. The children's stories about themselves and their families are taped; teacher-made picture charts of social units and social relations are also used.

* Information from 1967 report.

APPLIED LANGUAGE RESEARCH CENTER

El Paso Independent School District
El Paso, Texas

For Spanish-speaking children, grades 1–3; proposed through grade 6.

FOR INFORMATION CONTACT:
Miss María Ruíz-Esparza, Special Project Director for Title III
Applied Research Language Center
1116 E. Yandell Drive
El Paso, Texas 79902

Students bussed to highly organized language laboratory for intensive oral English practice; language-experience approach used for teaching Spanish; intensive teacher-training program.

Program Description. The border city of El Paso has a population of 350,000, about 70% of low-income, Spanish-speaking background. In the elementary schools selected for this program the student enrollment is almost 100% Spanish-speaking. The bilingual program started formally in September 1966 in 4 pilot grade 1 classes in 2 public elementary schools in the El Paso Independent School District. Control classes were set up with instruction in oral Spanish for 20 minutes daily. A grade level has been added each year, and by September 1968 the experimental program had reached the grade 3 level, with a total of 17 experimental classes in several schools. The program is planned to continue through grade 6. The overall goal is to produce literate, bilingual students.

The school day is organized so that the morning is devoted to English, and the afternoon mainly to Spanish, i.e., language arts, social studies, science. The children are bussed every morning to the Applied Research Language Center language laboratory (hereafter referred to as "the Lab"), the most innovative feature of the El Paso program. (In 1968 the Lab also served a parochial school and a few outlying schools around El Paso; during summers the Lab is used by preschool programs.) At the Lab, accompanied by their classroom teacher, the children spend one-half hour a day in intensive oral English practice, 15 minutes in a pre- (or post-) session, and 15 minutes in individual listening booths. Each child has his own set of headphones; the Lab teacher who conducts the lesson can tune in to any child to check pronunciation and

performance. The approach used is one of sentence pattern drill: listen, repeat, and fill in. At the beginning of the program, in grade 1, the tapes are in Spanish only. After a few weeks the tapes switch to English, each tape being used 3 days with different pre- or post-sessions. The time that children spend on the bus is used for practice in both languages with games, songs, and riddles.

In contrast to the structured-sequence approach used in teaching English, there is no drill work in Spanish; the classes are very informal and the children learn through experience charts and other techniques of the language-experience approach.

Personnel and Teacher Training. The basic planning for the program is done by the Lab. While the El Paso Independent School District hires the teachers, the Lab helps select those it wants for the bilingual program. There are 21 teachers in the program. Five teachers, all of them bilingual, work at the Lab itself, and 17 teachers (14 bilingual) are in the grades 1–3 classrooms. There are also 17 classroom aides (15 bilingual).

The program has an intensive orientation and ongoing teacher-training program. A Spanish language program is held after school twice a week in 1½-hour sessions for interested teachers. An English methods course is open to anyone in the community and is held during lunchtime and after school. In-service training sessions for teachers and aides are held once or twice every month, and periodic seminars are given on Mexican culture. Summer workshops are organized for teachers and aides to come together and discuss materials and techniques developed by the Lab.

Curriculum and Materials. The Lab's basic stated goal is to help the children to achieve oral mastery of English before reading or writing it. The Lab teachers have developed and revised a large number of tapes, transcripts, and transparencies. Each classroom teacher has a set of these materials which are used for extra work needed on the lessons taught in the Lab. The Lab will send these materials to any school that agrees to evaluate them after using them. In addition to the Lab-developed materials, standard readers and texts in both English and Spanish are used in the El Paso program.

Testing and Evaluation. Evaluation of the program has been done by the Psychology and Testing Program of the El Paso Independent School District. At the beginning of the program both the experimental and the control grade 1 groups were given the following tests to assess their achievement level

in English and Spanish and to determine overall mental maturity: California Test of Mental Maturity or Lorge-Thorndike Intelligence Test in English, and the El Paso First Grade Intelligence Test (Hoard-Condon) in Spanish. All the children scored higher on the Spanish Hoard-Condon than on either of the language tests in English (it seemed therefore that the differential performance was due to the language used in the test). In addition to these tests, the El Paso English Language Proficiency Test (locally constructed) was administered live and recorded on tape.

These tests were administered again in the late spring of 1967 as was the Harrison-Stroud Reading Readiness Profiles. No significant or conclusive interpretations as to the effectiveness of the program can be made from the results of these tests, but the teachers report that whereas prior to the use of Spanish in the class, most Mexican-American children sat quietly in their seats, now the children are so eager to talk, the teachers can hardly keep them quiet. An extensive evaluation program has been planned for the children through grades 2–3.

Parent and Community Role. The Lab has enccuraged parental interest in the program. Newsletters in both Spanish and English are sent to parents, keeping them up-to-date and explaining changes in the program. Parents and children are bussed together to the Lab for program demonstrations 3 or 4 times a year. The Lab reports that fathers as well as mothers are beginning to attend the demonstrations.

Financing and Resources. The Applied Language Research Center is financed by Title III funds. Resource: University of Texas at El Paso.

BILINGUAL EDUCATION PROGRAM

La Joya Independent School District
La Joya, Texas

For Spanish-speaking and English-speaking children, grades K–3.

FOR INFORMATION CONTACT:
Arturo Medina, Superintendent
Gilberto Flores, Coordinator of the Bilingual and Migrant Education Program
Miguel de Luna, Principal of Memorial Elementary
La Joya Independent School District
La Joya, Texas 78560

A Spanish-English bilingual program, with a totally bilingual staff; 98% of the students are Spanish-speaking in background.

Program Description. The La Joya Independent School District community is rural and predominantly low-income; 99% of the population is of Spanish-speaking background, 74% speak little or no English. Of the 500 students in the 4 schools in the bilingual program, 98% are non-English-speaking; the English-speaking 2% come from middle-class homes.

The program began in September 1967 at the kindergarten level. In the 1968–69 school year the program operated in grades 1–3 in 4 elementary schools in the La Joya Independent School District. The children were taught all subjects in both Spanish and English with time for each divided equally. The basic stated goals are to create fluency in Spanish while enhancing the learning of English through a bilingual education, and to provide the opportunity for the children to become functionally literate in English and Spanish.

Personnel and Teacher Training. There are 23 bilingual teachers and 12 bilingual aides in the program. The teachers are recruited from the local teaching staff and the aides from the community. A one-week orientation is organized for the staff, followed by a continuing in-service program for one hour per week. Teachers from the La Joya program attend National Science Foundation Institutes on bilingual education and programs for disadvantaged children and visit other operating bilingual programs during the school year.

Curriculum and Materials. The staff is in the process of developing its own curriculum.

Testing and Evaluation. The Southwest Educational Development Laboratory Evaluation Program is used.

Financing. The program is financed by Title I, Title VII, and local funds.

LANGUAGE ARTS BILINGUAL PROGRAM

United Consolidated Independent School District
Laredo, Texas

For Spanish-speaking and English-speaking children, grades 1–6.

FOR INFORMATION CONTACT:
Harold C. Brantley, Superintendent
United Consolidated Independent School District
P.O. Box 826
Del Mar Hills
Laredo, Texas 78040

Mixed classes (50% Spanish-speaking background and 50% English-speaking); languages mixed in instruction; highly transient student body with contrasting family incomes.

Program Description. The United Consolidated Independent School District of Laredo covers a large, sparsely populated area (about the size of Delaware) on the outskirts of the border city of Laredo, Texas. There are 3 elementary schools and one high school in the United Consolidated Independent School District of Laredo, with a total student population of 980. Although all 3 elementary schools are bilingually programmed, for purposes of simplification this report deals only with the largest, Nye Elementary School, with a student body of 480. This student body is highly transient with contrasting family incomes. One-half of the students come from Mexican-American low-income families, predominantly migrant; the other half from English-speaking middle-income families, most of them from the nearby Air Force base.

The bilingual program began in 1964 in grade 1 at Nye School. A new grade level has been added each year; in the fall of 1969, grade 6, the final

grade will be added. Classes in 1968 included 4 grade 1, 4 grade 2, 3 grade 3, 2 grade 4, and 2 grade 5.

In grade 1 instruction in all subjects is divided about equally between Spanish and English; the teaching is often concurrent in both languages, with a paragraph-by-paragraph translation method used. In grades 2 and 3 about one-third of the school day is spent on instruction in Spanish (Spanish language arts, some science, math, and social studies). Since not all the teachers in grades 2 and 3 are bilingual, the program has instituted team teaching; children with English-speaking teachers receive about 1½ hours of instruction in Spanish per day. In grades 4 and 5 the school is departmentalized, and the children have one 50-minute period of Spanish per day; math and science are also occasionally taught bilingually.

The basic stated goal of the program is to enable all students to gain skills in speaking, reading, and writing in both English and Spanish; to develop literate, bilingual students.

Personnel and Teacher Training. There are a total of 11 teachers in the first 3 grades of the program, 8 of whom are bilingual. Each of the 4 grade 1 classes has a bilingual teacher; there are 2 bilingual teachers in grade 2, and 2 in grade 3. Of the 10 teachers' aides, 7 are bilingual. While there is little organized teacher training, those teachers whose grades will be included in the bilingual program in the next school year must observe the actual bilingual student group they will be teaching. In the summer of 1968, 3 teachers from the program attended the NDEA Bilingual Institute in Austin, Texas, and some of the aides went to the Migrant Workshop held in McAllen, Texas.

Curriculum and Materials. The curriculum is not formalized, but depends largely on the teachers' day-by-day planning. The emphasis is on a language-experience method of instruction. A phonetic approach to reading is used with both languages. Most of the Spanish materials are teacher-made, including stories and songs adapted from Mexican materials. The state-adopted texts are used for teaching in English.

Testing and Evaluation. The teachers have developed several instruments in Spanish: a teacher evaluation form (*Prueba de aprovechamiento*); a language arts achievement test (*Programa bilingüe primaria:* Lectura de palabras, significado de párrafo, vocabulario, ortografía, identificación de sonidos), and a math achievement test (*Aritmética*).

Tests given at Nye School indicate that the original children in the program, now in grade 5, can read, write, and speak with ease in both languages.

Parent and Community Role. It is reported that the original reluctance of the parents (both Spanish-speaking and English-speaking) toward the bilingual program has changed to one of strong parental support. Several parents of English-speaking children outside the Laredo UCISD have requested that their children be permitted to enroll in the bilingual program.

Financing and Resources. The program has been supported almost entirely by local funds; some Title I funds have been used for aides. Resource: University of Texas, Austin.

MISSION INDEPENDENT SCHOOL DISTRICT
Mission, Texas

For Spanish-speaking children, grades 1 and 3; proposed grades 1–4.

FOR INFORMATION CONTACT:
M. L. Reyna, Principal
Wilson Elementary School
1490 Doherty
Mission, Texas 78572

Pilot bilingual program for Spanish-speaking migrant children; English and Spanish are introduced simultaneously; goal is to use Spanish as aid in learning English.

Program Description. The program in Mission, Texas, began in October 1968 in 2 public elementary (grades 1–8) schools. The students in the program, all Spanish-speaking, are from low-income, migrant farm labor backgrounds. A total of 80 students are in the 2 grade 1 classes and the one grade 3 class in the program. Future plans include 2 grade 1 classes, 2 grade 2 classes, one grade 3 class, and one grade 4 class.

The stated goal is to teach in Spanish as a means to help non-English-speakers learn English. Spanish and English are used interchangeably for instruction during the school day; no formal time schedule is set up for the two languages.

Personnel and Teacher Training. The staff includes 3 bilingual teachers

and one bilingual aide. As part of the orientation program, the 3 teachers attended the NDEA Summer 1968 Bilingual Institute at the University of Texas at Austin. The staff meets occasionally during the year to exchange ideas on the bilingual program.

Curriculum and Materials. The materials have been developed by teachers in this program or by teachers in other bilingual programs in the area.

Testing and Evaluation. No formal evaluation has been made as yet: both teacher-made tests and readiness tests provided by basal reader book companies have been used. The school reports that the program has been well received by the community and that the children show much better comprehension of curriculum subjects.

Financing and Resources. The program is financed by local funds. Resources: Southwest Educational Development Laboratory (SWEDL), Austin, Texas; Region I Media Center, Edinburg, Texas.

CONTROLLED PRIMARY BILINGUAL PROGRAM
CORONADO ELEMENTARY SCHOOL

Edgewood Independent School District
San Antonio, Texas

For English-speaking and Spanish-speaking children, grade 1; proposed grades 1–3.

FOR INFORMATION CONTACT:
Carlos R. Contreras, Principal
Coronado Elementary School
435 S. San Dario Street
San Antonio, Texas 78237

Bilingual grade 1 program; mixed student body, predominantly Spanish-speaking background.

Program Description. The Coronado Elementary School (grades 1–6) is in a low-income area of San Antonio, where 95% of the population is Spanish-speaking in background and 50% speak little or no English. The Coronado Elementary School bilingual program began in September 1968 in 4 grade 1 classes. It is proposed that eventually the program will go through

grade 3, with a total of 12 classes. The stated goal of the program is to develop language skills in both English and Spanish, with Spanish serving as a bridge to learning in English. The 4 classes in the program are mixed Spanish-speaking and English-speaking, although children from a Spanish-speaking background predominate. The classes have 2 hours of daily instruction in Spanish language arts; the remainder of the school day follows the regular grade 1 curriculum.

Personnel and Teacher Training. Each of the 4 bilingual classes has a bilingual teacher; the 4 classes share the 2 bilingual aides. The teachers were recruited from the school faculty, the aides from the community. In the proposed grade 1–3 setup there will be 12 teachers (8 bilingual) and 6 aides (all bilingual). The teachers meet twice a month to discuss the program. Visits to other schools with bilingual programs are encouraged; one teacher attended the NDEA Bilingual Institute held in Austin, Texas, in the summer of 1968.

Curriculum and Materials. Teacher-made materials are heavily relied on. These materials combine methods developed by the teachers, those observed at other bilingual programs, and those discussed at the NDEA Institute in Austin. Before the program began, teachers of grades 1 and 2 met with George A. Gonzales of the Education Center, Region 20, San Antonio, and developed lesson plans, teacher guides, and translated books into Spanish for use in grades 1 and 2.

Testing and Evaluation. An evaluation of the program is now under way. The Spanish version of Tests of Basic Language Competence has been administered.

Financing and Resources. The program is sponsored by local funds. Resources: Dr. Theodore Andersson, Director, USOE Bilingual Design Project, Southwest Educational Development Laboratory, 815 Brazos, Room 403, Austin, Texas 78701; George A. Gonzalez, Education Center, Region 20, San Antonio, Texas.

PRESCHOOL PROGRAM FOR SPANISH-SPEAKING CHILDREN
GOOD SAMARITAN CENTER
San Antonio, Texas

For Spanish-speaking children, ages 3–5.

FOR INFORMATION CONTACT:
Gladys R. Blankenship, Co-Director
Shari F. Nedler, Program Director Early Childhood Education
Southwest Educational Development Laboratory
Good Samaritan Center
1600 Saltillo Street
San Antonio, Texas 78207

A Spanish-English bilingual preschool program organized at a neighborhood center; curriculum and testing instruments have been developed in Spanish and English; parental involvement encouraged.

Program Description. The Good Samaritan Center is located in a predominantly (92%) Spanish-speaking low-income neighborhood (population about 20,000) in the city of San Antonio, Texas. To qualify for the Good Samaritan preschool program, a child must live in the neighborhood and speak only Spanish. Some of the parents of the children in the program are third- and fourth-generation Mexican-Americans who speak no English.

The program began in September 1965 as a 5-year demonstration project. There are 3 classes in the program: one each for 3-, 4-, and 5-year-olds. Each class has 16 children, and in turn each class is divided into 3 smaller-ability groups. The classes meet 5 mornings a week, for 3 hours daily. For the first half of the school year, the 3-year-olds are taught only in Spanish; for the remainder of the year, they are taught about 80% of the time in Spanish, with daily 15-minute formal English- and Spanish-language periods. The 4- and 5-year-old classes have formal English- and Spanish-language periods of 20 minutes each based on a Bereiter approach. The basic goal of the Good Samaritan program is to create bilingual children by focusing on new methods for teaching English as a Second Language, while at the same time preserving and reinforcing the use of the mother tongue.

Personnel and Teacher Training. The staff here is headed by 2 bilingual Co-Directors. All 3 teachers in the program are bilingual. The 3 aides

are all bilingual high school graduates recruited from the community. In addition, there are 2 bilingual "Neighborhood Aides," a man and a woman who live in the area and serve as liaison between the school and home. There is also a staff psychologist who helps plan and administer tests, assess the program, and develop new teaching techniques in conjunction with a language specialist. A staff of 4 program-design specialists develop the instructional activities. An ongoing teacher-training program has been organized for teachers and aides in cooperation with the Southwest Educational Development Laboratory, Austin, Texas.

Curriculum and Materials. The teachers and the program-design staff have developed their own curriculum units in both Spanish and English. The curriculum is based on the sequential presentation of materials with carefully developed lesson plans, including daily language sessions in both Spanish and English. The first part of the morning is highly organized. The program adapts the Bereiter pattern drill as a part, but not the single goal, of the lessons. Emphasis is placed on contrastive sound training and the acquisition of concepts; all activities of the day relate to new vocabulary. A 2,700 word list (the average vocabulary of the English-speaking 6-year-old) has been developed and sorted by content units, around which the teacher structures the lessons. Familiar concepts are introduced in English; unfamiliar concepts are introduced first in Spanish. Instruction in Spanish is much less structured than in English.

The staff has prepared a complete curriculum for the 3- and 4-year-olds. Instructional materials have been developed for 5 major training areas: Visual Training; Auditory Training; Motor Training—Gross and Fine; English Language Instruction; and Expanded Language Instruction—Problem-Solving. Skill outlines representing 3-year objectives have been developed for these training areas. The curriculum consists of a sequenced series of lessons that begin with the lowest order of skill competencies and proceed systematically to higher-level tasks. The curriculum is available in both Spanish and English and the language of instruction has been specified for each activity. These materials are being pilot-tested by the Southwest Educational Development Laboratory.

A filmstrip on a demonstration lesson at Good Samaritan has also been prepared (for use on a Duquesne Automatic Projector).

Testing and Evaluation. In evaluating the program, achievement tests based on the curriculum, involving colors, shapes, sorting by categories, num-

ber concepts, and parts of the body, have been developed. The tests are given at both the beginning and the end of the second year of the program to the 4-year-olds, first in English and 2 weeks later in Spanish. In the first year of testing, the children scored higher in Spanish at the beginning of the year and higher in English at the end. But in the last year of testing (the 5-year-olds), the children scored equally well in Spanish and in English. A Spanish translation of the Peabody Picture Vocabulary Test (PPVT, Form B) has also been used for evaluation.

Parent and Community Role. The staff holds regular meetings with the parents, who are asked to observe their children in class and to meet with the teacher for a discussion of problems. Parents are also encouraged to take simple conceptual materials home to use in teaching their children.

In 1968–69, the Urban Educational Development Center of San Antonio, in an attempt "to create change in the community by doing things *with* people," formed 3 parent groups: (1) parents of 3-year-olds at Good Samaritan; (2) parents of 3-year-olds not enrolled at Good Samaritan; and (3) a group of civic leaders. Groups 1 and 2 are involved in special services at Good Samaritan. Group 3 is being involved so that they may develop insight into community problems. Some activities are: supervising children going to and from school, attending meetings with school and community officials, visiting the school to observe children and discuss methods and techniques with staff, volunteering as teachers' helpers, hosting gatherings in private homes to demonstrate school and community services. Before each activity personal contact is made with each parent followed by a letter of invitation.

A Parent Education program for parents of 3-year-old children will be designed and pilot-tested. The program will focus on assisting parents to develop skills necessary to function as teachers of their own children. A Parent Advisory group will also be organized to assist the program-design personnel in defining objectives and goals for the program. This group will function in an advisory capacity throughout the school year.

The Toy Library materials developed at the Far West Laboratory under the direction of Glen Nimnicht will be analyzed, modified, and adapted for use with parents. Efforts will be made to sequence the instructional activities for parents so that they parallel the objectives already specified in the classroom program for 3-year-olds. Supplementary materials will be designed in order to meet these objectives.

Financing and Resources. Originally the program was financed by the National Institute of Mental Health (NIMH), the Good Samaritan Center (supported jointly by the Episcopal Diocese of West Texas and the United Fund of San Antonio); the Hogg Foundation of Mental Health, the Brackenridge Foundation, and Halff Foundation. At present, the Good Samaritan preschool program receives major funding from the Southwest Educational Development Laboratory (SWEDL). Funding from the National Institute of Mental Health will be phased out by 31 May 1970.

Resources: SWEDL. Consultants have included: Dr. Kenneth Kramer, Dept. of Psychology, Trinity University; Dr. Phyllis Richards, Dept. of Home Economics, University of Texas; Mr. Juan Rivera, SWEDL: Dr. Marion Blank, Yeshiva University; Mrs. Jean Osborne, University of Illinois.

BILINGUAL EDUCATION PROJECT
HARLANDALE INDEPENDENT SCHOOL DISTRICT
San Antonio, Texas

For Spanish-speaking children, grades 1–3.

FOR INFORMATION CONTACT:
Mr. Callie W. Smith, Superintendent
Harlandale Independent School District
San Antonio, Texas 78214

Dr. Guy C. Pryor (Evaluation)
Our Lady of the Lake College
411 S.W. 24th St.
San Antonio, Texas 78207

English-Spanish bilingual program for Spanish-speaking children, grades 1 to 3 in 4 elementary schools; students in Teacher Excellence Program, Our Lady of the Lake College, are classroom interns; evaluations completed for 2 years.

Program Description. The Harlandale Independent School District is one of 7 independent school districts in the city of San Antonio, Texas. About 60% of the students in this district are from low-income, non-migrant Mexican-American families. A bilingual program was initiated in September 1966 with the goal of providing both a bilingual environment and bilingual instruc-

tion for children who came from neighborhoods that were almost exclusively Mexican-American. An evaluation was planned to compare the language development and reading ability of pupils taught bilingually with those taught in English only.

One grade 1 class in each of 4 elementary schools in the Harlandale Independent School District participated in the first year of the project (1966–67). These 4 classes were instructed in both Spanish and English; the schools' other grade 1 classes functioned as control groups and were taught in English only. The children were all Mexican-Americans, most of them entering school as non-English-speakers. The program was continued in 1967–68, and evaluations were done after each year's work.

The project is now completing its third year of operation; the pupils who were enrolled in the first experimental classes are now in grade 3. The number of bilingual classes has expanded from 4 to 27; of these 27 classes, 12 are on the grade 1 level, 11 on the grade 2 level, and 4 on the grade 3 level.

The amount of Spanish used in each classroom and the method of use depends on the individual teacher. While all of the teachers include bilingual instruction in their classes and use Spanish as a tool for learning English, some teachers use a sentence-by-sentence translation approach; others set aside time for Spanish language instruction.

Personnel and Teacher Training. Of the 27 teachers in the project, 24 are bilingual. The 3 English-speaking teachers work in teams with the bilingual staff members, so that the children in their sections receive at least one hour of Spanish instruction daily. In addition, there is one rotating bilingual aide for every 3 teachers. Classroom staff also includes bilingual student interns from the teacher-training program at Our Lady of the Lake College (a full-scale program designed to train bilingual elementary school teachers; see pp. 116–17).

An orientation program, in-service workshops, and summer institutes have been organized for the staff in the Harlandale project. The special one-week orientation session for the bilingual teachers and aides concentrates on overcoming hesitancy about using Spanish in the classroom, a language previously forbidden by law. It is reported that some native Spanish-speaking teachers had difficulty using their Spanish in the classroom, and consequently their students received less Spanish instruction than others at the same level in the program. In-service workshops and seminars with guest speakers in related ed-

ucational fields are held periodically. A workshop was organized in the summer of 1968 for work on curriculum and materials.

Curriculum and Materials. The curriculum guide and accompanying materials developed at the 1968 summer workshop are used by many of the teachers in the classrooms and feature a unit system based on experiences at home, school, and holidays. Other teachers use the standard curriculum guide, with Spanish language arts added. A phonetic approach to reading in both languages is used. Materials include *TAG* books, English pre-primers published by the Economy Co., and Spanish materials developed by the staff. The school utilizes state texts: the *Para mis niños* series, by Carlos Rivera, published by W. S. Benson; and *Elena y Dani,* a Spanish reading pre-primer, by A. L. Lopez Lay, F. Guerra, and A. Caberera, published by Texto Cultural Centro Americano.

Testing and Evaluation. The project was designed to compare the progress in communicative skills, conceptual development, and social and personal adjustment of Mexican-American children who were instructed bilingually with similar classes instructed only in English. During the first year, only tests judged relevant to first graders were used; in the second year, additional tests for the second graders were added. Since pre- and post-reading tests could not be used with grade 1 pupils, all students were tested at the beginning of the year for general ability, and at the end of the year in English reading ability; the children in the bilingual classes were also tested for Spanish reading ability.

The Otis Alpha Mental Ability, non-verbal, short form was used to measure general ability and readiness at the beginning of grade 1. Directions were given in English and Spanish in quick succession. A standard translation of the directions into Spanish was made so that testers would be using exactly the same wording.

