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ABSTRACT

This report is the result of an investigation conducted to identify the current issues, resources, and funding priorities in Spanish-English bilingual education in the United States. Although it deals solely with Spanish-English bilingualism, a great deal of the material should prove to be relevant to other bilingual situations in the United States. Chapter 1, "Introduction," defines bilingual education and discusses its goals, justification, and literature. Chapter 2, "Linguistic Aspects of Bilingualism," considers language dominance, language variety, language usage, language teaching, language attitudes, and teacher training. Chapter 3, "Intellectual Development and Cognitive Styles" analyzes the numerous attempts to determine whether bilingualism enhances or depresses performance on IQ tests. Chapter 4, "Culture," deals with the bicultural element in bilingual education programs. The important question of when and what to assess in bilingual education is the subject of Chapter 5, "Assessment," which also deals with assessment personnel, instruments and models. In the final chapter an attempt is made to establish priorities for research. Appendices A and B contain lists of persons consulted and resources for bilingual/bicultural education, respectively. (CFM)

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SPANISH-ENGLISH BILINGUAL EDUCATION IN THE U.S.: CURRENT
ISSUES, RESOURCES, AND RESEARCH PRIORITIES

CAL•ERIC/CLL Series on Languages and Linguistics
Number 41

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PREFACE

The following report is the result of an investigation commissioned by the National Institute of Education to identify the current issues, resources, and funding priorities in Spanish-English bilingual education in the United States. During the initial period of this study, we reviewed published materials and interviewed leading investigators in a variety of disciplines in order to discover what consensus exists regarding the approaches, methods, and materials in bilingual education and to locate the areas where available research funds are most urgently needed. The original investigation was completed in late 1974 and the results reported to NIE under Contract #NIE-C-74-0151. The present document is a revised and updated version of that report.

The fact that this report deals solely with Spanish-English bilingualism should not be taken to imply that this is the only major bilingual situation in the United States, although it is certainly one of the most important. Such a limitation in the scope of the investigation was inevitable on pragmatic grounds. Our contract was restricted to the area in which there was most reason to believe that our efforts might be fruitful. However, we hope that a great deal of the material in the report will prove to be relevant to other bilingual situations in the United States where problems have been encountered similar to those we have considered.

We would like to thank Anita Anderson for her work as a research assistant in the early stages of the investigation, particularly in identifying and summarizing materials of interest.

We are also deeply indebted to the scholars we interviewed and to the others who supplied us with references and materials (see Appendix A). Although we have made extensive use of their suggestions and opinions in preparing this report (and we trust that we have not distorted their views or omitted crucial information), we assume full responsibility for our presentation of the issues and for the particular emphasis we have chosen.

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I. INTRODUCTION

The federal government's decision in 1967 to fund bilingual schooling in public schools in the United States caught the educational community unprepared for the task of implementing its directives. Although the need for bilingual education had been clearly demonstrated many years before (e.g., Sanchez, 1934), at no level from kindergarten to graduate school was there any attempt to plan ahead for the introduction of bilingual programs. In 1974, seven years after the passing of the Title VII Amendment to the 1965 Elementary and Secondary Education Act (ESEA), the Supreme Court decision in the Lau case (Lau et al. vs. Nichols et al.) again obliged education authorities to revise their priorities upon short notice. In the years between these two legislative events, a great many bilingual programs were initiated, considerable sums of money were invested in research on bilingualism, and numerous conferences on the aims of bilingual education were held. In spite of all this activity and the vast range of literature on bilingualism (see Chapters II-V), it is not easy for those seeking information on bilingual education to find out what they want to know. Even the members of the present team, with more time and greater resources than are usually available, have not found the location of useful information an easy task.

One problem is that in a sense, there is too much information. There are so many conflicting points of view that as information increases, the resulting picture tends to become more and more blurred rather than coming into focus. Another problem is that so many different kinds of information are relevant to planning for bilingual education that it is difficult, if not impossible, for a single individual to evaluate them all. Moreover, documents that sound promising do not always live up to their titles, and this can lead to a deep sense of frustration, particularly when the offending item has been difficult to obtain. An additional complicating factor is that since the local situation is of paramount importance in any bilingual program, it is often difficult to evaluate the relevance of results obtained in a very different type of situation, no matter how convincing they may appear.

Finally, while there is insufficient research information available with regard to all Hispano groups, this lack is particularly acute in the case of Puerto Ricans and Cuban Americans. One unavoidable result is that most research references cited in this report concern Mexican Americans.

The Canadian Experience versus the U.S. Experience

One factor contributing to this confusing state of affairs has been the lack of central coordination of work on bilingualism and bilingual education in the United States. This contrasts strongly, for example, with the approach

in Canada, where the report of the Royal Commission on Bilingualism and Biculturalism (Dunton et al., 1967-1970), the Gendron Report (1972), and the Annual Reports of the Commissioner of Official Languages (1972, 1973, 1974) have provided a central source of information that is unparalleled in the United States, although it could be argued that the need is greater here because of the larger numbers involved and the greater diversity of linguistic groups to be considered. Although there is no official counterpart in the United States to Laval University's Center for Research on Bilingualism, the Center for Applied Linguistics serves as an unofficial national resource center in bilingual education. The efforts of CAL in this field, however, are largely supported from its own resources rather than by the government. On the whole, the actions of the Canadian federal and provincial governments present a striking contrast to those of the United States government, and it may be worth looking at this difference in approach in more detail.

The first and most striking difference is reflected in the contrast between the vast range of information and statistics on language use and language maintenance collected by the Royal Commission on Bilingualism and Biculturalism in Canada and the almost total absence of reliable parallel figures for the United States. The data available on Canada is largely the result of a decision of the Royal Commission to embark on an extensive research program coordinated by a Director of Research and a Special Consultant on Research.

In contrast, research in the U.S. has been carried out, as Ulibarri (1970) remarked, "with a shotgun approach, having no umbrella or direction in its thrust." Although research into bilingualism has been funded in the U.S. by a number of agencies and foundations, there has been no concerted or long-range research effort.

However, this difference in research strategies reflects a much more fundamental difference between the two countries in their approach to bilingualism. In Canada, the federal government has been expressly concerned with the administrative and legal aspects of bilingualism, a concern reflected in the Official Languages Act of 1969 and in the assiduity with which the Commissioner of Official Languages investigates complaints of mistreatment under the Act. In contrast, in the U.S. the emphasis has been almost totally on elementary education, with much less importance attached to the interests of bilingual adults.

Although there are as yet no signs that the Canadian government's policy is succeeding (and there is some evidence to the contrary), the aim of the policy is quite clear: namely, to reduce the tensions between the French-speaking and English-speaking communities by minimizing the disadvantages of speaking French. While the policy may be doomed to failure if Macnamara (1972) is correct in his diagnosis that language is not at the heart of the trouble, at least it is possible to evaluate progress toward the goal.

The Goals of Bilingual Education in the U.S.

In the U.S. the situation is much less clear because the principal piece of legislation, the Title VII Amendment to the 1965 ESEA, designed to meet the needs of children of limited English-speaking ability from low

income families so that these children will gain sufficient proficiency in English to keep up with their monolingual English-speaking peers in the educational system. Although the Title VII Amendment is often referred to as "The Bilingual Education Act," this is rather misleading, since the long-range goal is not bilingualism but proficiency in English. However, in practice the guidelines for Title VII programs have been interpreted loosely enough to allow programs with varying degrees of emphasis on bilingual instruction.

Kjolseth (1973) distinguishes two models at the extremes of the continuum of bilingual education. The "pluralistic model," based on research into the local linguistic situation, involves members of the community in all decision making and aims to create a stable bilingual situation. The "assimilation model," as its name suggests, is basically a transitional program to provide easier access to the traditional monolingual educational system to students whose mother tongue is not English. In his examination of current bilingual programs, Kjolseth came to the conclusion that more than 80 percent closely approximated the assimilation model, although it is clear that he personally believes in the superior value of the pluralistic model. Rhode (1974), on the other hand, assumes that the goal of total assimilation is dead and argues for a more permanent bilingual-bicultural educational system. Herein lies the problem. As Ulibarri (1970) observes:

A program that does not take into account the problems of the community, the needs of the individual and the aspirations of the people cannot hope to be anything more than a veneer that helps to hide the anomalies of the community and to engender helplessness in the individual. Such a program will never have the support of the community nor the enthusiasm of the individual.

This comment is important, because the hopes raised by bilingual programs are very great. Such programs are not simply concerned with maintaining the status quo but with improving the situation of a minority whose interests have often been neglected. However, there is a considerable risk that a failure of bilingual education to provide the benefits and improvements that are expected by so many people may lead to a disillusionment with public education in general. For this reason, it is crucial that the aims and objectives of bilingual education be clarified and made explicit in order that progress toward these goals can be evaluated. As Rubin (1971) points out, language planning (and bilingual education is a form of language planning) requires continuous and systematic evaluation so that the effects of policy decisions can be estimated while there is still time to remedy mistakes or deficiencies.

Consequently, one of the first priorities must be to establish feasible objectives for bilingual education in the U.S. with a clear assessment of the foreseeable results if the objectives are achieved. This may require establishing an official policy toward languages other than English on both the national and local levels. It will not be easy to arrive at an agreement on objectives and policy, since both will involve consultation and negotiation with representatives of the communities concerned, and any discussions are likely to be complicated by differences of opinion as to the costs and benefits of bilingualism. Nevertheless, regardless of the difficulties involved, a coherent policy with explicit long-range goals must be formulated as expeditiously as possible.

A precondition for meaningful discussion of the issues is that all participants must be thoroughly informed, in terms intelligible to laymen, about what facts have been established in regard to bilingualism and bilingual education and what points are still under debate. This information will also need to be widely disseminated later on, if official policy is to gain the public support essential to its success. (The Center for Applied Linguistics is now working to bring together existing knowledge in the field, precisely to meet these needs.)¹

Some of this information is already accessible to some extent, but the greater part remains to be collected and set in perspective. In the chapters that follow, an attempt is made to indicate the extent of present knowledge about bilingualism and bilingual education and to point out the areas which seem in most urgent need of investigation. However, because of the complex variety of factors involved, no investigation of this scope can claim to give more than a partial picture of the situation.

The Literature

The literature on bilingualism is extensive and growing rapidly. In 1953 Weinreich listed over 650 items in his bibliography, Haugen cited over 600 in 1956 and another 300 in 1973, while in 1970 Ulibarri had six graduate students spend nearly three months reviewing approximately 2000 pieces of literature on bilingualism. Every month the ERIC Clearinghouse on Languages and Linguistics at the Center for Applied Linguistics processes additional materials on bilingualism and bilingual education into the ERIC system. Even this does not give a complete picture of the situation: the files of the Center for Research on Bilingualism at Laval University contain more than 20,000 references. With so much information available, one might imagine that bilingual education and teacher preparation programs would be planned on a firm theoretical base. Nothing could be further from the truth. There is no generally accepted basic information on bilingualism that can be passed on to administrators, teacher trainers, and teachers to help them design and execute adequate programs for bilingual education. In spite of all the time, money, and effort that have been expended on research on bilingualism, only a few of the results have any bearing on the school situation. With hindsight, it is not difficult to see how this state of affairs has arisen. Most of the research on bilingualism has focused on the nature of the phenomenon itself and not on its relevance to educational decision making. Investigation of the problems that occupied much of the attention of scholars (e.g., interference, dominance, storage, relation to IQ, etc.) shed little light upon the advantages or disadvantages of a particular approach in the classroom. This is not to say that nothing was learned from this research; at the very least, it helped remove some of the misconceptions surrounding bilingualism. However, its fundamental weakness was that it was overly concerned with the bilingual individual and not sufficiently with the bilingual situation.

Definitions and Goals of Bilingualism

Even the definition of a bilingual individual is a matter of dispute. Although few would restrict it to "native-like control of two languages" (Bloomfield, 1933), the degree of mastery of the two languages necessary to

qualify as a bilingual is far from clear (Christophersen, 1973). However, although it is true that the range of linguistic skills covered by the term "bilingual" is extremely wide, it does not follow that every level of proficiency constitutes a possible goal for an individual. For example, there are many people who speak a second language with frequent phonological, morphological, syntactic, and lexical errors. Although such individuals may legitimately be considered bilingual (depending on the criteria used to define the class of bilinguals), hardly anyone sets out with the goal of achieving this particular variety of imperfect control of the language.

On the other hand, although many people might desire to achieve "native-like control of two languages," very few will maintain this as a realistic goal once the complexity of the task becomes apparent. Moreover, even if "ambilingualism" or "balanced bilingualism" were a realistic goal, there may be some reasons why an individual would not choose it. Christophersen (1973) points out the strains and tensions that being bilingual may involve, and he suggests that some of these may be increased rather than reduced by native-like control of the second language. In this context he quotes Haugen: "To lose one's accent is to identify completely with another society and another way of life....A foreign accent is the foreigner's last bastion of his original identity" (Haugen, 1965).

This same point is relevant not only for immigrants but also for the members of large minority groups such as Puerto Ricans or Mexican Americans in the U.S. Should the goal for such speakers be a form of English that is distinguishable from that of Anglo Americans in the same region, or should a distinct Puerto Rican or Mexican American form of English be encouraged? (See Metcalf, 1970 for some evidence that Mexican American English is not simply a Spanish-influenced form of English.) This is the kind of question that might be answered differently by the community as a whole than by its individual members, and it is not accent alone which is involved.

A similar situation exists with regard to the variety of Spanish used. Recent studies (see Chapter II) have shown that as might be expected, there are many differences in the Spanish spoken in the U.S. Not only does Mexican American Spanish differ from Puerto Rican Spanish, Cuban Spanish, and even Mexican Spanish, but there are also differences between Mexican American Spanish in Texas and in California. Such local variation is probably inevitable in the absence of a strong standardizing influence from the educational system, but because Spanish is an international language, the Spanish-speaking bilingual may choose to emphasize the local or the nonlocal character of his speech.

In this respect, there may be a conflict for individuals between an affective attachment to their local variety of Spanish and the practical advantages of controlling a more widely accepted variety. This dilemma is likely to increase in a stable bilingual situation, since each individual must ultimately make a personal evaluation of the benefits and costs of being a bilingual. This decision may be based on such factors as necessity, economic advantage, and cultural identification. In addition, as Saville and Troike (1971) point out, the language children use will influence how they perceive themselves and how they are perceived in the community, since language use is often an important badge of group membership identification.

In practice, all three factors cited above probably interact in quite complicated ways for most bilinguals and may even occasionally be in conflict, as when cultural identification requires emphasis on the local characteristics of speech, whereas it may be economically advantageous to control a more neutral or international variety of the language. It is to a certain extent misleading to discuss the alternatives as if the individual always made a conscious choice in the matter; on the other hand, it would be even more misleading to imply that bilinguals are merely the passive product of forces over which they have no control. For example, Christophersen (1973) points out that in practice it is impossible to achieve absolute equality of control of two languages, since for that purpose one would have to duplicate exactly one's interests and knowledge in both languages. Consequently, bilingualism involves choice in the extent to which bilingual individuals pursue their education in one language or the other. This choice will be partially constrained by the opportunities available and by the rewards society provides for specific linguistic skills. Nevertheless, the individual bilingual is free, within limits, to emphasize one language or the other. This choice, however, is likely to be affected by attitude (see Chapter II).

A program of bilingual education should be sufficiently flexible to accommodate the wide spectrum of goals that an individual may choose. In a limited fashion and not wholly successfully, the educational system in the U.S. has attempted to provide such opportunities (mainly at the secondary and higher levels) through foreign language departments. However, until recently there was little attempt within the public school system to meet the needs of the bilingual community, and it is now necessary to consider how these differ from those of the individual.

It is also important to recognize that the needs of all the Hispano ethnic groups may not be the same. Saville and Troike (1971) note that bilingual communities typically allocate their two languages for different topics and purposes, creating a requirement for a range of skills in each language which will vary from community to community. The sociolinguistic situation within each community needs to be examined as a basic part of planning a bilingual program. For example, the situation in Puerto Rico with regard to bilingual education does seem to differ greatly from that in the mainland United States. Not only is the situation unusual on the island because of the differences in status and dispersion of English in various areas, but a unique situation exists regarding Puerto Rican students who return to the island after residing in the mainland United States for a long period of time.

Official Status

While it is clear that there may be many advantages for the individual in being able to speak two languages, it may be less obvious to many people where the gain lies for society. Instead, to the extent that bilingualism involves extra expense in translating and printing official documents and communications and in employing additional staff, there may seem to be disadvantages to having two or more languages officially recognized by the state. Yet the majority of countries in the world are bilingual or multilingual, so the use of more than one language for official business apparently need not cause insurmountable problems. Nevertheless, most governments would probably prefer to operate in a completely unilingual situation, since

bilingualism or multilingualism might add to the problems and costs of administration. Accordingly, official encouragement of more than one language is often a response to needs which cannot be met in a less expensive way.