Tests of Reading, Inter-American Series, Level 1, Primary, form CE, and Pruebas Lectura, Nivel 1, Primario, Interamericano Serie, Form CES (English and Spanish editions) were used to measure comparative reading ability at the end of the year. All sections took the English edition test; the bilingual sections took the Spanish edition as well. Comparisons in amount of progress were made in relation to initial readiness and ability measured by the Otis Alpha Test.

Grade 2 was pre- and post-tested in reading ability. One test used was

Tests of Reading, Inter-American Series, Level 1, Primary, English and Spanish editions, the same test given in grade 1. It was used to compare the May 1968 scores with the May 1967 scores. The Science Research Associates Achievement Tests, Reading Composite only, grade 2 level, was also used.

Behavioral observations and individual pupil data (attendance, parental cooperation, teachers' observations of pupils, and teacher evaluation of program) were analyzed to the extent that they contributed to objective evaluation.

The results of the first year's testing indicated that the bilingual sections did as well in reading English as the classes instructed in English only; all of the bilingual students could speak, read, and write in both languages; and 3 of the 4 bilingual classes made more progress in every measure (communicative skills, conceptual development, and social and personal adjustment) than did those children taught in English only. Tests given at the end of the second year yielded basically the same results.

Teachers involved in the program felt that the bilingual pupils had a better self-concept, had greater pride in their home culture and its language, and were better adjusted. The school superintendent noted that there was significantly more participation in the parent-teacher association among those parents whose children were involved in bilingual classes than among those parents whose children were in the traditional classes. He also noted that most of the parents were pleased that their children were learning Spanish in school. The teachers were practically unanimous in feeling that, regardless of the amount of Spanish they used in the classroom, bilingual instruction had value and should be continued. The testing and evaluation was conducted under the direction of Guy C. Pryor of Our Lady of the Lake College.

Financing. The program is financed through Title I and local funds.

BILINGUAL PROGRAM, BISHOP MARX DISTRICT SCHOOL
(Terminated)
Weslaco, Texas

For Spanish-speaking children in ungraded first grade.

FOR INFORMATION CONTACT:
Sister Norma Rosa Garcia, Director
Bishop Marx District School
Weslaco, Texas 78596

One-year bilingual pilot program for non-English-speaking grade 1 parochial school students.

Program Description. This pilot program began in the Bishop Marx parochial school in September 1967 and terminated in May 1968. There were 38 Spanish-speaking students involved in one ungraded grade 1 class. The goals were to produce literate bilingual students, to develop an appreciation for the Spanish language and heritage, and to create teaching techniques that would increase student interest. One-third of the school day was spent in instruction in Spanish and two-thirds in English. The same concept was taught each day in both languages, but not necessarily through the same lesson. Religion was also taught in both languages.

Personnel and Teacher Training. There were 2 experienced teachers (a Spanish-speaking teacher from Mexico and an English-speaking reading teacher who assisted) and 2 classroom aides. An ongoing teacher-training program included demonstration lessons and a workshop on perceptual testing and training.

Curriculum and Materials. No detailed lesson plans were followed; the teachers were free to develop their own, including visual aids. The first month was devoted to readiness skills in both languages. For Spanish instruction, the program used the curriculum guide and books from schools in Monterrey, Mexico, as well as books from other Mexican schools. Traditional Mexican songs and games were taught. In the English phase of the program, both sentence pattern drills and a perceptual training program were used to allow frequent change of pace in the class.

Testing and Evaluation. In order to help group the students, the Faith and Freedom Achievement Tests (Readiness) were given at the end of the first

6 weeks of the program in both Spanish and English. The school reports that children learned to read in both languages. The results of an IQ test given after 6 months of the program in February 1968 were above average. A report was sent by the school to Loyola University in Chicago.

Parent and Community Role. A Bilingual Committee, composed of both sectarian and non-sectarian groups, developed out of the local interest in this pilot program.

Financing. Supplementary Title I funds were used to hire the reading teacher.

ZAPATA BILINGUAL PROGRAM

Zapata County Independent School District
Zapata, Texas

For Spanish-speaking and English-speaking children from K–grade 2; proposed through grade 6.

FOR INFORMATION CONTACT:
Mr. Jaime A. Gonzalez
Zapata County Independent School District
P.O. Box 158
Zapata, Texas 78076

Bilingual Spanish-English program in kindergarten and grade 1; Spanish language arts program in grade 2; mixed classes.

Program Description. Zapata, a small rural town of about 5,000 people, is located in the Texas Rio Grande Valley. The population is 85% Spanish-speaking, predominantly low-income in background; the 15% English-speaking-background population is mainly middle-income.

In January 1966 the Zapata Independent School District initiated a bilingual program at the kindergarten level. The program now goes from kindergarten to grade 2 and is expected to continue through grade 6, adding a new level each year. There are 2 elementary schools in the program, with a total of 10 classes: 3 kindergartens, 3 grades 1, and 4 grades 2. Children of mixed language backgrounds are grouped in the same classes. Most of the day in kindergarten and grade 1 is spent in Spanish instruction. Oral language pat-

tern drills used for building English skills are supplemented by free conversation, dramatic action, action sentences, and pantomime. All subjects, both in English and in Spanish, are taught to the class by a bilingual teacher. In grade 2 instruction is in English, with the Spanish language taught separately in a Spanish language arts program.

Personnel and Teacher Training. There are 10 bilingual teachers and 3 bilingual aides in the program. The teachers are graduates of Texas colleges. The teacher-training program includes an orientation session prior to the opening of school, and periodic workshops throughout the year with consultants from Region I, Edinburg, Texas.

Curriculum and Materials. In kindergarten and grade 1 the entire curriculum is taught in both languages. Instruction in kindergarten is organized into units that correlate all subjects around a concept, e.g., the family, the home. Into these units are incorporated activities for reading, science, math, music, and art readiness, and the development of social skills. Spanish materials used are both teacher-made and commercially produced. Among the books used are *ABCD Libro primero de lectura,* by Ramón García Ruiz; *Alegre comienzo,* by Maria del Carmen; and *Mis primeras letras,* by Carmen G. Basurto; all are available from the Heffernan Supply Co., Inc., 926 Fredericksburg Road, San Antonio, Texas.

Testing and Evaluation. Teacher-made tests evaluate the children's progress at the end of a study unit. They report that among the children in the bilingual program there are fewer repeaters in grades 1 and 2.

Financing and Resources. The program is financed by Title I and local funds.

WASHINGTON INTERNATIONAL SCHOOL
Washington, D.C.

For children of mixed language backgrounds, ages 3–9 (proposed ages 3–11).

FOR INFORMATION CONTACT:
Dr. Dorothy Goodman, Director
Washington International School
3211 Volta Place, N.W.
Washington, D.C. 20007

Private bilingual school, nursery through elementary; children study either in English and French, or in English and Spanish; mixed classes; children from international, diplomatic, and local communities.

Program Description. The Washington International School was organized in 1966 to provide a course of study to bridge the intellectual differences among the major national education systems in the world. Forty countries are represented among the school's 135 students. Approximately 60% of the children speak English at home, 25% speak French, 7% speak Spanish, and 8% speak other languages. One-fourth of the students are children of the staff of the World Bank, the Monetary Fund, the Inter-American Development Bank, and the Pan American Union. The school now provides classes for children from 3 to 9 years old and plans to add classes for 10- and 11-year-olds.

The school's stated aim is to provide an international curriculum that will prepare the students for future study in school systems of other countries. Every child must study in two languages. The 3- and 4-year-olds attend either a French section or a Spanish section in the nursery. There is little English instruction, because the school believes that the outside world reinforces the child's English. However, special tutoring in English may be arranged if necessary.

A 5-year-old attends school all day, with instruction in all the primary subjects in his 2 working languages. Each child does half of his work in English and the other half in French or Spanish. Children are grouped in part chronologically, in part by ability, and in part linguistically. The languages are kept entirely separate within one lesson. Children with difficulties in any of the 3 languages are tutored individually or in small groups.

Personnel and Teacher Training. The 25 teachers on the staff are native

speakers of the language they use for instruction. They come from many countries and a variety of academic and professional backgrounds.

Curriculum and Materials. Since many children stay in the school for only two or three years, the curriculum is geared to preparing the student for further study in the school systems of other countries. The curriculum design incorporates elements of the national systems of France, England, Spain, and other countries. The bilingual adaptation of scientific curriculum prepared by the American Association for the Advancement of Science is used.

R.E.M.I. filmstrips (in French and in English as a foreign language), followed by talking, singing, and games, are used at all levels. The course book has been translated by the staff into Spanish for use with the Spanish section of the school. Children's classics, as well as readers, are also used.

Financing. The school is privately financed through tuition and donations.

HEAD START CHILD DEVELOPMENT PROGRAM

Office of Navajo Economic Opportunity
Ft. Defiance, Arizona

For 4- and 5-year-old Navajo children.

FOR INFORMATION CONTACT:
Frankie E. Paul, Head Start
Office of Navajo Economic Opportunity
Central Office
Box 589
Ft. Defiance, Arizona 86504

103 separate Navajo-English bilingual preschools and kindergartens; supported by the Office of Economic Opportunity; heavy parental involvement; aides chosen by community.

Program Description. This Head Start program, initiated in July 1965, is for 4- and 5-year-old Navajo children living on the 25,000-square-mile Navajo reservation. The reservation is in a remote desert area without paved roads and other facilities. There are over 2,000 Navajo children attending the 102 separate preschool centers located in chapter houses (community halls) scat-

tered throughout the reservation. Both children and teachers must often travel long distances (e.g., one teacher drives 76 miles to and from work). Navajo is the dominant language of the reservation and almost all the children in the Head Start program are non-English-speaking when they enter school. Both English and Navajo are used as languages of instruction during the 5-hour school day and the children are free to talk in Navajo at any time.

Personnel and Teacher Training. Each Head Start Center has one teacher and 3 aides. Of the 102 teachers in the program 70% are bilingual, the rest English-speaking. All of the aides are bilingual Navajos nominated for their positions by members of the local community. While the teachers must be college graduates, they are not required to hold degrees in education. The University of Northern Arizona and Arizona State University give summer teacher-training programs to qualify college graduates as teachers. The two universities also run training programs for aides. In addition to such formal training, the community and the teachers work closely with the aides.

Teachers and aides attend an orientation program each year provided by field assistants and other central office staff. In-service teacher training includes one-day workshops for all of the teaching staff, and three-week workshops held twice a year for new teachers. Summer workshops for teachers and aides are conducted by Arizona State University through the Indian Community Action Project.

Curriculum and Materials. Materials for the classrooms are teacher-made. Guidelines used for these materials are those developed by the Office of Economic Opportunity and those developed by the staff with the assistance of the Indian Community Action Project and Arizona State University. Traditional Navajo stories, songs, and dances are used in the classroom to give the children pride in their culture and to build the verbal skills and concepts needed in grade 1. For teaching English vocabulary, it is suggested that each center have an "Object Table" where different objects are placed every day and used as bases for discussion leading to learning and conceptualization. Puppets are used for sentence-modeling techniques.

Testing and Evaluation. No formal evaluation of these Navajo Head Start Centers has been undertaken.

Parent and Community Role. The entire community is involved. Because many of the chapter houses lacked water and electricity when the project began, Community Action Committees were created to install adequate facili-

ties. Parents helped by cooking meals, chaperoning trips, fixing broken windows, and generally improving school grounds. There were few qualified teachers and transportation was a major problem for both teachers and students.

Financing. The program is sponsored by the Office of Economic Opportunity, Head Start.

BILINGUAL KINDERGARTEN PROGRAM
BUREAU OF INDIAN AFFAIRS

For kindergarten children from various Indian tribes.

FOR INFORMATION CONTACT:
Mariana Jessen, Education Specialist
Early Childhood Education
Bureau of Indian Affairs
Dept. of the Interior
Washington, D.C.

Bilingual kindergartens sponsored by the Bureau of Indian Affairs for Indian children of 7 different tribes; emphasis on parental involvement.

Program Description. The 34 bilingual kindergarten units established in this Bureau of Indian Affairs (BIA) program operate only in areas where they are desired by the community. The proportion of instruction in the children's language and in English depends on such local circumstances as the amount of English already mastered by the children and the availability of staff. The program provides ancillary health services and seeks to involve parents and concerned groups in the community around the educational issues.

As of September 1968, 717 children were enrolled in 34 kindergarten classes in North Dakota, South Dakota, New Mexico, Arizona, Mississippi, North Carolina, and Alaska. Sioux, Hopi, Pueblo, Navajo, Choctaw, and Cherokee children, as well as Aleuts, are enrolled in the different schools. No single preschool model is recommended; a variety of approaches based on early childhood development are suggested for local adaptation. Parental participation is a major objective.

Personnel and Teacher Training. Teachers are drawn from such pro-

grams as Head Start and the Peace Corps; as many teachers as possible, and all aides, have Indian backgrounds.

Orientation, pre-service and in-service training concentrate on early childhood development. The 6-week pre-service training program (BIA-NAEYC Kindergarten Training Project) was held in July and August 1968 at Dilcon, Arizona, for 200 BIA administrators, teachers, and aides, as well as personnel from colleges and universities. A kindergarten curriculum guide was developed. Follow-up included meetings held in January and in April, as well as visits and consultations.

Curriculum and Materials. The child's home culture and language are stressed. As the year progresses and the students acquire more English, content is broadened to include activities in both languages. Models for teaching English include combinations of structured and unstructured activities; linguistically structured drills, for instance, may be used in conjunction with songs, games, and other activities. For example, one of the 34 kindergarten classes is conducted at the Toadlena Boarding School, Toadlena, New Mexico. The media of instruction are English and Navajo. The children are 5-year-olds; most are non-English-speaking Navajos of rural background. The 4-hour class is staffed by one teacher and one aide, both speakers of Navajo. Almost all of the language program at the school is presented in both Navajo and English. The curriculum guide used is the one developed at the Bureau of Indian Affairs —National Association for the Education of Young Children (*A Kindergarten Curriculum Guide for Indian Children,* Washington, D.C.: Bureau of Indian Affairs, Division of Education). The staff, who attended the 6-week training session at Dilcon, is involved during the year in the follow-up program. The materials used in the classroom are delivered orally; English materials are translated by the teacher or the aide. The school requires weekly reports by the teacher; anecdotal reports by the teacher, aide, observers, and parents are used in evaluating the program.

A teacher in the program, observing the class as it progressed, commented that "at first I did not consider this as a bilingual program, because we did not use materials published in the Navajo language, and were not attempting to teach it as a separate subject. . . . I now believe our effort can be called bilingual and bicultural, and we are seriously contemplating extending bilingual instruction to other grades." The teacher points to the difference in the classroom between using Navajo for limited instructional purposes, which the

school has done in the past, and placing a programmatic emphasis on the language.

Testing and Evaluation. The Bureau of Indian Affairs is developing tools to evaluate the program and to plan areas of further development.

Financing. A special government allowance of $850,000 was provided for the 1969 year to establish 34 kindergarten units in existing Bureau schools. Orientation, pre-service, and in-service training were provided with Title I 8910 funds.

Listed on page 101 are the names and locations of the BIA kindergartens functioning as of September 1968.

MISCELLANEOUS EARLY CHILDHOOD PROGRAMS WITH BILINGUAL ASPECTS

California:

San Francisco Unified School District
135 Van Ness Avenue
San Francisco, Calif. 94102

CONTACT: *Elmer Gallejo*

Bilingual program (Spanish-English) in operation for one year in a few elementary schools.

Oasis School
Oasis Joint School District
Box 245
Thermal, Calif. 92274

CONTACT: *Robert Luhman, District Superintendent*

Bilingual program started in 1962 for migrant children. All subjects taught in two languages for Spanish-speaking children that need it. Spanish-speaking teachers. Ancillary services provided.

Maine:

Van Buren Head Start—Follow Through
Van Buren, Maine 04785

Children begin at age 4 with French enrichment Head Start program. In kindergarten and grade 1 English taught as second language. Stated goal: to be bilingual by grade 6.

KINDERGARTEN	ADDRESS	PRINCIPAL
Aberdeen Area: (Sioux)		
Fort Thompson	Pierre Agency Fort Thompson, S.D. 57339	George Weis
Fort Totten	Fort Totten Agency Fort Totten, N.D. 58335	Everett Johnson
Mandaree	Fort Berthold Agency Fort Berthold, N.D. 58757	Sam Feld
Big Coulee	Sisseton Agency Old Agency Sisseton, S.D. 57262	Max Fischer
Lone Man	Pine Ridge Agency Oglala, S.D. 57764	Elec Gross
Wamblee	Pine Ridge Agency Wamblee, S.D. 57577	Elijah Whirlwind Horse
Albuquerque Area:		
San Felipe (Pueblo)	United Pueblos Agency San Felipe, N.M.	Naomi Catlette
Juneau Area: (Aleuts)		
Kotzebue	Kotzebue, Alaska 99752	
Unalakleet	Unalakleet, Alaska 99684	William Grubbs
Navajo Area:		
Lukachukai	Lukachukai, Ariz. 86507	Laura Jean Combs
Red Rock	Shiprock, N.M. 87420	William Ivan (acting)
Ojo Encino	Star Route, N.M.	Edwin Rector
Dilcon	Winslow, Ariz. 86047	Royce Brunk
Leupp	Leupp, Ariz. 86035	Lee A. Brewer
Rock Point	Chinle, Ariz. 86503	Wayne Holm
Dzilth-na-o-dith-hle	Crownpoint, N.M. 87313	Wayne Winterton
Greasewood	Ganado, Ariz. 86505	Hayward Camper
Sanostee	Littlewater, N.M. 87420	Dow Carnal
Lower Kaibeto	Tonalea, Ariz. 86044	John Habitzel
Cottonwood	Chinle, Ariz. 86503	James Thom
Toyei	Toyei Boarding School Ft. Defiance, Ariz. 86504	Manuel Moran
Toadlena	Toadlena, N.M. 87324	William Bill Vineyard
Chilchinbeto	Kayenta, Ariz. 86033	Charles Sherlock
Low Mountain	Shiprock, N.M. 87420	Eugene Meadows
Phoenix Area: (Hopi)		
Salt River	Scottsdale, Ariz. 85251	Gilbert Cruz
Hopi Agency	Polacca, Ariz. 86042	D. B. Lacewell
Muskogee Area: (Choctaw)		
Conehatta	Conehatta, Miss. 39057	Frank Peckham
Choctaw Central	Philadelphia, Miss. 39350	Doyce Scribling
Boque Chitto	Philadelphia, Miss. 39350	John Singleton
Cherokee Agency: (Cherokee)		
Cherokee School	Cherokee, N.C. 28719	Sam Hyatt

Montana:

Head Start
Northern Cheyenne Community Action Program
Lame Deer, Mont. 59043

CONTACT: *Jan Roberts, Director*

Cheyenne language used in classroom. Children are tutored at home in Cheyenne so parents can learn techniques of education.

New Mexico:

Joint Head Start–Taos Primary Language Program
BIA, P.O. Box 1667
Albuquerque, N.M. 87103

Program began in 1967; now terminated. Children in Head Start and grade 1 learned to read first in native language.

New York:

P.S. 29 Bronx
751 Cortland Avenue
Bronx, N.Y. 10451

CONTACT: *Mrs. Amy Gold, teacher*

Grade 1 bilingual class. English materials used; teacher translates and speaks in Spanish.

P.S. 192 Manhattan
500 W. 138th Street
New York, N.Y. 10031

CONTACT: *Mildred Garvin, Coordinator*

Special non-graded (K–6) classes to teach English to Spanish-speaking children. Subjects taught in Spanish, immediately followed by English. When children read and speak English adequately, they are transferred to regular classes.

Bilingual Readiness in Earliest School Years
Hunter College of the City University of New York
New York, N.Y. 10021

CONTACT: *Mary Finocchiaro*

This curriculum demonstration project, designed to help prepare young children to develop skills in two languages, was conducted in two New York City schools from February 1964 to June 1966. Children of both English- and Spanish-speaking backgrounds were in the kindergarten and grade 1 classes of the program. The readiness program consisted of daily 15-minute bilingual lessons. Stories and songs and dramatics were extensively used as were audio-visual materials specifically related to Hispanic culture. Materials with sensory appeal were brought in, and the children were given frequent opportunities to handle and manipulate them.

St. Josephs Center Head Start
735 Willoughby Avenue
Brooklyn, N.Y. 11206

CONTACT: *Mrs. Fagan, Director*

Nursery with bilingual aspects.

Texas:

Migrant Education Center
McAllen, Texas 78501

CONTACT: *Tony Garcia, Director*

Bilingual classes in nursery through grade 2. Classes from mid-November to May to coordinate with migrant working patterns. Team teaching, multi-age-level grouping, stress on parental involvement.

Experiment in Reading for Mexican-American Students
Corpus Christi Independent School District
P.O. Box 110
Corpus Christi, Texas 78403

CONTACT: *Dan McLendon, Coordinator*

For grade 1 Spanish-speaking children; Spanish used two-thirds of day; children learn to read in both languages.

"Teaching Spanish in Grades 1 and 2"
Houston Independent School District
1300 Capitol Avenue
Houston, Texas 77002

CONTACT: *Olivia Muñoz, Director of Foreign Language Instruction*

Program begun in 1963 for Spanish-speaking students, grades 1–2, in 5 elementary schools; voluntary basis; 30 minutes Spanish instruction daily before or after school; all subjects covered.

The Bilingual Program
Laredo Independent School District
1702 Houston Street
Laredo, Texas 78040

CONTACT: *Hermelia Ochoa*

Program begun in 1960, grades 1–6; 4,261 students involved; mixed classes; 30–45 minutes per day in Spanish; many subjects covered.

Wilson Elementary School
Mission, Texas 78572

CONTACT: *Mauro L. Reyna, Principal*

Experimental bilingual grade 1.

Edgewood Independent School District Instructional TV
KHS–77
1922 S. General McMullen Drive
San Antonio, Texas 78226

Set of bilingual lessons for grade 1 are used on closed-circuit TV, each lesson based on one concept. There is drill first in Spanish sentences, then in English sentences. Lessons based on classroom readers, for use as aid in regular curriculum.

Madonna Center
c/o Pupil Appraisal Center
N. East Independent School District
535 Busby
San Antonio, Texas 78209

CONTACT: *Mrs. Sibyl Gallaspy*

School for 4- and 5-year olds (150 children), 90% Spanish-speaking. The Self-Image Concept Program is used. Spanish stories and some Spanish instruction used. Administration wants bilingual school and

is trying to introduce more Spanish. Resource: Southwest Educational Development Laboratory.

Weslaco Independent School District
P.O. Box 266
Weslaco, Texas 78596

CONTACT: *Mrs. Pat Wallace*

Proposal submitted for bilingual elementary school starting September 1969.

Washington:

Lummi Indian Language Program
Lummi Indian Reservation
P.O. Box 77
Marietta, Wash. 98268

CONTACT: *Mr. Forrest L. Kinley, CAP Director*

25 students, ages 4–60, meet each week to study Lummi.
Language materials not for release.

BULLETINS AND NEWSLETTERS PUBLISHED BY BILINGUAL EDUCATION PROGRAMS AND EDUCATIONAL LABORATORIES

1. *Bilingual Bylines*
   Southwest Educational Development Laboratory (SWEDL)
   Suite 550
   Commodore Perry Hotel
   Austin, Texas 78701
   Report of SWEDL Language Bilingual Program and of the San Antonio Bilingual Demonstration and Dissemination Center.

2. *Carta Editorial*
   P.O. Box 54624, Terminal Annex
   Los Angeles, Calif. 90054
   News on Mexican-American affairs.

3. *ESL-Bilingual News Letter*
   ESL/Bilingual Project Center
   2950 National Avenue
   San Diego, Calif. 92113

4. *Central Midwestern Regional Education Laboratory Newsletter*
   10646 St. Charles Rock Road
   St. Ann, Mo. 63074

5. *Indian Education Newsletter*
   U.S. Office of Education
   400 Maryland Avenue, S.W.
   Washington, D.C. 20202

6. *The Linguistic Reporter*
   1717 Massachusetts Ave., N.W.
   Washington, D.C. 20036
   Newsletter of the Center for Applied Linguistics

7. *Mexican-American Affairs Information Bulletin*
   U.S. Office of Education
   400 Maryland Avenue, S.W.
   Washington, D.C. 20202

8. *Novedades Educational Development Centers*
   Texas Migrant Education Development Center
   Southwest Educational Development Laboratory
   Commodore Perry Hotel
   Austin, Texas 78701

9. *Paso Doble*
   Creedmoor Bilingual School
   De Valle, Texas 78617

10. *Region I Education Service Newsletter*
    111 N. Tenth Street
    Box 307
    Edinburg, Texas 78539
    Sponsored by Texas Education Agency

11. *Rough Rock Community News*
D.I.N.E. Inc., Publishers
Rough Rock Demonstration School
Chinle, Arizona 86503
Editor: Ken Neundorf

12. *Southwest Cooperative Education Laboratory Newsletter*
117 Richmond Avenue
Albuquerque, N.M. 87106

13. *STRATEGIES: Bilingual Curriculum Development Newsletter*
Foreign Language Innovative Curriculum Studies (FLICS)
550 City Center Building
220 East Huron
Ann Arbor, Mich. 48108

14. *The Voice of PACE/FABRIC*
Wisdom High School
St. Agatha, Maine 04772
French-English news on bilingual programs.