The extent to which a government encourages bilingualism or multilingualism varies from country to country. Two or more languages may be given official status, as in Switzerland, South Africa, or Canada. (Official status means that a citizen can use the language in his dealings with the government and expect the government to communicate with him in the same language.) On the other hand, languages may be recognized in the educational system without being designated as official, as is the case of Welsh in Wales, and Lappish and Finnish in Sweden (Lewis, 1965). In a third type of situation, a government tolerates unofficial languages without official encouragement, as was the case until recently in the U.S. with languages other than English. Since the costs are likely to be proportionate to the extent to which a government attempts to attain equality of status for all languages spoken within its frontier, the decision to encourage bilingualism or multilingualism must be based on the benefits to be gained, and it may be worthwhile mentioning some of these at this point.

Justification

Justice and equity for all citizens must head the list of arguments for bilingual education. This was the basis of the Supreme Court decision in the Lau case. While the Court did not specify bilingual education as a remedy, it left this approach as a possibility. In fact, the Supreme Court opinion echoed almost exactly the observations of Sanchez, who said over forty years ago that "the bilingual population is of large enough proportions to warrant specialized emphasis on its educational problems" (1934). Insofar as the lack of this specialized emphasis has contributed to a high rate of failure among children from Spanish-speaking homes, educational opportunities have not been equal for all children. If the cost of bilingual education to the state is high today, it is still much less than the price that has been paid in the past by the millions of citizens who were denied an educational program designed to meet their needs.

The second argument for bilingual education is based on cultural grounds. There are many people today who believe that a society is enriched rather than weakened by the presence of different cultural groups within it. The "melting-pot" strategy may have been necessary in the U.S. at a time when the future of the federal state was uncertain, but it can no longer be seriously maintained that the presence of cultural and ethnic minorities threatens the unity of the nation. However, the maintenance of cultural identity demands an awareness of cultural heritage, which is embodied and recorded in the language of the group. It has always been easy for those Americans with ancestors from the British Isles to learn about their cultural past within the educational system, because English literature has never been classified as foreign literature. It has not always been so simple for those of other backgrounds, but a bilingual program that is also bicultural will help to provide this opportunity.

Another argument in favor of bilingual education is that it provides a valuable addition to the nation's resources. In the role that the U.S. has

assumed in current world politics, a large pool of qualified bilinguals would be a great asset. If there had been more fluent speakers of Spanish in the State Department, the ill-fated "Alianza para Progreso" might have become a true alliance. However, it is possible that the greatest contribution from bilinguals would not lie in their linguistic skills alone, but in the modes of reasoning behind those verbal skills. If it is correct, as has been suggested (see Chapter III), that bilinguals show greater flexibility in their thinking, and that different cultural groups emphasize different cognitive styles in their child-rearing practices, then the education of a large minority of bilinguals may bring a new dimension to the intellectual resources of the country (Greenbaum, 1974). This is not a mere flight of fancy. There is considerable evidence in history that the collapse of powerful states has been brought about more through the rigidity of thinking among their rulers than from the power of external forces.

There are, consequently, different reasons why a government might choose to support bilingual education, and the kind of programs established would depend upon the precise aims of the policy. However, as pointed out above, it is also necessary to take into account the aspirations and anxieties of the minority groups themselves if their cooperation and support are to be involved.

Fishman and Lovas (1970) underscore this when they remark, "We are just beginning to realize that public schools should belong to parents, to pupils, to communities." In the same paper, Fishman and Lovas outline the minimal information necessary if the school and community are to make decisions about an appropriate bilingual program:

- (1) A survey that would establish the languages and varieties employed by both parents and children, by societal domain or function;
- (2) Some rough estimate of their relative performance level in each language, by societal domain;
- (3) Some indication of community (and school staff) attitudes toward the existing languages and varieties, and toward their present allocation to domains;
- (4) Some indication of community (and school staff) attitudes toward changing the existing language situation.

Fishman and Lovas also outline the information needed for curriculum development and instructional planning:

- (1) A contrastive analysis of the major languages and/or varieties used in the community and any languages or varieties being introduced in the school;
- (2) An analysis of the phonological, grammatical, and lexical variables that most clearly distinguish varieties;
- (3) More detailed measures of student performance by language and domain.

They suggest that

data of this sort would allow curriculum specialists and in-service training instructors to choose and/or develop instructional materials and methods appropriate to the students in the community, ideally avoiding the traps of (a) teaching them what they already know or (b) teaching them what they don't want at the expense of developing greater skill in the domains which the community recognizes and wants developed. [Emphasis in original.]

~~However, it would be wrong to imply that everything must be started from~~ scratch. Although there are disagreements on almost every major issue in bilingual education, it would be foolish to ignore the evidence that is available. In the chapters that follow, an attempt is made to sift through and evaluate this evidence in order to determine what facts have been established and what areas most urgently need further investigation.

Before proceeding, however, we should mention some of the fears that have been voiced by critics of bilingual education. For example, it is apparently believed by some that (1) to become good Americans, people should forget the language of their ethnic group and learn English as soon as possible; (2) learning Spanish (or other non-English languages) will interfere with learning English; (3) people who try to identify with two cultures will experience considerable conflict and stress; (4) since rapid Americanization proved to be good for members of some American ethnic groups, it is the answer for all ethnic groups; and (5) bilingual education will encourage separatism and interfere with the development of feelings of loyalty toward the United States. The discussion in the following chapters indicates that these beliefs are mistaken and the fears which emanate from them unfounded.

In any such survey, there will inevitably be omissions, distortions, and even misconceptions, but we have approached the task in the spirit suggested by Macnamara (1974): "Talk about bilingual education ought to sound like talk about human beings rather than talk about biological computers."

II. LINGUISTIC ASPECTS OF BILINGUALISM

Surveys

Weinreich (1953) remains the basic text on bilingualism, though it is perhaps surprising that no one has studied bilingualism within the framework of recent sociolinguistic theory to the same extent that Weinreich did within the structuralist tradition. The best account of the earlier research in bilingualism is still Haugen (1956), though much of the research discussed there is now mainly of historical interest. Haugen (1973) presents a critical account of the literature since 1956 and includes much pertinent information, including an excellent discussion of the compound/coordinate distinction described in this chapter. Andersson and Boyer (1972) provide a detailed survey of earlier attempts at bilingual schooling in the United States and elsewhere, as well as a useful annotated bibliography. John and Horner (1971) describe the bilingual programs started under Title VII of the ESEA of 1965, but their account came too early to provide any critical assessment of the programs. One of the best discussions of the factors involved in bilingual education is given by Lewis (1965), who stresses the danger of trying to establish a direct causal relationship between the child's bilingualism and his attainment or development, because "our available instruments and methods of research render the attempt highly speculative." Lewis' report deserves reprinting in a form that would make it more widely available, since it is an excellent account of the complexity of the situation that all bilingual programs must face. Another valuable discussion of some of the issues is provided by Paulston (1974). The review that follows owes much to both Lewis and Paulston. A briefer but useful account of some of the relevant literature is given by Pacheco (1971). Engle (1975) gives an insightful critical review of the evidence in favor of or against teaching children to read in their first or second language. Her conclusion is that there are too many conceptual and methodological weaknesses in the studies surveyed to provide a clear answer to the questions raised. Saville-Troike (1975) provides a very readable account of the factors involved in language acquisition with special emphasis on bilinguals. Her report includes an excellent bibliography and useful appendices on the Mexican American preschool child (Gingras), the Puerto Rican child (Nieves-Colón and Acosta-Belén), and the Indian student (Modiano).

The reports of a number of conferences contain many papers of value: Virginia, 1966 (Fishman, Ferguson, and Das Gupta, 1968); Moncton, 1967 (Kelly, 1969); Hawaii, 1969 (Rubin and Jernudd, 1971); Georgetown, 1970 (Alatis, 1970); Toronto, 1971 (Swain, 1972); Edmonton, 1973 (Carey, 1974); Mexico City, 1974 (Troike and Modiano, 1975). There is also a useful collection of papers edited by Macnamara (1967). Other valuable sources include Working Papers on Bilingualism, published periodically by the Ontario Institute for Studies in Education, and Workpapers in Teaching English as a Second Language, produced by the English as a second language department of the University of California, Los Angeles. The Papers in Applied Linguistics: Bilingual

Education Series published by the Center for Applied Linguistics, which includes the present work and several of the studies cited above, is a major source in this field. Finally, Saville and Troike (1971) provide a detailed practical summary of linguistic factors in planning and implementing a bilingual program.

Language Dominance

A considerable amount of research has been carried out concerning the distinction between "compound" and "coordinate" bilinguals. This concept was introduced by Ervin and Osgood (1954) following a suggestion made by Weinreich (1953). A "compound" bilingual is defined as someone who has learned both languages in the same context and thus has the same semantic referent for the corresponding lexical items in the two languages. A "coordinate" bilingual is defined as a person who has learned two languages in different contexts and thus has distinct semantic referents for corresponding lexical items. In Ervin and Osgood's words:

The total situations, both external and emotional, and the total behaviors occurring when one language is being used will differ from those occurring with the other. The kinds of representational processes developed must then also be different and hence the meaning of the signs.

This distinction was empirically investigated by means of a semantic differential test (Lambert, Havelka, and Crosby, 1958), among aphasics (Lambert and Fillenbaum, 1959), through a semantic satiation test (Jakobovits and Lambert, 1962; Lambert and Jakobovits, 1960), and by means of the Stroop color test (Preston, 1965). Lambert (1969) redefined "compound" bilinguals as "those brought in a thoroughly bilingual home environment from infancy on" and "coordinate" bilinguals as "those who had learned their second language at some time after infancy, usually after ten years of age and usually in a setting other than the family." Lambert and Rawlings (1969) investigated bilinguals' associative networks, and Segalowitz and Lambert (1969) studied semantic generalization in bilinguals, in further exploration of this distinction. In spite of the impressive attempts to explore it empirically, the compound/coordinate distinction has recently been severely criticized by Macnamara (1970) and Haugen (1973), the former on the grounds that not enough is known about semantic systems for the distinction to be meaningful, and the latter on the grounds that the dichotomy is a gross oversimplification of a continuum with many dimensions. In the present state of ignorance about language acquisition and psycholinguistic processing in general, it does not appear likely that further research into the compound/coordinate distinction will prove useful for the planning of bilingual education, at least in the immediate future.

Language Variety

It is generally agreed that a foreign language or second language teaching program should be based on a comparison of the learner's first language with the language being learned (Lado, 1957). For Spanish and English, such a comparison has already been worked out on a theoretical level (Stockwell and Bowen, 1965; Stockwell, Bowen, and Martin, 1965). The authors identify in

detail the areas that a speaker of one language is likely to find difficult or confusing in trying to learn the other language. However, as these works are not based upon a systematic study of a particular variety of English or Spanish, they may not give an accurate idea of the learner's actual difficulties. Moreover, they do not focus on children's language, which makes them even further removed from the actual situation likely to be found in a bilingual classroom. What is needed is a survey of the languages used by adults and children in a particular area, including a comprehensive account of local variants.

~~Although Bills (1972) lists 236 items in his working bibliography of Southwest Spanish, and Teschner, Bills, and Craddock (1975) in their bibliography of the Spanish and English of U.S. Hispanos cite 675 items, the situation is much less satisfactory than this would suggest. Many of the items are discussions of the situation in general rather than actual studies of language, and of the works in the latter category, a large number are either out of date or deal with relatively esoteric aspects of vocabulary (Ornstein, 1971). Even the extensive study of Los Angeles Spanish by Phillips (1967) is less useful than it might have been. The data for the study were collected in 1962-63 by a technique which appears rather unsophisticated in the light of recent developments in sociolinguistic methodology. As a result, the evidence presented gives a very restricted view of Los Angeles Spanish. Ayer (1971), Hensey (1973), Ornstein (1971, 1972), Sharp (1970), and Solé (1975) give some examples of Southwest Spanish, while Hernandez-Chavez, Cohen, and Beltramo (1975) provide a good selection of articles on the same topic, ranging in date of publication from an article by Espinosa which first appeared in 1917 to articles by the editors written especially for this volume. Two other volumes, Bowen and Ornstein (1976) and Gilbert, Ornstein, and Pacheco (forthcoming), contain articles which will greatly increase the linguistic information available about this variety of Spanish, but the need for a full-scale study still remains.~~

The most extensive sociolinguistic study of a Spanish-English bilingual situation is that carried out by Fishman and his associates in Jersey City (Fishman, Cooper, Ma et al., 1968). The methodology for the linguistic section of this study closely followed that of Labov (1966) and concentrated on five Spanish phonological variables and seven English phonological variables. While the investigation of these variables is revealing in the account of stylistic variation and valuable in the description of "accentedness," this is only a small fraction of the linguistic information relevant to a bilingual program. Equally careful investigation should be made of grammatical and lexical features, among others. In the future, it would be helpful to make explicit the kind of linguistic information necessary for planning a bilingual program and fund research designed specifically to collect this information rather than depend on the interests of investigators whose concerns may be quite different from those of educators.

In particular, it is vital to investigate the range and availability of vocabulary items for the members of a community. Mackey (1970, 1972) illustrates one method of collecting comparable data from different populations. The frequency of occurrence of a particular word provides a very poor indication of its availability to a speaker, since many of the words for familiar objects may never occur even in a very large corpus of utterances. Instead of attempting to establish the range of vocabulary through a frequency count, Mackey used a controlled elicitation technique in which subjects were asked

to supply names for objects belonging to a certain conceptual field, e.g., clothing, food, transportation. By collecting evidence of this kind from Acadian French speakers in the Canadian Atlantic Provinces and from subjects in France, Mackey was able to show significant divergences in vocabulary reflecting cultural differences between the two groups. The methodology is straightforward and could easily be applied to a wide variety of situations, thereby providing a useful addition to the knowledge of language varieties.

However, this method deals solely with the availability of vocabulary items; it does not approach the problem of differences in meaning. This is a much more difficult problem to approach empirically, but Labov (1973) has shown how the essential meanings of words may be investigated. Doubtless other techniques for investigating vocabulary and meaning can be developed if the same amount of effort that has gone into studying phonology and morphology --with an occasional glance at syntax--can now be applied to this area of language.

In the interests of bilingual education, vocabulary and meaning are the aspects of language that most urgently require investigation, not simply on a pilot basis to discover the kinds of variation that exist, but on a wide scale, so that the range of variation can be mapped out. This is essential for textbook writing and curriculum planning if the materials are to be suitable for the children for whom they have been developed.

Language Usage

This area of study is dominated by Fishman's sociolinguistic survey in Jersey City (Fishman et al., 1968) and by Fishman's numerous articles on bilingualism (many of them collected in Fishman, 1972). Fishman's major criticisms of investigators conducting research in bilingualism from the disciplines of psychology, linguistics, and sociology are that they have operated in isolation from scholars in the related fields and that they have taken a highly oversimplified view of language. Fishman argues for an interdisciplinary approach within the framework of sociolinguistic theory in which the "domains" of language behavior can be studied in an attempt to deal with the diversity of language within a speech community. The domains that were studied in Jersey City were "family," "friendship," "religion," "education," and "employment," but it is clear that the concept of domain need not be restricted to such global categories. Moreover, within each domain, as Fishman points out, there are role relationships which are crucial or typical. Fishman's domains are a more formalized version of the situation or context studied by earlier investigators such as Barker (1947), Bock (1964), and Gumperz (1964). Elías-Olivarés (1976), Gumperz (1970), Gumperz and Hernandez-Chavez (1971), and McMenamin (1973) show that language switching among bilinguals does not occur only with change of domain. Switching often occurs within the same domain for stylistic or emotional reasons. Gumperz (1970) points out that it is not enough for teachers to be given a description of the language alone, it is also necessary for them to understand the ways in which language is used in the community, since this may affect the learning situation:

Since bilinguals and bidialectals rely heavily on code-switching as a verbal strategy, they are especially sensitive to the relationship between language and context. It would seem that they learn best under conditions of maximal contextual reinforcement.

Sole concentration on the technical aspects of reading, grammar, and spelling may so adversely affect the learning environment as to outweigh any advantages to be gained.

Gumperz' comment is not based on a systematic study of the school situation (an illustration of one approach is given in Gumperz and Herasimchuk, 1973), but this factor could clearly be a significant one in helping to distinguish learning styles (see below). Hatch (1974) also gives a good summary of language switching and mixing in a variety of situations.

Language Teaching

About twenty years ago, textbooks on foreign language teaching were often written in a rather dogmatic tone, reflecting the confidence with which the authors put forward their views. The prevailing emphasis was on habit formation, and the methods employed made extensive use of memorization, mimicry, and substitution drills. The use of the learner's own language was banned from the classroom, and grammatical explanations of any kind were proscribed. This approach to language teaching (sometimes known as the audiolingual method), though still widely employed, was severely attacked following the theories of Chomsky (1959) and Lenneberg (1967), which emphasized the innate species-specific component in first language learning. This led to the development of the cognitive code approach to foreign language teaching (Chastain, 1971). Currently, discussions of foreign language teaching methods are likely to be much less dogmatic than in the past and suggest an eclectic rather than a doctrinaire approach (e.g., Finocchiaro, 1971; Jakobovits, 1970). This does not mean that nothing or little is known about foreign language teaching. On the contrary, a great many methods and techniques for teaching aspects of language have been developed which are a valuable aid to the teacher, if employed with care and with sensitivity to the learner's responses. However, what is lacking is a general theory of language learning on the basis of which the teacher and the administrator can plan the language teaching program.

Tucker (1974) reviews four different approaches to second language teaching: (1) "traditional" second language programs, (2) second language programs plus a content subject taught in the second language, (3) early immersion programs, and (4) late immersion programs. (The discussion that follows, although modelled upon Tucker's account, includes the present authors' comments as well as Tucker's.)

"Traditional" Second Language Programs

In this type of program, the language is taught for a given number of hours per week as a part of the curriculum. Most second language teaching methodologies are designed for this kind of approach. The literature in this field is extensive and would require a complete report in itself. However, a number of volumes in the "Language and the Teacher" series edited by Robert Lugton are worth mentioning: Bartley and Politzer (1967), Chastain (1971), Green (1973), Lugton (1971), and Savignon (1972). Nevertheless, as Tucker observes, teachers and learners have shown increasing dissatisfaction with programs of this kind. One reason may be that this approach demands high motivation on the part of the learner and great skill on the part of the teacher. It would be fair to say that these conditions have not been met as frequently as desirable in the U.S. school system.

Second Language Programs Plus a Content Subject

The traditional second language classes in these programs are complemented by the use of the language to teach a selected content subject such as geography, history, or social studies. The rationale for this approach is that it provides some practical use for the language outside of the second language classroom but still within the school system. It also emphasizes communication rather than the details of the language being studied. However, the underlying assumption is that the second language students can achieve a level of proficiency which will enable them to learn the content material as well as the students who are being taught in their mother tongue.

In other words, this approach allows the students who have succeeded in the traditional type of language class to maintain and develop their skills, but it does not provide a solution for those who fail to achieve proficiency in the second language in the regular language classes.

Early Immersion Programs

Early immersion programs usually involve the exclusive use of the second language as a medium of instruction in the early grades (kindergarten through second grade), with the gradual introduction of language arts in the mother tongue in grade two or three. The children in this program are treated, to the extent that this is possible, as if they were native speakers of the second language, in contrast to the "traditional" method, where the learner is gradually introduced to the new language. The most famous example of this approach is the "St. Lambert experiment" (Lambert and Tucker, 1972), but many other programs have been initiated in Canada (Barik, Swain, and McTavish, 1974). In the U.S. there is a similar program in Spanish in Culver City, California (Cohen, Fier, and Flores, 1973; Campbell, 1972). The results of these programs have been very impressive and show that instruction in a second language need not have adverse effects on a child's development, even on his mother tongue skills. In fact, in Montreal there are even "double-immersion" programs where children from English-speaking homes are taught half of the day in French and the other half in Hebrew, and it is reported that their English language skills do not suffer.

There are, however, two factors which must be taken into consideration in evaluating these programs. The first is that the majority of children in such programs are middle class, and the second--probably not unrelated to the first--is that the parents of the children have been enthusiastic supporters of the program. The St. Lambert program was, in fact, started by a parents' group in the face of considerable opposition from the school board (see Appendix A in Lambert and Tucker, 1972), and the Culver City program has also been very favorably viewed by parents (Cohen and Lebach, 1974).

At present, the problem is how to repeat with minority groups in the United States the success of the early immersion programs. The difficulty is underlined by the apparent similarity between the new "experimental" early immersion programs and the traditional all-English approach to dealing with minority groups--an approach that clearly failed--that was universal before the passing of the Title VII Amendment to the 1965 ESEA. If the latter type of program was unsuccessful in meeting the needs of the children whose mother tongue was not English, which vital ingredients, lacking in the traditional approach, contributed to the success of the early immersion programs? One factor may have been the "Hawthorne effect" in the atmosphere

of an experimental program. Another may have been a difference in the quality of teaching. A third may have been the different attitudes of the teachers, administrators, parents, and children. At present, it is not clear what the crucial elements were, but this is an area which needs the most careful and comprehensive investigation. At the same time, it is necessary to keep in mind Macnamara's warning (Macnamara, 1974) that the English-speaking children in the St. Lambert program are inferior to native speakers of French in all aspects of French. Furthermore, it has recently become apparent that after four years the Culver City children speak an ungrammatical Spanish, e.g., el casa, yo quiere, etc. Contrary to reports, the French teachers in St. Lambert do use structured language teaching methods as part of their approach, but those involved in Culver City were not aware of this and banned it from the program, with the results mentioned. In neither program is there contact with peers who are native speakers of the language. Immersion programs must not be viewed as providing an alternative to bilingual education: they are inapplicable to minority-language children. It is not yet obvious what implications such programs as the St. Lambert have for public schooling in the U.S.

Late Immersion Programs

Late immersion programs involve several years of "traditional" second language teaching followed by a year of total immersion in the language at grade seven or eight. The student follows the normal curriculum for that grade, but the bulk of the classes are given in the second language. This approach has been followed in some schools in Canada with apparent success (Bruck, Lambert, and Tucker, 1976; Genesee, Allister, and Morin, 1974a, 1974b, 1974c, 1974d), but it is probably too early to judge the effectiveness of this approach.

There is even no agreement on the similarities and differences between first and second language learning. In the audiolingual approach, an attempt was made to treat the adult learners as if they were children. In reaction to this, the followers of Chomsky and Lenneberg probably overstressed the differences between children learning their first language and adults learning a second language. In recent years, some scholars (e.g., Corder, 1967; Reibel, 1971) have reacted against the Chomsky-Lenneberg position and have pointed out the similarities between first and second language learning. Dulay and Burt (1972, 1974a, 1974b) go so far as to suggest that children learning a second language are guided by universal innate mechanisms which cause them to formulate successive hypotheses about the language system they are learning until they succeed in matching their output to the language they hear about them. Dulay and Burt base this claim on the similarity in types of errors made by children of diverse first language backgrounds in learning English. For example, in a study of the acquisition of 11 English grammatical morphemes (functors) by Spanish-speaking and Chinese-speaking children, Dulay and Burt (1974b) found that the morphemes were acquired in approximately the same order by both groups, although the equivalents to the English morphemes differ greatly in Spanish and Chinese. Thus, there appears to be very little influence ("interference") from the child's first language in the process of acquiring English. Hatch (1974), examining the evidence from fifteen observational studies of second language acquisition in children, cautions against assuming that universal language-learning strategies are at work without taking into consideration the language to which the

learner is exposed, since it may affect the sequence of acquisition of certain forms. Cancino, Rosansky, and Schumann (1974) also offer some counter-evidence to Dulay and Burt's thesis by showing the variation in the acquisition of the copula and negation in three native speakers of Spanish. However, since their three subjects consisted of a preschool girl, an adolescent boy, and an adult male, it hardly seems surprising that their learning strategies should vary. Moreover, Cancino et al. assume that the stages in the development of negation outlined by Klima and Bellugi (1966) represent the developmental pattern of negation for English; this seems rash in view of the small sample of speech on which it was based. At present, ~~since it has important implications for second language teaching,~~ it appears that there is sufficient support for Dulay and Burt's thesis to warrant further investigation in a wider variety of situations. Some studies in the same area have also been carried out by Bailey, Madden, and Krashen (1974), Dato (1975), and Hakuta (1974, 1975). However, one must bear in mind the fact that all these investigations deal primarily with morphology, where less interference from the first language might be expected than in phonology or semantics.

It is also important to take into consideration social and cultural factors in the learning situation. Although it has long been apparent that social class is a crucial factor in education, its importance has not always been emphasized in studies of bilingualism, and some of the conflicting results obtained in different studies may be due to the failure to take social class differences sufficiently into account. Paulston (1974), in her discussion of the apparent contradiction between those studies in which initial reading instruction in the vernacular is shown to have had beneficial results (Barrera-Vasquez, 1953; Burns, 1968; Modiano, 1966; Osterberg, 1961) and those studies in which initial reading instruction in the second language is shown to have had no adverse effects, and often beneficial ones (Cohen, Fier, and Flores, 1973; Lambert and Tucker, 1972; Perren and Chari, 1969; Ramos, Aguilar, and Sibayan, 1967), observes:

If we look at the case studies discussed above for some social factors which might explain the contradictory linguistic findings, we find that social class of the students is the one overruling factor. In every single study where monolingual children did well or better in L₂ instruction than did native speakers, those children came from upper or middle class homes. I suspect that one should add groups which are not stigmatized by race or language use, as it is the attitude associated with social classes which seems to be the determining influence on learning. Modiano's study and those which support her findings all deal with children from subordinate groups.

This comment underlines the need to evaluate the results of bilingual education research in terms of the particular situation and stresses the fallacy of assuming that all bilingual situations are alike. However, this does not imply that there is nothing to be learned from cross-cultural and cross-linguistic comparisons; on the contrary, it is the evidence from very different types of situations that brings out so clearly the significance of social class as a crucial factor.

Social and cultural differences underline the need to plan a bilingual program that relates to the particular background of the learner. It is also necessary to take into consideration the age of the student. However, most of the literature on second language teaching has dealt with adult learners, and as Paulston (1974) warns, this may not be relevant to the situation of the younger student:

All experimental data on language teaching methodology evaluating different theoretical approaches, with which I am familiar, deal with post-puberty students. There is sufficient evidence to ~~question the generalizability of such findings to younger students,~~ and bilingual programs normally involve younger students.

In spite of the recent emphasis on the ability of the young child to learn a second language with ease, it is necessary to heed Carroll's warning that this may not be true of all children (Carroll, 1969). Engle (1975) also cites research by Lavalley in which the six-, seven-, and eight-year-old children in her sample show greater difficulty in learning a second language than the younger or older children. If these findings should prove to be true of children in general, they would have serious implications for the timing of bilingual programs, suggesting either a very early introduction to the second language or delaying its introduction until third or fourth grade.

Granted the uncertainty about how the child learns a second language, decisions about the most satisfactory distribution of the two languages in a bilingual program can be made only in terms of what seems to work best in a specific situation. Mackey (1970), in a typology of bilingual education, outlines various possible curriculum arrangements, but more research is necessary to find out which type of approach is most likely to be successful in a particular community. As was pointed out earlier, the programs in which instruction in the second language has been so successful (e.g., the St. Lambert and Culver City experiments, but note discussion on p. 16) have dealt mainly with middle class children. However, social class is only one variable. A more important one may be the quality of teaching. The negative results which Macnamara (1966) found in Ireland may have been brought about by the standard of teaching there. As Jones (1969) observed at the Moncton Conference:

It is regrettable that so much work in bilingualism has been done on measuring the possible effects of bad early teaching before any scientific efforts have been made to improve that teaching.

Paulston (1974) also stresses the importance of the quality of the school administration. Since teachers and administrators are likely to have a fundamental effect on the success or failure of a bilingual program, adequate teacher preparation becomes a matter of the highest priority.

Attitudes toward Language

The contemporary preoccupation with language in its social context and concern about the importance of language in education has led to an increased interest in language attitudes (e.g., Shuy and Fasold, 1973), and scholars in a variety of disciplines are looking for methods of investigating such attitudes. However, the major problem, as Agheyisi and Fishman (1970) point

out, is that of validating attitude studies; consequently, the conclusions reached in any of the studies to date should be treated with considerable caution. Two types of attitudes have a significant effect on bilingual education programs: (1) the attitudes that prevail in the community (toward both languages); and (2) the attitudes of pupils and teachers toward the varieties of language used in the classroom.

Attitudes toward Language in the Community

~~Triandis (1971) suggests that attitudes help people understand their environ-~~ment, protect self-esteem, aid adjustment in a complex world, and allow expression of fundamental values. A number of studies carried out during the past twenty years (e.g., Buck, 1968; Cheyne, 1970; Ellis, 1967; Giles, 1970, 1971; Harms, 1961; Labov, 1966; Labov, Cohen, Robins, and Lewis, 1968; Macaulay and Trevelyan, 1973; Putnam and O'Hern, 1955) have shown that members of a speech community are willing to judge their fellow citizens on the basis of relatively short samples of speech. Responses included judgments of socioeconomic status, occupational suitability, education, ethnicity, physical toughness, and the possibility of the speaker's becoming a friend. These studies reveal the kind of judgments about language which have been found in monolingual communities. In a bilingual situation, the possibilities for such attitudes are increased. Lambert, Hodgson, Gardner, and Fillenbaum (1960) investigated the reactions of French Canadians and English Canadians to tapes of bilingual speakers speaking in English and in French. The subjects were asked to make some evaluations of the personality of the speakers. The subjects were not aware, however, that they were listening to the same speaker using both English and French. The results showed that the speakers were generally rated more favorably when speaking English than when speaking French (the one exception was the speaker who spoke French with a Parisian accent). These results were interpreted as reflecting community-wide stereotyped attitudes of English-speaking and French-speaking Canadians. This study, though widely admired and imitated, can be criticized for the use of materials read aloud rather than samples of actual speech. While the use of reading passages allows content to be controlled, the lack of natural or appropriate speech is a serious drawback. Nevertheless, this approach is clearly a useful one for investigating attitudes toward both languages in a bilingual community.

D'Anglejan and Tucker (1973) used a questionnaire to elicit information about subjects' attitudes toward their own speech. Their sample consisted of French Canadian students, teachers, and workers in three different communities in the province of Quebec. D'Anglejan and Tucker concluded that their results indicated the low prestige of French in Canada and "a general malaise with respect to language." However, their questionnaire included some highly loaded questions, and the results are open to a less negative interpretation (Macaulay, 1975).

Carranza and Ryan (1975) tested the reactions of 64 bilingual Anglo American and Mexican American high school students to Spanish and English. The results for both groups indicated a definite preference for English when the text recorded on the tape dealt with a school situation, and a slight preference for Spanish when the text referred to a home situation. Ryan and Carranza (1975) found a similar distinction between the use of standard English and Mexican American-accented English. Although the standard English

speakers on the tape received more favorable ratings in every case, the differences were significantly greater in the school context than in the home context. Flores and Hopper (1975) in a study with adult subjects found that although the overall rating of standard Spanish was higher than that of non-standard Spanish, those respondents who identified themselves as "Chicanos" rated nonstandard Spanish higher. Flores and Hopper also found that none of the groups reacted negatively toward standard Spanish; they suggest that future research concerning Mexican Americans' language attitudes should explore more carefully the reasons behind these attitudes, rather than simply recording them.

Trudgill (1972) and Macaulay (1975) also argue against accepting at face value admissions of linguistic insecurity from informants interviewed by members of the dominant culture. Although the attitudes toward both languages in the community are likely to be important for any bilingual program, the methods for accurately assessing such attitudes still have to be developed, and this is an area where further research is urgently needed.

Attitudes of Pupils and Teachers toward Language in the Classroom

Everyone agrees that motivation is important in language learning. Gardner and Lambert (1972) distinguish between "an 'instrumental' outlook, reflecting the practical value and advantages of learning a new language, and an 'integrative' outlook, reflecting a sincere and personal interest in the people and culture represented by the other group." They maintain that an integrative orientation is more likely to sustain the long-term motivation needed in learning a foreign language. If this view is correct, it implies that there may be problems in a pluralistic model of bilingual education. However, Macnamara (1973b) argues that the importance of integrative attitudes may be exaggerated. Gardner and Lambert (1972) also claim that authoritarian and ethnocentric attitudes inhibit successful second language learning. On the other hand, Peal and Lambert (1962) also suggest that once competence in the second language has been achieved, attitudes become less important. Backman (1976) criticizes the use of attitude scales such as those employed by Gardner and Lambert and suggests instead the use of interviews to determine attitudes. She quotes from a study by Naiman, Frohlich, and Stern (1975) which used the interview as a means of assessing affective factors. They concluded that "attitudes toward the language-learning situation play an important role in successful language learning, perhaps to a greater degree than either the integrative or instrumental orientation identified in the studies by Gardner and Lambert (1972)."

Teacher attitudes are also important. Ever since Rosenthal and Jacobson (1968) demonstrated that teachers' expectations could affect the progress of their pupils, attention has been focused on teachers' attitudes toward their students' speech. Frender and Lambert (1973), Naremore (1969), and Seligman, Tucker, and Lambert (1972) have shown that teachers are ready to make judgments about their pupils' ability on the basis of their speech.

In an ingenious pilot study, Williams (1973) asked a group of student teachers to evaluate the speech of Anglo, black, and Chicano children. The teachers saw the children on videotape and heard them on an accompanying audiotape. What the student teachers did not know was that excerpts from the same speech sample were played with different videotapes. Not surpris-

ingly, but very revealingly, the student teachers rated the speech of the black and Mexican American children as less "standard" than that of the Anglo children, although, in fact, the actual quality of the speech was the same for all three types of children. Thus, what the student teachers were reacting to was not the quality of speech but to its associations with a child from a particular kind of background.