TEACHER RECRUITMENT AND TRAINING FOR BILINGUAL PROGRAMS

I. RECRUITMENT

The most pressing problem involved in implementing a bilingual program today is the assembling of a teaching staff. The teachers being sought are articulate, literate bilinguals, trained or experienced in teaching their specialties in both languages, and certified to teach in United States schools. Ideally, these teachers produce students literate in both tongues. The teachers should be able to teach English as a Second Language, to teach primary subjects in the mother tongue and in English, and to teach the history and culture associated with the mother tongue. At present, teachers possessing all of these qualifications are rare and the recruitment of personnel for bilingual programs is both time-consuming and difficult.

Many different techniques are used in recruitment of personnel for bilingual programs: informal inquiries, field trips,[1] and listings in educational

[1] Members of the Board of Education of New York City regularly travel to Puerto Rico

and government publications, foreign language journals and newsletters. Schools recruiting for bilingual programs have generally drawn their staff from three main sources: teachers who are also bilinguals, bilingual individuals who are not trained as teachers, and teachers trained in foreign countries. In addition, some schools have staffed bilingual programs with teams of paired teachers from two different language backgrounds.

Teachers Who Are Also Bilinguals. Most teachers recruited from this category come from a minority group background where a language other than English is spoken in the home or neighborhood. Almost none of these teachers have used their native language professionally, and few have ever formally studied it. Their command of their native language is largely on the oral-aural level, with reading and/or writing skills restricted or nonexistent.

Bilingual Individuals Who Are Not Trained as Teachers. A growing number of bilinguals are interested in becoming teachers in bilingual programs, although they hold degrees in areas other than education or are enrolled in a variety of other undergraduate courses. These bilinguals come mainly from non-English-speaking minority group backgrounds, although a few may have English-speaking backgrounds (for example, Peace Corps returnees or foreign language majors). Nearly all of them have had no formal training in their native language and their command of it is restricted almost entirely to the oral-aural level.

Teachers Trained in Foreign Countries. While there are many experienced teachers in the United States who have been well-trained in other countries, their recruitment has been limited because their knowledge of English is often insufficient for certification here. Although many of these individuals have been teachers *of* English in their home countries, few have had experience teaching *in* English. Further, because of a lack of knowledge of the educational and social foundations of schools in the United States, the pedagogical approaches and expectations of this group may differ considerably from those found here.

Paired Teaching Teams. Some schools with bilingual programs have met the teacher emergency by using paired teachers, one from an English-speaking background and one from a non-English-speaking background, each teaching

on recruitment trips. In the spring of 1968, e.g., 46 of 86 applicants from Puerto Rico passed both the oral and the written examination for New York City teacher certification; 15 of these teachers came to New York City and are now at work in the city's schools.

the subject sequence in her native language.[2] The teacher from the non-English-speaking background may be a trained teacher, possibly from a foreign country; more often she is a classroom "teacher aide" recruited from the neighborhood and language group of the students and trained to conduct classroom activities in her native language.

In order to assist the staffing of bilingual programs, flexible guidelines for the recruitment and training of teachers are urgently needed. Such guidelines should relate to the varying degrees of bilingualism in available and potential personnel, the different forms of bilingual programs in operation or planned, and the different forms of teacher-training procedures required to staff these programs.

At the March 1969 San Antonio Conference on Bilingual/Bicultural Education, sponsored by the United States Office of Education and St. Mary's University, some general guidelines were recommended for the recruitment, retention, and training of personnel for bilingual programs. The proposals for teacher recruitment and retention suggested that:[3]

1. *Varying proficiency levels of teachers be accepted and be improved through teacher training programs.*
2. *Information be disseminated in colleges and departments of education to encourage students to go into bilingual education.*
3. *Colleges and universities be encouraged to implement high intensity language programs to better prepare future teachers for bilingual programs.*
4. *Efforts be made to retrain bilingual professionals as bilingual teachers.*
5. *Arrangements be made for more latitude in using "floating teachers" in bilingual programs.*
6. *The use of classroom teacher aides be accelerated and improved; opportunities be made available for continuous formal training of these aides towards the goals of certification and teaching degrees.*
7. *Community parents be recruited as classroom aides and be used in planning, particularly in those areas of the bilingual program that deal with intercultural considerations.*
8. *Differentiated staffing procedures be employed to utilize more fully available personnel resources; teachers with special training and exper-*

[2] Certain bilingual programs are specifically designed to be taught in this manner, e.g., the Fleming School (a private school in New York City) (pp. 50–53) and the Coral Way School in Miami, Fla. (pp. 28–31).

[3] E. M. Bernal, Jr., ed., *The San Antonio Conference on Bilingual/Bicultural Education: Where Do We Go from Here?;* sponsored by the Bureau of Educational Personnel Development, U.S. Office of Education, and St. Mary's Univ., San Antonio, Texas, 28 and 29 March 1969, pp. 61–62.

tise could function both as classroom teachers and/or as "specialists" assisting other classroom teachers.

9. *Adequate compensation be made for the special knowledge, training, and experience required of teachers in bilingual programs.*
10. *Teachers be involved in planning of bilingual programs to help assure both greater motivation to remain on the job and a fuller contribution to the programs.*

II. TRAINING PROGRAMS

In addition to the need to establish comprehensive recruitment programs, there is the problem of developing diversified training programs for all groups of bilingual teachers. Such programs should stress literacy training for the teachers in the native language of the non-English-speaking-background students, intensive training in English, experience in teaching in one or both languages, undergraduate and graduate courses in education, and courses in the history and culture of the non-English-speaking community served.

The requirements of these training programs have not always been clearly understood, and the compelling need for teachers has often worked against careful specification and pursuit of such training. In some cases the need for specialized training has been underestimated. This casual attitude toward bilingual teacher training was attacked by Frank Angel in his report for the National Conference on Educational Opportunities for Mexican-Americans. Angel characterized the notion that many Spanish-speaking elementary school teachers in the Southwest can, without special training, teach Spanish or in Spanish, as an "error that can smash the teaching of Spanish programs on the rocks of faddism and ineptness":

> *In the first place, it is questionable that all elementary teachers of Mexican-American descent can and do speak Spanish fluently enough. The tremendous emphasis on the learning of English, and the lack of interaction with Mexico and other Latin American countries, has gradually caused many Mexican-American teachers to forget the Spanish they once knew. In the second place, many teachers who will still speak Spanish fluently simply have no notion of the linguistic composition of their own language, and hence are only dilettantes in the teaching of their own language. Thirdly, especially for those programs in which Spanish is to be the language of instruction, the lack of knowledge (combined with the lack of materials) of Spanish language arts on the part of the teacher, will lead to chaos, or*

more disastrously, to poor education for the pupils. Fourthly, modern linguistic approaches require special training in theory and practice.[4]

Until recently, the few bilingual training programs that existed in this country were designed mainly to meet the most critical needs of teacher certification and minimal experience teaching in another language. These programs generally consisted of special summer sessions and locally organized "crash courses," sometimes supplemented by loosely structured in-service training.

While programs designed specifically for the training of bilingual teachers are relatively few, more are being developed not just for summer institutes, but on a long-term, continuing basis. Moreover, colleges and universities are beginning to offer undergraduate and graduate courses and degrees in bilingual education. Here, too, an urgent need exists for guidelines for these teacher-training programs. In this direction, the participants in the San Antonio Conference on Bilingual/Bicultural Education recommended that:

1. *Teacher training not only concentrate on linguistics and language training, but also include the study of sociology and history.*
2. *Summer training institutes be increased in number and improved in content.*
3. *Summer institutes be built around on-going bilingual programs and be coordinated with actual classroom work in a specific area, instead of being open to countrywide participants.*
4. *Summer institutes offer participating teachers experience in those methods and techniques which will be put to actual use in the approaching school year.*
5. *Teachers be given greater responsibility in developing in-service training programs.*
6. *Adjunct faculties, consisting of individuals who have been involved in bilingual programs, be established in colleges and universities and be available for off-campus work.*[5]

III. SOME REPRESENTATIVE TRAINING PROGRAMS

The following review is intended to indicate briefly the types of teacher training used in bilingual programs and the new training procedures currently being developed.

A. TESL Programs with Bilingual and Bicultural Elements. The methodology around which most of the training for teachers of children of

[4] Frank Angel, a report prepared for the National Conference on Educational Opportunities for Mexican-Americans, held at Austin, Texas, 1968.
[5] Bernal, pp. 63–64.

non-English-speaking background has been organized is TESL (Teaching English as a Second Language). TESL has traditionally focused on the teaching of English—not on bilingual teaching—and many TESL-trained classroom teachers are monolingual English-speakers without any personal knowledge of the actual experience of learning in a foreign language. Some recent TESL training programs, however, have incorporated bicultural and bilingual features for the stated purpose of giving the participants a clearer understanding of the problems of the non-English-speaking child instructed only in English. Two examples of these programs were the 1967 NDEA Summer Institute held at the Navajo reservation in Tuba City, Arizona, and the 1968 Summer NDEA Institute in Gallup, New Mexico.

At the Tuba City summer program, conducted in the classrooms of the Tuba City Boarding School for Navajo Children, the participants were all native English-speaking staff members. Half the participants were employed by the Bureau of Indian Affairs, half were public and private school teachers. Besides applied linguistics and TESL methodology, an intensive course in the Navajo language was given. Some of the participants, who had taught Navajo children in English for many years, reported that they were unable to follow the lessons in Navajo and when called on in class were unable to reply and could not explain their difficulty. Such experiences led to the observation that "the teachers came to appreciate as they never had before the real difficulties involved in second language learning."

At the NDEA Summer Institute in Gallup, New Mexico, English- and Navajo-speaking teachers of Navajo children were offered intensive instruction in the Navajo language as well as courses in educational anthropology. The goal was to give the participating native English-speaking teachers an increased understanding of the cultural values of their students and a heightened appreciation of the difficulties of learning to function in a new language. The inclusion of courses in the Navajo language and culture in the training program provided an opportunity for the Navajo-speaking teachers in the group to act as a resource in giving new insights into the process of educating Navajo children.

B. Bilingual Summer Training Programs. Summer institutes specifically designed to train bilingual teachers are becoming more numerous. One of the most comprehensive of these short summer training programs was the NDEA Institute held in Austin, Texas, during the summer of 1968. This eight-week program at the University of Texas, directed by Theodore Andersson,

focused on the relevance of Spanish language and culture and the importance of full bilingual schooling. The thirty participants were all native Spanish-speaking elementary school teachers, and a large part of the program was conducted in Spanish. Course work emphasized techniques for teaching Mexican-American children in Spanish, the development and adaptation of bilingual materials, the study of Spanish-American civilizations, the sociology of the bilingual child, and applied linguistics. Many of the participants later returned to their communities where they assisted in organizing bilingual programs in their schools.

C. Bilingual Summer Institutes with In-Service Follow-Up. The combination of intensive training in the summer months followed by an organized in-service program is finding increasing popularity as funds become available to support these efforts. One of the earliest of these combined training programs was the 1967 NDEA Summer Institute at St. Mary's University in San Antonio, Texas. Twenty-five bilingual teachers from El Paso, Brownsville, McAllen, and San Antonio, Texas, participated in the Institute. The program concentrated on methods of using Spanish for teaching subject content in the classroom and on TESL methodology. The summer program was followed by a ten-month in-service training program. The Institute was sponsored by the Southwest Educational Development Laboratory at Austin; Thomas Horn, Director.

Under the recent Education Professions Development Act (EPDA), five new teacher-training programs in bilingual education will be offered in 1969–70. Of these five programs, two combine intensive summer instruction and in-service training: the Fellowship Program of the University of New Mexico and the San Diego County Programs.[6]

The Fellowship Program of the University of New Mexico, held at Albuquerque, July 1969–70, is open to selected administrators and teachers and focuses on both Mexican-American and Indian cultures. The goals are to pro-

[6] The three summer-only programs are: (1) *Arizona.* Univ. of Arizona, Tucson 85721. Teaching of Spanish to the Spanish-speaking. Teachers of Spanish (grades 7–12; Southwest). 16 June–8 Aug. Charles Olstad, Director. (2) *Texas.* Southwest Texas State Coll., San Marcos 78666. Teaching of English and Spanish to Mexican-American children, history and culture of the Mexican-American, applied linguistics, aspects and implications of bilingualism. Teachers (grades K–3, Texas). 2 June–8 Aug. Helene Harrison, Director. (3) *Texas.* Univ. of Texas, Austin 78712. Teaching in Spanish to Mexican-American youth, civilization of Spanish America, sociology of the bilingual child, applied linguistics. Teachers and aides (grades K–3, Southwest and other areas with bilingual programs). 9 June–12 Aug. Joseph Michel, Director.

vide intensive training in bilingual instructional methods and to offer the enrollees sufficient understanding of linguistic theory and methodology so they may help in developing bilingual education programs in their schools.

The methodology of the program will be based on teaching Spanish-speaking pupils to read first in their native tongue, then in English. Enrollees will study the educational implications of Spanish-American Pueblo, Navajo, and Apache culture, and will receive instruction in a language new to them: Navajo for the Spanish-speaking and Spanish for the speakers of other languages. Participants will also work in the community with children and parents.

Among the proposed courses in this fellowship program will be: bilingual instructional methods, teaching English as a Second Language, linguistics, anthropology, educational sociology, development of educational materials, and teaching concepts in Spanish, Indian, and Mexican-American cultures.

Institutions collaborating in this program are: the University of New Mexico's College of Education and the Departments of Psychology, Sociology, Anthropology, Spanish, English, and Speech; the Albuquerque public schools; and the State Department of Education of New Mexico. The Director of the program is Miles Zintz of the University of New Mexico.

The new bilingual and bicultural programs proposed by the San Diego County, California, Department of Education, includes both summer (July–August 1969) and in-service (September 1969–June 1970) training programs. These programs, directed by Robert A. Landen, are designed for school personnel working with Spanish-speaking Mexican-American children in kindergarten to the twelfth grade. The programs will focus on developing teaching skills and language concepts related to bilingual education. Enrollment is open to administrators, teachers (half to be TESL-trained, half to be bilingual), and teacher aides.

Participants will be grouped for intensive language practice according to their Spanish language proficiency. Bilingual teachers and administrators will study methods of teaching content in Spanish. Teacher aides will study child growth and development, school-home liaison procedures, and techniques for small-group and individual work. Teams composed of teachers, aides, and administrators will be assigned to selected elementary and secondary school sites in the country. During the summer session, enrollees will travel to Mexico, where they will live with Mexican families, have intensive

language practice, and study Mexican history and the Mexican educational system.

D. Full-Scale Undergraduate Level Bilingual Education Training Program. The first full-scale undergraduate program in the United States for bilingual elementary teachers was developed at Our Lady of the Lake College in San Antonio, Texas. In this program, Mexican-American students, drawn primarily from the San Antonio area (the city is 41.4 per cent Mexican-American) are enrolled in a four-year undergraduate elementary school bilingual teacher-training program. Methods of recruitment include newspaper, radio, and television announcements in Spanish and English. The program seeks to interest young persons "who otherwise probably would not go to college,"[7] preference being given to students of extremely limited financial means. While the student's ability must be sufficient to indicate probability of academic success, admission is open to those with below-standard grades. In selecting students for this program, consideration is given to such factors as motivational and personal qualities (e.g., the degree of concern for others, ability to become involved with problems related to Mexican-Americans, personal experiences with language problems in primary school).

This 140-credit program offers a double major in elementary education and sociology, stressing the culture and heritage of minority groups, Spanish literature and history, and language and behavior in relation to the bilingual child. Academic work includes courses conducted in Spanish and English on bilingual speech problems; comparative phonetics and linguistics; sociology, with an emphasis on pre-Columbian and Hispanic cultures and their relationship to contemporary cultural integration in the Southwest; education courses and special courses in the social services school. Beginning in the freshman year, the students serve an internship as classroom aides in San Antonio elementary schools, many of which have instituted bilingual programs. Upon graduation the students are expected to return to live and teach in either the community from which they were recruited or in a similar community. Student financial assistance is available through Educational Opportunity Grants, the work-study program, and National Defense Student Loans. (Loans do not have to be repaid if students return to teach in Mexican-American neighborhoods characterized by low family income.)

[7] Our Lady of the Lake College, "Teacher Excellence for Economically Deprived and Culturally Differentiated Americans," 1968 (mimeo.).

The program, directed by Guy C. Pryor, is funded through the Educational Talent Section of the U.S. Office of Education.

E. Full-Scale Graduate Level Bilingual Education Training Program. A provision for a new Masters of Arts degree program in Elementary and Bilingual Education was included in the proposal submitted under Title VII by Hernan LaFontaine, Principal of Public School 25, Bronx ("The Bilingual School" of the Board of Education, New York City). This new program in the Division of Early Childhood and Elementary Education at the School of Education, New York University, is intended as in-service training for teachers at P.S. 25. Its overall objective is to enable these teachers to conduct effective two-way programs in Spanish as a vernacular and English as a second language for the Spanish-speaking students there.

For those qualifying for admission to the graduate school, the program will lead toward a Masters Degree in Elementary and Bilingual Education. A minimum of forty points will be required. For those who have completed equivalent graduate level study, some requirements may be waived. Courses will include intensive study of the nature of language, language acquisition and its relation to concept development, methodology, studies of cultural anthropology and sociology, the development of special skills in the use of the Spanish language, and methods of teaching school subjects with a bilingual approach. It is proposed that representative parents be involved in the training project and that their reactions to the program be evaluated.

The program will be directed and coordinated by a faculty member of the Division of Early Childhood and Elementary Education at New York University who will also serve as advisor to the participating teachers.

F. Special Graduate and Undergraduate Courses in Bilingual Education. Such courses are being developed by several colleges and universities. The University of New Mexico at Albuquerque is offering an undergraduate minor in bilingual education. A two-level teacher-training program in early childhood bilingual education has been proposed for the staff of the Dos Mundos Bilingual Early School in Corpus Christi, Texas, to be given at Austin College in Sherman and Del Mar Junior College in Corpus Christi.

The New York City Board of Education is attempting to fill part of its urgent need for bilingual teachers through a number of new college programs. In one of these, fifty Spanish-speaking adults with B.A.'s, but without training in education, were enrolled in a special program during the spring of 1969, as

part of the Board's "Intensive Training Program." Courses included twelve credits in education and four hours of weekly instruction in English (noncredit). The enrollees served during this training period as bilingual professional assistants in selected school districts; their student teaching was supervised by the Board of Education and the college faculty where they were studying. The goal was to train these Spanish-speaking enrollees as teachers for both paired team instruction with native English-speaking teachers and for general work in class situations where other staff members do not speak Spanish.

In another program sponsored by the New York City Board of Education, more than one hundred individuals of Spanish-speaking background were recruited and enrolled in New York City Colleges—Brooklyn College, City College of New York, Lehman College, and Long Island University. Most of these individuals had had some teaching experience in Puerto Rico and had accumulated up to sixty transferable university credits. The participants took evening and Saturday courses in English, education, and content areas related to Latin America. Some students were employed during the day as educational assistants in public schools where they group-taught, worked on an individual basis with pupils, and otherwise assisted teachers. They were provided with a counselor at the university level.

There are a scattering of bilingual college programs in the United States that do not focus on education. Students in such programs could, however, become a potential source of teacher recruitment. For example, Texas A. & I. University at Kingsville offers bilingual degree programs in agriculture, business administration, and engineering. In New York City a two-year program has been proposed for the City University which will involve thirty Puerto Rican high school graduates. The participants will be selected from two sources: individuals who have high school diplomas from Puerto Rico but who do not speak English, and individuals who have received high school equivalency diplomas in Spanish. Instruction in the program will be in Spanish and English. During the first year, students will receive intensive English instruction in addition to their course work in Spanish. During the second year, the number of courses given in Spanish and English will vary according to their progress. As the students become more proficient, they will pursue their studies increasingly in English and eventually phase into a major of their choice.

CONCLUSION

As bilingual education programs increase, the need becomes more urgent for trained personnel at all levels to teach and administer them. With the development of techniques for training fully competent bilingual teachers, training programs are moving from a concentration on "crisis" content to a new, rich, and well-developed educational specialty. A broad course of study combined with supervised internships in bilingually programmed schools and community agencies will provide the basis for new degrees in bilingual education. The courses, both those proposed and those already in operation, include such new subject categories as: Aims of Bilingual Education; Educational Anthropology; Educational Sociology; Psychological Development of the Bilingual Child; Bilingual Testing; and the Role of Language in the Aspirations of Minority Groups.

With these developments in bilingual and bicultural teacher-training programs, the numbers of articulate, literate bilinguals in this country will continue to grow not only among teachers, but also among administrators, guidance counselors, school psychologists—indeed, among the entire range of educational personnel. It is these trained personnel who, in turn, will share in the responsibility of producing the articulate, literate bilingual citizens of the future.

CURRICULUM MATERIALS

Very few materials suitable for bilingual education programs are available. Administrators and teachers in such programs have been forced to use much time, energy, and ingenuity in developing appropriate materials for their students. While many hours have been spent in discussions of theoretical problems involved in bilingual education, almost no work has been done in the practical aspects of the day-to-day teaching in the bilingual classroom.

In this section we will describe representative types of materials used in Spanish-English and American Indian language–English bilingual programs. The listing of materials here does not indicate in any way approval of their content for specific bilingual programs, nor does the omission of materials imply disapproval. If evaluations of materials are desired, it is suggested that, wherever possible, persons in the program using the material be consulted.

I. CURRICULUM MATERIALS FOR SPANISH-ENGLISH PROGRAMS

The three main sources of materials in Spanish in this country are: materials imported from Latin American countries and Spain; materials published in the United States; and materials created by teachers, administrators, and professionals for use in bilingual programs.

Imported Materials. Distributors in the United States have regularly imported materials from Spain, Mexico, and other Latin American countries for use in teaching Spanish as a foreign language to English-speaking children. These imported materials are limited in several ways, especially for use with young children just learning to read.

They are generally not relevant to the curricula and educational methodology of the United States. They are often truly "foreign" to students here; their texts and illustrations require a background knowledge of the history, geography, climate, social traditions, and mores of Spain and the Latin American countries. Using these materials for Mexican-American and Puerto Rican children in the United States raises problems similar to those involved in teaching children from low-income, urban, and minority backgrounds with materials that are oriented to a rural/suburban, white middle-class. Since the question of identification is basic to the new bilingual education programs, the goal is not to replace one set of unfamiliar materials in English with another unfamiliar set in Spanish. However, the shortage of *any* materials for bilingual programs makes it necessary to use imported materials as supplementary sources.

It is frequently difficult to locate and obtain such materials, and no thorough bibliography exists of available imported books, magazines, newspapers, charts, posters, and maps. The following list is offered as a guide to sources for these publications.

UNITED STATES DISTRIBUTORS OF SPANISH LANGUAGE IMPORTED MATERIALS

Heffernan Supply Co.
1327 Laredo Street
Corpus Christi, Tex. 78401

A major Southwestern distributor of foreign books.

Hispanic American Publications *252 East 51st Street* *New York, N.Y. 10022*	Distributor for: Ediciones Santillana, S.A., Elfo 32, Madrid 17, Spain. Collections of textbooks for all subjects, teaching guides; catalogue available. Distributors of books from Spain and Spanish America—elementary through adult. *Balada-canciones para niños en la escuela y la casa*—record album with 60 songs sung by a children's chorus; there is an accompanying booklet.
Iaconi Book Imports *300 Penn Avenue* *San Francisco, Calif. 94107*	Distributors of foreign books.
Jesús González Pita *Importation of Foreign Language Books* *1540 S.W. 14th Terrace* *Miami, Fla. 33145*	Distributor for: Ediciones Aguilar, S.A., Goya 18, Apartado 1.279, Madrid, Spain, and other publishers.
Las Américas Publishing Co. *152 East 23rd Street* *New York, N.Y. 10010*	Distributors of books in Spanish, educational Spanish records. Catalogue available.
Latin American Books *301 East 47th Street* *New York, N.Y. 10017*	Distributor for many publishers, including: Editorial Toquel, S.A., Buenos Aires, Argentina. Repertorio de lecturas para niños y adolescentes—Fryda Schultz de Mantovani, Beatriz Ferro, Lydia P. de Bosch. Editorial la Encina, Buenos Aires, Argentina. Gran enciclopedia de los pequeños, 6-volume encyclopedia for young children.
Package Library of Foreign Children's Books *119 Fifth Avenue* *New York, N.Y. 10003*	The Language Package Program was initiated and sponsored by the American Library Association so that librarians and teachers can obtain selected foreign language children's books. A general catalogue is available; it includes a Spanish language section.
Pequeño Paquete *Box 817* *Coral Gables, Fla. 33134*	Distributors of foreign books, including many Spanish titles.