Naremore (1969) found that the teachers she studied fell into two categories as far as their language attitudes were concerned. The type of teacher Naremore characterized as "detail oriented" was concerned primarily with details in a child's speech, in contrast to the "communication-oriented" teacher, who was more concerned with the child's ability to sustain a conversation and "his ability to become involved in a topic to the extent of having a great deal to say about it." Naremore found that the first group, the "detail-oriented" teachers, were predominantly white and that the second group, the "communication-oriented" teachers, were predominantly black. This grouping may be related to the question of cognitive styles in learning and teaching (see Chapter III).

The attitudes of teachers not directly involved in bilingual programs are also important. Campbell, Taylor, and Tucker (1973) report the results of a study in Montreal in which French-speaking teachers took a much more favorable view of French immersion programs for English-speaking children than English-speaking teachers did. This is a disturbing finding, since it indicates the kind of resistance that bilingual education is likely to face even if it is apparently succeeding in its aims. The use of a questionnaire to obtain information of this kind from a small sample of teachers does not inspire much confidence in the reliability of the results, and the question needs to be more carefully investigated; nevertheless, the possibility remains that the study accurately reflects the attitudes of the teachers and emphasizes the need to provide all members of the community with information about the effects of a bilingual program.

The attitude of the children is another significant factor. Two studies of pupils' attitudes in a bilingual situation suggest that age is an important variable. Anisfeld and Lambert (1964) found that ten-year-old French Canadian children did not show the preference for the English-speaking guises found by Lambert, Hodgson, et al. (1960) among adult French Canadians. Anisfeld and Lambert hypothesize that children at this age have not yet developed a sense of inferiority. In a study conducted in Wales, Sharp, Thomas, Francis, et al. (1973) found that as Welsh pupils get older, their attitude toward Welsh tends to become less favorable, and their attitude toward English tends to become more favorable. In this study, sex was also significant in that girls favored Welsh more than boys did, though there was no sex difference in attitudes toward English. These findings are consistent with the conclusions of Lambert and Klineberg's (1967) study of children's views of foreign peoples:

These evaluative and content changes in children's views indicate that the stereotyping process, at least in regard to foreign peoples, is not much in evidence with the 6-year-olds, but becomes very apparent in the early teen years. Judging from the views they expressed, children apparently come to think about foreign peoples in an increasingly stereotyped manner between 6 and 14 years.

Rosenthal (in press), in a study conducted in the Washington, D.C. area, finds that children as young as three to six years of age make evaluative judgments about people on the basis of language differences. These studies clearly have important implications for the early stages of a bilingual program, since a child who succeeds in becoming a bilingual at an age before ethnocentric prejudices are firmly established may avoid some of the problems that his elders face. This is an area of research that requires further investigation in a variety of situations, and it is particularly important for the bicultural child who must learn to participate in two different sociocultural systems.

Teacher Training

One of the areas of critical importance for bilingual education is the availability of teachers adequately trained for the tasks that will confront them. The demands will vary according to the nature of the program and the age of the children. In an immersion program, for example, since the medium of instruction is a single language, it is not even necessary for the teacher to be bilingual. On the other hand, in a program where two languages are used concurrently, the teacher must possess adequate control of both languages. The qualifications for a teacher in such contrasting situations would differ greatly. Nevertheless, it is probably true that all teachers in bilingual programs would benefit from training in second language-teaching techniques. Otherwise, as Paulston (1974) warns, they may fail to understand the difficulties that their students experience. However, it is essential that those who provide the training in second language-teaching methods take into consideration the recent debate on the advantages and disadvantages of the various approaches discussed earlier in this report. It is also important that the teaching of Spanish should not be left solely to classroom aides, as apparently happens in some bilingual programs (Gaarder, 1970).

In addition to being trained in language-teaching techniques, the teacher must also be a fluent speaker of the language used in the classroom. We stress this because some bilingual programs employ teachers with only a minimal competence in the second language. Such teachers are unlikely to provide a satisfactory language model for their pupils. On the contrary, inadequate control of the language by the teacher is likely to indicate to the pupils that it is of low status. However, fluency alone is not sufficient; Castillo and Cruz (1974) stress the need for the teacher also to be familiar with the variety of language used by the children in their home and community. This is essential if the teacher is to understand the children's situation and the kind of difficulties they may encounter. It is also important for the teacher to be familiar with the uses of language in the community (Gumperz, 1970) and to understand the attitudes toward language that prevail in the community (including the teacher's own attitudes).

Galvan and Troike (1969) describe a workshop program for teachers in which language variation was studied intensively. They were led to this approach by the failure of short-term inservice courses:

Teachers long inured to lecture-type inservice courses proved highly resistant to the attempt to develop in them a greater awareness and understanding of language variation.

As an alternative, Galvan and Troike designed an intensive three-week course involving the study of linguistics, folklore, second language-teaching methods, and curriculum development. Two factors seem to have contributed significantly to the success of this project. First, it employed an interdisciplinary approach, and secondly, it emphasized the practical aim of creating a classroom climate in which linguistic and cultural diversity could flourish:

Teachers must understand that language is one of several cultural patterns which make up a child's behavior. To look at language in isolation is to be blind to factors that work with language in the learning process. Teachers must be trained to take a socio-linguistic view, recognizing systematic social and cultural differences, and the correlated linguistic modes for their expression. Teachers must learn to accept, intellectually as well as emotionally, the validity of various patterns of behavior, realizing that they fill significant adaptive and emotional needs of those who possess them. Cultural, as well as linguistic, relativity must be part of the teacher's basic approach if he is to effectively reach those who differ in language or culture.

Finocchiaro (1971) also stresses the need for colleges and other agencies to produce teachers of English as a second language who possess the necessary skills, knowledge, insights, and attitudes. She observes:

It must be obvious by now that:

Being a native speaker of English is not enough.
 Loving the children is not enough.
 Knowing the structure of the English language is not enough.
 Becoming familiar with methods of teaching ESL is not enough.

All of these qualifications are essential but more, much more, is needed to teach a group of human beings English as a second language.

One might ask what more is needed. One answer comes from Macnamara (1973a, 1973b), who believes that children, particularly young children, will learn a second language best if they need to use it for communicating. Macnamara wishes to make the school more like the community or the home in its demands on the child to use language meaningfully. He suggests that

the teacher's job is to set up the language class so that communication in the new language is essential to the students. This can probably be best done by turning it into an activity period. If the students are cooking, or engaged in handicraft, needs to communicate rapidly arise (1973a).

Macnamara does not go into details about how such activities should be organized to provide the best atmosphere for language learning, but some valuable examples and suggestions can be gleaned from Barnes, Britton, and Rosen (1969), Britton (1970), Rosen and Rosen (1973), and Tough (1973). Although all these accounts deal with monolingual situations, namely, the teaching of

English as a native language, they contain a great deal of information that is useful to any language teacher.

In Guidelines for the Preparation and Certification of Teachers of Bilingual/Bicultural Education, a statement which was developed at a conference sponsored by the Center for Applied Linguistics in 1974, guidelines are set forth that are considered essential in designing teacher training programs in bilingual/bicultural education. The statement also describes the personal qualities and minimum professional competencies necessary for the successful teacher of bilingual/bicultural education.

Ultimately, however, the quality of any program of teacher training will depend largely on its administrators and instructors. This is an area in which there is little cause for optimism. For whatever reason, schools of education in the United States often seem to attract as their faculty scholars whose interests in school administration, curriculum development, educational psychology, assessment, etc., have kept them at a level of discussion far removed from the question of what goes on in the classroom. As a result, teacher preparation is frequently heavily biased in favor of theoretical issues rather than focusing on immediate practical matters. In the education of mainstream middle class American children, this probably has few adverse results, since the impact of the public school system on their future is marginal in the majority of cases. However, for lower class and minority children, the situation is quite different, since the educational system provides, or can provide, one of the routes by which they can escape from the bondage that has trapped their parents in low-income, low-status occupations. Consequently, any educational program such as a bilingual curriculum makes greater demands on its teachers because they are not simply engaged in maintaining the status quo, but are attempting to improve the lot of a sector of the community whose needs have usually been neglected in the past.

For this reason, it is important to treat teacher education for bilingual programs as a research area that urgently requires investigation. It is necessary to discover as quickly as possible what sort of programs will produce teachers most apt to succeed in bilingual schools. It seems likely that the most promising type of approach will draw upon more disciplines than are available at present in schools of education. If this turns out to be the case, it may be necessary to explore alternative ways of accrediting teachers in bilingual programs.

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Notes

1. The Center for Applied Linguistics has been holding a series of small, working conferences, funded by the Carnegie Corporation of New York, on the state of research knowledge in various fields concerning bilingual education, including sociology, psychology, anthropology, linguistics, law, political science, and education. The goal of the project is to bring together all of the existing information on bilingual education and to make it available to decision-makers and practitioners. Four discipline-focused conferences have been held to date: (1) social science, reviewed by Joshua Fishman and discussed by Shirley Brice Heath, Hugh Mehan, Sara Nieves-Squires, and H. Ned Seelye; (2) language and linguistic perspectives, reviewed by G. Richard Tucker and discussed by Charles Ferguson, Gustavo Gonzalez, Evelyn Hatch, and Christina Paulston; (3) legal perspectives, reviewed by Herbert Teitelbaum and Richard Hiller and discussed by Roy Rodriguez, Edward Steinman, Brian Weinstein, and John Wabaunsee; and (4) educational perspectives, reviewed by George Blanco and discussed by Byron Hansford, Joseph Garcia, Maria Medina Swanson, and Protase Woodford. The papers are currently being revised for publication by CAL in 1977.
2. Documents identified by an ED number may be read on microfiche at an ERIC library collection or ordered from the ERIC Document Reproduction Service, P.O. Box 190, Arlington, VA 22210.

III. INTELLECTUAL DEVELOPMENT AND COGNITIVE STYLES

Much time and energy have been expended during past years in attempts to determine whether bilingualism enhances or depresses performance on IQ tests. Darcy (1953, 1963), along with other investigators (e.g., Arsenian, 1937; Fishman, 1967; Jensen, 1961; Jones, 1959; Mitchell, 1937; and Sanchez, 1934), concludes that most studies showing that bilinguals obtain lower IQ scores than monolinguals have not controlled for confounding variables such as socioeconomic status, degree of bilingualism, quality of educational program(s), or training and experience of teaching personnel. Ramirez and Gonzalez (1972) identified other confounding variables: cultural inappropriateness of (1) content, (2) language, (3) test atmosphere, and (4) cognitive style reflected in test instruments and procedures.

De Avila and Havassy (1974) also identify some weaknesses of standardized IQ and summary-score achievement tests vis-a-vis Mexican American children. They conclude:

It is the authors' opinion that consideration of these issues leads to the conclusion that the problem of testing cannot be solved by attempts to recreate standardized tests for minority children which are based on old conceptions of intelligence and educational achievement. It is concluded that what is required is a radical change in the whole approach to testing and the generation of entirely different modes of education and testing.

Macnamara (1970) suggests that the debate on the relationship between bilingualism and intelligence has highlighted issues which are misleading. He argues that what investigators have been studying is not the effects of bilingualism on intelligence, but on IQ. He argues convincingly that this question is trivial because "...an indefinitely large number of factors can affect IQ without any direct bearing on what we intuitively recognize as intelligence."

Future research should not focus on IQ. Fortunately, psychologists are recognizing serious limitations in the IQ concept (Loehlin, Lindzey and Spuhler, 1975; Price-Williams, 1971) and are demonstrating a greater interest in more dynamic aspects of cognitive functioning and development--such as problem solving, creativity, conservation, concept formation, memory, cognitive styles, and cognitive flexibility. These variables are directly related to success in school, and research should provide data that teachers can use for academic planning and instruction.

Researchers who have concentrated on the dynamic variables of cognitive functioning have concluded that, contrary to previous beliefs, bilingualism has a positive effect on cognitive development. One early study that indicated that bilingualism has a beneficial effect on intellectual development was that of Peal and Lambert (1962). They found that a group of ten-year-old

French and English balanced bilinguals in Montreal showed a higher level of nonverbal and verbal intelligence than a monolingual control group. The authors conclude:

The picture that emerges of the French-English bilingual in Montreal is that of a youngster whose wider experiences in two cultures have given him advantages which a monolingual does not enjoy. Intellectually his experience with two language systems seems to have left him with a mental flexibility, a superiority in concept formation, and a more diversified set of mental abilities in the sense that the patterns of abilities developed by bilinguals were more heterogeneous....In contrast, the monolingual appears to have a more unitary structure of intelligence which he must use for all types of intellectual tasks.

Cummins and Gulutson (1974) replicated the Peal and Lambert study in a western Canadian setting. A group of balanced bilinguals was matched on socioeconomic status, sex, and age with a control group of monolinguals. The bilinguals performed at a significantly higher level on verbal and nonverbal ability and also on a measure of divergent thinking, i.e., verbal originality. Studies such as those conducted by Liedke and Nelson (1968) and Bain (1974) also indicate that bilingualism might accelerate cognitive development. In these studies, it was found that children who had become bilingual prior to entering school showed higher levels of concept development than the monolingual controls.

In an article published in 1969, Lambert and Anisfeld (formerly Peal) restated their findings. Reporting on the cognitive and attitudinal consequences of bilingual schooling in a controlled experiment (the St. Lambert School in Montreal), the investigators presented evidence that bilingualism hinders neither academic achievement nor intellectual performance. In fact, a close reading of the report leads to the conclusion that an advantage exists for bilinguals in intellectual functioning. In their article, the authors cite the work of Cohen, Tucker, and Lambert, 1967; Kittell, 1963; and Parver, 1966, among others, in support of the hypothesis first put forth in their 1962 study. To date, the findings have not been refuted.

Feldman and Shen (1971) also found that bilingual children have some cognitive advantages over monolinguals in language-related tasks. Citing Fishman's (1967) and Bernstein's (1961) work and theories in language development, bilingualism, and social class, Feldman and Shen hypothesized that bilinguals would have an advantage over monolinguals (within a Piagetian framework) in object constancy, naming, and use of names in sentences. The researchers found that bilinguals did better than monolinguals on all three tasks. When results were further analyzed, the bilingual subjects also did better on tasks of comprehension than did the monolinguals. The findings led the authors to suggest that bilinguals may have a decided advantage over monolinguals in shifting from a notion of meaning as word reference to a notion of meaning as a function of use. According to the authors, the bilinguals were superior in ability to use common names and nonsense names in relation to statements. They conclude:

The advantage of the bilingual child in switching names and using labels in sentences can be taken as evidence for a notion of meaning as a function of use. This advantage is not identical to an ability to use names as labels, for in their acquisition of common

names and their ability to learn new nonsense names, the bilinguals and monolinguals are equal. The threshold effect observed further suggests a difference in kind between naming ability and a notion of meaning as use. The mere presence of two language codes as in the case of a lower-class bilingual, or perhaps a middle-class monolingual, may facilitate the shift from a notion of meaning as word reference to a notion of meaning as a function of use, which seems a plausible precursor to an adult meaning system.

This study, then, gives support to the notion that bilinguals may indeed have greater cognitive abilities than do monolinguals. Further support for this hypothesis can be drawn from a study conducted by Ianco-Worrall with Afrikaans-English-speaking bilingual and monolingual children. Her study, like that of Feldman and Shen (1971), concentrated on "...more specific manifestations of cognitive development" (Ianco-Worrall, 1972). The study sought to test (1) whether there were differences between bilinguals and monolinguals in separation of word sound from word meaning and (2) whether bilingualism leads to the earlier realization of the arbitrary nature of the name-object relationship.

Although Ianco-Worrall stated that the results of the study were to be interpreted with caution, she concluded:

Leopold's observed separation of word sound from word meaning in young bilinguals found experimental support in this study. Of the young, 4-6-year-old bilinguals, 54% consistently chose to interpret similarity between words in terms of the semantic dimension. Of the unilingual groups of the same age, not one Afrikaans speaker and only one English speaker showed similar choice behavior. Whereas the age trend analysis as well as the individual preference analysis showed that semantic preference increased as a function of age in the unilingual group, as far as our two age groups were concerned, the bilingual group did not show similar progression. The conclusion we draw is that bilinguals, brought up in a one-person, one-language home environment, reach a stage in semantic development, as measured by our test, some 2-3 years earlier than their unilingual peers. A high percentage of these bilingual youngsters perceived relationships between words in terms of their symbolic rather than acoustic properties...Bilinguals of both age groups excelled over unilinguals, not where names are conceived to be aspects of things but where the question of whether names can be inter-changed required the formulated concept that names are arbitrarily assigned to things.