Martha V. Tomé, Dir. *Project Leer* *c/o Pan American Union* *Washington, D.C. 20006*	Issues bulletin with preselected titles of Spanish instructional and reading materials for children and adults up to 10th grade reading level appropriate for school and public libraries sponsored by: Books for the People Fund Pan American Union Washington, D.C. 20006 Distributor for: Bro-Dart Foundation 1609 Memorial Avenue Williamsport, Penn.
Spanish Book Corporation of America *A Division of French & European Publications* *610 Fifth Avenue* *New York, N.Y. 10020*	Distributor for many publishers, including: Editorial Atlántida, Buenos Aires, Argentina; Editorial Guadalupe, Buenos Aires, Argentina. Collections of all types of books in Spanish to be used at every educational level; children's books include textbooks. Editorial Sigmar, Chile 945, Buenos Aires, Argentina. Collections of books, coloring books, puzzles, records for young children; catalogue available. Editorial Kapelusz, Buenos Aires, Argentina. Books for all types of primary teaching, children's books, teaching materials; catalogue available. Angel Estrada y Cía, Editorial comercial e Importadora, S.A., Buenos Aires, Argentina. All types of educational books and teaching materials, including storybooks with accompanying workbooks and a graded series of readers; catalogue available.
Unesco Publications Center *317 East 34th Street* *New York, N.Y. 10016*	Current list of Unesco Publications has a section listing Spanish publications, many concerned with education.

Materials Published in the United States. These materials, like the imported ones, are directed toward teaching Spanish as a foreign language to

English-speaking children in the United States. While they are useful as supplementary materials for bilingual programs, these materials also have serious limitations. They concentrate on those aspects of the Spanish language that English-speaking learners need most—pronunciation, sentence structure, vocabulary. This is the emphasis that the Spanish-speaking child needs in English, not in Spanish. Further, these materials generally are inappropriate as basic texts for young Spanish-speaking children here because they deal not with life in the United States but with the history and traditions of Spain and Latin America.

In the past, the largely experimental nature of bilingual education in this country has made domestic publishers cautious about investing the time, money, and research needed for the development of new and relevant materials for these programs. The problems involved in creating such materials are manifold. One major problem is how to produce materials adaptable to the many different types of bilingual curriculums. Consideration must be given here to such factors as varied dialects and idioms, contrasting environmental backgrounds, and degree of bilingualism in the programs.

Another important problem is how to secure experienced personnel to advise, develop, and guide the production of the new materials. Individuals are needed who are not only literate bilinguals but who are also experienced teachers with a knowledge of the problems of the bilingual classroom and the types of materials needed there. A third related problem facing domestic publishers is that newly developed materials should be tested on representative student populations, a time-consuming project in face of the urgent need for such materials.

The domestic-produced textbooks in Spanish that are most widely used in current bilingual programs are published by Laidlaw Brothers and D. C. Heath. Laidlaw Brothers (a division of Doubleday Publications, Thatcher & Madison Streets, River Forest, Ill.) publishes Spanish texts in four main areas: Social Studies: *Por el mundo del cuento y la aventura* (10 volumes); Math: *Los primeros pasos en aritmética;* Health: *El camino hacia la salud* (for grades 1–6); Songs and Games: *Puerta de la luz.* D. C. Heath, 5111 Lackawanna Street, Dallas, Texas, publishes a four-volume Elementary Science Series that parallels an English-language series.

A new publishing company, Hispanic-American Publications, 252 East 51st Street, New York, N.Y., has been organized to develop structured materials in Spanish for bilingual programs. The company is currently working on social studies and language arts materials for grades 1–3.

Comprehensive annotated listings of books published in Spanish in the United States are badly needed. At least two bibliographies of United States-published storybooks in Spanish do exist. These storybooks, which represent the most available type of children's book in Spanish in this country, are usually direct translations of English language books. The two bibliographies are: *Había una vez . . . A Selected Bibliography of Children's Books* by the Latin American Library of the Oakland Public Library, 1457 Fruitvale Avenue, Oakland, Calif.; and *A Bibliography of Spanish Materials*, available to teachers engaged in bilingual education, compiled by the Garfield Elementary School, Del Rio Independent School District, Del Rio, Texas.

The following list includes materials available from domestic publishers that may be of use, or may be adapted for use, in bilingual programs.

UNITED STATES PUBLISHED MATERIALS FOR POSSIBLE USE IN BILINGUAL PROGRAMS

Astor-Honor *26 East 42nd Street* *New York, N.Y. 10017*	Spanish language children's books including Leo Lionni, *Pulgada a pulgada*, 1960.
Beginner Books *Division of Random House* *457 Madison Avenue* *New York, N.Y. 10022*	Bilingual double-text children's readers include: *Un pez fuera del agua/A Fish Out of Water* *Eres tú mi Mamá?/Are You My Mother?* *El gato ensombrerodo/The Cat in the Hat* *Beginner Books Spanish Dictionary*
Benefic Press *Publishing Division of Beckley-Cardy* *10300 West Roosevelt Road* *Westchester, Ill. 60153*	Bilingual Spanish-English elementary level books including: *I Live in the City/ Yo vivo en la ciudad* *Animals We Know/Animales que conocemos* *Community Friends/Amigos de la comunidad* *Going and Coming/Ir y venir*

W. S. Berson & Co. *P. O. Box 1866* *Austin, Tex. 78767*	Elementary Spanish Series (Para mis niños) by Carlos Rivera, includes: *Mis primeros pasos, De camino, caminando y aprendiendo, Viajar y aprender.* (Grades 3–6)
Caribbean Consolidated Schools *San Juan, Puerto Rico 00936*	Course of Study for Regular Spanish, grades 1–6; 1965–66 School Year Course of Study—Special Spanish 1965–66.
Follett Publishing Co. *1010 West Washington Boulevard* *Chicago, Ill. 60607*	Offer parallel texts, including: *The Hole in the Hill/ El hoyo del cierro* *Nobody Listens to Andrew/Nadie hace caso a Andrés* *Gertie the Duck/Tulita la patita* *Too Many Dogs/Demasiados perros* *Mabel the Whale/Elena la ballena*
Foreign Language Innovative Curricula Studies *550 City Center Building* *200 East Huron* *Ann Arbor, Mich. 48108*	Oral language curricula for teaching standard Spanish as a school dialect to children of Spanish-speaking backgrounds, available from the Materials Center, MLA/ACTFL, 62 Fifth Ave., New York, N.Y. 10011.
Garfield Elementary School *Del Rio I.S.D.* *Del Rio, Tex. 78840*	Bibliography of Spanish materials available to teachers engaged in bilingual education. Prepared by Mrs. R. J. Waddell, Librarian, March 1969, 18 pp. Contains list of professional books, periodicals, textbooks, including teachers' manuals, children's texts and workbooks, library books for children and adults in Spanish-English and Spanish language, English language with Mexican or Spanish cultural background, audio-visual materials, dimensional materials, and flat pictures.
Ginn & Co. *Eastern Division* *125 Second Avenue* *Waltham, Mass. 02154*	Titles of readers include: *Aire y sol* *Nuestro mundo tropical* *Tierra y cielo* *La ciencia en nuestra vida* There is also a series of advanced math books and of Spanish wall charts.
Golden Gate Junior Books *San Carlos, Calif. 94070*	Spanish language children's storybooks, including *El loro de Juan* by Norma Dobrin, 1963.
Golden Press *850 Third Avenue* *New York, N.Y. 10022*	Do not print any foreign language editions of their titles here but grant rights to companies abroad to publish in their own language.

Spanish editions done by:
Organización Editorial Novaro, Donato Guerra, 9-Aptdo. 10500, Mexico 1, D.F.

D. C. Heath & Co.
5111 Lackawanna Street
Dallas, Texas 75247

Elementary Science Series includes:
La ciencia, jugamos y trabajamos
(libro primero)
La ciencia, aquí y ahora
(libro segundo)
La ciencia, lejos y cerca
(libro tercero)
La ciencia en tu vida
(libro cuarto)
Miami Linguistic Readers Series.
English as a Second Language for Spanish-speaking children.

Hispanic-American Publications
252 East 51st Street
New York, N.Y. 10022

This new publishing company is developing elementary (grades 1–3) texts in Spanish for social studies and language arts, designed specifically for bilingual programs by experienced bilingual teachers.

Houghton Mifflin Co.
53 West 43rd Street
New York, N.Y. 10036

Spanish language translations of American children's books include *Jorge el curioso.* Developing a set of experimental Spanish readiness and 1st grade reading materials for program in Corpus Christi, Texas.

Kenworthy Educational Service
P.O. Box 3031
Buffalo, N.Y. 14205

Spanish Class Sets available (include 24 cartoon illustrated storybooks; colored filmstrips; teacher's guide book; record or audio tape with teaching units). Also have an English as a Second (foreign) Language kit.

Laidlaw Brothers
A Division of Doubleday
Thatcher & Madison Streets
River Forest, Ill. 60305

Series available include:
1. *Los primeros pasos en aritmética* (2 volumes), Libro primero; *Libro segundo de matemática.* Grades 3–6. Math.
2. *El camino hacia la salud* (6 volumes). Grades 1–6. Health.
3. *Puertas de la luz.* Series includes *Campanillitas folklóricas* (grade 1). *Esta era una vez bajao las palmeras* (grade

	2). *Esta era una vez los yagrumos.* 4. *Por el mundo del cuento y la aventura* (10 volumes), serie de textos de lectura para hispanoamericanos. Social Studies.
Latin American Library of the Oakland Public Library *1457 Fruitvale Avenue* *Oakland, Calif. 94601*	*Había una vez . . .* A Selected Bibliography of Children's Books; a listing of children's literature in Spanish, organized according to fiction and non-fiction and levels of difficulty.
McGraw-Hill Book Co. *Webster Division* *Manchester Road* *Manchester, Mo. 63011*	Book of folk songs, *Música de España y de México* Elementary English language course, *Let's Speak English* (books 1–6) *Lazarillo*, a Spanish language magazine for middle level students, is published several times a year.
Minerva Books *31 Union Square West* *New York, N.Y. 10003*	Textbooks with pictures; at primary level include (all written by Joaquín Añorga): *Ortografía funcional* *Español: Elementos gramaticales, Lenguaje* *Serie de lecturas*
Portal Press, Publishers *(A Subsidiary of John Wiley & Sons)* *605 Third Avenue* *New York, N.Y. 10016*	Look-Alikes Madolin Cervantes' English-Spanish Look-Alikes program, based on the principle that many English words seem less imposing once the student realizes their similarity in spelling and meaning to Spanish words. Thus, through cognates, the Spanish-speaking student is assisted in the reading of English. The cognates are selected from *Springboards*—a series of articles in English written on the 4th to 6th grade reading level that are of personal interest to the Spanish-speaking teenager.
Al Ramírez, Curriculum Dir. *Region I Education Service Center* *111 North 16th Street* *Edinburg, Texas 78539*	Dissemination of films and filmstrips and materials produced by this Regional Lab, the Region One Curriculum Kit. Emphasis is now on developing English skills in Spanish-speaking children; Spanish literacy and social studies lessons will be included later.

Responsive Environments Corp. *Learning Materials Division* *200 Sylvan Avenue* *Englewood Cliffs, N.J. 07632*	Scrabble Crossword Game available in 4 foreign languages including Spanish. Spanish Monopoly Game also available.
Scholastic Magazines *50 West 44th Street* *New York, N.Y. 10036*	Scholastic Foreign Language Periodicals: *El Sol, Hoy Día, Qué Tal.* Monthly issues; designed to help students develop language facility, add to vocabulary, and gain new insight into foreign ways of life; have activities (word games, songs), cultural features, profiles of famous people. There are companion records to the magazines in order to help build listening and speaking skills.
Shawnee Press *Delaware Water Gap, Pa. 18327*	*Vamos a cantar* by Harriet Barnett and Betty Barlow. A book of songs with music and with both Spanish and English words. 12" L.P. with both students' and teachers' editions.
Dr. Elizabeth Ott *Southwest Educational Development Laboratory* *Commodore Perry Hotel* *Austin, Texas 78701*	Oral Language Development Materials: highly structured language materials using audio-lingual techniques in areas of science and social studies are available for grades 1–5.
Troutman Press *Sharon, Conn. 06069*	Número 8 de la serie Puerto Rico: Realidad y Anhelo *ABC de Puerto Rico* por Rubén del Rosario e Isabel Freire de Matos, 1968
The Viking Press *625 Madison Avenue* *New York, N.Y. 10022*	Titles available include: *Gilberto y el viento/Gilberto and the Wind* *El cuento de Fernando/Ferdinand the Bull*
Young Scott Books *333 Avenue of the Americas* *New York, N.Y. 10014*	Spanish translation of American book *¿Qué se dice, niño?* by Sesyle Joslin
Henry Z. Walck *17–19 Union Square* *New York, N.Y. 10003*	Series by Lois Lansky including *Cowboy Small* has been translated into Spanish: *El auto pequeño* *La granja pequeña* *Papá pequeño* *Vaquero pequeño*

RECORDS AND FILMS

Bailey Films *6509 De Longpre Avenue* *Hollywood, Calif. 90028*	Films for children and young adults.
Brandon International Films *221 West 57th Street* *New York, N.Y. 10019*	Films, 16 mm., for children, young adults, adults. Professional films from several countries.
Bray Studios *729 7th Avenue* *New York, N.Y. 10019*	Films, 16 mm., for all. Educational material.
Caedmon Records *505 8th Avenue* *New York, N.Y. 10018*	Records for all. Educational material, poems, plays.
Children's Music Center *5373 West Pico Boulevard* *Los Angeles, Calif. 90019*	Early Childhood Picture Books in Spanish (with records): *Los cuatro sombreros de Benny* *Papá es Grande* *¡Amigos! ¡Amigos! ¡Amigos!* Cantemos Records, Taos, N.M. Sing with Jenny Wells Vincent, including: *Las mañanitas del Rey David* *El capitán y la Farolera* *El día de tu santo* Many different folk songs
Columbia Records *Division of Columbia Broadcasting System* *51 West 52nd Street* *New York, N.Y. 10019*	*Songs in Spanish for Children/Canciones en español para niños*, by Elena Paz Travesi
Coronet Films *65 East South Water Street* *Chicago, Ill. 60601*	Films, 16 mm., for all. Educational material can be used to teach Spanish as a Second Language or Spanish for Spanish-speaking children.
The Disc Shop *1815 Connecticut Avenue, N.W.* *Washington, D.C. 20009*	Records, for all. Popular music and selected readings. One of the best collections of records in Spanish in the U.S.
Encyclopaedia Britannica *425 North Michigan Avenue* *Chicago, Ill. 60611*	Films, 16 mm., for all. All levels. Educational.
Inter-American Safety Council *140 Cedar Street* *New York, N.Y. 10006*	Films, 16 mm., for all. Educational.

International Film Bureau *332 South Michigan Avenue* *Chicago, Ill. 60604*	Films, 16 mm.; tapes, filmstrips.
Linguaphone Institute *437 Madison Avenue* *New York, N.Y. 10022*	Records. Complete course to learn English and Spanish.
National Film Bureau of Canada *680 Fifth Avenue* *New York, N.Y. 10019*	Films, 16 mm., for all. All levels. Educational and recreational.
National Textbook Corp. *8259 Niles Center Road* *Skokie, Ill. 60076*	Records and tapes for all. All levels. Music and selected readings.
Spanish Music Center *Belvedere Hotel* *319 West 48th Street* *New York, N.Y. 10036*	Records for all. All levels. Popular music, literature, storytelling. Educational and recreational.
Walt Disney *800 Sonora Avenue* *Glendale, Calif. 91201*	Films, 16 mm., for all. Educational and recreational.
Weston Woods Studio *Weston Woods, Conn. 06880*	Spanish language films to be used in the classroom.

Teacher-Made Curriculum Materials. Because of the scarcity of appropriate published materials, many teachers and administrators have developed "homemade" materials for their bilingual classrooms. These materials have the advantage of being tailored to fit the language, environment, and special needs of the students served by the program. Further, where members of the community are asked to help in the preparation or evaluation of such materials, community interest is increased and, in some cases, community employment may be provided.[1]

Some of the bilingual programs that have developed teacher-made materials and curriculum guides in Spanish are listed below. For further information on these materials, the individual programs in the chapter on "Program Descriptions" should be consulted.

California

Marysville Joint Unified School District, Marysville ESL/Bilingual Demonstration Project Center, San Diego Stockton Unified School District, Stockton

[1] See, e.g., the work of the Navajo Curriculum Center described under the Rough Rock Demonstration School Program, pp. 18–19.

Florida

Coral Way School, Miami

New Jersey

Englewood Public Schools, Englewood Board of Education, Hoboken

New Mexico

Las Cruces School District No. 2, Las Cruces Silver City Consolidated Schools, Silver City

Albuquerque: Laura Atkinson, a consultant in the Albuquerque Public Schools (724 Maple Street, S.E.) has developed two first grade level parallel booklets: *A Box Full of Blocks* and *Una caja de bloques. Una caja de bloques* is not a translation but a Spanish "equivalent" and is written in the local dialect. The booklets were printed under a Title I grant.

New York

P.S. 155 K, Brooklyn
P.S. 25 X, Bronx

Texas

Follow Through Project, Corpus Christi Public Schools, Corpus Christi
Applied Language Research Center, El Paso
United Consolidated ISD (Independent School District), Laredo
Edgewood ISD, San Antonio
Good Samaritan Center, San Antonio
Harlandale ISD, San Antonio

While the teacher in a bilingual program may be provided with the opportunity to develop her own materials, such an opportunity may create a burden that she neither wants nor is capable of carrying out. Further, teacher-made materials often result in duplication of effort, with individual teachers working separately on the same basic programs. One proposed solution is that materials for bilingual programs be developed on a regional basis through regional laboratories and/or in association with universities.

Under the U.S. Office of Education, two categories of regional agencies have been organized: research and development labs, organized in conjunction with universities and directed toward basic research (e.g., Wisconsin Research and Development Center for Cognitive Learning, University of Wisconsin, Madison); and regional educational labs,[2] set up for operational research, with the prime purpose of facilitating the adoption and use by local schools of innovative educational ideas (e.g., Southwestern Cooperative Educational Laboratory [SWCEL], 117 Richmond Drive N.E., Albuquerque, New Mexico). While these regional labs have been mainly oriented toward English as a

[2] For addresses of these regional labs, as of Nov. 1968, see list at end of chapter.

Second Language methodology in dealing with the educational problems of non-English-speaking children, some have become increasingly concerned with the problems of bilingual education and the development of bilingual classroom materials.

One of the most active of these federally funded regional labs in the field of bilingual materials and curricula development is the Southwest Educational Development Laboratory (SWEDL), 800 Brazos Street, Austin, Texas. SWEDL has been developing materials for several years, in conjunction with the University of Texas at Austin, for Spanish-speaking elementary school children. For detailed review of SWEDL's work, see pp. 61–64.

In addition to these federally funded labs, some state education agencies have recently started to develop bilingual educational materials. For example, in the past, the Region One Education Service Center at Edinburg, Texas, part of the Texas Education Agency, concentrated mainly on materials for oral English skills. Region One has now been granted funds by the U.S. Office of Education to develop bilingual instructional materials for grades K–2, and is working on Spanish and English literacy materials and social studies materials in Spanish.

University based programs have also received some federal funds in connection with work on bilingual materials development. The Foreign Language Innovative Curricula Studies (FLICS) at the University of Michigan, 220 East Huron, Ann Arbor, has been granted Title III funds to demonstrate and adapt its second-language programs. Under its "Bilingual Curriculum Development Program," FLICS reports that it is working toward creating a comprehensive second-language curriculum adaptable to different local requirements. It has already developed curricula in English for speakers of other languages, standard English as a second dialect, and standard Spanish as a second dialect for children from Spanish-speaking backgrounds.

II. MATERIALS FOR AMERICAN INDIAN LANGUAGE PROGRAMS

While the problems involved in developing materials and curricula for Spanish-English bilingual programs are troublesome, the problems of developing materials and curricula for American Indian language programs are formidable. Many Indian languages have no written form, and where a language is

written there is often no standard orthography. Individuals who can read one version of the orthography may not be able to read another version in the same language. The standardization of orthographies of the main Indian languages is one of the major goals in the current effort to improve the education of the Indian child.[3]

American anthropological linguists have devoted considerable attention to the transcription and categorization of Indian languages. Wallace L. Chafe lists forty-five indigenous languages spoken in the United States (based on a minimal speaking group of 1,000). Edgar H. Sturdevant notes the extent of literacy materials within these groups. The Chafe and Sturdevant data show that practical orthographies, grammars, and dictionaries, as well as some reading materials, are available for the Creek, Inipuk, and Navajo languages; there are some reading materials for the Cherokee, Chickasaw, Choctaw, Cree, Nez Perce, Ojibwa, Santee, Teton, and Yankton languages; there is little literature in the Apache tongues, and none in the Blackfoot, Keresan, Paiute, and Ute languages.[4]

While there are no exact figures on the number of American Indian school-age children who retain the use of their mother language, Bruce Gaarder reports that the results of various studies point to high language retention among the larger and more traditional tribal groups. Gaarder points out, however, that official United States language policy "has kept Indians in the . . . status of non-literate people . . . their languages are used only for oral communication . . . with some exceptions."[5]

The writing systems that have been developed include syllabic as well as alphabetic orthographies. The Cree syllabary has survived since 1840, when it first appeared in print; the Choctaw alphabetic writing system has remained viable among both Choctaws and Chickasaws since 1848. The Cherokee syllabary was developed in 1819 by Sequoyah, a monolingual, formerly illiterate Cherokee. The Sequoyah syllabary was used by the majority of the tribe throughout the nineteenth century and remains in use in many Cherokee com-

[3] Center for Applied Linguistics—Bureau of Indian Affairs Conference on Navajo Orthography, 2–3 May 1969, Albuquerque, N.M.

[4] "Estimates Regarding the Present Speakers of North American Indian Languages," *International Journal of American Linguistics*, 28 (1962), 162–71.

[5] A. Bruce Gaarder, "Education of American Indian Children," in *Bilingual Education Programs: Hearings before the General Subcommittee on Education of the Committee on Education and Labor*, U.S. House of Representatives, Ninetieth Congress, First Session on H.R. 9840 and H.R. 10224 (Washington, D.C.: Government Printing Office, 1967), pp. 351–57.

munities today. Within a few years after Sequoyah's development of the syllabary, thousands of tribal Cherokees became literate in their native language. The Cherokees set up a national printing press and published a weekly newspaper, *The Cherokee Phoenix,* in 1828. Also printed in Cherokee were the laws of the Cherokee nation, a complete New Testament, pamphlets, primers, and an English-Cherokee almanac. It is estimated that the Cherokees were ninety per cent literate in their native languages in the 1830's.

In spite of repressive acts, e.g., the seizure of their printing press by the Georgian Guard during the forced migration of the Cherokees from Georgia to the West in the nineteenth century, it is reported that the Cherokee in the 1880's had a higher literacy level in English than the neighboring white population in Texas and Arkansas.[6]

A Cherokee primer for children and adults, as well as other bilingual materials, has recently been developed through the Carnegie Cross Cultural Education Project for Cherokee children and adults. Other Cherokee language materials have been developed at the Bilingual Family School, Adair County, Oklahoma (see p. 59).

In 1967 materials in a popular Zuni orthography were prepared by Curtis Cook. A writing system in Passamaquody, developed by Buesing and Walker in 1967, and modified the following year by Holaday along lines suggested by tribal speakers, is beginning to be used.[7]

The Dakota language is spoken in four dialects: Santee, Yankton, Assiniboin, and Teton. Pioneer work in developing written Dakota was done in the last century by Stephen Riggs, whose work is based mainly on the Santee dialect. Riggs's *Grammar and Dictionary of the Dakota Language* was published in 1852. In 1902, a Dakota-English dictionary of the Yankton dialect by J. P. Williamson appeared.

Sioux translations of hymnals, prayer books, and the Bible were printed in the past and widely used on all Sioux reservations. Among the contemporary Sioux, a new interest is appearing in literacy in the Sioux language and its use as a medium of instruction; however, efforts to establish a community controlled, bilingual Sioux school have not been successful.

Writing systems for other Indian languages are being examined. A re-

[6] Willard Walker, "The Design of Writing Systems for Native Literacy Programs," paper delivered at the American Anthropological Association, Nov. 1968.
[7] Walker, "The Design of Writing Systems," pp. 10–11.

cent program was initiated by Kenneth Hale at the Massachusetts Institute of Technology to develop linguistic skills among native Indian speakers. The program has already worked out a syllabary on the Papago language.[8]

Gaarder suggests that it is easier for a native Indian speaker to learn to read an Indian language with a scientifically developed phonemic alphabet that it is for an English-speaking child to learn to read English;[9] traditional English orthography is often at odds with phonological changes that have occurred since writing became standardized.

Curriculum Materials for Bilingual Programs. Among the precedents in this country for the current interest in materials for Indian language bilingual programs are the materials developed in the period from 1935 to the beginning of World War II by a group of social scientists and linguists working under Commissioner Collier of the Bureau of Indian Affairs (BIA). As a result of their work, pre-primers, primers, readers, dictionaries, descriptive grammars, and secondary level materials were published in several Indian languages. For example, eleven bilingual readers were printed for the Teton Dakota, and two bilingual readers were printed in English and Hopi.

These publications were supplemented by materials created during the same period by the teachers of the Indian children "out of the world of the school, and what they could learn of the culture of the groups they were teaching."[10] Some of these teacher-made materials are still commercially available. One is the bilingual series by Ann Clark, *The Grass Mountain Horse, The Hen of Wahpeton, Brave Against the Enemy,* which remains one of the few reader series published in bilingual American Indian–English editions. The most complete set of the works of this period are now on file in the newly established Instructional Services Center of the Bureau of Indian Affairs, Brigham City, Utah.