In this study, as in those previously mentioned, there were definite indications that bilingual individuals may indeed have an advantage over monolinguals in some spheres of mental or cognitive activity. It must be pointed out that the important distinction between a "cognitive abilities" approach and an IQ approach to bilingual research is that the former, in Diebold's (1966) words,

refers to those cognitive abilities (such as thinking, insight, learning, etc.) which depend upon language and the extraordinary and distinctly human capacity for symbolically-mediated learning and cultural transmission which is associated with it....'intelli-

gence'...will refer to one dimension of cognitive development: the realized intelligence level of verbal children (or young adults) measured by various standardized intelligence tests.

Carringer (1974), in a study conducted in Mexico, found, like Cummins and Gulutson (1974), that bilinguals scored higher than monolinguals on tasks of divergent thinking. Specifically, 24 balanced bilinguals (Spanish-English) performed at a significantly higher level than 24 Spanish-speaking monolinguals on the verbal flexibility, verbal originality, figural fluency, and figural originality scales of the Torrance Tests of Creative Thinking.

The studies reviewed above seem to indicate a new and promising trend in the direction of research dealing with the relationship of bilingualism to cognitive development. Fortunately, this trend is also affecting the works of researchers who are specifically interested in Spanish-English bilinguals. For example, Young and his colleagues (Lopez and Young, 1974; Young and Navar, 1968; Young and Webber, 1967) have been investigating positive transfer, inhibition, and memory in bilingual Mexican Americans. Their findings support the interdependent hypothesis of the organization of memory in bilinguals. Interdependence is seen as being related to the representations of words in memory. That is, bilinguals store words in memory in terms of the semantic representation of those words. The presentation of a word and its translation results in activation of the same semantic representation in memory. Young and his colleagues have also found that there are more instances of positive transfer than of inhibition when a word list is learned first in one language and then in the other language. (See also Heras and Nelson in Padilla and Ruiz, 1974.) Lopez (1976) states that this latter effect can be explained by employing psychological theories of semantic memory. He states:

The meaning of a word or concept is expressed in terms of a set of features, or associations, which may converge upon a single locus or node in memory. The actual word is stored in a separate lexicon with a pointer leading to the semantic locus or node. All translation equivalents in two languages have some overlap of meaning that can go from almost total overlap to practically no overlap. The bilingual equivalence effect should be produced only when there is such an overlap that the presentation of the translation of a word activates a critical number of the attributes of that word.

Price-Williams and Ramirez (1976) tested Mexican American (Spanish-English bilinguals), black (French-English bilinguals), and Anglo (monolingual English) fourth grade children with the Unusual Uses Test (UUT) and the Peabody Picture Vocabulary Test (PPVT). The Anglo subjects scored higher on the PPVT than the Chicano and black subjects, but the Chicano and black males scored higher than the Anglo males on both fluency and flexibility as measured by the UUT. The investigators also found that the Mexican American children in their sample scored higher on cognitive complexity as measured by a free association test than the monolingual Anglo children, i.e., the Mexican American children made more associations with names of friends (e.g., "tall," "friendly," "strong," "smart") and their associations could be grouped into more categories (such as physical characteristics, intellectual characteristics, social traits, etc.).

De Avila and Havassy (1974) tested 1225 school children, most of whom were Spanish-surnamed, in California, Colorado, New Mexico, and Texas. Four neo-Piagetian measures were administered to the students. Mexican American children performed at cognitive levels appropriate for their chronological age. In addition, there were no significant differences in levels of cognitive developmental performance between Anglo and Mexican American children.

Thus, the results of the small number of studies that are available on Spanish-English bilinguals in the United States indicate that in most cognitive abilities, they are either superior to or at least on a par with their monolingual English-speaking peers. Why the confusion, then, as to the relation between bilingualism and cognitive development? Part of the answer lies in the fact that many potentially confounding variables had not been controlled in the early studies. A recent paper by Cummins (1976) provides the most complete answer to date to the above question. He states:

The findings of recent studies suggest that becoming bilingual, either as a result of home or school experiences, can positively influence aspects of cognitive functioning. There are indications in these studies that bilingual learning experience in the school setting may be more capable of influencing divergent than convergent thinking skills. However, early or pre-school bilingualism does appear capable of accelerating the development of convergent skills.

These recent findings are clearly inconsistent with the findings of earlier studies. In order to resolve this inconsistency it is necessary to develop a conceptual framework within which similarities and differences between early and more recent studies can be specified.

A first step towards the development of such an interpretive framework is to abandon the expectation that research into the psychological consequences of bilingualism should produce completely consistent results. The search for consistent research results is based on a false premise--i.e., that there is but one single phenomenon or state called "bilingualism" which ought to influence the mental lives of all bilinguals in much the same way. In fact, as Mackey (1971) points out, there is an enormous variety of bilingual learning situations, in each of which different combinations of cognitive, attitudinal, social and educational factors are operative. Thus, the learning of two languages is likely to affect cognition in different ways depending on the age at which the languages are learned, whether they are learned separately or simultaneously, the opportunities for using both languages in the home, school and wider environment, the prestige of the two languages, the functions which the languages serve within a particular social context, etc. In short, each bilingual learning situation is unique and it is impossible to generalize from one bilingual learning situation to another. Consequently, the question for research is not what effects does "bilingualism," per se, have on cognitive processes; rather, research should be directed towards identifying those conditions under which bilingual learning experiences are likely to retard or, alternatively, accelerate aspects of cognitive growth.

Cognitive Style and Bicognitive Functioning

The recent interest in the more dynamic aspects of intellectual functioning has led to a focus on the concept of cognitive style, a psychological variable that had not previously been applied extensively to educational problems. Cognitive styles have been examined in cross-cultural research (Ramirez and Price-Williams, 1974; Ten Houten, 1971; Witkin, 1967; Witkin and Berry, 1975; Witkin et al., 1974) and interesting relationships among culture, language, and cognitive styles have emerged from this research (Cohen, 1969; Ramirez and Castaneda, 1974; Ten Houten, 1971).

A brief history of the field-independent/field-dependent (or field-sensitive)¹ cognitive styles framework will illustrate why this concept has captured the interest and imagination of both educators and social scientists.

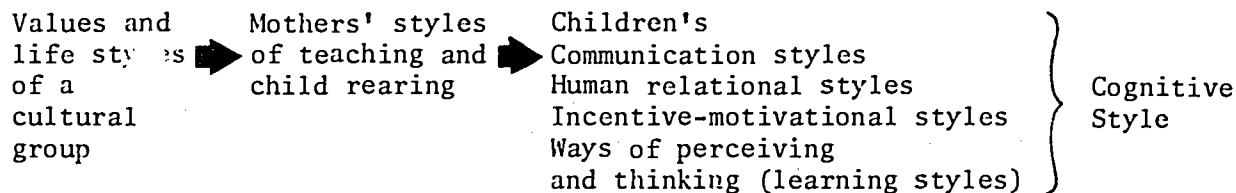
The earliest studies on field independence/field sensitivity were conducted by Witkin (Witkin et al., 1974). After years of research, Witkin and his colleagues isolated two different cognitive styles: field independent and field dependent. The field-independent individual is characterized by perceiving and responding to events and objects in his environment independent of the total field or context. This cognitive style is oriented toward an analytic approach to information processing that emphasizes individual parts of a whole. In contrast, field-dependent (field-sensitive) cognitive style is characterized by an integrative approach to information processing. Field-sensitive individuals organize their world in terms of wholes or totalities and are generally sensitive to the overall context (such as social atmosphere) of objects or events.

The following characteristics of field-sensitive and field-independent individuals are of greatest interest to educators and social scientists:

- (1) Field-independent persons perform better than field-sensitive persons on tests that involve separating a part from an organized whole or rearranging parts to make a whole.
- (2) Field-independent children tend to be "task centered" in taking tests; field-sensitive children tend to glance at the examiner and pay more attention to the social atmosphere of the testing situation.
- (3) Field-sensitive persons appear to be more imaginative in verbally describing social situations. The social environment seems to be more significant for field-sensitive persons in other ways. They tend to remember faces and social words better than field-independent persons. They are more influenced by expressions of confidence or doubt than are field-independent persons.
- (4) Students and teachers who share a common cognitive style tend to perceive each other more favorably than do students and teachers whose cognitive styles are dissimilar.
- (5) Field-sensitive persons prefer psychotherapists with whom they can establish a personal relationship. Field-independent persons, on the other hand, prefer therapists who take a more passive, consultant-like role. Field-sensitive and field-

independent psychotherapists, in turn, tend to prefer the very kinds of client-therapist relationship that field-sensitive and field-independent persons, respectively, seem to be seeking. (Ramirez and Castaneda, 1974)

Regarding its relation to culture and language, an important dimension of the cognitive styles concept is that both the field-sensitive and independent styles are linked to sociocultural socialization practices and activities (Witkin, 1967; Witkin and Berry, 1975; Witkin et al., 1974). As a function of having experienced certain socialization practices and lifestyles, children bring with them to school a predisposition or preference for a cognitive style, which in turn affects the degree of their ability to function effectively within certain kinds of educational environments. The critical factor is that personality characteristics as reflected in behavior, style of coping, or style of functioning, are transmitted to the child by the parents and other socializing elements in the home and neighborhood before the child enters school. The following diagram describes the relationship between culture and cognitive styles:



Ten Houten (1971) has hypothesized that there is a relationship among culture, hemispheric specialization, and cognitive styles. He believes that in the cultures whose members are characterized by a field- (oppositional) sensitive cognitive style, there is more extensive development of the right hemisphere of the brain, in contrast to other cultures where field-independent cognitive style and left brain functioning are emphasized. His most recent efforts to identify the connections among culture, hemispheric specialization, and cognitive styles are reported in Rogers, Ten Houten et al. (forthcoming). He observes that when a passage in the Hopi language is read to Hopi children, most of the electrical brain activity tends to be concentrated in the right hemisphere, but when the same passage is read in English, the electrical activity tends to emanate from the left hemisphere. This is without doubt a fascinating area of research which will attract the attention of many behavioral scientists in the near future.

The possible connections among language, culture, and cognitive styles open up many interesting avenues of research regarding the relation of bilingual/bicultural education to flexibility in personality development. Ramirez and Castaneda (1974) observed that Mexican American children who were more bilingual and bicultural (i.e., better able to cope with or function in both Mexican American and Anglo cultures) were also more bicognitive. That is, these children could switch between a field-sensitive or field-independent approach depending upon the requirements of the task they were presented with or the environmental characteristics of the situation. In addition to their ability to switch, bicognitive children also seemed to combine elements of field-sensitive and field-independent styles to develop new coping and problem-solving strategies. Findings obtained by Bain (1974, 1975) also support the observation that bilingual/bicultural children have more cognitive flexibility. Bain compared the performance of bilinguals and monolinguals on tests of mathematical ability, ability to make verbal analogies, and sen-

sitivity to emotional expression. He found that French-English and German-English bilinguals ranging in age from five to adulthood tended to perform all these tasks more readily and consistently than a matched group of monolinguals. These findings led Bain to conclude:

There is strong evidence that in general the bilingual child tends to have a greater cognitive plasticity than the unilingual child. To be sure there are myriad unresolved problems and contentious issues in this area of inquiry. But one issue around which there is agreement is that being raised and schooled in a bilingual manner represents a unique form of child development.

Cognitive Styles and Educational Institutions

In general, the American educational system appears to be insensitive to the cognitive style of most Spanish-speaking and other culturally different children. Cohen (1968, 1969, 1974), for example, has found that the educational system in this country reflects a preference for the analytic conceptual style (similar to field independence). She hypothesizes that many poor and culturally different children fail in school because their preferred conceptual style is relational (similar to field sensitivity).

After evaluating the effectiveness of educational environments on Mexican American children, De Avila and Havassy (1974) stated, "The conclusion to be drawn is that the curriculum approach taken with Mexican American children must be questioned, examined, and revised."

In a study of cognitive styles of teachers and students in several schools in Southern California, Ramirez (1973) found that the cognitive styles of most Anglo American children were more compatible with those of most teachers than were the cognitive styles of most Mexican American children. These findings are important when we consider the results of a study by DiStefano (1970). Field-dependent and field-independent professors were asked to describe graduate students by means of 21 bipolar semantic differential scales and 25 single adjective scales. The students--also classified as field sensitive or field independent--were asked to describe the professors in the same manner. Professors and students with similar cognitive styles tended to describe each other in highly positive terms, while those people whose cognitive styles were different had a strong tendency to describe each other in negative terms. In addition, DiStefano found that professors tended to give students whose cognitive styles were similar to their own higher grades than those students whose cognitive styles were different from their own.

Need for Conceptual Models

The research reviewed above points to the need for the development of conceptual frameworks that allow data on the psychodynamics of Hispano children to be translated into the formation and implementation of educational programs. Without conceptual models there is a danger of developing superficial bicultural/bilingual programs that fail to effect meaningful and lasting changes in the educational system. One major hazard is the tendency to rely on translations of English language curricula to Spanish without regard to cul-

tural differences in learning styles. Another risk is the inclination to rely on models that reflect the Anglo-Western European world view. For example, the models of Piaget and Bruner either ignore culture or allot it a very minor role. These models also tend to emphasize cognitive development vis-a-vis the physical environment, relegating the social environment, which figures so importantly in the cognitive development of children in Hispanic cultures, to a secondary role. This results in the perception of Hispano children as retarded and encourages development of programs that de-emphasize biculturalism and emphasize assimilation to mainstream culture.

Only two conceptual models proposed for Spanish-speaking children were identified in our literature review. De Avila and Havassy (1974) suggest a system that uses four Piagetian-based measures to generate two types of information by means of a centralized computer data-processing program. The first type of information is statistical in nature and is appropriate for program evaluation. The second type of information is directed toward teachers' needs and consists of activities specifically designed for each child in the classroom.

Another model, based on the conceptual framework of cognitive style, is suggested by Ramirez and Castaneda (1974). The model strives to develop biculturalism or cognitive flexibility in children. They recommend assessing cognitive styles in children and teachers through behavioral observation. Following this assessment, teachers and children are matched according to teaching and learning style preferences. The children are gradually introduced to the unfamiliar cognitive style and finally are instructed in the two different cognitive styles. The model also provides recommendations for training teachers to teach in both the field-sensitive and field-independent styles. Models such as these should be examined for possible use with other Spanish-speaking groups, and new models must be proposed based on research data relating to these children.

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Notes

1. Since the word "dependence" is too easily construed to mean "dependent personality" and/or used pejoratively, Ramirez and Castaneda (1974) prefer the term "field sensitivity," which better describes the perception of the social and physical environment characteristic of persons having this cognitive style.
2. Documents identified by an ED number may be read on microfiche at an ERIC library collection or ordered from the ERIC Document Reproduction Service, P.O. Box 190, Arlington, VA 22210.

IV. CULTURE

Examination of the issue of culture in the classroom reveals a sharp distinction between two general types of programs, both of which are designated as "bilingual/bicultural." One of these can best be described as assimilative, for it is directed toward teaching English and assimilating linguistically and culturally different children into the American mainstream culture as rapidly as possible (Kjolseth, 1973).

The other type of program may be described as pluralistic, or culturally democratic. Here, both English and Spanish are taught, and the culture, language, experience, psychodynamics, etc. of the children are all taken into consideration.

The assimilative program cannot be called with any accuracy "bilingual/bicultural." It is in reality little more than an English as a second language program. It is programs of the second type--pluralistic or culturally democratic in philosophy and approach--which are indeed bilingual and bicultural. We shall focus our comments regarding the issue of culture in education on the latter type of program.

Heritage and Self-Esteem

Inclusion of Hispanic culture in the educational process has often been cited as one of the major goals in the struggle for equality of educational opportunity in Hispano communities in the United States. The proponents of this position believe that children must have positive feelings toward their ethnic group and toward themselves in order to succeed in school and to be psychologically well adjusted. Many Spanish-speaking children are considered to have low self-esteem because of social discrimination and the tendency of the media and history books to perpetuate negative stereotypes (Morales, 1971; Martinez, 1973). These beliefs have some basis in fact.

Coleman and his associates (1966) reported on the self-concept of ability in Mexican American adolescents. Two of their questionnaire items were of particular relevance, since they reported on general self-perceived ability to learn. In response to both of these items, Mexican American children appeared slightly more self-deprecating as well as more undecided than the other children in the study. There appears to be

little doubt that self-concept of ability can functionally limit a child's ability to achieve. If the child perceives that he is unable to learn mathematics or some other area of behavior, this self-concept of his ability becomes the functionally limiting factor in his school achievement. (Brookover, 1955)

Research by Anderson and Johnson (1971) supports these conclusions. Reviewing the findings by the above investigators, Padilla and Ruiz (1973) state:

The most significant finding to emerge is that Mexican American children have relatively less personal confidence in their ability to achieve academically despite parental encouragement and high educational expectations. An implication is that the academic performance of Mexican American children may be improved by programs which increase confidence in their ability to succeed in school.

Additional evidence of a close relationship between self-concept and academic achievement can also be found in the reports of the Mexican-American Education Study conducted by the U.S. Civil Rights Commission (1972, 1973, 1974).

It is believed that exposure to heritage materials in the curriculum will improve a child's self-esteem by giving him a sense of belonging to a group with status and prestige. Maslow's (1962) theory of personality indicates that a sense of belonging is a human need of high priority, and that self-esteem must be preceded by and cannot exist without a sense of belonging. A study by Alvarez and Ramirez (1970) showed that Mexican American children who participated in Mexican and Mexican American heritage lessons at a school in Denver scored significantly higher on the Coopersmith Self-Esteem Inventory than a comparable group of Mexican American children in a community where heritage lessons were not available. Ramirez and Castaneda (1974) also note:

Children participating in the bilingual/bicultural program in Cucamonga, California (Ramirez et al., 1972), that included Mexican, Mexican American, and mainstream American heritage components, scored significantly higher on a measure of self-esteem at the end of the year than they had at the beginning of the year. The children also showed signs of better adjustment to school and were less frequently absent from school than children from comparable control classrooms.

Caution should be exercised to ensure that cultural materials in educational programs are not superficial in content or isolated from other aspects of the educational program. Kjolseth (1973) and Gaarder (1970) have indicated that in many bilingual programs, the cultural component is perfunctory. Cortes (1974) presents strategies for teaching the Chicano experience that would obviate the superficial use of heritage components in the curriculum. He recommends going beyond heroes and success stories and suggests the incorporation of family and community histories in the social studies curriculum. Rackley (1974) also provides valuable recommendations for ensuring that cultural materials reflect the values of the ethnic group involved. Materials such as these can also be useful for sensitizing teachers to the sociocultural systems of the children they teach.

Values and Teaching Strategies

Cardenas and Cardenas (1973) argue that the academic failure of children from different cultural and linguistic groups is the result of a lack of compatibility between the characteristics of minority children and the char-

acteristics of typical instructional programs. They call for more than inclusion of heritage materials in the curriculum: they propose instructional programs that fit the child.

Ramirez and Castaneda (1974) also argue that the cultural component in bicultural/bilingual programs should go beyond history, celebration of holidays, and use of cultural artifacts. They emphasize that values affect the dynamics of the learning process. In particular they are concerned with the role that values can play in interpersonal relationships, teaching styles, and parental involvement. Gonzalez (1974) agrees with this point of view and suggests a system for categorizing those Hispanic values with which teachers should be familiar.

Castillo and Cruz (1974) have identified the competencies that they feel are necessary for teachers working with Spanish-speaking children. They also have developed a process to assess a teacher's possession of these competencies in three areas--enhancing verbal and interactional behavior, developing curricular activities that build positive self-concept and self-esteem, and developing liaison among parents, the school, and the child.

Ramirez and Castaneda (1974) encourage familiarizing teachers with the values of Mexican American culture and describe a technique they have employed to accomplish this. With the help of a consultant, teachers are asked to analyze and discuss stories told by Mexican American students in response to pictures of educational scenes. The stories depict interpersonal conflict with peers, parents, and school personnel as a result of value differences between the culture of the school and that of the home and neighborhood. Other teacher-training programs have also developed techniques and materials for sensitizing teachers to the values of their students. The bicultural/bilingual teacher-training program at the University of Massachusetts at Amherst places teachers with families in the barrio (Scott, 1974). The Cultural Awareness Center at the University of New Mexico has developed materials and procedures that are aimed at encouraging teachers to become aware of their own value systems as well as those of Hispanos and Native Americans (Aragón, personal communication). The Teacher Corps program of the New York City Board of Education also sensitizes trainees to the values of Hispano groups in New York City (Travieso, personal communication).

Materials and procedures for developing teachers' understanding of the value systems of Hispano children are most critical to the success of bilingual education because they frequently deal with the very sensitive area of attitude change. Great care, however, should be taken to ensure that stereotyped materials such as those of Christian and Christian (1966) are not used for this purpose.

Ramirez and Castaneda (1974) indicate that in addition to helping teachers understand the values of Mexican American culture, it is also important to familiarize them with the teaching styles of Mexican American parents so that they will be able to match their own teaching strategies to the learning styles of Mexican American children.

To facilitate this type of teacher training, a set of strategies based on research data and entitled Culture Matching Teaching Strategies has been identified by the Culturally Democratic Learning Environments Follow Through Model, University of California, Santa Cruz (Ramirez et al., 1974).

Recently, Laosa (1976) has also reported results that show that Mexican American and Anglo American mothers of the same socioeconomic class use very different teaching strategies. Laosa's sample consisted of 40 mothers and their five-year-old children. Twenty of the mother-child dyads were Mexican American and 20 were Anglo American. Each mother and her child were observed in their home by trained bilingual observers. Mothers were asked to teach their children how to solve a problem involving perceptual-cognitive and motor abilities. The mothers' behaviors were recorded by the observers. Examination of the ratio of verbal to nonverbal interactions for each ethnic group showed that the interactions between Mexican American children and their mothers were more frequently nonverbal than verbal. The interactions between Anglo children and their mothers, on the other hand, were more verbal. Analysis of the interactions to determine the nature of the verbal and nonverbal behaviors revealed the following ethnic group differences: Anglo mothers asked more questions of their children than Mexican American mothers; Mexican American mothers gave their children more commands and did more teaching by modeling than Anglo American mothers. The above results indicate that cultural values are closely related to teaching strategies and that teacher training programs need to be more responsive to this relationship.

Parent Involvement

One of the most important changes that inclusion of culture has brought about in education has been the development of parent involvement programs and procedures. In a paper on parent involvement in federally funded programs, Datta (1973) reviews the great impact that these programs have had on both the schools and on parents who are poor and/or members of ethnic groups that have previously been excluded from participation in the educational process. She found that parents who were extensively involved in the schools were more confident of their ability to control their environment and saw themselves as more successful and more skillful.

To make parent participation effective in bilingual programs, it is necessary to train staff members to become specialists in this area. The New York City Board of Education requires credentials in school community affairs (Collazo, personal communication). The Cucamonga Follow Through Project (Yeager, 1973) trains Parent Teacher Associates who not only take curriculum materials into the home so that parents can use them with their children but also involve parents in all aspects of the program. The Edgewood Independent School District has developed workshops for parents that make information on child development and bilingual education available and encourage parents to become effectively involved in the educational process (Gamez and Esquivel, personal communication). A number of practical steps for promoting increased community and parental involvement in bilingual programs are also presented in Saville and Troike (1971).

Different strategies of parent involvement may have to be developed for some subgroups of Latinos. Rivera Medina (1974) has indicated that some of the techniques and strategies that have been developed with Spanish-speaking groups in the United States are inappropriate for parents in Puerto Rico. He argues for the need to conduct an intensive anthropological and sociological study in a community before developing a program of parent involvement.

The importance of parent involvement in bilingual programs cannot be emphasized enough. In the St. Lambert (Canada) and Coral Way (Florida) programs, both of which have been successful, parent involvement has contributed significantly to the broad community support for the programs. A major problem that merits attention from both researchers and program directors is that in ethnically diverse communities, members of non-Spanish-speaking groups frequently assume that bilingual education can only benefit Hispanos, and as a consequence they become alienated from the programs. In such situations, the role played by the local director and the home-community liaison specialists becomes critical in ensuring that all segments of the community are actively involved in the program. Strategies that have succeeded in involving the whole community should be identified and publicized. Examination of the social characteristics and history of communities that have successfully involved parents and achieved wide acceptance of bilingual programs should be encouraged.

Biculturalism and Respect for Cultural Diversity

The fear that bicultural/bilingual education will result in separatism is often voiced by persons who are unfamiliar with the goals of these programs. The emphasis on improving the self-esteem of Hispano parents and children through inclusion of Hispanic culture in the educational process leads some to the inaccurate conclusion that this is an attempt to create Hispanic nationalistic feeling rather than an attempt to develop a bicultural identity that will help children learn how to function effectively in both Hispanic and mainstream American cultures and develop positive feelings toward each. As Saville and Troike (1971) point out:

A cultural component of a bilingual program which teaches respect for and acceptance of the cultural values of the minority group, and which informs the child about his own cultural heritage, lays the foundation for his growth as a secure, well-balanced adult who can make a positive contribution to our society.

Another goal of bicultural/bilingual education is also antithetical to separatism: respect for the languages, values, and lifestyles of other cultures both within and outside of the United States. There is some evidence to indicate that bilingual/bicultural programs are successfully accomplishing these goals. Referring to English Canadian children whose elementary schooling was primarily in French and who, after grades 5 and 6, were functionally bilingual, Lambert and Tucker (1972) state:

It is certain that the children now feel they can be at ease in both French and English-Canadian social settings and that they are becoming both French and English in certain regards; but not becoming less English as a consequence.

Research by the Culturally Democratic Learning Environments Model showed that children in that bilingual/bicultural program became more positive toward mainstream and Mexican American cultures and also toward other languages and lifestyles (Ramirez et al., 1974).

Current indications, then, are that bilingual/bicultural programs are not only making children more aware of the diversity in our society, but also more respectful and accepting of that diversity.

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Notes

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V. ASSESSMENT

Assessment in bilingual education is a crucial and controversial area. Since decisions that will be made on the basis of assessment may, in fact, determine the future of the bilingual education experiment in American public education, the controversy over assessment is both emotional and intense.

Assimilation or Cultural Democracy?

At the heart of some of the assessment controversies are basic differences in goals and educational philosophies. There are some who view bilingual education from the perspective of compensatory education and others whose perspective is cultural pluralism. As pointed out in previous chapters of this report, those who subscribe to the compensatory education point of view see bilingual education as a means for assimilating children into the mainstream American middle class. They believe that Spanish should be taught only for the purpose of making Hispano children more comfortable while they are being assimilated and for ensuring that they do not fall too far behind in conceptual development while they become proficient in English. Those who view bilingual education from the perspective of compensatory education subscribe to the philosophy of the exclusionist melting pot.

Those whose philosophical orientation is cultural pluralism or cultural democracy believe that inclusion of Hispanic culture and the Spanish language in the educational process is a means of teaching lifestyles and values that have previously been excluded and ignored by schools. Bilingual education, thus, is perceived as a vehicle for producing change in an educational system that is ethnocentric, and unresponsive to the unique psychodynamics of many Americans. Moreover, bilingual education is viewed as a method for making American public education more responsive to individual differences. Bilingual education is also seen as a means of opening the doors of educational institutions to those segments of the community that have not participated in the educational process in the past.

When and What to Assess?

Differences in regard to the goals of bilingual education and the educational philosophy on which bilingual programs should be based lead to differences on the questions of when to conduct a national evaluation and what the criteria of success should be. Those who do not recognize the complexity of the effort hold that after ten years, it is now "time to see if bilingual education works." Their criterion for success is achievement in English and math. They argue, therefore, that present instruments and models for assessment are adequate and can provide an accurate picture of the success or failure of bilingual education.

The cultural pluralists argue that a national evaluation at this time is premature. They state that there has been insufficient time for bilingual education to achieve change in American public education. They point to obstacles that most programs have had to overcome: (1) severe opposition from those who hold negative attitudes toward bilingual education; (2) unavailability of curriculum and teacher training materials; (3) scarcity of research data that could provide direction for planning and implementation of bilingual programs; (4) scarcity of bilingual teaching, administrative, and assessment personnel; and (5) inappropriateness of most assessment instruments and models.

Assessment Personnel

Garcia and Zimmerman (1972) investigated the relationship of examiner ethnicity and language to the performance of bilingual Chicano children. Their findings were that children performed significantly better when the examiner was of the same ethnic background and spoke the same language as they did. Bernal (1971) compared the performance of Chicano and Anglo children on two specially adapted concept-learning tasks. The tasks were administered to the children under two different approaches: (1) according to standard printed directions and (2) under facilitation conditions (use of colloquial Spanish terms by the examiner and practice, including feedback, on similar test items). Bernal found that Mexican Americans scored significantly higher under the facilitation conditions, and that while Anglos did better under standard administration, there were no significant differences between the two groups using the facilitation strategy. Taking into consideration the results of the two studies cited above, Ramirez and Gonzalez (1972) have argued that Chicano children would perform better on tests if examiners employed behaviors similar to those observed in teachers whose cognitive styles are field sensitive.

Instruments

Moreno (1970), De Avila and Havassy (1974), and Ramirez and Gonzalez (1972) have argued that traditional testing approaches and instruments tend to depress the performance of Hispano children. Most test instruments and the atmosphere in which testing is conducted are inappropriate, for the following reasons, for use with children who are not members of the mainstream American middle class:

- (1) Most assessment instruments have not been validated or designed for use with Hispano children. Although attempts have been made to show that some standardized tests are reliable for use with children from culturally and linguistically different groups, they are confounded by many variables that affect test scores. (For a good example, see Hurst and Mishra, 1970.)
- (2) Traditional assessment instruments often employ language that is not understood by Hispano children. Either the children do not understand English, or the vocabulary that is employed is unfamiliar to them (Chandler and Plakos, 1969). Furthermore, translations of tests of English into Spanish are unacceptable because the content is culture-bound, or the dialect of Spanish into which the test is translated may be unfamiliar to the testees. (For one example of this type of error, see Keston and Jiminez, 1954.)

(3) The content of many assessment instruments is culture-bound. The material often has little or no relevance to the lives and interests of Hispanic children or is completely unfamiliar to them. Mercer (1972) has found that there are no significant differences on scores of standardized IQ tests between Mexican American children of acculturated families and Anglo American children. This would indicate that the lower scores obtained by children from nonacculturated Mexican American families are due to contextual or other factors unrelated to intelligence.

(4) The nature of the traditional testing situation is often foreign and frightening for Hispanic children. Because of differences in experience, these children are very often not prepared to cope with the conventional testing situation. For example, to perform on a test where individual competition is emphasized or implied may result in depressed scores for Chicano children who have been socialized in traditional Mexican American communities. Kagan and Madsen (1971), for example, have observed that Chicano and Mexican children do not perform as well as Anglo children under conditions of individual competition.

(5) Finally, and perhaps most importantly, the cognitive style reflected in the assessment instruments may not be that which is preferred by many Hispanic children (Cohen, 1969; Ramirez and Castaneda, 1974). Thus, although the content could be culturally suitable or so-called "culture fair" and the language of the instrument appropriate, the test could still penalize the children because of factors of cognitive style.

To avoid the biases of standardized achievement tests, many bicultural/bilingual programs are now using criterion-referenced measures. Popham and Husek (1969) articulated the distinction between criterion-referenced and traditional norm-referenced instruments as follows:

A norm-referenced measure is used to identify an individual's performance in relation to the performance of others on the same measure. A criterion-referenced test is used to identify an individual's status with respect to an established standard of performance.

However, it is important to recognize that criterion-referenced tests are not a panacea, since their content, format, and administration may be the same as those of standardized tests. (Cohen, 1969, has warned about this pitfall with so-called culture-fair tests.) There is a definite advantage to these tests, however, since they measure the mastery of information, skills, etc. that children have actually been taught and do not involve comparisons of performance in relation to others. In a recent paper, Olmedo (1976) cites warnings articulated by Drew (1973) to the effect that criterion-referenced instruments are also vulnerable to bias, and issues such as how and by whom the criteria are determined and what is to be included are of central importance.

There are many "traps" inherent in personnel and instrumentation variables that can easily result in misleading data, which can then be used to depict successful bilingual programs as ineffective, and vice-versa.

Assessment Models

Educational leaders consider the following points paramount in determining the appropriateness of models for evaluating bilingual education:

- (1) Short-range goals, which may be different from those of traditional programs, should be made explicit and assessed with criterion-referenced tests.
- (2) Long-range goals should encompass the degree to which biculturalism and bilingualism have been developed in children and the degree to which the development of the Hispano community has been stimulated in such areas as increased career opportunities and involvement in community affairs.
- (3) Assessment should be multidisciplinary in approach. In addition to educators, psychologists, and linguists, it should involve sociologists, historians, political scientists, urban studies specialists, and economists.
- (4) Assessment models should be designed by persons who are experienced in planning and implementing bilingual programs. We cannot rely on traditional models of assessment to evaluate bicultural/bilingual programs. It should be recognized that bicultural/bilingual education represents a revolution in educational philosophy, approaches, materials, and teaching strategies, and this revolutionary spirit and theme must be reflected in the uniqueness of the assessment model adopted to determine the effectiveness of these programs. It simply does not make sense to use outmoded instruments to evaluate programs that are seeking to change the very system that has encouraged their development.

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VI. RECOMMENDATIONS ON THE FUNDING OF RESEARCH

Organizational Priorities

To identify areas in which research is needed is a simple task; to establish priorities for research within the limitations of the funds likely to be available is much more difficult. In fact, the first priority is to establish the means by which funding of research can be planned on a long-range basis. The first recommendations, therefore, concern the organization of the distribution of funds and information.