In commenting on this period Kennard notes that "the government which for many years made efforts to stamp out the native languages . . . reversed its policy";[11] Young adds that "every effort was made to fill the void left by conventional teacher training curricula, unconcerned as it was with the

[8] Albert Alvarez and Kenneth Hale, "The Sounds of Papago," Massachusetts Institute of Technology, June 1969, unpubl. MS.

[9] "Education of American Indian Children."

[10] E. A. Kennard, "Bilingual Indian Readers," in *Brave Against the Enemy* (Lawrence, Kan.: Haskell Institute, 1964).

[11] "Bilingual Indian Readers."

special educational problems posed by cultural-linguistic minorities."[12] This new program in Indian education, however, was to be short-lived. It was terminated by the demands of World War II and the subsequent policies of federal administrations toward Indian education.

Today, there is again a growing interest in bilingual education for American Indians. The bilingual primers and other materials developed during the thirties and forties are being reprinted and distributed; and serious efforts are under way to develop new bilingual Indian materials.

At the Rough Rock Demonstration School (see pp. 18–19) a Navajo Curriculum Center, financed by the Office of Economic Opportunity, has been organized to work on classroom materials. The elder members of the tribe are invited to the Center, and the stories they relate about Navajo history and culture are used as the basis for books and classroom work. One of the first publications was the popular *Black Mountain Boy*, based on the life of one of the elders of the community. The book, in Navajo and English editions, is commercially available from the Center.

Bilingual Navajo curriculum materials are also being developed by Bernard Spolsky at the University of New Mexico in Albuquerque, in conjunction with the Bureau of Indian Affairs. Assisting in this program is Wayne Holm, Principal of the Rock Point Boarding School, a pilot school in the development of Navajo literacy materials (see pp. 15–17).

SOME AVAILABLE MATERIALS FOR USE WITH AMERICAN INDIAN BILINGUAL PROGRAMS

Bureau of Indian Affairs *Division of Education* *Washington, D.C. 20242*	*A Kindergarten Curriculum Guide for Indian Children*
Carnegie Corporation *Cross-Cultural Project of the University of Chicago* *P.O. Box 473* *Tahlequah, Okla. 74464*	*Cherokee Stories*, Watt Spade and Willard Walker, June 1966; group of Cherokee stories *Cherokee Primer*, Willard Walker, 1965 (in Cherokee and English) *Cherokee News Letter* *The Cherokee People Today*, Albert L. Wahrhaftig, 1966

[12] R. W. Young, *English as a Second Language for Navajos: An Overview of Certain Cultural and Linguistic Factors*, Bureau of Indian Affairs, Albuquerque Area Office and Navajo Area Office, Division of Education, rev. ed., 1968.

Chilocco Agricultural School
Chilocco, Okla. 74635

Navajo-English Bilingual Readers written in double-column English and Navajo, by J. B. Enochs

Publications Service
Haskell Institute
Lawrence, Kan. 66044

Publications price list available. United States Department of the Interior, Bureau of Indian Affairs catalogue, includes series of readers for Sioux, Navajo, Choctaw, and Pueblo Indians; books about Indian customs, records, etc.

Among the items which may be ordered from the Haskell Institute are the following:

English for American Indians; a Newsletter of the Division of Education, Bureau of Indian Affairs, prepared by the Center for Applied Linguistics, Washington, D.C. 20036

Education for Cross Cultural Enrichment. Selected articles from Indian Education, 1952-64, by Hildegard Thompson, United States Department of the Interior, Bureau of Indian Affairs, Branch of Education

Articles on many facets of Indian education

Indian Life Readers:

Pueblo Series, Ann Clark; Pueblo text by Christina Jenkins
Sioux Series, Ann Clark; Sioux text by Emil Afraid-of-Hawk
Navajo Series, Ann Clark; Navajo text by Robert W. Young and John P. Harrington

(both texts in each series are on facing pages)

Singing Sioux Cowboy Reader; text in Sioux and English

In Teton-Lakon and English:

Brave Against the Enemy
The Grass Mountain Horse
The Hen of Wahpeton

In Navajo and English:

Navajo Life Series
Navajo-English Dictionary, Moyon and Wall

	Indian Recordings: Music of American Indians Many other items may be ordered, including pamphlets on tribal history, customs, and Indian handicrafts
Library of Congress *Music Division* *Washington, D.C. 20540*	Indian Recordings
Navajo Agency *Window Rock, Ariz. 86515*	*English as a Second Language for Navajos: An Overview of Certain Cultural and Linguistic Factors,* Robert W. Young, 1967 (revised 1968); a joint undertaking of the Albuquerque Area Office, Walter O. Olson, Area Director, and Navajo Area Office, Division of Education, Graham E. Holmes, Area Director, William J. Berham, Assistant Area Director (Education). Considers language and culture of Navajos; explicit, detailed lessons of English and Navajo languages; designed to help develop bicultural and bilingual teachers
Navajo Curriculum Center *Rough Rock Demonstration School* *Chinle, Ariz. 86503*	*Oral English at Rough Rock,* Virginia Hoffman *Navaho Education at Rough Rock* *Black Mountain Boy* *Cayote Stories of the Navaho People* *Grandfather Stories of the Navahos* In preparation: *Navajo Biographies* *Navajo History* as told by the Navajo
Northern Cheyenne Head Start *Northern Cheyenne Community Action Program* *Lame Deer, Mont. 59043*	Cheyenne Tales, collected and edited by Tom Weist; translations by Helen Highwalker
Northern Arizona Supplementary Education Service *Faculty Box 5618* *Northern Arizona University* *Flagstaff, Ariz. 86001*	Teaching materials in English and Indian languages; currently working on Hopi-English
Northland Press *Box N* *Flagstaff, Ariz. 86001*	*Navajo Made Easier: A Course in Conversational Navajo,* Irvy W. Goossen, 1968; 64 lessons in Navajo

Summer Institute of Linguistics *Santa Ana, Calif. 92702*	*Julia Ch Pancho,* Papago Reader 1, 1966. Short reader booklet; one side of the page in Papago and the other side in English
Summer Institute of Linguistics *P.O. Box 368* *Sells, Ariz. 85634*	Papago Reading Manual, 1966
University of New Mexico *Indian Community Action Project Head Start* *Albuquerque, N.M. 87106*	*Creative Guide for Head Start,* coordinating editor, Marilyn Black. Guide with lessons to use with young child beginning school. It contains detailed sections on language, science, math, social studies, physical education, music, arts and crafts. The language section especially is concerned with the Indian child coming into the school, although the Guide is not intended specifically for Indians.

REGIONAL EDUCATIONAL LABORATORIES

As of November 1968

AEL
Benjamin Carmichael
Appalachia Educational Laboratory
P.O. Box 1348
Charleston, W.Va. 25325

CAREL
C. Taylor Whittier
Central Atlantic Regional Educational Laboratory
1200 17th Street, N.W.
Washington, D.C. 20036

CEMREL
Wade M. Robinson
Central Midwestern Regional Educational Laboratory
10646 St. Charles Rock Road
St. Ann, Mo. 63074

CERLI
David Jackson
Cooperative Educational Research Laboratory, Inc.
540 West Frontage Road
Northfield, Ill. 60093

CUE
Robert Dentler
Center for Urban Education
105 Madison Avenue
New York, N.Y. 10016

EDC
Kevin Smith
Education Development Center
55 Chapel Street
Newton, Mass. 02160

ERIE
Sidney Archer
Eastern Regional Institute for Education
635 James Street
Syracuse, N.Y. 13203

FWLERD
John Hemphill
Far West Laboratory for Educational Research and Development
Claremont Hotel, 1 Garden Circle
Berkeley, Calif. 94705

MCREL
Robert S. Gilchrist
Mid-Continent Regional
Educational Laboratory
104 East Independence Avenue
Kansas City, Mo. 64108

MOREL
Stuart Rankin
Michigan-Ohio Regional
Educational Laboratory
3750 Woodward Avenue, Room 1408
Detroit, Mich. 48201

NWREL
Larry Fish
Northwest Regional
Educational Laboratory
400 Lindsay Building
710 Southwest Second Avenue
Portland, Ore. 97204

RBS
James W. Becker
Research for Better Schools, Inc.
121 South Broad Street
Philadelphia, Pa. 19107

RELCV
Everett Hopkins
Regional Education Laboratory for the
Carolinas and Virginia
Mutual Plaza
Durham, N.C. 27701

RMEL
Donald O. Bush
Rocky Mountain Educational Laboratory
1620 Reservoir Road
Greeley, Colo. 80631

SCREL
J. D. Williams
South Central Region Educational
Laboratory Corporation
44 Palmer Avenue
Little Rock, Ark. 72701

SEL
Robert Hopper
Southeastern Education Laboratory
3450 International Boulevard
Hapeville, Ga. 30054

SWCEL
James L. Olivero
Southwestern Cooperative
Educational Laboratory
117 Richmond Drive, NE.
Albuquerque, N.M. 87106

SWEDL
Edwin Hindsman
Southwest Educational Development
Laboratory
800 Brazos Street
Austin, Texas 78767

SWRL
Richard Schutz
Southwest Regional Laboratory for
Educational Research & Development
11300 LaCienega Boulevard
Inglewood, Calif. 90304

UMREL
David Evans
Upper Midwest Regional
Educational Laboratory
1640 East 78th Street
Minneapolis, Minn. 55423

TESTING AND EVALUATION PROCEDURES

In all educational programs, testing has two purposes: individual pupil assessment and overall program evaluation. Of necessity these two objectives coincide. In order to determine whether specific educational practices (independent variables) have effected changes (dependent variables) in group performance, it is necessary to ascertain what modifications in individual performance have occurred. Assessment models used in evaluating educational programs include experimental and control groups, students' pre- and post-intervention performance, and comparison of records in an entire school or district during an innovative approach with similar student records of previous years. An effective evaluation program entails a selection of the target population, an analysis of both general and specific goals and innovations, and a choice of techniques that will be used to measure the goals of the program.

I. SUBJECT SELECTION

Who will constitute the population to be studied? Will it consist entirely of non-English-speakers, of bilinguals, or of a combination of non-English mother tongue and English mother tongue students? If the population chosen is bilingual, how will "bilingualism" be defined (see pp. 166–68)? Will the focus be on schoolchildren only? If so, what age? Will it include their families? Will group selection be voluntary or random? Will an entire class, school, or school district be included? Once the population has been selected, the assessment techniques, to have validity, must be used *on* the specific population(s) and conclusions must be made *for* the same specific population(s).

II. SPECIFICATION OF GOALS

What are the general and specific goals of the program? Is the goal greater proficiency in using the English language or greater proficiency in the native language? What degree of bilingualism is sought? Is the goal to develop "balanced bilinguals" or is proficiency in the native language considered merely a "bridge" to proficiency in English? Are the expectations for greater general academic achievement or for higher scores on tests of intelligence? Is the desired goal facility in conceptualizing or the acceleration of learning?

Once the general goals are arrived at, instruments must be selected or developed to measure the specific components of the desired behavior. If, for example, the ability sought is proficiency in a particular language or languages, what specific components of this proficiency will be measured—unaccented speech, comprehension of spoken material, comprehension or production of written material, conversational or formal use of the language, or degree of permanence of behavior change brought about by the program?

III. SPECIFICATION OF EDUCATIONAL PROCEDURES

The nature of the procedures used in the program must be specified. Is the most positive effect expected from a different method of instruction, from efforts at teacher training, from the use of a particular set of materials, from the development of a new curriculum, from new assessment techniques, or

from some combination of these factors? Is it necessary for the teachers of bilingual students to speak both the mother tongue and English? For optimum achievement, is it advisable for classes to be composed of all non-English mother tongue pupils, all English-speakers, or can the two groups be mixed? Should equal time be devoted to each language, or should one language be stressed? Can instruction take place in both languages simultaneously?

These specific procedures—the independent variables—are what differentiate experimental and control groups on pre- and post-innovation treatments. Only conclusions relating to these specific conditions can be considered valid.

In many cases where bilingual programs have initiated other educational practices (in addition to instruction in a second language), it is difficult to ascertain what procedure or procedures have produced the observed effect. Theoretically, to determine the most effective intervention, only one innovation should be initiated for each experimental group. In practice, however, either the developers of the program, the community involved, or the supporting agency feel obligated to produce the maximum result possible by affecting as many pupils as they can, and therefore make all procedures available to all members of the selected population. In practical terms it may not matter exactly how the results have been attained or precisely upon what they have been based. The error lies not in instituting such an overall program, but in making unwarranted claims for specific parts of the program, in drawing evaluative conclusions as if a controlled experiment with comparison groups had been run.

Considerations of exactly what specific innovations will be included must be dealt with before a project is begun. *Ex post facto* interpretations have only limited value.

IV. CHOICE OF ASSESSMENT TECHNIQUES

Educational programs concerned with bilinguals and bilingualism usually require instruments to measure one or more of the following three categories: general language competence, intelligence or general ability, and specific skill achievement.

(Because this book focuses on early childhood bilingual education, only those tests will be discussed which relate to preschool and primary grade

bilingual students and which can be administered in the native language of the child whose mother tongue is not English. No attempt has been made to evaluate or to compare qualitatively the instruments included in this chapter nor is this presentation intended to be exhaustive. Where information is limited, specific techniques have been omitted or mentioned briefly. For those wishing more detailed descriptions of the tests, the name of the publisher and/or program(s) using them have been included wherever possible. For addresses of publishers see list at the end of this chapter; for addresses of programs, see pp. 101–05.)

General Language Competence. Competence in a language, according to Fishman and Cooper, may be measured by language usage—what an individual typically does with his language—and by language proficiency—what an individual can do with his language.[1] Until recently, bilinguals were almost always compared with each other or with monolinguals on the basis of scores on intelligence tests or scores of scholastic attainment. There was little concern with the proficiency of the bilingual in each of his two languages. Even less attention was given to a description of the situations in which each language was used.

LANGUAGE USAGE

To understand language usage, a complete description is needed of what a bilingual does with his language.[2] Questions as to where, when, to whom, and how much a bilingual speaks a language must be answered. Researchers in the field need a viable framework for assessing the linguistic abilities of a bilingual child and for devising appropriate instructional programs. At present there are very few suggestions in the literature for those interested in measures specifying language usage. One important educational consideration that offers a conceptual guide for researchers and that has only recently received notice is the distinction between receptive and expressive language. Receptive language has commonly been defined as "understanding" or "comprehension," and expressive language as "speaking." The literature seems to agree that com-

[1] Joshua A. Fishman and R. L. Cooper, "Alternative Measures of Bilingualism," in Fishman et al., *Bilingualism in the Barrio* (Washington, D.C.: U.S. Dept. of Health, Education and Welfare, 1968), pp. 880–928.

[2] Edward J. Cervenka, "The Measurement of Bilingualism and Bicultural Socialization of the Child in the School Setting: The Development of Instruments," *Final Report on Head Start Evaluation and Research: 1966–67, Section 6* (Austin: Univ. of Texas, 1967).

prehension skills and speaking skills entail different abilities, that the two skills usually vary within the same individual, and that receptive skills are mastered before expressive skills.

Mackey has described some methods and procedures of language usage.[3] Language-background questionnaires based on the work of Hoffman have been used frequently.[4] In these the subject estimates the extent to which he uses each of his languages, with whom, and in what situations. The social "situations" or "contexts" in which language is used have been described in detail by Cooper in his work on "domains"[5]—the main spheres of activity in a culture, such as family, neighborhood, religion, education, and employment. Using the domain concept as a basis for description, a number of measures of language usage have been devised. The first of these is similar to the early language-background questionnaires.[6] The second is a word frequency estimation test in which the subject is required to estimate how often particular words were heard or spoken.[7] Lists of words represent the five domains of social interaction. A third measure is a usage rating scale,[8] constructed by asking bilingual (Spanish-English) respondents how much they used Spanish with respect to English, where, to whom, and under what conditions they used each language. Although these tests were shown to be effective indicators of bilingualism (word frequency, e.g., correlated with the subjects' report on the degree to which they used each language and their facility in doing so), the possibility remains that information obtained from objective measures of performance will be more useful than that obtained from retrospective reports. Macnamara raises serious doubts about the reliability of retrospective reports, particularly in circumstances such as those prevailing in Ireland: the Irish government pays £10 a year per child to parents who make Irish the language of the home.[9]

[3] W. F. Mackey, "The Description of Bilingualism," *Canadian Journal of Linguistics*, 7 (1962), 51–85.

[4] M. H. N. Hoffman, *The Measurement of Bilingual Background* (New York, 1934).

[5] R. L. Cooper, "The Contextualized Measures of Degree of Bilingualism," in *Bilingualism in the Barrio*, pp. 506–24.

[6] Joshua A. Fishman, "A Sociolinguistic Census of a Bilingual Neighborhood," and Fishman and C. Terry, "The Contrastive Validity of Census Data on Bilingualism in a Puerto Rican Neighborhood," *Bilingualism in the Barrio*, pp. 260–69, 300–44.

[7] R. L. Cooper and L. Greenfield, "Word Frequency Estimation as a Measure of Degree of Bilingualism," in *Bilingualism in the Barrio*, pp. 475–81.

[8] R. L. Cooper and L. Greenfield, "Language Use in a Bilingual Community," in *Bilingualism in the Barrio*, pp. 485–504.

[9] John Macnamara, "The Effects of Instruction in a Weaker Language," *Journal of Social Issues*, 23 (1967), 120–34.

A small number of techniques exist through which language usage in actual performance can be described. Phonological analysis has been suggested.[10] Cervenka advises the use of instruments similar to those developed by Labov for the study of dialect variation and cites Hymes's descriptive models of code repertoires and code switching as being useful in the development of measuring techniques.[11]

LANGUAGE PROFICIENCY

The literature on the development of instruments to measure language proficiency is far greater than that on measurements of language usage. Macnamara has classified four types of proficiency measures: rating scales, verbal fluency tests, verbal flexibility tests, and tests of dominance.[12] Some measures combine more than one of these four types; other measures cannot be specifically categorized.

a. *Rating scales* ask bilinguals to rate their linguistic skills in each of their two languages. This procedure has been used by Fishman, among others.[13] Rating scales are considered very limited, however, because of their subjective nature and high dependence upon attitudes. Bilinguals typically tend to overrate their skill in a second language.[14]

b. *Fluency tests* utilize measures of speed of verbal production or verbal response. Common means of implementation are reaction time, naming, and association tasks. Lambert and others measured reaction time in response to instructions to press keys.[15] Rao measured the speed with which bilinguals followed instructions in their two languages.[16] Scherer and Wertheimer devel-

[10] Roxanna Ma and E. Herasimchuk, "Linguistic Dimensions of a Bilingual Neighborhood," in *Bilingualism in the Barrio*, pp. 636–835.

[11] Cervenka, "The Measurement of Bilingualism"; William Labov, *The Social Stratification of English in New York City* (Washington, D.C.: Center for Applied Linguistics, 1966); and D. H. Hymes, "Models of Interaction of Language and Social Setting," *Journal of Social Issues*, 23 (1967), 8–29.

[12] "The Effects of Instruction in a Weaker Language."

[13] *Bilingualism in the Barrio.*

[14] Cervenka, "The Measurement of Bilingualism."

[15] Wallace E. Lambert, "Developmental Aspects of Second Language Acquisition," diss., Univ. of North Carolina, 1953; "Measurement of the Linguistic Dominance of Bilinguals," *Journal of Abnormal and Social Psychology*, 50 (1955), 197–200; "Psychological Studies of the Interdependencies of the Bilinguals Two Languages" (Montreal: McGill Univ. [mimeo.]); and Lambert, J. Havelka, and R. C. Gardner, "Linguistic Manifestations of Bilingualism," *American Journal of Psychology*, 72 (1959), 77–82.

[16] T. S. Rae, "Development and Use of the Directions Test for Measuring Degree of Bilingualism," *Journal of Psychological Researches*, 8 (1964), 114–19.

oped an "assimilation of meaning" test in which bilinguals indicated as quickly as they could whether statements were true or false.[17] Ervin devised a picture-naming test that is scored by measuring the time it takes to name certain objects from pictures.[18] Lambert and others asked bilinguals to write as many as possible French and English words beginning with a particular pair of letters.[19] Johnson and Macnamara counted the number of different words given first in one language, then in another, in a specified period of time.[20] Cooper used the word naming technique to determine bilingual proficiency in various domains. Cooper and other researchers also employed similar tasks of word association.[21] Although tests of fluency measure at least one aspect of bilingual competence, Macnamara has raised the question of their validity as tests of the degree of bilingualism.[22]

One persistent problem is that the test selected may measure behavior different from that desired. For example, Brière constructed a test, based upon a specific set of instructional materials, intended to measure ability in English as a second language. When the test responses given by Navajos were compared to the responses given by "Anglos," it was found that the test measured not the Navajos' ability in English but how well a particular set of English as a Second Language instructional materials had shaped specific language patterns: "The Anglos spoke in 'deletionese' whereas the Navajos spoke in 'patternese,' e.g., given the visual stimulus, a picture of a fireman, and the aural stimulus, 'Is Mr. Yazzie a policeman?' the most common response among the Anglos was 'Fireman.' Given the same stimulus situation among the Navajo children, the most common response was, 'No, he is not. He is fireman' . . . We feel . . . that the Navajo child is having his language behavior shaped such that he sounds like a robot rather than a natural speaker of English."[23]

[17] G. A. C. Scherer and M. Wertheimer, *A Psycholinguistic Experiment in Foreign Language Teaching* (New York: McGraw-Hill, 1964).

[18] Susan M. Ervin, "Semantic Shift in Bilingualism," *American Journal of Psychology*, 74 (1961), 446–51.

[19] "Measurement of the Linguistic Dominance of Bilinguals," "Psychological Studies of the Interdependencies of Bilinguals," and "Linguistic Manifestations of Bilingualism."

[20] G. B. Johnson, "Bilingualism as Measured by a Reaction-Time Technique and the Relationship between a Language and a Non-language Intelligence Quotient," *Journal of Genetic Psychology*, 82 (1953), 3–9; and Macnamara, "The Effects of Instruction in a Weaker Language."

[21] "Two Contextualized Measures of Degree of Bilingualism."

[22] John Macnamara, *Bilingualism and Primary Education: A Study of the Irish Experience* (Edinburgh: Edinburgh Univ. Press, 1966).

[23] E. J. Brière, English Language Testing Project, Navajo Area Agency. Final Report (ESL Committee), Contract No. 14–20–0600–539.

c. *Flexibility tests* attempt to assess a more qualitative dimension of bilingualism, rather than strength or speed. Lambert formulated a word detection test that required subjects to find French and English words embedded in a long nonsense word (such as DANSONODEND).[24] Macnamara's richness of vocabulary test included phrases, part of which were italicized.[25] Subjects were requested to give synonyms or synonymous expressions for the italicized parts. For example, given the phrase "he is *drunk,*" first in one language, later in the other, bilinguals tended to have more ways (formal, informal, humorous) of expressing a concept in their stronger language. Macnamara suggested that a useful sequel to the richness of vocabulary test would be a semantic richness test where the subject would be directed to show in how many senses a given word might be used.

An adaptation of the *cloze technique,* where equivalent passages in two languages were mutilated by omitting every fifth word, has been employed by Osgood and Ervin.[26] Osgood's semantic differential can be used to determine the degree of coordinateness of two linguistic systems;[27] Fertig and Fishman have extended its use to analysis of proficiency by domains.[28]

The semantic independence of the two languages of Spanish-English bilinguals has been measured by Berney and Cooper by examining word naming and word association data, and counting translation equivalence pairs.[29] A translation equivalence exists when the English response of a subject is identical to the English translation of one of his Spanish responses. Semantic independence was shown not to be dependent on relative proficiency in each language. It did reflect, however, the differential use and subsequent "overlapping" of the two language systems, an important concern in determining whether an individual is a balanced bilingual with a coordinate or compound linguistic system.

Ervin has noted that a bilingual's verbal associations to a Thematic

[24] Elizabeth Peal and Wallace E. Lambert, *The Relation of Bilingualism to Intelligence* (Washington, D.C.: American Psychological Assoc., 1962).

[25] "The Effects of Instruction in a Weaker Language."

[26] C. E. Osgood and Susan M. Ervin, "Second Language Learning and Bilingualism," *Journal of Abnormal and Social Psychology,* 49 (1954), 139–46.

[27] C. E. Osgood, ed., "Psycholinguistics: A Survey of Theory and Research Problems," *Journal of Abnormal and Social Psychology,* 49 (1954), supplement.

[28] S. Fertig and Joshua A. Fishman, "Some Measures of the Interaction between Language Domain and Semantic Dimension in Bilinguals," in *Bilingualism in the Barrio,* pp. 620–35.

[29] Tomi D. Berney and R. L. Cooper, "Semantic Independence and Degree of Bilingualism in Two Communities," in *Bilingualism in the Barrio,* pp. 538–48.

Apperception Test (TAT) card are often significantly different in his two languages.[30] If this differential response can be coded, it may provide further insight into the analysis of bilingual competence.

d. *Dominance tests* seek to determine which of a bilingual's two languages is the dominant one. The subject, confronted with an ambiguous stimulus that could belong to either language, is required to pronounce or interpret it. Lambert and others presented bilinguals with lists of words to be read aloud.[31] Some of the words (e.g., pipe) might have been either French or English depending upon the way in which they were pronounced. Other tests seek to ascertain dominance in a much less direct manner. Listening comprehension tests have been administered by having subjects listen to taped bilingual (or monolingual) conversations and answer questions based on the conversations.[32]

Word naming and word association tasks, mentioned briefly above under tests of fluency, are also used as dominance tests. In one study of Puerto Ricans in New York, instead of having respondents merely give as many words as they could, or freely associate in Spanish and in English, the examiners directed them to name words and make associations in the context of a particular domain.[33] While merely counting the total number of words for each language gave no information on language dominance (the total number of words was often about the same for both languages), there were obvious differences between Spanish and English for individual domains. Significantly, home and religion, as predicted, were under the control of Spanish more than were the other domains.[34] In the opinion of some researchers it is precisely this restriction of a language to specific domains that leads to the "language-handicap" of a bilingual.

Bilingual dominance has frequently been measured by the administration of parallel educational tests in two languages. Generally, no effort has been made to insure equality of difficulty level on each form. In addition, while the test may be standardized in one language, it is only rarely standardized in the other language. A few exceptions to this pessimistic appraisal of language testing do exist. Manuel has prepared tests equated with respect to

[30] Susan M. Ervin, "Language and TAT Content in Bilinguals," *Journal of Abnormal and Social Psychology*, 68 (1964), 500–07.
[31] "Linguistic Manifestations of Bilingualism."
[32] R. L. Cooper, Barbara Fowles, and A. Givner, "Listening Comprehension in a Bilingual Community," in *Bilingualism in the Barrio*, pp. 577–97.
[33] R. L. Cooper, "Two Contextualized Measures of Degree of Bilingualism."
[34] Fertig and Fishman, in *Bilingualism in the Barrio*, pp. 620–35.

scholastic and intellectual content.[35] Macnamara developed a specific test of Irish language ability.[36] Even this type of test poses problems because semantics are not uniform for two languages[37] and, as noted above, a bilingual's competence varies from one domain of interaction to another.

e. *Other measures for testing language proficiency* follow: Proficiency in each language can be measured independently and compared with that of monolinguals or other bilinguals. The amount of interference of one language on another may be measured, as well as the control of switching to determine how well an individual has solved the special problems of bilingualism.[38] Weinreich suggests that a dominance configuration be established for the bilingual's two languages.[39] This would be calculated by combining a number of factors such as relative proficiency, manner of use (speech and/or writing), order of learning and age, usefulness in communication, emotional involvement, function in social advance, and literary-cultural value. Lambert and his co-workers combined a number of indirect tests and concluded that all measures of bilingual proficiency were intercorrelated and could be interpreted as measuring a single factor.[40] Such findings suggest that the underlying competence in a language may be a single, quantitatively describable skill.[41]

f. *Tests used to determine Spanish language competence* have been developed and used in bilingual education programs. No specific information is available on tests utilizing American Indian languages, although there has been some work by Brière and others in the area;[42] the story retelling task, described below, has also been used in Navajo.

1. Tests of Bilingualism and Bicultural Socialization (TOBABS) is a two-part measure developed by Cervenka.[43] The first part, the Test of Bilingualism consists of a Spanish and English language competence series, which

[35] Herschel T. Manuel, *"The Inter-American Series* (Austin, Tex.: Guidance Testing Associates, 1962–66).

[36] *Bilingualism and Primary Education.*

[37] Ervin, "Semantic Shift in Bilingualism."

[38] Einar Haugen, *Bilingualism in the Americas: A Bibliography and Research Guide,* Publication of the American Dialect Society, No. 26 (Montgomery: Univ. of Alabama Press, 1956).

[39] Uriel Weinreich, *Languages in Contact: Findings and Problems* (New York: Linguistic Circle of New York, 1953).

[40] "Linguistic Manifestations of Bilingualism."

[41] Cervenka, "The Measurement of Bilingualism."

[42] See n. 23, and T. R. Hopkins, "Language Testing of North American Indians," paper delivered at the Conference on Problems in Foreign Language Testing, English Language Institute, Univ. of Michigan, Ann Arbor, 28–30 Sept. 1967.

[43] "The Measurement of Bilingualism."

can be administered individually. Test items are based upon a contrastive linguistic analysis of English and Spanish and assess the specific structural and semantic problems a native speaker encounters in learning English and a native English-speaking child encounters in learning Spanish. The author states that the tests were first designed "as research instruments which can be used in the empirical investigation and evaluation of bilingual educational programs." His eventual goal for these tests is to use them as standardized instruments in bilingual programs in the Southwest. The six subtests in the Spanish and English versions are comparable, but not totally equivalent: (1) recognition of question and imperative patterns (25 items); (2) comprehension of commands and directions (25 items); (3) pronunciation, sound discrimination (30 items); (4) grammar, recognition of grammatically correct sentences (30 items); (5) oral vocabulary (24, 63, or 144 items); and (6) listening comprehension of connected utterances (20 or 60 items).

The validity and reliability for each subtest, as well as general test construction and validation techniques, are described. Test revision has been based both on the performance of native speakers and on teachers' suggestions. Intercorrelations of subscores have been determined with each other and with other tests, such as the Otis Alpha Quick Scoring Mental Ability Test and the Stanford Achievement Test. Two forms of the *Test of Bilingualism* have been constructed, but as of this writing, data is available on only the one form described.

The second part of the measure, the Test of Bicultural Socialization, is a rating scale of the child's socialization as reflected in school by his nonlinguistic social behavior. The instruments purport to be culturally fair, accurate, and relevant. Socialization by means of weighted ratings may be expressed in terms of three value systems: super-ethnic or bicultural, purely Anglo, or purely Mexican.

The two parts of the tests have been used in the Creedmoor Independent School District in Del Valle, Texas; and in the Garfield Elementary School, Del Rio Independent School District, Del Rio, Texas.

2. El Paso Spanish Proficiency Test was developed at the El Paso Applied Language Research Center, and measures linguistic achievement in Spanish.[44] It is based upon a contrastive linguistic analysis of English and the

[44] *Applied Language Research Center,* Elementary and Secondary Education Act; Title III, Proposal, 29 March 1968 (El Paso, Tex.: El Paso Independent School District, 1968).

local dialect of Spanish as spoken in the El Paso area. The test is designed for first and second grade children. The items, which are arranged in a progression from simple to difficult, are divided into five parts: ability to correlate the written word with its pictorial equivalence; ability to select from multiple choice the correct word in a sentence relating to general knowledge; proficiency in translating and the ability to recognize English equivalence in vocabulary; ability and speed in recognizing correspondence of the words that go together with the equivalents in another language; and speed and proficiency in translating. The test has been used in the El Paso Independent School District, El Paso, Texas.

3. Peabody Picture Vocabulary Test (PPVT) is available in a number of Spanish translations and adaptations. A number of programs have found the PPVT raw scores useful as assessments of vocabulary development. The test may be used for ages three through eighteen. Translations in Spanish include: Forms A and B translated into Spanish by Margaret Moreau (Apdo. 22-120 Tlalpan, Mexico D.F.); a Trinity University translation used at the Good Samaritan Center, San Antonio, Texas; a translation of Form A by the Community Play Group of Redwood City, California.

Other programs which use a Spanish version of the PPVT are the Bilingual Education Program for Spanish-Speaking Students, Englewood Public Schools, Englewood, New Jersey; Assimilation Through Cultural Understanding, Board of Education, Hoboken, New Jersey; the preschool Escuela Hispana Montessori in New York City; and the Bicultural Orientation and Linguistic Development (BOLD) program, Silver City Consolidated Schools, Silver City, New Mexico.

A briefer but similar test, called the New York Picture Vocabulary Tests, Forms A and B, is available from the Bureau of Educational Research, Board of Education of the City of New York.

4. Three Wishes *(Si tuvieras tres deseos ¿cuáles serían?)* is a projective test that has been translated into Spanish and used as an indirect measure of language competence. The test has been used in the Bilingual Education Program for Mexican-American children, Marysville Joint Unified School District, Marysville, California.

5. *Madeline Thomas Completion Stories* is a projective test, translated into Spanish, and used to elicit a child's oral responses in order to gather information on his language usage. The stories are reportedly neither culturally

nor socially biased. One translation of this test has been developed by Gonzalez and Plakos.[45] Another translation, by Gilbert Velasquez, a psychologist and native Spanish-speaker of Mexican descent, is used in the Marysville, California, program.

6. *Ratings by teachers and language specialists* have been utilized by various bilingual programs to evaluate the oral language ability of students. The Good Samaritan Center, San Antonio, Texas, has a linguistic consultant regularly analyze tape recordings of its students. At the Applied Language Research Center in El Paso, Texas, teachers prepare a narrative report comparing present language achievement of the children with that of previous years. The Coral Way School in Miami, Florida, has also used teacher assessments as a means of evaluating progress. The Marysville, California, program uses an informal technique of having students read from a variety of Spanish materials while the teacher assistant notes the fluency and comprehension of their reading.

8. *Story retelling technique,* still in an experimental stage, is used to collect representative samples of sequential speech for comparison of children from very different language, cultural, and economic backgrounds. The child is told that after a story has been read, he will be asked to retell it. Looking at corresponding pictures, he listens to a rather long story. Afterwards, he again looks at the illustrations, presented in sequence, and retells the story. The length of the story guards against confusing an ability to mimic (demonstrated by a verbatim reiteration of the story) with the ability to retell. The story retelling has four developmental stages:[46] Stage 1, *Sequential Picture Labeling,* in which the child responds with one-word labels and occasional short phrases; Stage 2, the *Skeleton Story,* in which one phrase per picture is given, but there is some evidence of sequencing shown; Stage 3, the *Embroidered Story* in which new elements not included in the original story appear in the retelling; Stage 4, *Accurate Retelling,* in which the child is able to retell the story accurately and concisely.

Comparative studies utilizing this technique have shown that while to-

[45] Eugene Gonzalez and John Plakos, "Evaluating the Effectiveness of Programs Designed to Improve the Education of Mexican-American Pupils" (California State Dept. of Educ., 217 West First St., Los Angeles 90012), mimeo.

[46] Vera P. John, Vivian M. Horner, and Tomi D. Berney, "Story Retelling: A Study of Sequential Speech in Young Children." To appear in Harry Levin and Joanna Williams, eds., *Basic Studies on Reading* (New York: Harper & Row, in press).

tal verbal output is not statistically significant, accuracy in retelling is a reliable way of estimating language competencies. Various objective measures relating to the use of this technique have been developed and used to assess performances of children of different backgrounds.[47] A single story, told and retold in English, Spanish, and Navajo, was used, respectively, with middle- and low-income Negroes; Puerto Ricans and Mexican-Americans; and Sioux and Navajos. While it was originally supposed that a tradition of storytelling might bias the data in favor of the Indian children, particularly the Navajos, this was not found to be the case. The results were comparable for all ethnic groups. The technique, however, is still experimental; normative data is not yet available and a greater knowledge of precisely what is being evaluated is needed.

Intelligence or General Ability. Testing bilingual children for intelligence or general ability poses problems of an even more urgent nature than does testing for language competence. It is the function of the school to provide a broad education for all its students. If knowledge of even one's native language is a function of aptitude, opportunity, and motivation for learning, then some way of assessing this aptitude must be made available to the schools.

Up to the present time, tests have been designed, with few exceptions, for native English-speakers, and the test scores of all children, regardless of their native language or cultural background, have been compared to national norms.[48] As recently as 1966, the Coleman report stated that the test performance of Indian children was poorer than that of non-Indian children.[49]

To a large degree, all test scores reflect previous education and achievement. Testing a child in English when his English is poor, or in his native language when he has had no formal training in that language, guarantees poor results. Thus the bilingual may test poorly in both his languages. In addition, his language "handicap" is often intensified by deficiencies in the tests themselves. For example, many tests contain cultural references with which the children are not familiar. Brière reports on a test for Navajo children

[47] John, Horner, and Berney, "Story Retelling," and Vera P. John and Tomi D. Berney, "Analysis of Story Retelling as a Measure of the Effects of Ethnic Content in Stories," in J. Hellmuth, ed., *The Disadvantaged Child, Vol. II* (Seattle, Wash.: Special Child Publications, 1968), 257–87.

[48] Cervenka, "The Measurement of Bilingualism."

[49] James S. Coleman, *Equality of Educational Opportunity* (Washington, D.C.: U.S. Office of Education, 1966), No. OE-38001.

which incorporates a Navajo translation of the English word "notebook." Adults to whom the test was given translated it as "ballot," "writing paper," and "book for writing." No one said "notebook." When the same author used pictures as visual stimuli to elicit specific verbal responses, he noted difficulties even when the pictures were carefully checked to contain appropriate cultural cues. One particular picture of a woman and girl dusting elicited, "they're cleaning," "they're washing dishes," and "they're making pottery," but never the desired response, "they're dusting."[50]

Sanchez has denied the validity of intelligence tests for children whose language or social background differs from that of the average American. In reviewing the English language version of the Binet-Simon test for age eight, he found 114 words unknown to Mexican-American schoolchildren.[51]

A number of bilingual programs have tried to cope with the problem of testing for intellectual and general ability by adapting available tests or developing new ones. Of the wide variety of intelligence and ability tests used, the following list of fourteen includes: translations of some of the more commonly known tests, tests specifically developed for Spanish-speaking populations, original tests developed by bilingual projects for their own administration, and projective-type tests for which there may be no norms for the groups to be tested, but which have comprised part of the assessment program of various projects.

1. *Baranquilla Rapid Survey Intelligence Test* (BARSIT) *(Test Rapido Baranquilla)* was developed in Venezuela as a measure of mental ability. The test contains verbal and numerical problems, has one form, takes ten minutes to administer, and may be used to test anyone from a child in third grade to an adult with an elementary school education. There are norms expressed as percentiles for children in grades three through six and for adults. The test is available from the Psychological Corporation.

2. *Chicago Non-Verbal Examination* is specifically designed for children who are handicapped in their use of the English language. It has been standardized for both verbal (English) and pantomime administration. There is one form which can be used from age six (pantomime to age eight) through adult. Raw scores can be converted into mental age equivalents, stan-

[50] English Language Testing Project, Navajo Area Agency.

[51] George I. Sanchez, "Bilingualism and Mental Measures," *Journal of Applied Psychology*, 18 (1934), 765–72; and "The Implications of a Basal Vocabulary to the Measurement of the Abilities of Bilingual Children," *Journal of Social Psychology, 5* (1934), 395–402.

dard scores, and percentile ranks. Overall administration takes forty to fifty minutes. The test is available from the Psychological Corporation.

3. *Cooperative Inter-American Tests of General Ability (CIA Pruebas de habilidad general)* were developed in 1950 by Guidance Testing Associates. The tests measure those abilities related to success in schoolwork and are not intended for use as intelligence tests.[52] It is suggested that the scores be used as estimates of readiness. The primary tests are available in two forms and can be used for grades one, two, and three. The tests consist of oral vocabulary and non-verbal classification and association and can be administered in two sessions of twenty to thirty minutes each.

4. *Inter-American Tests of Reading and General Ability (Pruebas de lectura, Pruebas de habilidad general)* developed by Herschel Manuel, are the combined efforts of English- and Spanish-speaking educators who tried "to find items requiring activities *common* to the two cultures, but not necessarily *equally* common."[53] The tests attempt to avoid the use of local idioms and to employ instead a "standard" language form. It is suggested that since score equivalence in two languages is not precise, statistical results of comparison should be treated as approximate.

The tests are recommended for use in conjunction with regional or local norms. The Spanish version of the tests has been standardized using three types of sample groups: Spanish-speaking pupils in an English-language school, students of Spanish as a Second Language, and students in Spanish language schools in Puerto Rico and other Spanish-language countries (Mexico, Panama, Venezuela, Central America, Chile).

The tests provide an estimate of ability at the time of the test, rather than an estimate of some theoretical potential. The tests have been developed at various levels; our concern here is with the preschool and early primary. The preschool level test was designed for four- and five-year-old children and was standardized using Day-Care and Head Start centers in Texas, and a small sample of preschool children in Panama. There is one form individually administered in two sessions of twenty to twenty-five minutes each. No oral response is necessary. Three scores are obtained: verbal-numerical (oral vocabulary and simple numerical items), non-verbal (recognition of relationships presented by drawings), and a total score.

[52] Manuel, *The Inter-American Series.*
[53] Ibid.

Level 1 is a "readiness" test in two forms, for the end of kindergarten and beginning of first grade. The forms can be administered to a group in two sessions of twenty-five to thirty minutes each. The subtests are the same as for the preschool level. Level 2 is designed as a test of general scholastic ability for grades two and three, to be administered in one session of forty-five to fifty minutes. The subtests are similar to those of the preschool level except that the non-verbal score is based upon classification and analogies.

The tests have been used in the Assimilation Through Cultural Understanding program of Hoboken, New Jersey; in the Bandera Independent School District program, Bandera, Texas; and in the Harlandale Independent School District program, San Antonio, Texas.

5. *Hoard-Condon El Paso First Grade Intelligence Test for Spanish-Speaking Children* was developed at the El Paso Applied Language Research Center. It is given to first graders to measure Spanish aptitude as well as mental ability. The test has been used in the El Paso Independent School District, El Paso, Texas.

6. *Otis Alpha Mental Ability Test* is a non-verbal test, the short form of which measures general ability and readiness at the beginning of first grade. The test has been translated into colloquial Spanish and is used in the Harlandale Independent School District, San Antonio, Texas; and in the Del Rio Independent School District, Del Rio, Texas.

7. *Peabody Picture Vocabulary Test* (PPVT) can be used to derive an intelligence quotient, though it is more generally used to measure vocabulary. (See above under list of tests used to determine Spanish language competence.) Although correlations with the Wechsler Intelligence Scale for Children (WISC) and Stanford-Binet are fairly high in English, the validity of deriving IQ's from the raw scores of unstandardized, unvalidated Spanish versions of the PPVT is a questionable practice. Unless there is normative data for the specific version being used, caution is advised in using the English edition norms.[54]

8. *Short Test of Educational Ability* (STEA) *(Examen breve para demostrar habilidad educativa)* provides an estimate of educational ability based on IQ. In the Spanish edition teacher-read directions are annotated with Southwestern, Cuban, and Puerto Rican dialects. Level 1 is directed toward

[54] Oscar K. Buros, ed., *The Sixth Mental Measurements Yearbook* (Highland Park, N.J.: Gryphon Press, 1965).

kindergarten and grade one and level 2 toward grades two and three. In these two levels, the test is primarily pictorial and reading ability unnecessary. Level 1 includes simple cause and effect, simple problem-solving, and spatial relations. Level 2 includes spatial relations, verbal meaning, and number series. The test is a group test. A single score is computed, based upon subtests. Norms are applicable to both Spanish- and English-speaking students. The test is published by Science Research Associates, and has been used in the Assimilation Through Cultural Understanding program in Hoboken, New Jersey.

9. *Tests of General Ability* (TOGA) is a non-verbal measure of general intelligence and basic learning ability reported to be independent of school acquired skills. Scores yield a grade expectancy and IQ. The two levels of particular interest here are kindergarten to second grade and second to fourth grade. The test takes from thirty-five to forty-five minutes to administer, may be given in Spanish, and is published by Science Research Associates.

10. *Wechsler Intelligence Scale for Children* (WISC) (*Escala de inteligencia Wechsler para niños,* Pablo Roca, trans.) has only one authorized Spanish translation. This translation was adapted in Puerto Rico and results of the test for various groups of Puerto Ricans have been reported in terms of the established norms. The Spanish version of the manual and record forms uses the regular WISC kit. It is available from the Psychological Corporation and has been used as a measure of intelligence in the Marysville Joint Unified School District, Marysville, California.

Some educators in the Southwest report that this Puerto Rican version of WISC is of little value in testing Mexican-American children, because many of the words used in the test are not common outside of Puerto Rico and are therefore unfamiliar to Southwesterners.[55] There is a local adaptation for Mexican-Americans, based on the WISC and Wechsler Adult Intelligence Scale (WAIS) (Wechsler-Bellevue-1 Hospital Infantile test), standardized in the Valley of Mexico, Mexico City. This version, which revises three of the verbal subtests, has been used in an Elementary and Secondary Education Act project, "Bilingual Development Program for Spanish-Speaking Students," in the Clark County School District, Las Vegas, Nevada.

11. *Readiness Checklist* was developed in Las Cruces School District No. 2, Las Cruces, New Mexico. The test does not measure the acquisition of

[55] "Bilingual Language Development Program, 1968–69" (Las Vegas, Nev.: Clark County School District), mimeo.

specific skills, but lists certain areas as guides for assessing the development of young children. Areas included are general health, movement patterns of muscular coordination, auditory skills (including general language-listening skills and specific reading-related skills), visual skills (including language-related factors), personal independence, and social adjustment. A readiness score can be obtained from the checklist.

12. *Goodenough-Harris Drawing Test* has been used as a measure of intelligence, developmental maturity, and intellectual potential. It is a group test that places little emphasis on verbal facility and has been judged highly reliable for children of kindergarten age.[56] The directions to the pupils are translated into Spanish. The test was published by Harcourt, Brace & World and has been used in the Brengelman-Manning Study in Fresno County, California, and in the Southwest Educational Development Laboratory (SWEDL) sponsored program in San Antonio, Texas.

13. *Machover Draw-A-Person* has also been used as a measure of intelligence, developmental maturity, and intellectual potential. It may be administered in Spanish, and some questions about the drawing asked. This test has been used in the Marysville, California; Las Cruces, New Mexico; and Hoboken, New Jersey programs.

Special Skill Achievement. Instruments for measuring specific skills present the same problems to bilingual programs as do instruments for measuring intelligence and general ability. How can one assess specific skills by using methods of instruction and instruments designed for and standardized on an English-speaking, middle-class student population? Even when tests are developed in the native language of the non-English-speaker, it is often difficult to measure the same skills through the medium of another language.

Current bilingual programs are attempting to meet the problem of developing appropriate testing instruments. A number of them have built original achievement tests into their courses of instruction. These tests are specifically designed to determine to what extent children have acquired the skills taught in a particular program. Many of these original tests are based upon specific materials and cannot be used for more general distribution.

The Southwest Educational Development Laboratory (SWEDL) in

[56] F. H. Brengelmann and J. C. Manning, "A Linguistic Approach to the Teaching of English as a Foreign Language to Kindergarten Pupils Whose Primary Language Is Spanish," Cooperative Research Project 2821 (Washington, D.C.: U. S. Office of Education, 1966).

Austin, Texas, for example, has developed instruments for assessing achievement upon the completion of an instructional unit. The Good Samaritan Center in San Antonio, Texas, has based tests on achievement in the oral expressive and receptive comprehensive functions of language. The Applied Language Research Center in El Paso, Texas, utilized teacher rating instruments to assess reading and writing skills in Spanish. In the Las Cruces, New Mexico, program, a parent's attitude toward education rating scale correlated directly with student achievement.

Two tests that have been, or could be, used in bilingual programs are: (1) *Language Arts Checklist,* part of a sequential skill-development program for reading instruction, developed and used by the Sustained Primary Program for Bilingual Students in Las Cruces, New Mexico. The checklist is based upon five assumptions about the nature of language: that it is a *learned process* and a *social experience,* that it has *creative, communicative,* and *conceptual* functions. Individual skills which contribute to successful listening, reading, writing, and speaking may be rated, although at this writing, the last two had not yet been enumerated. (2) *Cooperative Primary Tests* that may be given in English and then repeated in Spanish. These tests are distributed by the Educational Testing Service, but no standardization data is available. The children listen to a word, phrase, or paragraph and mark the correct picture in their test booklets. Listen Form 12A has been used in the bilingual Follow-Through program in Corpus Christi, Texas.

CONCLUSION

In assessing a bilingual program, one fundamental decision to be made is the kind of bilingualism the program hopes to produce. Most assessments of bilingual education programs have failed to describe the bilingual's facility in either language. Also important in the assessment of any bilingual project is a thorough knowledge of the community served. The relative permanence or transience of bilingualism in a community helps determine how it is best assessed. Where bilingualism is stable, the mother and second languages will be used in different domains of life,[57] with the mother tongue dominant in family interactions and English used more extensively in the educational sphere.

[57] Joshua A. Fishman, "The Measurement and Description of Widespread and Relatively Stable Bilingualism," *Bilingualism in the Barrio,* pp. 6–19.

The methods of assessment chosen to measure the effectiveness of bilingual education programs may be standardized tests, experimental techniques or subjective evaluations. Such measures prove exceedingly useful, but their limitations must be recognized. As far as possible, the selected tests or techniques must actually measure what they are supposed to measure. Valid conclusions can be drawn only from those specified dependent variables which have been measured.

Tests developed for a single program, which measure the specific goals of that program, are ordinarily appropriate for use only in that program and with its specific population. Similarly, scales designed to rate a specific aptitude must be used for measuring this one specific component of behavior. Tests developed for wider use, which evaluate the performance of varied groups and tap a multitude of skills, must be used with their limitations clearly understood. The norms of these tests may not apply equally to all groups; the tests may not measure specifically chosen skills; the standard language or local dialect on which the language of a test is based may not be familiar to those who are taking the test.