(1) There is a pressing need for a central office of research, funded for an extended period, e.g., seven to ten years, which can organize, contract for, and coordinate research projects, some of which may take several years to complete. Such an office would be responsible for compiling linguistic statistics and for establishing needs and priorities in research on a coherent and long-range basis. It is crucial to the success of such an office that it should be given a reasonable degree of autonomy, and for this purpose, long-term funding rather than year-by-year funding is essential. The office of research would require a full-time director and staff who would not be directly engaged in research themselves, although they would be professionally qualified to conduct research in relevant areas and thus capable of evaluating and coordinating the investigations carried out under their auspices. Because of the varied nature of the research, the office would require multidisciplinary staffing and skilled personnel in all relevant areas.

(2) There is an equally urgent need for a central information office for bilingual education. This office would have two responsibilities: (a) to provide educators with up-to-date information on linguistic research, curriculum development, and other subjects relevant to bilingual education and (b) to promote bilingual education by informing the public--through pamphlets, posters, the press, radio, television, public meetings, etc.--of its advantages and disadvantages, costs and benefits.

For both these goals, the information office needs to be more than an information clearinghouse; it must act as a filter, an amplifier, and a modulator. For this reason, such an office must also be staffed with personnel who are qualified to evaluate critically the material they are dealing with, with a view to deciding on its relevance for a particular audience.

These two offices could be established either as subdivisions of an existing agency, such as the Multicultural Task Force of NIE, or as independent agencies. In either case, they would require substantial long-range funding from government sources and/or private foundations. The next two recommendations concern channels for the distribution of those funds available at present for research in bilingual education.

(3) There is a need to establish research centers at certain selected Title VII sites throughout the country. Many local programs are being successfully implemented, but there is a lack of facilities and personnel to perform the research necessary to ensure the future success of bilingual programs. The logical base for such centers would be at universities where there are at present qualified and interested scholars who could conduct longitudinal studies of bilingual programs. The programs in St. Lambert and Culver City have benefited from their proximity to the universities at which they have been evaluated, and the cost of the research has been only a fraction of that which an outside investigation would have required.

The centers should be organized on an interdisciplinary basis wherever possible. In some instances, this might require the cooperation of scholars from several universities within a particular geographic area. Moreover, there is a need to train qualified researchers who belong to different ethnic and linguistic groups. This is essential if the research is to be carried out with an understanding of the culture being studied. For obvious reasons, most of the research that has been carried out until recently was conducted by members of the dominant English-speaking culture, and this has made it more difficult to obtain reliable data on such crucial issues as attitudes, objectives, expectations, and anxieties. The establishment of research centers at universities would make it easier to support bilingual students and involve them in much-needed research while they are obtaining their degrees.

(4) There is also a need to fund an increased number of small-scale research projects, particularly since in recent years university funds for faculty research have shrunk alarmingly. Many interesting projects could be carried out locally by faculty members at much less expense than bringing in an outside research team. One possibility would be to make available summer grants for small-scale research projects. The screening criteria for the first award should not be unreasonably stringent; further grants would depend upon effective use of the original funds. The results of the research should be reported to interested persons. The risk involved in such awards would be less than in a single large-scale project. However, the chances of success would be increased if the topics of research were restricted and some attempt was made to keep scholars in touch with other investigators dealing with the same or related topics. Another possibility would be to fund planning grants for research proposals that look promising but are not sufficiently well developed to justify immediate funding.

Areas of Highest Priority for Research

It is obvious from the discussion in Chapters II-V that there are numerous areas in which research is urgently needed. However, many of these needs have been identified and stressed on previous occasions. For example, the recommendations of the Maryland Conference on Bilingual Education (Bureau of Research, USOE, 1969) cover a very wide range of topics on almost every aspect of bilingual education, yet they remain largely unimplemented. To say that everything is important and urgent offers very little guidance to those in charge of distributing funds. Consequently, we are listing only a small number of research areas, all of which should be given the highest priority in funding. This should not be taken to imply that we consider the other areas unimportant. We have tried to identify those areas in which

research is not only vitally urgent but also those in which, it seems to us, there is the greatest probability of obtaining results that would be of immediate practical value to those engaged in the planning and practice of bilingual education. This, we believe, should be the guiding principle in establishing priorities for the allocation of research funds.

(1) There is a need to study the different varieties of Spanish used in the U.S. and the extent to which local variation affects intelligibility. The investigation should be carried out with the specific aim of providing information relevant to the planning of language programs and the development of curriculum materials at all levels. It is important that this investigation should emphasize the study of vocabulary and language use and should not concentrate on phonological and grammatical features.

(2) There is a need for community studies, in areas where bilingual programs exist or are being introduced, to investigate the attitudes, hopes, and fears of all sectors of the community with regard to bilingualism and bilingual education. This kind of research cannot be carried out in one location and the results extrapolated to other areas; it must be carried out separately in each major geographical and/or linguistic division.

(3) There is a need for longitudinal studies of existing bilingual programs to determine what contributes to their success or failure. It is necessary to investigate curriculum planning, teaching strategies, and educational materials with a view to determining their suitability for a particular type of situation.

(4) There is a need to investigate the necessary requirements for teachers in bilingual education programs. At present, a number of schools of education are introducing degrees in bilingual/bicultural education. However, in many cases, this simply consists of relabeling and regrouping courses already in the curriculum. A program in bilingual/bicultural education seldom involves the hiring of new faculty to teach new courses appropriate to preparing teachers for a bilingual/bicultural situation. Since one of the aims of the bilingual education program is to remedy the ills of the past that were partly caused by inadequate teacher preparation, this subject calls for particularly careful attention.

(5) There is a need to determine how to change the negative perceptions that many teachers have of Spanish-speaking children. Many teachers view these children as deficient and their behavior as pathological. Inservice teacher-training workshops are simply not doing the job in this area. This need is going to become more acute as more states follow the pattern, set by California and Texas, of requiring special training programs for personnel in school districts having high concentrations of Spanish-speaking children.

(6) There is a need to develop instruments and assessment procedures that are consonant with the psychodynamics of Hispano children. Research should also be oriented toward development of multidisciplinary assessment models that focus not only on the effects that bilingual programs can have on children and teaching personnel, but also on parents and the community at large. Assessment should be planned to provide teachers and administrators with feedback that they in turn can use to improve instruction and the overall functioning of the program. Assessment problems have plagued bilingual programs since the inception of the Bilingual Education Act. A review of

several reports of local projects indicates that assessment is usually not based on the goals and objectives of the program and that assessment instruments and procedures are inappropriate for Spanish-speaking children.

(7) There is a need for research on the learning styles of Hispano children and on how these styles differ from those reinforced by most schools. Investigation should also be made of how curriculum materials and teaching strategies can be adapted to these learning styles. The relationship of language and bilingualism to preferred learning styles should be examined, along with the effects of teaching strategies, curriculum materials, and assessment practices and instruments on learning styles of Hispano students.

(8) There is a need to investigate the psychodynamics of biculturalism. The relationship of biculturalism to achievement in school and to psychological and social adjustment in general should be investigated. How is biculturalism defined and viewed by the different Hispano ethnic groups and subgroups? How does bilingualism affect biculturalism? This information could help the delineation of goals of bilingual programs in different regions of the country.

(9) There is a need to identify factors of intra-ethnic variability in Hispano groups. Such information would be useful in attempts to understand acculturation processes, in designing bilingual program models compatible with the values and experiences of different subgroups, and in determining how this variability should affect educational policy.

(10) Research in Puerto Rico must be encouraged in all areas related to bilingualism and bilingual education. In addition to linguistic, sociological, and psychological studies, research should focus on the unique situation of the families who have returned there from the U.S., as this promises an exceptional view of acculturation.

APPENDIX A

PERSONS CONSULTED

- ARIAS, Antonio. Centro Intercultural de Documentacion, Mexico.
- ARMAND, Yvette. Spanish Curricula Development Center, Miami.
- BARRERA, Aida. Carrascolendas, Center for Communications Research, University of Texas at Austin.
- BECERRA, Gloria. Division of Bilingual Education, United States Office of Education.
- CAMPBELL, Russell N. Department of English as a Second Language, University of California, Los Angeles.
- CANTERO, Herminia. Bilingual Education Department, Dade County Public Schools, Miami.
- CARAZO, Maria M. Region Educacional de San Juan, San Juan, Puerto Rico.
- CARAZO, Medardo. School of Education, University of Puerto Rico, Rio Piedras.
- COLLAZO, Elva. Bilingual teacher in school and community relations, Brooklyn.
- DE AVILA, Eduardo. Bilingual Children's Television, Oakland.
- DIAZ-GUERRERO, Rogelio. Department of Psychology, National Autonomous University of Mexico, Mexico City.
- DIAZ-GUERRERO, Mrs. Instituto Nacional de Ciencias del Comportamiento y de la Actitud Pública, Mexico City.
- ESQUIVEL, Adelina. Parent Education program, Edgewood Independent School District, San Antonio.
- FISHMAN, Joshua A. Yeshiva University, New York.
- GAMEZ, Gloria. Title VII Bilingual program, Edgewood Independent School District, San Antonio.
- GOMEZ, Severo. Texas State Department of Education, Austin.
- HARTMAN, Encida. Spanish Curricula Development Center, Miami.
- IZCOA, Ada Elsa. State University of New York at Old Westbury.
- KABETZSKY, Joseph. School of Education, University of Puerto Rico, Rio Piedras.
- LA FONTAINE, Hernan. Office of Bilingual Education, Brooklyn.

- LOPEZ-PRITCHARD, Beatriz. Bilingual teacher in school and community relations, Brooklyn.
- MACKEY, William F. International Center for Research on Bilingualism, Laval University, Quebec.
- MACNAMARA, John. Department of Psychology, McGill University, Montreal.
- MARCUS, Ms. Follow Through Project, Las Vegas, New Mexico.
- NATALICIO, Diana S. Department of Modern Languages, University of Texas at El Paso.
- ORNSTEIN, Jacob. Department of Linguistics, University of Texas at El Paso.
- PEÑA, Albar. Bilingual Division, University of Texas at San Antonio.
- PIZARRO, Mercedes. Escuela de Papa Juan XXIII, Bayamon Norte, Puerto Rico.
- POLITZER, Robert. Center for Research and Development in Teaching, Stanford University.
- RAMIREZ, Arnulfo. Center for Research and Development in Teaching, Stanford University.
- RAMIREZ, Louisa. Spanish Curricula Development Center, Miami.
- REYES, Isabel. Instituto Nacional de Ciencias del Comportamiento y de la Actitud Pública, Mexico City.
- RIVERA-MEDINA, Eduardo. Department of Psychology, University of Puerto Rico, Rio Piedras.
- ROBINETT, Ralph. Spanish Curricula Development Center, Miami.
- STRONG, Lillian. Centro de Terapia Educativa, Santa Maria, Rio Piedras, Puerto Rico.
- TRAVIESO, Lourdes. Bilingual Teacher Corps, Brooklyn.
- TROIKE, Rudolph C. Center for Applied Linguistics, Arlington, Virginia.
- TUCKER, G. Richard. Department of Psychology, McGill University, Montreal.
- VALENCIA, Atilano. Department of Education, Highlands University, Las Vegas, New Mexico.
- VELKAS, Carmen. Bilingual Resource Center, Brooklyn.
- WALZER, LeRoy. Division of Bilingual Education, United States Office of Education.
- YEAGER, L.E. Follow Through Project, Cucamonga Elementary School, Cucamonga, California.

APPENDIX B

RESOURCES FOR BILINGUAL/BICULTURAL EDUCATION

The difficulties facing those setting out to design and implement a bilingual/bicultural education program are many, not the least of which is the lack of materials, trained personnel, and community involvement. Likewise, resources are scarce for those interested in undertaking research in bilingualism or related areas. This section will describe some of the problems, identify some areas where resources and materials are most greatly needed, and indicate some available resources.

Curriculum Development

Commercially available curriculum materials now in existence have proven to be unsatisfactory for use in bilingual education programs in the U.S. At the beginning of the bilingual education movement, the primary sources for materials written in Spanish were Spain and Mexico. These materials, however, were not linguistically appropriate, since few Spanish-speaking communities in the U.S. used the particular variety of Spanish that appeared in these texts. For similar reasons, most of the materials developed by U.S. publishers were also unsatisfactory. It appears that publishers, anxious to take advantage of this new and growing market, produced curriculum materials which, although advertised as bilingual, were in fact badly designed and even linguistically inaccurate. Some of these materials were no more than traditional English texts poorly translated and given colorful new packaging for resale.

In addition to failing to design materials in which the language is appropriate for the various Spanish-speaking populations, commercial publishers have been unable to produce materials whose content is relevant. Some have been naive enough to believe that by darkening a few faces in illustrations, their translations of outdated materials constitute a bilingual/bicultural curriculum. In 1973, the state of California conducted a review of materials submitted by publishers for adoption in the area of bilingual/bicultural education. While some texts were selected as better than others, no series met the expectations of the reviewers or could be considered to meet the minimum standards for all of the criteria.

The contents of commercially available bilingual/bicultural materials have not presented honestly or with any consistency the cultures of the populations concerned. Nor have the publishers taken into consideration the appropriateness of the procedures necessary for using these materials. For example, are these procedures suited to the cognitive styles of the children for whom they are intended? Are the techniques suggested for motivation appropriate?

In their evaluation of Title VII bilingual education programs, Development Associates of Washington, D.C. state that

adequate materials, in Spanish, in language arts, culture and heritage, science, math, and social studies are generally not available. Materials on culture, heritage, and history are most

difficult to acquire, except where teachers and curriculum specialists have developed their own (1973).

Because of the obvious lack of suitable materials, curriculum-writing efforts were begun at various levels across the country, supported for the most part by federal, state, or local funds. The large-scale efforts were hampered by their assumption that they would be able to develop materials that would somehow suit the needs of Cubans in Florida, Puerto Ricans on the East Coast and in Puerto Rico, and Mexican Americans in the Southwest, either by incorporating their differences or by washing them out. The more successful first efforts were those attempted on a smaller scale for a much smaller population, focusing on the language and culture of a particular community. It is unfortunate that most of these materials, especially those prepared by individual teachers, have not been prepared for distribution and remain unavailable and unpublicized.

One type of effort in curriculum development that has recently attracted much interest is the production of two bilingual television series for children. The first, Carrascolendas, was developed at the University of Texas at Austin, Center for Communications Research, under the direction of Ms. Aida Barrera, and focuses on the affective domain. In the second, Villa Alegre, developed under the directorship of Dr. René Cárdenas at Bilingual Children's Television in Oakland, use has been made of the research of De Avila and Havassy (1974, see previous chapters) in designing the program.

A series entitled "Infinity Factory" is being produced by the Education Development Center of Newton, Massachusetts. This series is designed as an "ethnic approach to math" and utilizes cultural settings. It began broadcasting in fall, 1976.

Since preparation of materials for bilingual/bicultural education was begun some six or seven years ago, some curriculum programs have been developed which have much promise and which could meet the needs of many communities and bilingual programs, albeit with local alterations or supplements. There is a problem of dissemination, however, for no completely successful means of "advertising" or distribution has been found, although the Dissemination Center for Bilingual Bicultural Education in Austin, Texas and the ERIC system have made many materials available and have been able to publicize their services better than other agencies. (See Resources Summary.)

Available Curriculum Materials

It is obvious that selection of curriculum materials must be based on their appropriateness for the child being instructed. It is certainly beyond the scope of this report to review all existing curriculum materials, and it would be impossible to attempt to describe the potential usefulness of even a small portion of the materials. Moreover, part of this work has already been completed, as evidenced by bibliographies informally circulated among teachers and educators.

One of the most useful resources for locating curriculum materials is the monthly publication Cartel: Annotated Bibliography of Bilingual Bicultural Materials, produced by the Dissemination Center for Bilingual Bicultural Education. (Cumulative issues are distributed each year.) We found that the curricula brought to our attention by word of mouth, by response to our

written inquiries, or from other bibliographies were, with a few exceptions, included in Cartel. In addition to the materials produced by major curriculum-writing projects such as the Spanish Curricula Development Center in Miami, or the Curriculum Adaptation Network for Bilingual Bicultural Education (CANBBE) in San Antonio, Cartel includes title, description, and ordering information for materials developed by individuals, smaller projects, and commercial publishers.

The entries in Cartel are divided into the following areas: arts and crafts, audiovisual materials, bibliographies and resource materials, biographies, calendars, career education, children's literature, cooking, dictionaries, early childhood education, English and Spanish as second languages, European Americans, evaluation, holidays, library readings, mathematics, music, games and dances, parental and community involvement, teacher education, science, social studies, and African, Afro-American, American Indian (including Alaskan and Eskimo, Cherokee, Navajo, Pomo, and Seminole), Asian American, Chamorro, Chinese, French, Hispanic, Portuguese, Puerto Rican, and Russian languages and cultures.

Very few references for materials published outside the United States are included, thus eliminating the linguistic and cultural problems associated with the foreign texts mentioned previously. Nonetheless, the items described must be carefully judged by each teacher or project considering their use. It should also be noted that the areas apparently in greatest need of materials (and, no doubt, research on which to base their development) are parent and community involvement, teacher training, Cuban language and culture, and all curriculum areas at the intermediate (grades 4 through 6) level. In no way do we mean to imply that there are sufficient or satisfactory materials for the other areas or grade levels, although there appear to be more titles available. The point is that each teacher, project, or community must identify its own set of criteria by which to judge materials, and many available materials will not meet these criteria. (It might also be noted that guidelines or notes on establishing such criteria would be of great assistance to many communities.)

Another resource which is apparently underutilized is the Materials Acquisition Project (MAP) in San Diego, which has collected in excess of 20,000 titles, primarily story books and instructional texts. Through its publication, Materiales en Marcha, MAP informs subscribers about recent acquisitions. As there is no formal system of public information, the publication does not reach many projects that might use this resource. A number of volumes, however, are available through the ERIC system.

MAP has collected titles from Spanish- or Portuguese-speaking countries in North and South America and Europe. Unfortunately, very few of these materials suit the cultural or linguistic needs or backgrounds of Spanish-speaking communities in the United States, and the language used in most of them would require teachers to make extensive explanations or revisions (Development Associates, 1973).

Other collection and dissemination efforts are being conducted by state and local agencies. The Office of Bilingual Education, 110 Livingston Street, Brooklyn, New York 11201, for example, has been collecting both commercial materials and some prepared by local programs and teachers. Efforts such as these appear to be quite successful in getting information about their

resources to local schools and programs, and their materials, since developed locally, are often more appropriate for those communities than other resources. (Many, however, are not equipped to provide services outside their local area.)

Another example of a local or smaller effort is the Follow Through Model Sponsor, "Culturally Democratic Learning Environments," at the University of California, Santa Cruz. This project, implemented in a community in Southern California, has created curriculum materials for grades K-3 and distributes them at cost to any teacher or project requesting them. Again, however, there is no formal system for publicizing the existence of these materials.

The ERIC system is an excellent source of locally developed bilingual/bicultural curriculum materials. Various bibliographies on these materials have also been processed into the system.

Teacher Training

While teacher training in bilingual/bicultural education theory, methods, techniques, and objectives cannot guarantee successful programs, one can be certain that without trained teachers bilingual programs have little chance of meeting their objectives.

When a bilingual program is initiated, teachers are generally given some orientation and inservice workshops. Until recently, even those programs that had a position available for a teacher trained in bilingual/bicultural education could not find qualified applicants.

As bilingual/bicultural programs continue to grow, interest in this area of teaching has greatly increased among teacher candidates in colleges and universities. In response to the demand, teacher education departments have begun to offer training in bilingual/bicultural education. It is beyond the means and scope of this report to determine which institutions of higher education in the U.S. are offering these specialized courses. However, indications are that many colleges and universities have begun to offer one or two courses in bilingual education, an offering that is obviously inadequate. Such courses are as worthwhile as the instructor's capabilities and resources permit, and consequently vary from one extreme to another in content and quality. Attempts to go beyond such "one-course" programs may be seen at the University of Texas at San Antonio, under the direction of Dr. Albar Peña; at Highlands University; at the University of Texas at Austin, under Dr. George Blanco; at Stanford University, under Dr. Alfredo Castañeda; at San Diego State University, under Dr. Manuel Reyes Mazon; at the University of California, Santa Barbara, under the directorship of Dr. Gustavo Gonzalez; at the University of Arizona (the Santa Cruz Program); and at the University of Massachusetts, under Dr. Sylvia Viera. Such efforts seem to be increasing. As yet, there is as much difference of opinion regarding the goals of these programs and the needs of future teachers as there is about the goals of individual programs. No study came to our attention that outlined and substantiated the skills necessary to teach in a bilingual/bicultural education program; such a study might well assist teacher supervisors and teacher education programs in providing training in those areas of greatest need and/or importance. The one exception is the delineation of competencies necessary for teaching bilingual/bicultural preschool programs,

developed at the Center for Applied Linguistics under the supervision of Dr. Gustavo Gonzalez for the Office of Child Development. While specifically identified as competencies for preschools, many of these are applicable to other levels.

The main thrust of teacher training continues to be inservice programs. Events such as the Lau vs. Nichols case and the passing of SB3.3 in California and similar bills in Texas and New York have added great impetus to inservice efforts. Although most training of this type is offered locally, state education agencies can provide information regarding forthcoming workshops and training sessions throughout the state. Title VII projects, local schools, boards of education, and other agencies and individuals are beginning to combine their efforts, resulting in workshops such as the one held at the University of California, Riverside in January 1973 and again in 1974.

The Education Amendments of 1974 provided massive federal funding for teacher training. It was to help create quality programs that the Center for Applied Linguistics organized the conference which produced the competency-based Guidelines for the Preparation and Certification of Teachers of Bilingual/Bicultural Education (see p. 24). These Guidelines were subsequently endorsed by the National Advisory Council on Bilingual Education, and a national conference was held in Albuquerque in March 1975 to detail their implementation in preservice programs and their adaptation to inservice programs.

Some community colleges, school districts, etc. offer series of courses designed for the teacher already in the classroom: an excellent example is that offered in Miami under the direction of Rosa Inclan and Herminia Cantero.

There is little data on the effectiveness of these inservice programs, and little prospect of gathering such data. At this point, it seems that the completion of evaluation forms by participants is the primary means of improving workshop offerings and of determining the type of instruction teachers would like to have available. (A study gathering such evaluations and requests might well be worth the effort and expenditure if it could focus on information leading to possible program designs and if it could be made available to agencies attempting to provide training for teachers in bilingual education.)

Research

The preceding sections have identified major issues in the field of bilingual education, research studies, and investigators working in these areas. At different points throughout our review, we have noted a pressing need for some systematization or centralization of research efforts.

Below are described three major centers for research. The primary objectives of all three organizations are to conduct research and to provide research information, references, and examples.

(1) International Center for Research on Bilingualism (ICRB)

ICRB is a research institute devoted to the interdisciplinary study of language contact. It investigates the psychological, social, cultural, politi-

cal, and linguistic factors that affect the nature of language contact and the various effects of bilingual or multilingual situations. The Center maintains an extensive library that may be consulted by research workers. In 1972 ICRB published An International Bibliography on Bilingualism containing 11,000 titles. A supplement is in the course of preparation. ICRB also publishes a wide range of works dealing with bilingualism. The Center is at present conducting research on linguistic inventories, sociolinguistics, contrastive linguistics, bilingual education, language teaching, and legal aspects of bilingualism.

(2) The Center for Applied Linguistics (CAL)

The Center serves as a national research and resource center in languages and linguistics, with a major part of its work in bilingual education. The Center carries out policy studies, conducts research and development projects, organizes conferences and teacher training programs, disseminates information, and provides consultation and evaluation services to schools and state education agencies. The Center operates the Educational Resources Information Center (ERIC) Clearinghouse on Languages and Linguistics, which includes bilingual education and language learning in its focus and provides a computerized bibliographic search service. CAL publishes a number of important works relevant to bilingual education, including the Papers in Applied Linguistics: Bilingual Education Series. The Center also issues The Linguistic Reporter, an international newsletter in languages and linguistics which includes current information on bilingual/bicultural education.

(3) The Cross-Cultural Southwest Ethnic Center

The primary goal of the Center is to produce ethnically oriented materials for inclusion in liberal arts and social science courses at the college level for Southwestern Universities. The Center has conducted research on ethnicity and sociolinguistics and collected materials relating to ethnic data. Several volumes have been produced on these topics by the Center, which also maintains files of relevant materials for the use of research

RESOURCES SUMMARY

Contact

Inquire About

1. Curriculum Materials

Dissemination Center for
Bilingual Bicultural Education
6504 Tracor Lane
Austin, Texas 78721

Cartel

Materials Acquisition Project
2950 National Avenue
San Diego, California 92113

Materiales en Marcha

Follow Through Project
University of California
Santa Cruz, California 95064

Order List

Contact

State and local education agencies

ERIC Clearinghouse on Languages and
Linguistics
1611 North Kent Street .
Arlington, Virginia 22209

Inquire About

Information about state and
local bilingual/bicultural
education programs

Bilingual/bicultural curriculum
materials in the ERIC system

2. Credential Programs

Colleges and universities

Program descriptions

State education agencies

Colleges offering programs in
bilingual/bicultural education

3. Inservice Training

Local Title VII or other
agencies or projects

Inservice training

State education agencies
(California, Texas)

Training offered in fulfillment
of SB3.3 requirements

4. Research

ICRB
Pavillon des Arts
Université Laval
Québec
GIK 7P4, Canada

International Bibliography on
Bilingualism or particular area
of interest

CAL
1611 North Kent Street
Arlington, Virginia 22209

ERIC/CLL
Linguistic Reporter
Bilingual Education Series
Planning/evaluation services

CCSEC
Box 13
University of Texas at El Paso
El Paso, Texas 79968

Research on ethnicity and
ethnically oriented materials

CAL-ERIC/CLL SERIES ON LANGUAGES AND LINGUISTICS

Titles followed by ED numbers are already available from the ERIC Document Reproduction Service. See Resources in Education for ordering instructions.

1. Preparing and Using Self-Teaching Units for Foreign Languages. Gerald E. Logan. ED 098 808.
2. A Selected Bibliography on Bilingual/Bicultural Education. James W. Ney and Donella K. Eberle. ED 098 813.
3. A Selected Bibliography on Language Teaching and Learning. Sophia A. Behrens and Kathleen McLane. ED 100 189.
4. A Guide to Organizing Short-Term Study Abroad Programs. Paul T. Griffith. ED 100 183.
5. Working Papers in Linguistics. Tim Shopen. ED 102 877.
6. A Selected Bibliography on Mexican American and Native American Bilingual Education in the Southwest. Stephen Cahir, Brad Jeffries, and Rosa Montes. ED 103 148.
7. Using Community Resources in Foreign Language Teaching. Stephen L. Levy. ED 102 878.
8. A Selected Bibliography of Films and Videotapes on Foreign Language Teacher Training. Peter A. Eddy. ED 102 875.
9. ERIC Documents on Foreign Language Teaching and Linguistics: List Number 13. Peter A. Eddy. ED 104 162.
10. Effects of Social Situation on Language Use: Theory and Application. William Cheek, Theodore B. Kalivoda, and Genelle Morain. ED 104 147.
11. Radio in Foreign Language Education. Robert J. Nelson and Richard E. Wood. ED 104 157.
12. Error Analysis in the Classroom. Patricia B. Powell. ED 104 161.
13. Research with Cloze Procedure in Measuring the Proficiency of Non-Native Speakers of English: An Annotated Bibliography. John W. Oller, Jr. ED 104 154.
14. Pre-Student Teaching Experiences in Second Language Teacher Education Programs. Helen L. Jorstad. ED 104 169.
15. Communicative Competence. Edward D. Allen. ED 104 166.
16. Listening Comprehension in the Foreign Language Classroom. Terence Quinn and James Wheeler. ED 104 176.
17. A Survey of the Current Study and Teaching of North American Indian Languages in the United States and Canada. Jeanette P. Martin. ED 104 168. (Also available from CAL, \$4.95 per copy.)

18. ERIC Materials Relating to Vietnamese and English. Jennifer DeCamp. ED 102 882.
19. A Selected List of Instructional Materials for English as a Second Language: Elementary Level. Maybelle D. Marckwardt. ED 105 753.
20. A Selected List of Instructional Materials for English as a Second Language: Secondary Level. Maybelle D. Marckwardt. ED 105 754.
21. A Selected Bibliography on Language Learners' Systems and Error Analysis. Albert Valdman and Joel Walz. ED 105 772.
22. A Selected Bibliography on Language Input to Young Children. Elaine S. Andersen. ED 104 177.
23. The Current Status of U.S. Bilingual Education Legislation. Lawyers' Committee for Civil Rights Under Law. ED 107 135. (Also available from CAL, \$4.00 per copy.)
24. A Selected Bibliography on Recent Dialect Studies. Penelope O. Pickett. ED 111 176.
25. A Selected ERIC Bibliography on Teaching English as a Second Language to the Illiterate. Grace Joseph, Kathleen McLane, and Laurel Taylor. ED 105 779.
26. Comparative Studies in Second Language Learning. Judy Wagner-Gough. ED 107 157.
27. A Selected List of Instructional Materials for English as a Second Language: College Level. Robert P. Fox. ED 107 158.
28. A Bibliography of American Doctoral Dissertations in Linguistics: 1965-67. Nancy Jokovich. ED 115 119.
29. Russian Language Study in 1975: A Status Report. Joseph L. Conrad, ed. ED 123 889. (Also available from Modern Language Association.)
30. Children's Categorization of Speech Sounds in English. Charles Read. ED 112 426. (Also available from National Council of Teachers of English.)
31. Audiovisual Materials for the Teaching of Language Variation: An Annotated Bibliography. Rosemary Tripp and Sophia Behrens. ED 116 495.
32. Audiovisual Materials for the Teaching of Language Acquisition: An Annotated Bibliography. Rosemary Tripp and Sophia Behrens. ED 116 496.
33. ERIC Documents on Foreign Language Teaching and Linguistics: List Number 14. Peter A. Eddy and Kathleen McLane. ED 116 498.
34. A Selected Bibliography on Sign Language Studies. Margaret Deuchar. ED 121 098.

35. 1974 ACTFL Bibliography. David P. Benseler, ed. ED 125 268. (Also available from CAL·ERIC/CLL, \$5.00 per copy.)
36. American Doctoral Dissertations in Foreign Language Education, 1965-1974: An Annotated Bibliography. David Birdsong. ED 125 269. (Also available from CAL·ERIC/CLL, \$2.50 per copy.)
37. Translation as a Career Option for Foreign Language Majors. Royal L. Tinsley, Jr. ED 125 270.
38. ERIC Documents on Foreign Language Teaching and Linguistics: List Number 15. Peter A. Eddy and Kathleen McLane.
39. Teaching English to Students of Other Languages in the United States, 1975: A Dipstick Paper. Christina B. Paulston. (Available from TESOL.)
40. Testing in English as a Second Language: A Selected, Annotated Bibliography. Marie Garcia-Zamor and David Birdsong. (Available from TESOL.)
41. Spanish-English Bilingual Education in the U.S.: Current Issues, Resources, and Research Priorities. Manuel Ramirez III et al. (Available from CAL, \$3.95 per copy.)
42. ERIC Documents on Foreign Language Teaching and Linguistics: List Number 16. Peter A. Eddy and Kathleen McLane.
43. The Magic Boxes: Children and Black English. Marilyn Rosenthal. (Available from ERIC Clearinghouse on Early Childhood Education.)
44. A Bibliography of American Doctoral Dissertations in Bilingual Education and English as a Second Language: 1968-1974. Nancy Jokovich.
45. Graduate Theses and Dissertations in English as a Second Language: 1975-1976. Stephen Cooper. (Available from TESOL.)

THE WORK OF THE CENTER FOR APPLIED LINGUISTICS
IN
BILINGUAL/BICULTURAL EDUCATION

The Center for Applied Linguistics, established in 1959, is an independent, non-profit, professional organization which serves as a national research, development, and information center in language and linguistics. Its principal aims are to apply the results of linguistic research to practical situations involving language, and to promote cooperation between linguistics and related disciplines. The Center has been deeply involved in bilingual education for a number of years, and possesses well-developed capabilities for assisting government agencies, schools, and others in all aspects of bilingual education. In addition, the Center has established an extensive network of specialists who can be called upon for expert advice.

Among the activities of the Center for Applied Linguistics in bilingual education have been the following:

- Prepared the Master Plan for the San Francisco Unified School District to respond to the Supreme Court Decision in the Lau vs. Nichols case.
- Developed the Guidelines for the Preparation and Certification of Teachers of Bilingual/Bicultural Education which have been endorsed by the National Advisory Council on the Education of Bilingual Children, and adopted by a number of states and universities.
- Organized the first Inter-American Conference on Bilingual Education in Mexico City in 1974.
- Created a National Indochinese Clearinghouse with a hot-line, alert bulletins, and various publications to assist school districts and others dealing with the Indochinese refugee crisis.
- Conducted needs assessment surveys and planning conferences for the Bureau of Indian Affairs, leading, among other things, to the first bilingual Navajo kindergarten program.
- Provided direct consultative assistance to agencies and organizations such as the U.S. Commission on Civil Rights and Aspira of New York, and school districts such as Chicago and San Diego.
- Conducted research in evaluation and language assessment, and developed a measure of English language proficiency for the National Center for Educational Statistics in response to a Congressional mandate.

In addition, the Center issues an extensive number of resource publications in the field of bilingual education. Inquiries regarding CAL publications or services should be directed to:

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