In spite of these limitations, it must be noted that any attempt to test non-English-speaking children in their native tongue is an improvement over testing them only in English. Continuing efforts are being made to improve these tests, to devise more valid and more reliable means of assessment. Older methods are being improved and data on existing techniques are being accumulated and used in the development of new and imaginative instruments. The dual field of bilingual testing and testing the bilingual is a creative and growing one, and we hope the day is not far off when "the study of bilingualism will have reached an advanced stage of development when investigators . . . have available to them instruments, devices, or tests which make the concept of bilingualism more precise and which make possible the effective measurement of bilingualism."[58]

TEST PUBLISHERS

The following list of tests and publishers' addresses includes only standard published tests. Where tests have been constructed specifically for research or other unique purposes, and no published versions exist, further information

[58] Cervenka, "The Measurement of Bilingualism."

may be obtained by checking the references to these tests in the footnotes. For inquiries concerning tests developed by regional agencies, schools, or by individual school districts, see the list of names and addresses of Regional Laboratories (pp. 140–41) or the Program Descriptions chapter.

Baranquilla Rapid Survey Intelligence Test (BARSIT) (Test Rapido Baranquilla). The Psychological Corporation, 304 E. 45th St., New York, N.Y. 10017.

Chicago Non-Verbal Examination. The Psychological Corporation, 304 E. 45th St., New York, N.Y. 10017.

Cooperative Inter-American Tests of General Ability (CIA Pruebas de habilidad general). Guidance Testing Associates, 6516 Shirley Ave., Austin, Tex. 78752.

Cooperative Primary Tests. Educational Testing Service, Princeton, N.J. 08540.

El Paso Spanish Proficiency Test. El Paso Applied Language Research Center, 1116 E. Yandell Dr., El Paso, Tex. 79902.

Goodenough-Harris Drawing Test. Harcourt, Brace & Jovanovich, 757 Third Ave., New York, N.Y. 10017.

Hoard-Condon El Paso First Grade Intelligence Test for Spanish-Speaking Children. El Paso Applied Language Research Center, 1116 E. Yandell Dr., El Paso, Tex. 79902.

Inter-American Tests of Reading and General Ability (Pruebas de lectura, Pruebas de habilidad general). Guidance Testing Associates, 6516 Shirley Ave., Austin, Tex. 78752.

Machover Draw-A-Person Test. Charles C Thomas, Publisher, 327 E. Lawrence Ave., Springfield, Ill. 62703.

New York Picture Vocabulary Tests. Bureau of Educational Research, Board of Education of the City of New York, 110 Livingston St., Brooklyn, N.Y. 11201.

Otis Alpha Mental Ability Test. Harcourt, Brace & Jovanovich, 757 Third Ave., New York, N.Y. 10017.

Peabody Picture Vocabulary Test (PPVT). American Guidance Service, Inc., 720 Washington Ave., S.E., Minneapolis, Minn. 55414.

Short Test of Educational Ability (STEA) (Examen breve para demostrar habilidad educativa). Science Research Associates, Inc., 259 E. Erie St., Chicago, Ill. 60611.

Tests of General Ability (TOGA). Science Research Associates, Inc., 259 E. Erie St., Chicago, Ill. 60611.

Thematic Apperception Test (TAT). The Psychological Corporation, 304 E. 45th St., New York, N.Y. 10017.

Wechsler Intelligence Scale for Children (WISC). The Psychological Corporation, 304 E. 45th St., New York, N.Y. 10017.

RESEARCH IN BILINGUAL EDUCATION

I. THE NON-ENGLISH-SPEAKING CHILD IN SCHOOL

School may be a very frightening and frustrating place for the young non-English-speaking child who is unable to understand the sounds his teacher makes and who cannot express his feelings in a strange language. The child's reaction may be extreme; he may withdraw into himself and become a passive member of the classroom, or, conversely, he may become an aggressive and disruptive student. Where the child's native language—the language he uses in his home—is looked down upon by the school as "inferior," a breach between home and school is inevitable; and the child's loyalty to his family comes into conflict with the teachings of his school.[1]

These feelings of conflict and frustration are movingly described by

[1] Manuel H. Guerra, *An Evaluation and Critique of the Mexican-American Studies Project,* prepared by the Educational Council of the Mexican-American Political Assn. (Los Angeles: Univ. of California, n.d.); and *The Invisible Minority: Tucson Survey on the Teaching of Spanish to the Spanish Speaking* (Washington, D.C.: National Education Association, 1966).

one Mexican-American in writing about his early school experiences in the Southwest: "The teachers were not communicating with me as a child . . . everything I had learned, I had to stop and learn words of it in English. It disrupted everything that my parents had taught me in Spanish . . . I found myself fighting, not only with my parents because I was doubting their teaching . . . I also started doubting the teachers."[2]

In addition to the social and emotional consequences of speaking a language that may be downgraded by the school and by society as a whole, there are the specific problems stemming from different value systems and different ways of viewing one's place in the world. Even where the instructional materials in the classroom are in the child's native language, the child may still not be able to understand much of what is going on around him because these materials are generally based on the middle-class values and norms of an English-speaking society.[3] For the Spanish-American child, the "Anglo" middle-class competitive goals of "success" and being "the best" are in some degree alien to his own life pattern. Thus, the Spanish-American child, living within a large family structure where assistance and cooperation is stressed, finds it difficult to accept the act of helping friends in school as "cheating."

Cazden and John have described the ways in which such cultural value conflicts can be similarly detrimental to the American Indian child.[4] The Pueblo child's view of cooperation as a virtue contrasts with the school's prevailing stress on competition.[5] The Sioux child, too, finds that the cooperation and help which he gives outside of school conflicts with his expected behavior in school, where he is prohibited from answering questions for his friends.[6] It is against this background of differing language and differing social and cultural values that the school problems of the non-English-speaking child must be examined and solved.

[2] Armando Quintanilla, *Bilingual Education. Hearings Before the Special Subcommittee on Bilingual Education of the Committee on Labor and Public Welfare.* Ninetieth Congress, First Session on S.428, Parts I and II, May–July 1967 (Washington, D.C.: Government Printing Office, 1967), Part I, p. 402.

[3] J. J. Gumperz, "On the Linguistic Markers of Bilingual Communication," *Journal of Social Issues,* 23 (1967), 48–57.

[4] Courtney Cazden and Vera P. John, "Learning in American Indian Children," paper presented at the Center for Applied Linguistics and Bureau of Indian Affairs Conference, Stanford Univ., Aug. 1968.

[5] R. J. Havighurst, "Education among American Indians: Individual and Cultural Aspects," in G. E. Simpson and J. M. Yinger, eds., *American Indians and American Life,* Annals of the American Academy of Political and Social Science, 311 (1957), 105–15.

[6] Murray L. and Rosalie H. Wax and R. V. Dumont, Jr., *Formal Education in an American Indian Community,* supplement to *Social Problems,* 11 (1964); and Rosalie Wax, "The Warrior Dropouts," *Trans-Action,* May 1967, pp. 40–45.

II. WHAT IS A BILINGUAL?

Evaluation of research findings on "bilingualism" and "bilingual education" is hindered by the lack of consistent definitions of these terms. The research literature abounds in differing definitions. In reviewing writings on the effect of childhood bilingualism, Jensen notes that some authors define bilingualism merely as exposure to two languages; others define it as the ability to speak two languages or the native-like control of two languages.[7] Among writers who refer to the expressive, communicative aspects of language, some reserve the term "bilingualism" for the learning of two languages simultaneously from birth; others use it only where a second language has been acquired after the establishment of the native language.

In psychologically oriented research studies comparing the achievement and intelligence of "bilingual" and monolingual children, the term "bilingual" is generally not defined nor is there any specification of the extent to which the children being studied meet any definition of "bilingualism."[8] It is not unusual for the subjects in a "bilingual" study to be selected solely on the basis of their last name.[9] In the Southwest, for example, the expression "Spanish surname" is loosely used as synonymous with "bilingual" and refers to individuals who are assumed to be of Mexican ancestry (but who actually may or may not be) and who are assumed to be monolingual speakers of Spanish (but who may or may not speak Spanish and who may or may not speak English). In a recent report, a Nevada school district provided illustrative examples of this misuse of the term "bilingual," citing the cases of two children with "Spanish surnames." One child was tested by four school psychologists, who reported "bilingualism" to be his "problem"; however, neither the child nor his family could understand or speak Spanish. The other student, a first grader, was reported by his teacher to have school problems because "he spoke Spanish," although the child had never been heard to speak that language.[10]

[7] J. V. Jensen, "Effects of Childhood Bilingualism, I and II," *Elementary English*, 39 (1962), 132–43, 356–66.

[8] Tomi D. Berney and Anne Eisenberg, "Research Supplement," *Digest of Bilingual Education* (Dec. 1968).

[9] R. Pintner, "The Influence of Language Background on Intelligence Tests," *Journal of Social Psychology*, 3 (1932), 235–40.

[10] "Bilingual Language Development Program, 1968–69" (Las Vegas, Nev.: Clark County School District), mimeo.

The term "bilingual education" is also used in a variety of ways. Mackey observes that "bilingual situations of entirely different patterns have unwittingly been grouped together under bilingual schools and used as a basis for research on 'bilingual education.' "

> *Schools in the United Kingdom where half the school-subjects are taught in English are called bilingual schools. Schools in Canada in which all subjects are taught in English to French-Canadian children are called bilingual schools. Schools in the Soviet Union in which all subjects except Russian are taught in English are bilingual schools, as are schools in which some of the subjects are taught in Georgian and the rest in Russian. Schools in the United States where English is taught as a second language are called bilingual schools, as are parochial schools and even week-end ethnic schools.*[11]

In an effort to achieve explicit definition, several researchers have defined "bilingual" in terms of the use of the two languages by the individual. A "bilingual" has been defined as: an individual who possesses at least one language skill (speaking, writing, listening, reading) to even a minimal degree in his second language (Macnamara); "a person who knows two languages with approximately the same degree of perfection as unilingual speakers of those languages" (Christophersen); and "an individual who habitually uses two languages" (Brooks).[12] Brooks's definition is the working definition of "bilingual" used in this book.

The definition of "bilingual education" used in this book is Gaarder's: "The concurrent use of two languages as media of instruction for a child in a given school in any or all of the school curriculum except the actual study of the languages themselves."[13]

Several distinctions among types of bilinguals have been made by researchers: One distinction differentiates between the pseudo bilingual, who is more familiar with his native language than his second language, and the true or balanced bilingual, who has mastered both languages and uses both with equal facility.[14]

[11] W. F. Mackey, "A Typology of Bilingual Education" (Quebec: International Center for Research on Bilingualism, 1969), mimeo.

[12] John Macnamara, *Bilingualism and Primary Education: A Study of the Irish Experience* (Edinburgh: Edinburgh Univ. Press, 1966); P. Christophersen, *Bilingualism* (London: Methuen, 1948); Nelson Brooks, *Language and Language Learning: Theory and Practice*, 2nd ed. (New York: Harcourt, Brace & World, 1964).

[13] A. Bruce Gaarder, "Organization of the Bilingual School," *Journal of Social Issues*, 23 (1967), 110–20.

[14] E. F. O'Doherty, "Bilingualism: Educational Aspects," *Advancement of Science*, 56 (1958), 282–86.

Further distinction is made between the compound bilingual and the coordinate bilingual.[15] This characterization implies differing underlying language structures, depending on how the two languages were acquired. In compound bilingualism the individual's two languages are presumed to constitute a single system. Generally he acquires both in the same context or learns one through the medium of the other (e.g., the typical foreign language learning situation in United States schools where the student learns the foreign language through the medium of his native language, English). In coordinate bilingualism the individual acquires his two languages in different contexts, i.e., at different times, in different places, or in different concurrent actual life situations. As a result of this different time/place/situation acquisition of the language, a parallel, hence, "coordinate," language structure is developed.

This compound-coordinate distinction has been useful in developing descriptions of bilingualism. In 1963, it was used to scale the language skills of bilinguals in a report by UNESCO.[16] The report rated coordinate bilingualism as the maximal level of language skill and defined it as "the mastery of the skills of understanding, speaking, reading, and writing in both languages, proportionate to one's age level and social group, together with an appreciation of the nuances, emotional overtones, and cultural dimensions of the two languages." Compound bilingualism was seen as a lesser level of skill, diminishing to the low end of the scale. This minimal bilingualism was described as "the ability to communicate with others through the second medium. This means a reasonable degree of mastery of the second sound system, the structure of the language and a lexical body of material proportional to age and background."

The definition of coordinate bilingualism found in the UNESCO report may be considered the desired end product of an ideal bilingual education program; it clearly is not a description of the language skills found in most so-called "bilingual students" in United States schools today.

[15] See Einar Haugen, *Bilingualism in the Americas: A Bibliography and Research Guide*, Publications of the American Dialect Society, No. 26 (Montgomery: Univ. of Alabama Press, 1956); John Macnamara, "The Effects of Instruction in a Weaker Language," *Journal of Social Issues*, 23 (1967), 120–34; C. E. Osgood and Susan M. Ervin, "Second Language Learning and Bilingualism," *Journal of Abnormal and Social Psychology*, 49 (1954), 139–46; and Uriel Weinreich, *Languages in Contact: Findings and Problems* (New York: Linguistic Circle of New York, 1953).

[16] *Foreign Languages in Primary Education: The Teaching of Foreign or Second Languages to Younger Children* (Hamburg: UNESCO Inst. for Education, 1963).

III. THE ROLE OF THE SECOND LANGUAGE

Linguists and psychologists have advanced a number of language-related factors as the basis for the school difficulties of children in this country whose native language is not English. While "bilingualism" is often listed by them as the basic cause of these problems, a closer look reveals that the problem is not bilingualism, but the time at which, the manner in which, and the children to whom, the second language, English, is introduced.

Some linguists tend to limit the main problem facing young learners of a second language to "linguistic interference"—the intermixing of the sounds, vocabulary, grammar, and word meanings of two languages. Weinreich lists the three principal forms of interference as phonic, graminatical, and lexical. Mackey adds to these, cultural and semantic forms of interference and includes in his phonological category, rhythmic, articulatory, and intonational interference.[17]

A number of scholars have proposed, however, that the amount of interference that a particular speaker experiences cannot be restricted solely to linguistic factors. Fishman notes that the phenomenon of interference is too often thought to be purely linguistic, rather than socio-linguistic; that linguists have failed to consider under what conditions and in what speakers interference occurs; and that an examination of different social patterns is needed "to provide good clues as to the existence of different bilingual patterns and *vice versa*."[18]

Weinreich includes among the non-linguistic factors affecting interference: the speaker's facility of verbal expression and relative proficiency in each language, ability to keep the two languages apart, the prestige of each language, and the prevailing attitudes toward each language and toward the culture of the community of each language.

A major cause of linguistic interference advanced by some researchers in the field is the forced early learning of the second language, before the first

[17] Weinreich, *Languages in Contact;* W. F. Mackey, "The Description of Bilingualism," in Joshua A. Fishman, ed., *Readings in the Sociology of Languages* (The Hague: Mouton, 1968), pp. 554–84.

[18] Joshua A. Fishman, "Sociolinguistic Perspectives on the Study of Bilingualism," in Fishman et al., *Bilingualism in the Barrio* (Washington, D.C.: Dept. of Health, Education and Welfare, 1968), pp. 952–99.

language is well established. Certain research indicates that when the child is made to use a second language too early, the first language is seriously impaired and confusion from linguistic inteference may result. Lynn found that when English was introduced to young Spanish-speaking children in Arizona before their Spanish was well established, the children made a variety of oral language mistakes in Spanish. Jensen suggests that the early teaching of a second language may result in distortions in the rhythms of speech.[19] A group of investigators studying over four thousand children found that a smaller proportion of monolinguals stuttered than children who used two languages; and that twenty-six per cent of the latter acquired their stutter at the time of the introduction of the second language.[20] Jones found that the most likely time for stuttering to begin occurred when the child was between the ages of three and six, i.e., the period of time when the English-only policies of the schools have the greatest and longest-lasting effects on their young students.[21]

The often narrow orientation and small number of qualitative studies of linguistic research on the non-English-speaking child are paralleled by similar limitations in psychological studies on the same subject.[22] Some psychologists propose that simply learning two languages may hinder a child's intellectual development; that the impairment of intellectual functioning arises in the non-English-speaking child solely from the child's using, or being asked to use, two languages; that learning two languages may lead to a smaller vocabulary, simpler sentences, confused word order, misuse of negatives, misuse of idiomatic expressions, and the use of literal translations. In general, these psychologists have overlooked several basic, qualitative factors affecting the non-English-speaking child's progress in school: *when* the second language is introduced, *how* it is introduced, and to *whom* it is introduced; that is, the socioeconomic and cultural background of the children involved.[23]

[19] Klonda Lynn, "Bilingualism in the Southwest," *Quarterly Journal of Speech*, 31 (1945), 175–80; Jensen, "Effects of Childhood Bilingualism."

[20] L. Travers, W. Johnson, and J. Shover, "The Relation of Bilingualism to Stuttering," *Journal of Speech Disorders*, 2 (1937), 185–89.

[21] W. R. Jones, "A Critical Study of Bilingualism and Non-Verbal Intelligence," *British Journal of Educational Psychology*, 30 (1960), 71–77.

[22] Fishman, "Sociolinguistic Perspective on the Study of Bilingualism." For examples of the highly quantitative nature of psychological research on the effects of second-language learning on the young non-English-speaking child, see the numerous tests of bilingual ability based on the speed of response, pp. 147–48.

[23] N. T. Darcy, "Bilingualism and the Measurement of Intelligence: Review of a Decade of Research," *Journal of Genetic Psychology*, 103 (1963), 259–82; "A Review of the Literature on the Effects of Bilingualism upon the Measurement of Intelligence," *Journal of Genetic Psychology*, 82 (1953), 21–57; Jensen, "Effects of Childhood Bilingualism, I and II": Macna-

Also ignored in many cases have been certain important considerations of general child development. Children between the ages of five and seven use language at an accelerating rate for purposes of problem-solving.[24] When ideas are being formed in one language, it is difficult to state them in another, and the child's unsuccessful attempts at translation may lead to great frustration and a loss of interest in expressing ideas.[25]

When the school attempts to teach a second language before the child has developed adequate cognitive skills in his native language, the child may become a "non-lingual" whose functioning in both his native and second languages develops in only limited ways.[26] Such children may become literally "children without a language." A Navajo educator has observed that: "Children who have forgotten their language, really have no language. They are five, six, seven years old and they are just not quick enough in a language which is not their own."[27]

There is strong evidence from investigators doing research on the problems of instruction in two languages that being forced to learn in a second language too early may lead to intellectual impairment and academic retardation. Thus the time at which the second language is introduced to the young child may be one of the critical dimensions of the ultimate cognitive effects of being bilingual.

In reviewing the effects of learning to read in a second language, Modiano concludes that reading comprehension is highly dependent on physical perception of graphic symbols, which perception also depends upon experience with the language and the subject matter. It is less confusing for the child to learn the new skill of reading with familiar material than to learn two new, only somewhat related skills, using unfamiliar material. Modiano concludes

---

mara, "Bilingualism and Primary Education"; H. Singer, "Bilingualism and Elementary Education," *Modern Language Journal*, 40 (1956), 444–58; and Madorah E. Smith, "Measurement of Vocabularies of Young Bilingual Children in Both of the Languages Used," *Journal of Genetic Psychology*, 74 (1949), 305–10.

[24] S. H. White, "Evidence for a Hierarchical Arrangement of Learning Processes," in L. P. Lipsett and C. C. Spiker, eds., *Advances in Child Development and Behavior*, Vol. II (New York: Academic Press, 1965).

[25] *The Use of Vernacular Languages in Education*, Monographs on Fundamental Education, No. 8 (Paris: UNESCO, 1953).

[26] I. D. and B. Karlin and L. Gurren, *Development and Disorders of Speech in Childhood* (Springfield, Ill.: Charles C. Thomas, 1965); M. V. Zintz, *Education Across Cultures* (Dubuque, Iowa: William C. Brown, 1953).

[27] Testimony by F. E. Paul, a participant in the Planning Conference for the Ford Foundation Early Childhood Bilingual Project, April 1967.

that "attitudes, culture and cognitive development, including the perception of objects and symbols, are linked inextricably to one another and to language."[28] Other research in the field of second-language learning suggests that "whether or not bilingualism constitutes a handicap, as well as the extent of such a handicap, depends upon the way in which the two languages have been learned."[29]

In studies made of students who were instructed in their second language, where the second language was distinctly their weaker language, adverse effects were shown in school results. In two studies undertaken by Macnamara in Ireland with English-speaking children instructed in Gaelic, deterioration in school performance was shown. In his reading study with Kellaghan, Macnamara found that "articulation and consequently communication, is slower" for students performing in their weaker language; and that the encoding of ideas, and the organizing of syntactic structures possibly occurs with less rapidity in the weaker language.[30]

In another study by Macnamara in which a group of English-speaking children were taught arithmetic in Gaelic for a six-year period, he found that their arithmetic scores dropped, particularly in the area of problem-solving. In addition, instruction in the weaker language often had an erosive effect on the first language; when the English-speaking students were taught all subjects in Gaelic, they tested poorly in two languages: English and Irish.[31] Similarly, Saer found that Welsh children instructed in their weaker language demonstrated progressive retardation in all phases of classroom achievement.[32]

On the other hand, some research indicates that where the second language is not the weaker language, where the child has an opportunity to develop his two languages fully, his mental and educational development is not only unimpaired, but having two languages has, in addition, a favorable effect on cognition, i.e., having two codes appears to facilitate the bilingual child's awareness that there are different ways to say the same thing.

In an often-cited study of ten-year-old French-Canadian children in

[28] Nancy Modiano, "National or Mother Language in Beginning Reading: A Comparative Study," *Research in the Teaching of English*, 1 (1968), 32–43.

[29] Anne Anastasi and F. Cordova, "Some Effects of Bilingualism upon Intelligence Test Performance of Puerto Rican Children in New York City," *Journal of Educational Psychology*, 44 (1953), 1–19.

[30] John Macnamara and Thomas P. Kellaghan, "Reading in a Second Language," in Marion D. Jenkinson, ed., *Improving Reading Throughout the World* (Newark, Del.: International Reading Association [in press]).

[31] Macnamara, *Bilingualism and Primary Education.*

[32] D. J. Saer, "The Effects of Bilingualism on Intelligence," *British Journal of Psychology*, 14 (1923), 25–38.

Montreal, Lambert and Peal found that a group of these children who were rated as true, balanced bilinguals scored significantly higher on intelligence tests than monolingual children. According to these investigators, the bilingual children had several advantages over their monolingual peers: a language asset, a greater ability in concept formation, and a greater cognitive flexibility. They concluded that "the bilinguals appear to have a more diversified set of mental abilities than the monolinguals."[33]

Another major factor almost totally ignored in decades of psychological research on second-language learning is the socioeconomic and cultural background of the non-English-speaking child. In most psychological studies in the field, there has been a general failure to set up controls for socioeconomic status. This shortcoming is particularly crucial in the light of recent studies indicating definite correlation between linguistic development and socioeconomic background. Children from upper-income families have been shown to have larger vocabularies, to speak more articulately and in longer sentences than children from low-income backgrounds. Dorothea McCarthy notes that a child's verbal skills and parental availability are highly correlated, suggesting that the less frequent availability of the low-income parent may have an important effect on the child's developing language.[34] In interpreting these studies, John and Moskovitz caution that the language proficiency of low-income children is frequently misjudged because of the manner and conditions of the testing; they stress particularly the impact of audience variables, i.e., the child perceives the tester as one more representative of a hostile environment.[35] In a few studies where socioeconomic background was held constant, bilingual and monolingual children demonstrated comparable scores on tests of verbal intelligence.[36]

If research on bilingualism is to be effective, it must go beyond the narrow confines of purely linguistic or psychological studies. Fishman proposes the development of a socio-linguistic model which could integrate the linguistic, psychological, and social aspects of bilingualism. Such a model would include an analysis of the speech community and the speaker's identification with it; the "domains" of culturally identified behavior; the dimensions of so-

[33] Elizabeth Peal and Wallace E. Lambert, *The Relation of Bilingualism to Intelligence* (Washington, D.C.: American Psychological Assn., 1962).

[34] Dorothea McCarthy, "Language Development in Children," in Leonard Carmichael, ed., *Manual of Child Psychology* (New York: Wiley, 1953).

[35] Vera P. John and Sarah Moskovitz, "Language Acquisition and Development in Early Childhood," *Yearbook of the National Society for the Study of Education* (Chicago, Ill.: Univ. of Chicago Press, 1970).

[36] Jones, "A Critical Study of Bilingualism and Non-Verbal Intelligence."

cial relationships, and the types of interactions within these social relationships.[37]

IV. EVALUATIVE RESEARCH ON INSTRUCTION IN THE NATIVE TONGUE

Educational policy in this country has, until recently, insisted on English-only instruction, beginning in the earliest grades. This English-only policy accepts the premise that "bilingualism" *per se* is bad, that it restricts intellectual development, educational achievement, and language facility. Basically, this English-only policy is based on the assumption that (a) the official or unofficial use of another tongue implies official acceptance and recognition of that tongue; (b) the earlier the child is taught English, the better he will speak it; and (c) if the "other" language is ignored, it will disappear and its speakers will become monolingual speakers of English.

In addition to the research evidence that calls these assumptions into serious question, a number of experimental bilingual programs have reported on the cognitive effectiveness of instruction in the native language, as compared with instruction in a second language. Evaluative studies of five of these experimental programs are described below:

Sweden: In this bilingual study, the experimental group of children had an initial ten weeks of reading instruction in Pitean, the local dialect, after which they were advanced to classes conducted in literary Swedish. A second Pitean-speaking group received all reading instruction in literary Swedish. At the end of the first ten weeks, the Pitean-taught group had progressed further in reading than the Swedish-taught group. At the end of a year, the experimental group performed significantly better on word recognition and in speed and accuracy of reading in literary Swedish than the control group.[38]

Chiapas, Mexico: Children in three Indian tribes were included in this study. The study was divided into two groups. For one group, teachers were recruited from the local population, and the children were taught reading in the vernacular. When they had mastered the vernacular primers, the children entered first grade, where the texts were in Spanish. For the second group, education proceeded traditionally in Spanish. The results showed that those students who had been educated bilingually were chosen by their teachers as

[37] Fishman, "Sociolinguistic Perspective on the Study of Bilingualism."
[38] T. Osterberg, *Bilingualism and the First School Language* (Umea: Vasterbottens Tryckeri AB, 1961).

having greater reading comprehension in Spanish than those students instructed in Spanish only. Test data confirmed the teachers' selection: reading tests conducted in Spanish showed that students initially taught in the vernacular read with greater comprehension than those initially taught in Spanish. The study also suggests that a teacher's ability to communicate with her students may outweigh her training or educational level.[39]

Michoacan, Mexico: Monolingual Tarascan Indian children had been making little progress in the federal schools, where instruction was in Spanish. In a special project, the Tarascan children were introduced to the Tarascan alphabet and instruction then proceeded in Tarascan, which was conceived as a bridge to Spanish. The reports show that the children achieved literacy in both languages in two years, after which they were able to enter the second grade of public school, where Spanish was the sole medium of instruction.[40]

In the United States, where bilingual education programs are relatively new, there is still little evaluative information available. Two programs where some evaluation has been completed are those at the Harlandale Independent School District in San Antonio, Texas; and at the Coral Way School in Miami, Florida.

San Antonio, Texas: Four elementary schools in the Harlandale Independent School District participated in a one-year bilingual project (1966–67). One first grade class in each of the four elementary schools was instructed bilingually in Spanish and English. The other first grade classes, which functioned as control groups, were taught in English only. The children were all Mexican-Americans. Tests at the end of the school year showed that the bilingual sections did as well in reading English as the classes instructed in English only; the pupils in all four experimental bilingual sections could speak, read, and write in both Spanish and English at the end of the first grade; and three of the four bilingual classes made more progress in every measure (communicative skills, conceptual development, and social and personal adjustment) than the classes taught in English only. The children who received intensive oral-aural training in Spanish during the school year improved their English vocabulary during the summer months, while their general reading

[39] Modiano, "National or Mother Tongue in Beginning Reading."
[40] A. Barrera-Vasquez, "The Tarascan Project in Mexico," *The Use of Vernacular Languages in Education.* Monographs on Fundamental Education, No. 8 (Paris: UNESCO, 1953), pp. 77–86.

performance remained stable. Although the general reading performance of children who received intensive training in English remained stable, their vocabulary in both languages failed to improve. The project was extended for a second year. The second year's tests indicated basically the same results as the first year's tests.[41]

Miami, Florida: The Coral Way Elementary School enrolls both Spanish-speaking and English-speaking students. From first to third grade, Spanish and English speakers have separate classes. All subjects are taught in the mother tongue in the morning. In the afternoon, the lesson is repeated in the second language. In later grades, classes are increasingly mixed and the children are taught in either language.

The Coral Way program has been in operation for five years. A three-year evaluative study (1964–66) showed that while the students, English-speaking and Spanish-speaking, were not yet as proficient in their second language as in their native language, they had made impressive gains in learning their second language. The study also indicated that the bilingual curriculum was as effective as the traditional curriculum in helping the students progress in paragraph meaning, word meaning, spelling, arithmetic reasoning, and computation.

Many of the newly established bilingual programs in the United States are in the process of gathering evaluative information. For evaluative leads on some of the new programs, see the chapter, "Program Descriptions."

SUPPLEMENTARY REFERENCES

ARSENIAN, S. *Bilingualism and Mental Development.* New York, 1937.

BURGER, H. G. *"Ethno-Pedagogy": A Manual in Culture Sensitivity, with Techniques for Improving Cross-Cultural Teaching by Fitting Ethnic Patterns.* Albuquerque, N.M.: Southwestern Cooperative Educational Laboratory, 1968.

CHILD, I. L. *Italian or American? The Second Generation in Conflict.* New Haven, Conn., 1948.

DAVISON, N. J. "Spanish and New Mexico." *New Mexico School Review,* 46 (1966), 31.

[41] G. C. Pryor, *Evaluation of the Bilingual Project of Harlandale Independent School District in the First Grades of Four Elementary Schools During 1966–67 School Year* (San Antonio, Tex.: Harlandale Independent School District, 1967); and R. D. Arnold, "Retention in Reading of Disadvantaged Mexican-American Children During the Summer Months," a paper presented at the International Reading Association Convention, Boston, Mass., April 1968.

ERVIN-TRIPP, SUSAN. "An Issei Learns English." *Journal of Social Issues,* 23 (1967), 78–90.

FISHMAN, JOSHUA A. *Bilingual Education. Hearings Before the Special Subcommittee on Bilingual Education of the Committee on Labor and Public Welfare.* Ninetieth Congress, First Session on S.428, Parts I and II, May–July 1967. Washington, D.C.: Government Printing Office, 1967.

GONZALEZ, G. *Guidelines for Determining and Implementing a Bilingual Education Program for Mexican-American Students in the Elementary School.* San Antonio, Tex.: Inter-American Education Center, 1967.

Joint Head Start—Taos Primary Language Program, Albuquerque, N.M. ERIC Document Reproduction Service No. ES 001 704.

KESTON, M. J., and C. A. JIMENEZ. "A Study of the Performance on English and Spanish Editions of the Stanford-Binet Intelligence Test by the Spanish-American Children." *Journal of Genetic Psychology,* 85 (1954), 263–69.

KLUCKHOHN, CLYDE. *Mirror for Man.* New York: McGraw-Hill, 1949.

KNOWLTON, C. S. "Bilingualism—A Problem or an Asset?" ERIC Document Reproduction Service No. ED 010 744, Dec. 1965.

MANUEL, HERSCHEL T. "Use of Parallel Tests in the Study of Foreign Language Teaching." *Educational and Psychological Measurements,* 13 (1953), 431–36.

——— *Spanish Speaking Children of the Southwest.* Austin: Univ. of Texas Press, 1965.

NEISSER, EDITH G. *School Failures and Dropouts.* Public Affairs Pamphlet No. 346, New York, 1965.

ORATA, P. T. "The Iloilo Experiment in Education Through Vernacular." *The Use of Vernacular Languages in Education.* Monographs on Fundamental Education, No. 8, pp. 123–31. Paris: UNESCO, 1953.

PENFIELD, WILDER. "A Consideration of the Neurophysiological Mechanisms of Speech and Some Educational Consequences." *Proceedings of the American Academy of Arts and Sciences,* 82 (1953), 201–14.

The Puerto Ricar Survey. New York: Columbia Univ., International Inst. of Teachers, 1926.

National Council of Teachers of English. *Report of the NCTE Task Force on Teaching English to the Disadvantaged.* Champaign, Ill.: NCTE, 1965.

STUBING, C., ed. *Reports: Bilingualism.* Report of the Third Annual Conference of Southwest Council of Foreign Language Teachers. El Paso, Tex.: Southwest Council of Foreign Language Teachers, 1966.

TEMPLIN, MILDRED C. *Certain Language Skills in Children.* Minneapolis: Univ. of Minnesota Press, 1957.

WALKER, WILLARD. "The Designs for Writing Systems for Native Literacy Programs." Prepared for the Symposium on American Indian Language II at the Annual Meeting of the American Anthropological Assn., Seattle, Wash., Nov. 1968.

WOLCOTT, H. F. *A Kwakiutl Village and School.* New York: Holt, Rinehart & Winston, 1967.

MODELS OF BILINGUAL EDUCATION

"A bilingual school is a school which uses, concurrently, two languages as a medium of instruction in any portion of the curriculum, except the languages themselves. The teaching of a vernacular solely as a bridge to another, the official language, is not bilingual education in the sense of this paper, nor is ordinary foreign language teaching."[1] Our working definition of bilingual education, restated in this quote from Gaarder, is more often the long-range goal rather than an actual description of current bilingual programs. The demand for a realistic and effective educational approach for non-English-speaking children has produced many new programs, but at present most schools are improvising with meager resources based on limited objectives. Those educators still committed to the English-only policies of the past are reluctant to engage in the major staff and structural changes necessary for the implementa-

[1] A. Bruce Gaarder, "Organization of the Bilingual School," *Journal of Social Issues*, 23 (1967), 110.

tion of a truly bilingual system of education. Some members of the non-English-speaking communities themselves express ambivalence towards the idea of bilingual instruction. Speaking of one such community, Gil Murello observes:

> *Frankly stated, bilingual education threatens the identification with the dominant group that some socially mobile Mexican-Americans maintain. . . . These same professionals dimly, if not explicitly, realize that to accept the concept of bilingual education for their Mexican-American students is to admit grave failure on their part over many years through the use of traditional materials and methods and an implicit "melting pot" philosophy.*[2]

Even the administrators who agree that there is a need for bilingual education programs find themselves confronted by many problems: a shortage of bilingual teachers, a scarcity of appropriate curriculum materials, limited opportunities for teacher training, and lack of special funds. While the passage of Title VII of the Elementary and Secondary Education Act, and the subsequent funding of experimental bilingual programs, has contributed to the moral and financial support of bilingual education, the resources available for such programs continue to be limited. In addition to these problems, educators face the major decision of choosing a suitable model of bilingual instruction.

A systematic exploration of the considerations that enter into the selection of bilingual models has been developed by Mackey, based on information gathered in the files of the International Center for Research in Bilingualism.[3] Mackey proposes four levels of dimensions of varying bilingual educational settings: the learner in the home, the curriculum of the school, the community (or area) in the nation, and national language patterns. He notes that language is the basic component in each of these dimensions; that language "is itself a variable," and that "each language appears in each pattern at a certain degree of intensity" (p. 20).

A useful illustration of this concept of intensity appears in Valencia's study of three Mexican-American communities of the Southwest.[4] Valencia compares the intensity and usage of the native language with English among

[2] E. M. Bernal, Jr., ed., *Bilingual-Bicultural Education: Where Do We Go from Here?* San Antonio, Texas; sponsored by the Bureau of Educational Personnel Development, U.S. Office of Education, and St. Mary's Univ., 28, 29 March 1969.

[3] William F. Mackey, "A Typology of Bilingual Education" (Quebec: International Center for Research on Bilingualism, 1969), mimeo.

[4] A. A. Valencia, "Bilingual/Bicultural Education: A Perspective Model in Multicultural America," Southwestern Cooperative Educational Laboratory, April 1969.

children in Laredo, Texas; Pecos, New Mexico; and Albuquerque, New Mexico. He observes, for example, that the child living in the border town of Laredo is exposed to and uses a great deal more Spanish than the child living in Albuquerque. Valencia recommends, with Mackey, that the language competence of the child be examined in the context of community patterns in language use, and that the interaction of these and other variables be considered in the planning of bilingual schools.

Most present programs of bilingual education, however, are not organized with these socio-linguistic and demographic variables in mind. While the importance of such research is recognized as an aid to evaluation, it does not play a significant role in the current planning aspects of the education of non-English-speaking children.

Although we recognize the value of a deductive scheme for classifying bilingual schools, we will limit ourselves, in this chapter, to a simple and descriptive framework. Our approach is dictated by the relatively meager information available on the use and functions of language in the home of non-English-speakers in the United States.

A. THE INFORMAL MODEL

In a surprising number of classrooms throughout the country, two languages are spoken. The native languages of American Indian and Spanish-American children, and those of many other communities, co-exist in the school with English as a means of communication, and, occasionally, as a medium of instruction. This development is less a reflection of recent community and educational interest in bilingual education than an indication of certain organizational and ideological trends in anti-poverty programs. Office of Economic Opportunity-supported programs, whether of the Head Start or Follow-Through variety, have included from the very beginning the employment of members of the low-income communities which they serve. While in many classrooms, the activities of parents and community aides have been restricted to menial jobs (e.g., clean-up, cooking, and transportation), in some instances paraprofessionals have participated in the actual planning and execution of educational activities.

Parents and aides, by their very presence, have altered traditional preschool education. This change is particularly significant in non-English-speak-

ing communities, where these paraprofessionals have brought about an informal use of the child's native language in the classroom, a language usage often unplanned or accidental. Thus the Puerto Rican classroom aide in New York City, in helping to ease the Spanish-speaking child's difficult adjustment from home to school, explains school routines to the child and his parents in Spanish. Occasionally, she may be encouraged to present a lesson or an activity to the class in Spanish because the teacher is usually fluent in English only.

Communities in which such informal classroom experiences in two languages take place are large in number and different in character. Mackey's typology for assessing bilingual education offers one means of systematically identifying these community differences. Mackey refers to patterns of language usage in the home and identifies five types of "learners in the home." An illustration of one type of "learner" is the child from the monolingual home, where the language spoken is not that of the school, for example, a Navajo child living on the vast, isolated Navajo reservation. This child's pattern of language usage in the home would contrast sharply with that of a child raised in a Spanish-speaking home in a city with a bilingual tradition, such as Santa Fe. In spite of the differences in these two environments, the Head Start and Follow-Through programs conducted throughout much of the reservation are similar in their informal use of the native language and English to those in Santa Fe. These preschool programs often lack a clearly articulated policy toward the native language of the learner. A much-debated question here is whether the native language should be encouraged or should only be tolerated until the child acquires English.

A typical example of this ambivalence in classroom policy (and also of the mistaken belief that bilingual instruction consists of teaching the native language as a subject) is illustrated by the comments of a teacher participating in the Bureau of Indian Affairs kindergarten programs. "At first I did not consider this as a bilingual program, because we did not use materials published in the Navajo language, and were not attempting to teach it as a separate subject. . . . I now believe our efforts can be called bilingual and bicultural, and we are seriously considering extending bilingual instruction to other grades."[5]

A similar confusion is voiced by a very able Spanish-American aide in one of the leading Follow-Through programs in the Southwest, who reports he

[5] See "Bureau of Indian Affairs Kindergarten Programs," pp. 98–100.

is neither encouraged nor discouraged from speaking Spanish to the children in the classroom; the Anglo teacher he works with is trying to learn Spanish and the children laugh good-naturedly at her pronunciation. However, the idea that learning to read in Spanish may be helpful to these children upsets him. In his own life and in that of his relatives, he has accepted the idea that Spanish is the language of oral communication, intimacy, and friendship, and that English is the language of literacy.

Much of the confusion in these informal programs derives from a lack of systematic planning in the instructional use of the two languages. While these programs cannot be considered bilingual education, as defined at the beginning of this chapter, they have increased the interest in bilingual instruction and have led to requests for more bilingual experiments.

B. THE SUPPLEMENTARY MODEL

In a number of school systems throughout the country, limited attempts at using two languages as instructional media are in effect. These programs are supplementary in nature: some are organized in communities with scant resources for bilingual education (e.g., Pecos, New Mexico); others are aimed at small numbers of non-English-speaking children in a primarily "mainstream" community (e.g., Englewood, New Jersey).

A well-established supplementary program is found in Pecos, a community in northern New Mexico with limited resources for a bilingual program. All the children in the Pecos school, including the small number of native speakers of English, receive half an hour of Spanish instruction daily. In spite of limitations in staffing and time devoted to instruction in the native language, the Pecos program has been a pioneer in bilingual education in New Mexico. Since its establishment in 1965 with Ford Foundation funds, the program has served as a demonstration center. Recent and more ambitious programs in New Mexico are based upon the success of Pecos.

As Puerto Ricans continue to move into small communities on the Eastern seaboard, school systems count an increasing number of Spanish-speaking children among their pupils. In Englewood, New Jersey, the introduction of a non-graded multi-educational system offered an opportunity for educational innovation. Teachers work with children in small groups; bilingual tutors work with groups as small as two or three children. Their aim is to

achieve a third grade proficiency in Spanish among the Puerto Rican children before moving them into reading in English.

In both the Pecos and the Englewood programs, instruction in the native language is limited to a small portion of the school day. The approach is similar to the "Spanish S" programs, familiar to many high school teachers. The inclusion of these efforts in our bilingual program descriptions is justified by their importance as starting points. Once a shift is made away from the English-only policy of public schools, no matter how minor the change may be, parents, educators, and community leaders become interested in exploring an alternative model of education for children in the non-English-speaking communities.

C. TRANSITION MODEL

Mackey states that the long-range goals of bilingual schools are twofold: the curriculum can be directed toward the language of the wider culture, thus promoting *acculturation;* or the curriculum can be directed toward the regional, national, or neo-national culture, thus promoting *irredentism.*

In most programs in this country there is no clear direction in language policy. The following recommendations of the Texas Educational Agency, while ascribing an important role to the Spanish language as a transitional medium leading toward acculturation, illustrate the general lack of a defined, long-range language policy:

> *Non-English-speaking children needing special instruction to adjust successfully in school and to use the English language may be placed in a modified program which makes full use of the pupils' ability in the language they understand and speak when enrolled in public schools. . . .*
>
> *The modified program should have the following characteristics: The first language of the child is used as a means of instruction in developing the basic skills of reading, spelling, writing, and arithmetic.*
>
> *English is introduced as a second language; as the child becomes more proficient in understanding and speaking the second language, the use of the first language as a means of instruction should be decreased, while the use of English for this purpose is increased.*
>
> *The use of both languages as a medium of instruction is continued for a minimum of three years and thereafter until such a time as the child is able to comprehend and communicate effectively in English.*

To assure the development of a literate bilingual, the child is given the opportunity for continued study of the four basic skills of his first language (understanding, speaking, reading, and writing).[6]

Note that the last recommendation adds, almost as an afterthought, the phrase, "to assure the development of a literate bilingual." The student is offered the option of continuing his studies *of* (though not *in*) Spanish.

For many bilingual programs, the use of the native language serves mainly as a bridge to the national language. Mackey describes such a curriculum as the Transfer (T) type: He notes that "The transfer pattern has been used to convert from one medium to another. . . . In schools of this type, the transfer may be gradual or abrupt, regular or irregular, the degree of regularity and gradualness being available as to distinguish one school from another."[7]

The Follow-Through Project at Corpus Christi, Texas, is an example of a transfer program. Concepts are taught first in Spanish, then in English; at all levels the intensive language approach is aimed at developing proficiency both in English and in Spanish. The bilingual program ends after the third grade.

Bilingual educators, ideally, would like to develop in their students the skills of coordinate bilinguals; educators at Corpus Christi share these objectives. But frequently the funding available for pioneer programs (particularly before the passage of Title VII legislation) has imposed limitations on comprehensive planning. Follow-Through funds, for example, span only the K–grade 3 years of elementary instruction. Parent enthusiasm and community support have aided in expansion or reformulation of these early programs, but this process is just starting.

It is difficult to predict at this early stage of programmatic development of bilingual education in the United States how much interest students will display in the acquisition of literacy in Spanish. Educational programs affect as well as reflect language policy. During the three years that we have been engaged in the study of bilingual education, we have witnessed great variations, reversals of position, and significant new developments in the way in which the meaning of education in two languages has been interpreted by members of interested groups.

[6] "Principles and Standards for Accrediting Elementary and Secondary Schools" (Austin: Texas Educational Agency, Spring 1967).
[7] "A Typology of Bilingual Education," p. 8.

Some educators who doubted the wisdom of teaching children in their native languages modified their attitude after the publication of the Coleman report. The Coleman finding that a positive self-concept is a crucial attribute of the successful student has contributed to a re-evaluation of the role of the minority child's language and culture.[8] Bilingual education is now envisaged by an increasing number of administrators as one aspect of programmatic endeavors to increase the self-respect of children who are not part of the "mainstream."

The feelings and hopes of members of non-English-speaking communities toward the future of their language is difficult to assess. Some recent events may be of significance in this regard. Spanish-speaking students in high schools and universities are asking for Chicano studies, Puerto Rican studies, and a larger role for Spanish in these settings. In Spanish-speaking communities, the more militant members rely upon their native language increasingly in their publications, meetings, and press conferences. At the same time, others in these communities continue to emphasize assimilationist trends. Additional socio-linguistic studies, such as Fishman's *Bilingualism in the Barrio,* are needed to develop a fuller picture of the language aspirations existing in the diverse communities of America's minorities.

D. THE TWO-WAY MODEL

Mackey, in his typology of bilingual schools, identified two major variants that we would categorize as two-way schools: the *Dual Medium Differential Maintenance (DDM)* and the *Dual Medium Equal Maintenance (DEM).* Mackey describes the *DDM* model as follows: "In maintaining two languages for different purposes, the difference may be established by subject matter, according to the likely contribution of each culture. Often the culture based subjects like art, history, literature and geography are in the dominant home language."[9]

In our concern with early childhood bilingual education, this model is not quite as relevant as some of the others already described. However, the debates concerning this model are of interest. When the Rough Rock Demonstration School was first established on the Navajo reservation, it conformed to this description of the *DDM* model. Culture-based subjects (e.g., social sci-

[8] James S. Coleman, *Equality of Educational Opportunity* (Washington, D.C.: U. S. Office of Education, 1966), No. OE-38001.

[9] "A Typology of Bilingual Education," p. 14.

ence, tribal organization) were taught in Navajo, while more traditional academic subject matter was taught in English. Visitors from other Indian tribes, among them Robert Thomas, the Cherokee anthropologist, criticized the restricted role given to the Navajo language in the curriculum. Subsequently, Rough Rock's Board of Education, made up of Navajo elders, outlined a new policy with regard to the language, and many traditional academic subjects are now taught in Navajo.

Some sociologists, including Fishman, have argued in favor of the *DDM* model as the most accurate expression of the actual uses of the native and national languages in bilingual communities. On the other hand, others interested in the development of balanced bilinguals have argued in favor of a dual system characterized by equal treatment of the two languages. Mackey describes this system, the *Dual Medium Equal Maintenance* (*DEM*), in the following way: "In some schools . . . it has been necessary . . . not to distinguish between languages and to give equal chance to both languages in all domains. This is done by alternating on the time scale—day, week, month, or year from one language to the others."[10]

In the United States, the best-known example of a two-way bilingual school is the Coral Way Elementary School in Miami, Florida. Two important, long-range conditions of bilingual education are exemplified in this program: (a) equal time and treatment are given to two languages (Spanish and English), and (b) monolingual English-speaking children are integrated with Cuban immigrants into this bilingual system. The Miami experiment has been highly successful locally and nationally and is a much-admired exemplar of what bilingual education can become.

A few other school systems have tried to adopt the equal time and treatment approach. The comprehensive program developed in Las Cruces, New Mexico, with the aid of New Mexico State University, is one such attempt: "In the early stages of the program the day was divided in half, instruction in Spanish in the morning, and English in the afternoon. However, as the program developed, the teachers developed their own class schedules. While about half of the day continued to be spent in each language, individual instruction varied; in some classes both languages may be mixed in one lesson, or a lesson in English may directly follow a lesson in Spanish."[11]

[10] "A Typology of Bilingual Education," p. 14.
[11] See "Sustained Primary Program for Bilingual Students," Las Cruces, N.M., pp. 39–42.

E. CONCLUSIONS

Although theoretical concerns enter into the choice of a model for bilingual education, most bilingual schools develop their curriculum as a function of practical considerations. Basic research, the preparation of materials, and the training of teachers lag severely behind the needs of existing and projected bilingual programs. Consequently, administrators and parent advisory committees are often forced to choose programmatic models that fall short of the long-range goal of developing balanced bilinguals.

We have speculated earlier in this book that, once the prohibition against instruction in a language other than English is overcome, a series of new possibilities may be considered by individuals who have previously played a passive role in the education of their children. When bilingual programs are first started, they usually serve as demonstration programs only. The reactions of parents, of teachers in other schools, and of administrators often add the impetus necessary to implement comprehensive programs that include more than the beginning grades of school.

The participation of parents is a critical aspect of bilingual education. Although many bilingual educators support this view, they fail to implement it. When programs are planned in isolation from the community, parents' contributions become merely incidental. Parental participation and community control do not guarantee relief from the shortage of qualified teachers, the lack of curriculum materials, limited funds, or from any other of the problems specific to bilingual education. Such participation and control do, however, provide support for and continuity to the school's efforts.

Educational innovations will remain of passing interest and little significance without the recognition that education is a social process. If the school remains alien to the values and needs of the community, if it is bureaucratically run, then the children will not receive the education they are entitled to, no matter what language they are taught in.